

**SUMMARY OF THE U.S.-ALGERIAN RENEWABLE ENERGY EXPO
“RENEWABLE ENERGY OPPORTUNITIES IN ALGERIA”
PALM SPRINGS, CA, OCTOBER 23-24, 2003**

Day 1: Renewable Energy Opportunities in Algeria

Welcoming remarks were made by Vincent DeVito, Chief of Staff and Senior Policy Advisor for North American Affairs of the Department of Energy's Office of Policy and International Affairs, and Mr. Hamid Dahmani, Counselor for the Algerian Ministry of Energy and Mines. Mr. Tewfik Hasni, President and Director General of New Energy Algeria (NEAL), then presented an overview of Algeria's effort to build the solar thermal power plant in the South of Algeria. Algeria hopes to sell the electricity to the local market as well as Europe. Mr. Hasni also discussed the technical aspects of the proposed project. The pre-feasibility study conducted by NEAL assumes an integrated solar combined cycle system with 30% solar and a total power production of 120 to 140 MW.

Mr. Hasni addressed the issue of funding of the feasibility study. He has requested funding assistance for the study from the U.S. Trade and Development Agency (TDA). However, TDA declined to fund the feasibility study, due in part to concerns regarding the availability of other sources of funding for the study. Mr. Hasni has also approached the World Bank's Global Environment Facility (GEF), which initially declined to fund the study. However, it has since indicated interest in funding the proposed project if it were to incorporate a desalinization attribute, which would clean water for local agricultural use in an area experiencing poverty and needing economic stimulus.

Mr. Hasni also discussed key aspects of doing business in Algeria, such as investment law and legislation, and the new decree on renewable energy, which aims to attract investors through premium prices for green energy. Under the Decree, Algeria will require that 5% of its electricity be from renewable energy by the year 2010. Algeria hopes to sell the energy from the solar portion of the plant to Europe for a premium as well. Planned electric lines of 2000 MW each to Spain and Italy should be complete within a couple years.

Michael Geyer from the International Energy Agency (IEA)'s SolarPACES discussed a recent visit to Algeria regarding the proposed power plant. SolarPACES is an international cooperative organization bringing together teams of national experts from around the world to focus on the development and marketing of concentrating solar power systems (also known as solar thermal power systems). Michael Geyer's team conducted a "START" (Solar Thermal Analysis, Review and Training) mission in Algeria, and concluded that there were viable physical and financial conditions for the proposed 140 MW Solar Gas Hybrid Power Plant in Algeria. After a review of the Algerian laws, premiums, and physical conditions, an assessment has been made that could be documented and packaged for an investment plan solicitation with reasonable financial risk.

David Josephson of the Export-Import Bank and Alan Miller of GEF discussed financing issues as well, outlining how their respective organizations fund projects. Alan Miller also discussed the International Financial Corporation (IFC)'s interest in renewable energy projects.

The final session of the day consisted of a technical panel providing details on various solar power systems:

- Henry Price of the National Renewable Energy Laboratory (NREL) discussed a concentrated solar power (CSP) Trough system;
- Scott Jones of Sandia National Laboratory outlined a CSP Tower system;
- Thomas Mancini of Sandia talked about a CSP Dish Engine system;
- John Thornton of NREL discussed photovoltaic systems.

Vincent DeVito and Hamid Dahmani provided closing remarks, followed by a reception.

Day 2: Breakout Session with Industry and Follow-up

Discussion centered on the second day on how to attract international project developers. It was decided that Gina Erickson will contact some of the developers discussed, among them CMS, AES, and General Electric, to provide them with information on the Algerian solar thermal project.

The group explored the option of creating a small-scale business roundtable with such project developers. The U.S. Algerian Business Council offered to host such an event, as well as to identify potential developers. Al Zapanta, the Council's Chairman of the Board, suggested doing the roundtable December 11-16, 2003, in Algeria, at the organization's scheduled trade mission. The Council could serve as a catalyst between government and business. The goal would be to identify the specific technology for the plant, and to evaluate investment risks for potential developers. It was agreed that representatives from DOE and the Council would hold a meeting on October 31, 2003 at the Council's office to discuss this option and potential project developers that could attend the meeting in Algeria.

Mr. Zapanta also discussed a new Congressional Algerian Caucus, which will be discussed on November 5 at a lunch at the Capital. The Council and several Congress members will attend. The theme will be the proposed Algerian free trade agreement and the upcoming trade mission. The caucus could be an opportunity for DOE and our group to gain some congressional publicity regarding our efforts in Algeria.

The breakout group acknowledged that the feasibility study is necessary to attract project developers, and discussed some of the problems in NEAL's request to the Trade and Development Agency (TDA) to fund the feasibility study. It was suggested that if some project developers were to express interest in the project, perhaps TDA would revisit its decision. It was also suggested that a collective of developers could pay for the feasibility study. The U.S. Algerian Business Council has also offered to approach TDA.

The group discussed asking GEF and the IFC to fund the project. The new GEF representative is Mr. Muzahir, an Algerian, who may be open to revisiting the issue. The NEAL proposal for the feasibility study should add a section on why this project is different, outlining the business environment for the solar thermal power plant. The group noted that a solely government-

supported project would probably not be funded by GEF. The group believes that the NEAL proposal still would require an interested developer when it approaches GEF.

The group outlined the path forward from this Expo:

1. Create a list of potential and interested project developers. Such a list could include the following:
 - Black and Veatch
 - GE
 - CMS
 - AES
2. Make plans to approach GEF and IFC again regarding potential funding. The goal is to differentiate the proposed Algerian power plant from other stalled GEF-funded solar projects.
3. Begin planning the proposed industry roundtable for potential developers in conjunction with the U.S. Algerian Business Council's trade mission, December 11-16, 2003, in Algeria. The Council and DOE will meet on October 31, 2003, 10:00 a.m. to discuss this, at the Council's office.
4. Post all presentations from the Expo on the ORNL website as soon as possible, as well as the proposal for the feasibility study, notes from the Expo, and the translated Decree, for use by potential project developers.
5. The next conference call will be November 4, 2003, at 1:30 pm Eastern Standard Time (conference call number: 301-903-6913)
6. Issue a broad notice regarding the proposed project to U.S. industry.

Assessment

The "Renewable Energy Opportunities in Algeria" workshop was a success for the Department as well as for our Algerian counterparts. It provided a focus for our efforts for the following months to continue to support Algeria's goal in renewable energy and promotion of U.S. investment in the sector. It also reinforced the close working relationship the DOE has with NEAL, the Algerian Ministry of Energy and the Algerian Embassy.

Our goal was to attract potential investors and interested commercial representatives to provide them with information on the proposed solar thermal project. There was a great deal of interest in the project at the event, and a number of U.S. private sector representatives expressed their determination to take a closer look at the proposal. The U.S. Algerian Business Council, with many connections to the U.S. and Algerian investor community, has offered to assist the Department in its contacts with Council members, especially to identify potential developers.

The Algerian delegates from NEAL and from the Embassy were pleased with the event, and thanked DOE for our support.