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STUDY BY THE STAFF OF THE U.S.

General Accounting Office

Departments Of Energy And Commerce Programs To Promote Solar Products In Foreign Markets

During fiscal year 1981, the International Market Development Program conducted a series of overseas trade shows and seminars which produced immediate sales of about \$3 million and from which participants projected 12-month future sales of about \$60 million. The fiscal year 1982 Department of Energy budget eliminated the Program. The strong indication of the industry's export potential, however, has led the Department of Commerce to schedule an exploratory series of promotional events devoted to renewable energy products.



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P R E F A C E

The Subcommittee on Energy Research and Development, Senate Committee on Energy and Natural Resources, held hearings on September 21, 1981, concerning the effects of the then-proposed fiscal year 1982 budget reductions upon the ability of the U.S. photovoltaics industry to compete successfully in foreign markets. We provided testimony for those hearings.¹ As a result of the hearings, we prepared some additional information on the solar energy export promotion program and activities of the Department of Energy, which the fiscal year 1982 budget eliminated, and related Department of Commerce programs which might serve the same purpose. This staff study provides that information for the record.

This study is intended to be informational rather than analytical in nature. It is based largely on interviews and examination of records and documents at the Departments of Energy and Commerce. We did not independently confirm costs and statistics reported to us. Records of the Department of Energy's International Market Development Program (IMDP) were incomplete due to the abrupt termination of the Program and separation of key personnel on September 30, 1981.

The Department of Energy began promoting the export of renewable energy products early in 1978 through an ad hoc interagency working group. The working group conducted a series of domestic export promotion seminars and an overseas exhibition. Its efforts became more formalized with the establishment of the IMDP in 1980. The IMDP, with the assistance of the Department of Commerce, conducted domestic export promotion seminars and overseas trade shows of renewable energy products. During fiscal year 1981, Commerce and Energy contractors conducted, under IMDP sponsorship, five overseas trade promotion events which produced actual sales of U.S. renewable energy products of about \$3 million and potential sales within one year of each event, as estimated by the participants, of about \$60 million. We could not determine the total cost of these events because Energy's contractors did not segregate costs and Commerce could not document all of its costs. However, a Commerce official estimated that Commerce had budgeted at least \$356,900 in IMDP funds for the overseas portion of the events. The IMDP was not funded in the fiscal year 1982 budget.

The IMDP trade shows were modeled after similar trade shows the Department of Commerce has long conducted in its foreign trade promotion activities. Commerce conducts trade shows and exhibits and sponsors participation in private trade fairs for designated target industries which it determines will yield the most sales per

¹/Testimony based on our report, "Industry Views on the Ability of the U.S. Photovoltaics Industry to Compete in Foreign Markets" Sept. 15, 1981 (ID-81-63).

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ABBREVIATIONS

DOC	Department of Commerce
DOE	Department of Energy
IMDP	International Market Development Program of the Department of Energy
ISCWG	International Solar Commercialization Working Group
ITA	International Trade Administration of the Department of Commerce
NASA	National Aeronautics and Space Administration
SEIA	Solar Energy Industries Association
SERI	Solar Energy Research Institute
TDP	Trade and Development Program of the International Development Cooperation Agency

promotional dollar spent. Renewable energy is not a target industry, but Commerce has included it in some of its past trade shows as part of the Building Products and Electrical Power Equipment industries. Late in fiscal year 1981, Commerce, partly because of the results of the IMDP shows, reprogramed its efforts to explore the renewable energy industry's foreign sales potential. During the exploratory period, which may be several years, Commerce will conduct a number of trade shows and promotional events dealing with renewable energy products. If the results warrant, it may then designate the industry as a target industry and regularly program renewable energy trade shows and events.

This study is being provided to congressional committees and members and others concerned with energy policy issues. Copies will also be made available to interested persons upon request.



Frank C. Conahan
Director
International Division

DEPARTMENTS OF ENERGY AND COMMERCE PROGRAMS
TO PROMOTE SOLAR PRODUCTS IN FOREIGN MARKETS

DEPARTMENT OF ENERGY
EXPORT PROMOTION ACTIVITIES

Efforts to promote solar products in foreign markets began as early as 1978 when the Department of Energy (DOE) formed the International Solar Commercialization Working Group (ISCWG). This group was later replaced with a formal DOE program called the International Market Development Program (IMDP). During fiscal year 1981, IMDP, with Department of Commerce (DOC) assistance, conducted a variety of activities to encourage solar companies to export their products. DOE's fiscal year 1982 budget request did not include funds for IMDP, and the Program was terminated on September 30, 1981.

