ASSISTANCE TO SMALL BUSINESSES IN
INTERNATIONAL MARKET DEVELOPMENT FOR
SOLAR THERMAL TECHNOLOGY

FINAL TECHNICAL REPORT
FOR THE PERIOD
15 APRIL 1979 - 15 JULY 1979

J. D. Walton, Jr.

June 1979

ENGINEERING EXPERIMENT STATION
GEORGIA INSTITUTE OF TECHNOLOGY
ATLANTA, GEORGIA 30332

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ABSTRACT

Grants were awarded to eight manufacturers of concentrating solar thermal collector systems. These grants were for the purpose of assisting small businesses in exhibiting solar thermal systems at the 1979 International Congress of the International Solar Energy Society (ISES).

PURPOSE

The purpose of this project was to aid small businesses involved in manufacturing, distribution, installation and servicing of solar thermal power systems in the transfer of this technology to the international market place by assisting them in the display of their hardware, literature and other materials at the International Exhibition of the International Solar Energy Society during May 28 - June 1, 1979.

INTRODUCTION

The world oil situation coupled with the complex energy/development relationship within the less developed as well as developing countries of the world has focused attention on alternative sources of energy. One of the most popular of these is solar energy. Although solar energy has its longest history of use within the less developed countries, it has never realized its potential. Recently, however, with increasing interest in solar energy among the developed countries, significant advances have been made in the development of more efficient, more reliable and more versatile solar powered systems. Such systems are capable of providing shaft power, and electrical power potentially competitive with existing mechanical and electrical power within many of the less developed and some of the developing countries of the world. This is beginning to bring about an emerging international market for at least experimental solar thermal power units. Although certain solar thermal power units have been marketed using flat plate collectors (namely solar water pump systems developed by SOFRETES), the low efficiency of such systems has all but precluded them from being economical. On the other hand, concentrating collectors with

their higher efficiency offer the possibility that solar thermal power systems using such collectors may in the near future be economically competitive under certain situations. Therefore, the current world market which appears to be developing will be primarily for concentrating collector systems.

Presently, in the United States a number of small companies are beginning to develop solar thermal power systems using concentrating collectors and these systems have the potential of competing in the international market place. Unfortunately, the international market is a difficult one for most small businesses to penetrate; principally because of the difficulty of obtaining visibility at the international level without a substantial investment of high risk capital. There was one way, however, in which small U.S. manufacturers could obtain a fair degree of international exposure within the United States at a relatively low investment. This was to exhibit at the 1979 International Congress and Exhibition of the International Solar Energy Society, at the Georgia World Congress Center in Atlanta, Georgia.

BACKGROUND

The International Solar Energy Society (ISES) holds its International Congress and Exhibition on a bi-annual basis. In 1979 it was at the Georgia World Congress Center in Atlanta, Georgia. This year is the 25th anniversary of ISES and this Silver Jubilee Congress attracted the largest international gathering of solar energy enthusiasts, researchers, technologists and state and local officials ever assembled. For the technical program more than 1200 abstracts were received from which 560 papers were selected for presentation. A total of about 2000 delegates attended with about 500 coming from more than 70 countries outside the United States. Clearly, this Congress was attended by more people interested and active in the field of solar energy from more countries around the world than any previous solar energy meeting.

The Exhibition, likewise, was international in its composition and in its appeal. Of the 188 exhibit spaces utilized, about half were occupied by French solar industries. Of particular interest was CETHEL's full scale operational heliostat (27 feet high and 33 feet wide) which is part of the French national solar thermal power program. In addition to the French, nine spaces were taken by three German groups and four spaces by one Japanese firm.

RESULTS

With the assistance of the Department of Energy and SERI, the Exhibition and Local Arrangements Committees of the 1979 International Congress of ISES identified small businesses involved in development, construction or distribution of concentrating collector systems for the production of solar thermal power. These businesses were contacted to determine their interest in participating in the ISES Silver Jubilee Exhibition. Fourteen requests for financial assistance were received and offers of assistance were made to 10 of these companies. Eight companies accepted grants. Each grant consisted in part of cash to the company to help defray shipping and set-up costs and in part to the Exhibition Committee to cover the direct cost of exhibit space. In order to assist the largest possible number of exhibitors and to meet their financial requirements, it was necessary to reduce the amount of the grant paid for exhibit space. The Exhibition Committee Chairman agreed to this reduction. The standard booth space cost was \$400 for a 10 ft x 10 ft booth. The eight exhibitors were provided with 29 spaces for a total grant of \$4,400 or an average of about \$152 per booth. A total of 15,600 was provided as cash grants to the eight exhibitors. The name of each exhibitor who received a grant together with the amount of his grant and the number of spaces is shown in the following table.

<u>Company</u>	<u>Grant</u>	<u>No. of Booth Spaces</u>
Omnium-G	\$ 8,800	6
Acurex-Aerotherm	1,500	4
Jacobs-Del Solar Systems, Inc.	1,500	4
Solar Kinetics, Inc.	1,300	6
Suntec Systems, Inc.	1,300	6
Solelectro-Thermo, Inc.	500	1
General Solar Systems	400	1
Whiteline, Inc.	<u>300</u>	<u>1</u>
TOTAL	\$ 15,600	29 for \$4,400

CONCLUSIONS

The Silver Jubilee Congress of ISES provided an excellent opportunity to expose the solar thermal products (primarily concentrating collectors and associated equipment) of U.S. small business to the widest possible international solar energy audience. The rapidly developing international solar energy market suggested that U.S. small businesses would benefit from the international exposure presented by the ISES Exhibition. Further, because of the national publicity which developed for this Congress and the strong local interest in solar energy, the exhibitors had broad exposure to a large domestic market as well.

A copy of the list of Exhibitors at the 1979 ISES Silver Jubilee International Solar Exhibition is attached.

PLANNED FUTURE ACTIVITIES

No future activities are planned under this contract.

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