International Solar Commercialization
Working Group

Early efforts to promote the export of renewable energy products were made through an ad hoc committee established by DOE early in 1978 known as the International Solar Commercialization Working Group. This Group also initially included the Departments of State and Commerce, Agency for International Development, National Aeronautics and Space Administration (NASA), Solar Energy Research Institute (SERI)^{1/}, and several energy contractors. The Trade and Development Program of the International Development Cooperation Agency was added later. ISCWG's goal was to accelerate the commercialization of U.S. solar products abroad. To achieve this goal, ISCWG undertook a variety of activities during fiscal years 1979 and 1980, including a joint DOE/DOC conference and exhibition in Milan, Italy; five domestic export management seminars; and reports on solar energy commercialization in various countries.

According to DOE, ISCWG played a key role by assisting the U.S. solar industry with its marketing strategies. However, DOE felt that new initiatives were needed to respond to the increased emphasis on international marketing and to expand the program to include conservation products.

^{1/}SERI, under contract to DOE, has been designated as the lead organization for solar research, development, and demonstration.

International Market Development Program

Through fiscal year 1980, international solar energy activities were handled as adjuncts to domestic development and promotion programs. As international solar energy activities increased in scope, DOE saw the need for an international program office, and added to its fiscal year 1981 budget request a new line item, Solar International, for which it requested \$15 million and received \$12 million.

According to the Program director, DOE at this time also established the International Market Development Program to replace the ISCWG. With a budget of \$4.0 million for fiscal year 1981 (DOE officials estimated that only \$2.5 million was actually spent), the IMDP was to accelerate U.S. exports of conservation and solar energy products.

The IMDP approached its goal in two ways. Under the first approach, market analysis and assessment, SERI's International Division published booklets entitled, "Market Conditions and Potential," on 30 countries, and four country "Profiles". Brookhaven National Laboratory produced market assessments on 10 countries.

The second approach was through market promotion. According to the IMDP management plan, marketing, particularly international marketing, was the fundamental problem facing the U.S. solar industry. DOE saw identification and initial development of new markets as an appropriate role for U.S. Government agencies.

Joint DOE/DOC export promotion events in 1981

To achieve this task, IMDP cosponsored with DOC's International Trade Administration five overseas trade shows and three domestic export management seminars during 1981. Since solar energy was not one of DOC's targeted industries, DOE made available to DOC \$69,000 in fiscal year 1980 and \$500,000 in 1981 for the overseas events. The domestic export management seminars were held to introduce solar manufacturers to export opportunities and Government services available to assist in exporting. The overseas trade shows provided solar companies the opportunity to display their products in foreign markets.

Solar export management seminars

In 1981, DOE and DOC, assisted by the Solar Energy Industries Association (SEIA) and SERI conducted the three following export management seminars. (The program was run on a calendar year basis with three seminars each in 1980 and in 1981.)

<u>Date</u>	<u>Location</u>	<u>Attendance</u>
Apr. 16, 1981	Dallas, Texas	22
June 11, 1981	Costa Mesa, Calif.	49
Sept. 3, 1981	Greenwich, Conn.	46

Source: SERI

The seminars were one-day events with a variety of speakers. The list of speakers changed at each event but the topics covered were basically the same and included:

- Foreign solar markets.
- Status of U.S. solar exports.
- A case history of a solar exporting company.
- The IMDP.
- DOC's exporting services.
- SERI's international programs.
- The International Trade Committee.
- DOE/DOC foreign trade shows.

The three 1981 seminars were managed by SERI and cost \$16,630. This cost was partially offset by charging each registrant an entrance fee, so the net cost was \$13,445.

Overseas trade shows and seminars

Because only two DOE personnel were assigned to IMDP, DOE used two contractors to manage the overseas events. The contractors, each working on different events, were responsible for overall planning, coordinating and organizing of these events. They also were responsible for obtaining private industry participation. DOC assisted by providing its personnel at the various overseas locations. DOC personnel were responsible for managing the specific site requirements and logistics.

Europe

The first series of trade shows, in which 24 U.S. companies and organizations participated, were held in four European cities from February 11 to 25, 1981. DOE called the series, "Solar Energy-USA". The series included technical seminars and product exhibitions in Madrid and Athens and seminars only in Zurich and Rome. According to a DOE contractor, the attendance in Madrid and Athens

was overwhelming, with an audience of 1,000 and 1,300, respectively. In Zurich and Rome, where only seminars were held, the audience was smaller--500 in Zurich and 600 in Rome. The total series resulted in the most sales of any of the 1981 events. The participants reported off-the-floor sales of about \$2.8 million and projected sales of over \$40 million for the following 12-month period, for a total of about \$43 million.

A DOC official said that DOC budgeted \$165,500 for the overseas portion of the event, \$154,000 from the DOE funds made available to DOC and \$11,500 from industry contributions.

The contractor estimated the cost to each participating company at \$3,000 to \$5,000. The companies were responsible for their own travel and living expenses as well as the cost of transporting their exhibits to Madrid and home from Athens, while the U.S. Government paid the cost of transporting the exhibits between these two locations. Each industry representative who spoke at the European seminars received a \$1,000 honorarium. Initially, only two companies agreed to participate, so DOE offered the honorarium to encourage more companies to attend.

Mexico

The trade show held in Mexico City during April 28-30, 1981, consisting of a seminar and exhibition, attracted 24 U.S. companies and organizations. About 250 people attended the seminar and an additional 470 toured the exhibit. The potential sales of the show were about \$11.6 million--\$96,000 in floor sales and \$11.5 million in projected sales within the next 12 months.

DOC could not provide documents on what was budgeted for the show; however, a DOC official estimated it was \$64,000 to \$65,000.

Far East

The Far East event was called a seminar mission and included seminars as well as individual appointments with local businesses. Eight U.S. solar companies and SERI participated in the mission which visited Tokyo, Seoul, Manila, and Jakarta between May 26 and June 17, 1981. The results from this type of event are calculated in a different manner, since the main purpose is to establish foreign contacts. The partial results showed sales of more than \$100,000, with additional sales leads and joint ventures being reported.

According to a DOC official, \$27,900 was budgeted for the overseas mission arrangements. DOC also paid about \$6,200 in domestic expenses related to the seminar mission which was not included in the overseas cost but did come out of the DOE funds transferred to DOC. Industry contributions of \$5,825 were collected for hospitality costs.

Jamaica

The Jamaican trade exhibition and seminar was held during July 28-30, 1981, with 26 U.S. companies and organizations participating. The event was attended by 350 people and produced off-the-floor sales of \$237,000, with additional sales of \$5 million projected over the next 12 months. The DOC budget for the Jamaica event was \$71,000.

South America

The final event for 1981 was the South American show held from September 23 to 29, 1981, in which only eight companies and SERI participated. It included a seminar and exhibition in Sao Paulo and a seminar in Buenos Aires. This event produced negligible off-the-floor sales but projected 12-month sales of \$2,901,000. According to a DOC official, the DOC budget for this event was \$40,000.

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In summary, IMDP and DOC jointly sponsored three export management seminars and five overseas trade events during 1981. Total costs of the overseas events were not available because DOE contractors failed to segregate costs. DOC also could not produce complete documentation of its share of the costs, but a DOC official estimated that DOC had budgeted at least \$356,900 of the \$569,000 made available by DOE for the overseas portion of these events. The events produced numerous business contacts. They also produced actual and projected sales of over \$62 million, as shown below.

Summary of Available Costs and Sales Results from
1981 DOE/DOC-Sponsored Solar Trade Shows

<u>Location</u>	<u>DOC budgeted cost (note a)</u>	<u>Off-the- floor sales</u>	<u>12-month pro- jected sales</u>	<u>Total possible sales</u>
Europe (Feb. 11-25)	\$154,000	\$2,797,000	\$40,116,000	\$42,913,000
Mexico (Apr. 28-30)	64,000	96,000	11,500,000	11,596,000
Far East (May 26-June 17)	27,900	(b)	(c)	-
Jamaica (July 28-30)	71,000	237,000	5,000,000	5,237,000
South America (Sept. 23-29)	<u>40,000</u>	<u>(d)</u>	<u>2,901,000</u>	<u>2,901,000</u>
	<u>\$356,900</u>	<u>\$3,130,000</u>	<u>\$59,517,000</u>	<u>\$62,647,000</u>

a/ Cost is only that budgeted by DOC for overseas portion of events; hospitality cost is not included since it was paid by industry contributions.

b/ Far East Seminar involved too few companies to provide specific figures without divulging proprietary information.

c/ Possible large future business.

d/ Amount negligible.

Source: SERI and DOC

At least 56 different exhibitors participated in at least one of the overseas events, and 18 of them participated in more than one event. (See app. I.)

Termination of the Program

With the change of administration came a new role for DOE. The present administration has shifted the focus of DOE's solar and renewable energy activities away from near-term development, demonstration, and commercialization efforts to longer range research and development projects. Because of this change, the IMDP was brought to a close on September 30, 1981. The fiscal year 1982 budget request submitted by the current administration did not request funding for the Program. The personnel responsible for the Program have either retired or been released from DOE through reduction in force and the records concerning the Program are not readily retrievable.

DEPARTMENT OF COMMERCE
EXPORT PROMOTION ACTIVITIES

The Department of Commerce's International Trade Administration (ITA) has the responsibility for promoting exports of non-agricultural goods and services produced in the United States. The ITA has an extensive program of trade promotion, market research, and domestic marketing assistance for U.S. firms seeking to penetrate overseas markets. However, it has only limited funds and concentrates on those industries and overseas markets which show the greatest potential for expanding the volume of U.S. exports.

To determine which industries are going to receive assistance, ITA has developed a targeting system based on an analysis of trade and market data. For 1981 and 1982, the ITA has targeted 15 industry segments. Solar energy is not listed separately as one of the targeted industry segments; however, ITA did include it as a subset to the targeted Building Products and the Electrical Power Equipment industries. Thus, the ITA has provided some assistance to promote exports of solar products under these other industry segments.

In working with an industry, ITA encourages the industry to form an international trade committee to work with ITA in planning the events. The Solar Energy Industries Association, a trade association, has formed the International Trade Committee to work with DOC, which, in turn, schedules trade promotion events overseas and provides other services. SEIA and the International Trade Committee suggested that the renewable energy industry establish a Renewable Energy Export Council to bring the resources of various renewable energy trade associations together under an "umbrella" organization. DOC's Industry Relations Branch concurred with the suggestion.

DOC conducts various types of overseas events, such as trade shows in U.S. trade centers, trade and seminar missions, and catalog exhibitions. It also sponsors private U.S. participation in international trade fairs organized by private organizations or foreign governments. U.S. trade shows and international trade fairs enable U.S. industry to display its products abroad and to meet potential buyers.

In a trade mission, DOC arranges for groups of U.S. businessmen to travel abroad, at their own expense, and to meet local businessmen in prearranged private appointments. Seminar missions are similar but are designed to introduce and facilitate the sale of sophisticated technological products. The seminar mission features a 1-to 2-day seminar followed by private sales-oriented appointments scheduled for each representative. Both of these overseas events help U.S. companies locate foreign representatives for their products.

Catalog exhibitions are also a way of establishing foreign representation at a lower cost. Companies provide catalogs, sales brochures, and other graphic sales aides for display, instead of sending company representatives. DOC provides impartial industry experts who can answer questions.

1981 solar energy activities

Although solar energy was not a targeted industry, DOC did schedule two catalog exhibitions for solar energy in fiscal year 1981 and sponsored private participation at the Middle East Electricity Exhibition, an international fair held in Jidda, Saudi Arabia.

The first catalog exhibition dealing with U.S. energy systems visited Tokyo, Seoul, and Pusan from May 26 to June 5, 1981. According to a DOC official, the exhibition cost DOC \$12,900, which was offset by contributions of \$12,250 from the 98 participating companies. It produced 4,220 trade leads, which are how catalog exhibition results are measured.

The second catalog exhibition was held September 14 to 22, 1981, at New Delhi, Calcutta, Madras, and Bombay. It attracted 114 companies and resulted in 2,787 trade leads. According to a DOC official \$19,950 was collected from show participants, which more than offset its cost of \$12,700.

DOC promoted the Middle East Electricity Exhibition as an event which solar energy companies may have wanted to attend, but only Mobil Tyco Solar Energy Corporation (which already had a solar project underway in Saudi Arabia) actually participated.

DOC had scheduled other events in 1981 related to solar energy but they were canceled for various reasons, including administrative problems and conflicting events.

Future solar export activities

SEIA and the International Trade Committee, in anticipation of the termination of DOE's IMDP, asked DOC to assume the lead agency role and continue international commercialization of renewable energy technologies and products. (DOC uses the term renewable energy but it is synonymous with DOE's term of solar energy.)

Although DOC has not formally accepted the lead agency role, its Industry Relations Branch, due to its close working relationship with the renewable energy industry, will continue the export development liaison function with SEIA and its International Trade Committee. This Branch will also coordinate export program events within DOC and initiate additional contacts with other renewable energy industry trade associations to improve planning for export promotion events.

Although the renewable energy industry failed to qualify in the past as a target industry, Commerce included it in trade shows for the target industries of Building Products and Electrical Power Equipment. Late in fiscal year 1981, based largely on what it considered surprisingly strong results from the DOE/DOC export promotion activities in Europe, Mexico, Jamaica, and Far East, DOC reclassified renewable energy as an "exploratory" industry. This is a term that DOC uses for industries that lack a proven track record but which show strong export potential. During the exploratory period, which may last several years, DOC will highlight the industry in a number of exclusive trade shows and promotional events to give it a chance to demonstrate further export potential. If the results warrant, DOC may then advance it to target industry status.

Plan of action

To ensure that the U.S. renewable energy producers have the opportunity to display, demonstrate, and explain their technology overseas, DOC's Industry Relations Branch under the Office of Export Marketing Assistance prepared an industry "Export Development Plan" dated October 1, 1981. This Plan was prepared in cooperation with pertinent trade groups and knowledgeable representatives of the industry sector and will be given to the industry to provide guidance in preparation for their export promotion activities. The Plan includes an export development strategy based on analysis of pertinent domestic and export factors of the industry sector and recommends a plan of action to develop domestic and foreign markets for fiscal years 1982, 1983, and 1984. The plan of action indicates what DOC would like to do, given the necessary funds and personnel, and is subject to change. DOC has already unilaterally selected and scheduled its overseas promotional activities for fiscal years 1982 and most of those for 1983 (as shown in apps. II and III) because there was not enough time to solicit trade association views, suggestions, and opinions, as is now being done for the fiscal year 1984 events.

The Industry Relations Branch is currently working with SEIA and other trade associations to determine the types of domestic and overseas promotion activities that would best promote renewable energy technologies in fiscal years 1983 and 1984. When DOE was sponsoring such activities, it assisted the industry by choosing and funding those events that DOE perceived to be most beneficial to the solar industry.

Export Council

The Industry Relations Branch anticipates that by the end of the 2d quarter of fiscal year 1983, an "Export Council" will be established composed of trade associations and institutions in the renewable energy industry. The purpose of the Council would be to bring the resources and expertise of the Renewable Fuels

Association, American Wind Energy Association, and Renewable Energy Institute together to support and further develop a comprehensive export development/promotion plan. The Council, which would include representatives of these other associations, would replace SEIA's International Trade Committee. The Industry Relations Branch would develop a working relationship with the Export Council similar to the one it has with the International Trade Committee.

According to the Industry Relations Branch, the Export Council would increase representation because more renewable energy trade associations would be involved and this would increase the number of companies with a voice in planning the promotional activities.

U.N. CONFERENCE EXHIBITION

One other event which occurred in August 1981, although not sponsored by either DOE or DOC, was the renewable energy technology exhibition at the U.N. Conference on New and Renewable Energy Sources in Nairobi, Kenya. U.S. participation was funded by the Trade and Development Program (TDP) of the U.S. International Development Cooperation Agency. The budget for renting exhibit space, preparing the site, and transporting the exhibits from New York City to Nairobi and back was \$167,000. IMDP helped to organize the U.S. exhibit, which consisted of six companies involved in producing and marketing solar equipment and eight other exhibitors, including SERI and NASA Lewis Research Laboratory. This exhibition was considered by some participants as an educational show rather than a hard-selling trade show. TDP officials stated that no off-the-floor sales were made. Participants indicated, however, that they did make valuable business contacts for future use.

PARTICIPANTS IN 1981JOINT DOE/DCC TRADE SHOWS

<u>Participant</u>	<u>Europe</u>	<u>Mexico</u>	<u>Far East</u>	<u>Jamaica</u>	<u>South America</u>	<u>Total</u>
Acurex Solar Corp.	X					1
Allis Chalmers Corp.				X		1
Applied Solar Energy Corp.	X					1
ARCO Solar Industries	X		X	X	X	4
Bendix Corp.	X	X	X	X		4
Bio-Energy Systems, Inc.	X	X	X	X	X	5
Bio-Gas of Colorado, Inc.				X		1
DHR Inc.	X					1
DSET Laboratories, Inc.	X			X		2
Du Pont					X	1
Energy Applications Corp.				X		1
Energy Conservation Research, Inc.				X		1
Enertech Corp.		X				1
E-Systems, Inc.				X		1
Fafco, Inc.		X				1
Foster Wheeler Solar Dev. Corp.	X	X				2
Free Energy Systems, Inc.	X	X		X		3
Future Energy R&D Corp.				X		1
Grumman International	X		X	X	X	4
International Solar Technologies, Inc.				X		1
Hollis Observatory		X				1
Martin Marietta Corp.		X		X		2
McDonnell Douglas		X				1
3M Company	X	X	X	X	X	5

<u>Participant</u>	<u>Europe</u>	<u>Mexico</u>	<u>Far East</u>	<u>Jamaica</u>	<u>South America</u>	<u>Total</u>
Motorola		X				1
NASA Lewis Research Center		X		X		2
New Mexico Commerce		X				1
Natural Power Corp.	X			X		2
New Mexico Solar Energy Research Institute				X		1
North Wind Power Co., Inc.				X		1
Owens-Illinois, Inc.	X					1
Phifer International Sales, Inc.	X		X			2
Plastic View Shades, Inc.		X				1
PSI Energy Systems, Inc.	X					1
PROKO International				X		1
Sealed Air Corp.		X				1
SEIA	X					1
SERI	X	X	X	X	X	5
Shurflow		X				1
Solar Kinetics, Inc.				X		1
Solarex Corp.	X	X				2
Solar Power Corp.		X				1
Solaron	X					1
Solar Usage Now, Inc.	X	X		X	X	4
Solec International	X					1
Solenergy Corp.		X				1
Stone and Webster Engineering Corp.		X				1
Sunmaster Corp.			X			1
Thermecon (Division of CADRE Corp.)				X	X	2
U.S. Alcohol Corp.	X			X		2

APPENDIX I

<u>Participant</u>	<u>Europe</u>	<u>Mexico</u>	<u>Far East</u>	<u>Jamaica</u>	<u>South America</u>	<u>Total</u>
Ultrasystems			X			1
Valley Aermotor		X				1
Venice Trading Company, Ltd.					X	1
Western Solar Refrigeration, Inc.	X	X				2
Wind-N-Sun Shield, Inc.	X					1
Wyle Laboratories				X		1
Total	<u>24</u>	<u>24</u>	<u>9</u>	<u>26</u>	<u>9</u>	

Source: Human Resources Management, Inc.;
Energy Systems International, Inc; and DOE.

SUMMARY OF RENEWABLE ENERGY TRADE EVENTSTO BE HELD DURING FISCAL YEARS 1982-84

<u>Type of event</u>	<u>1982</u>	<u>1983</u> <u>(note a)</u>	<u>1984</u> <u>(note a)</u>	<u>Total</u> <u>scheduled</u> <u>to date</u>
<u>Events organized by or with</u> <u>participation sponsored by DOC</u>				
<u>Overseas</u>				
Trade shows, exhibits, and fairs	9	4	-	13
Trade missions (note b)	3	5	3	11
Seminar missions	<u>2</u>	<u>3</u>	<u>-</u>	<u>5</u>
Total DOC overseas	<u>14</u>	<u>12</u>	<u>3</u>	<u>29</u>
<u>Domestic</u>				
Seminars (note c)	1	3	3	7
Foreign buyer program	<u>3</u>	<u>-</u>	<u>-</u>	<u>3</u>
Total DOC domestic	<u>4</u>	<u>3</u>	<u>3</u>	<u>10</u>
Total DOC events	<u>18</u>	<u>15</u>	<u>6</u>	<u>39</u>
<u>Other events without</u> <u>DOC involvement</u>				
<u>Overseas</u>				
Trade fairs	12	5	-	17
<u>Domestic</u>				
Trade fairs	<u>15</u>	<u>3</u>	<u>-</u>	<u>18</u>
Total non-DOC events	<u>27</u>	<u>8</u>	<u>-</u>	<u>35</u>
Total events	<u>45</u>	<u>23</u>	<u>6</u>	<u>74</u>

a/ Additional events will be scheduled later for 1983 and 1984. Trade associations have not yet determined which overseas and domestic events would be the most desirable.

b/ Includes both DOC and industry-organized, Government-approved trade missions.

c/ Jointly sponsored by DOC and SEIA.

VI. Plan Of Action

FY '82 First Quarter

Trade Shows, Exhibits and Fairs

Overseas

1. Asian Energy Exposition
Manila, Philippines (Philcote Convention Center)
October 7-14, 1981
2. Stockholm Technical Fair
Stockholm; Sweden
October 15-21, 1981
3. International Heating, Refrigeration and Air Conditioning
Exhibit - InterClima
Paris France
November 1981
4. Energy Conservation Utilization Exhibit and Conference
London, U.K.
November 1981

Domestic

5. Boston Energy Exposition
Boston, Massachusetts (Commonwealth Pier)
October 1-3, 1981
6. Cincinatti Energy Trade Show
Cincinatti, Ohio (Convention Center)
October 1-4, 1981
7. Association of Energy Engineers Conference Exhibit
Atlanta, Georgia (World Congress Center)
October 13-15, 1981
8. Energy Expo
Milwaukee, Wisconsin
October 16-18, 1981

Source: Department of Commerce. Activities listed for all fiscal years include industry recommendations.

FY '82 First Quarter

Trade Shows, Exhibits and Fairs

Domestic (cont.)

9. International Energy Management Facilities Improvement Show
Chicago, Illinois (Expo Center)
November 10-12, 1981
10. Solar Energy Industries Association (SEIA) Annual Meeting
and Trade Show Exhibit
Las Vegas, Nevada
November 1-4, 1981
11. Energy Exposition
Miami Beach, Florida
December 12-14, 1981

Market Research

Initiate discussions between SEIA and DOC
regarding the identification of major
and potential market countries for DOC - contracted
market research

Trade Issues

Initiate joint DOC/SEIA exploration of means to
alleviate financial burden of: 1) hosting the 1982
meeting of the International Standards Organization
Technical Committee on Solar Energy (ISO/TC 180), and
2) the administrative operating costs of the ISO
Subcommittee on Systems Testing chaired by the
United States. This exploration effort should include
contact with the American National Standards Institute,
and industry firms.

FY '82 Second Quarter

Trade Shows, Exhibits and Fairs

Overseas

12. *Kaduna International Fair
Kaduna, Nigeria
February 13-21, 1982
13. *EUROCLIMA Solar Energy/Heat Exchangers Exhibit
Brussels, Belgium
February 24-26, 1982
14. *Cairo International Trade Fair
Cairo, Egypt
March 13-27, 1982
15. International Trade Fair---Energy Engineering
Stuttgart, West Germany
March 23-27, 1982
16. Canadian Environmental Exhibit---Heating,
Air Conditioning, & Refrigeration
Toronto, Canada (Exhibit Place)
March 29-31 1982

*procured by DOC

Domestic

17. Association of Energy Engineers Conference & Exhibit
Houston, Texas
February, 1982
18. Energy Technology Conference & Exhibit
Washington, D.C.
February 15-17, 1982
19. Energy Telecommunications Electrical Assoc. Exhibit
New Orleans, Louisiana (Hyatt)
February 28-March 4, 1982

FY '82 Second Quarter

Trade Shows, Exhibits and Fairs

Domestic (cont.)

20. Electric Exposition
Sacramento, California
March 1982
21. American Society of Mechanical Engineers---Energy
Sources Technology Conference & Exhibit
New Orleans, Louisiana (Hilton)
March 7-11, 1982
22. International Air Conditioning, Heating,
and Refrigeration Exposition
Atlantic City, New Jersey (Convention Hall)
January 24-27, 1982

Trade Missions

23. U.S. DOC - "Electrical Power"
January 6-22, 1982
Egypt, Syria, Algeria, Morocco
24. U.S. DOC - "Telecommunications"
January 17-February 1, 1982
Lahore, Karachi, and Islambad, Pakistan
Bombay, Bangalore, and New Delhi, India

Market Research

Depending on outcome of congressional appropriation
for SERI, initiate discussions between SEIA and
DOC for maintenance or transfer of SERI resource data base.

Schedule market research for countries identified for
FY '83 or '84.

FY '82 Second Quarter

Trade Issues

Initiate discussions between SEIA and DOC
to add the photovoltaics industry to the list of industries
for which non-tariff barriers are being identified.

Export Awareness

Initiate a survey of SEIA member firms to determine
each firm's export capability and experience.

DEPARTMENT OF COMMERCE
EXPORT DEVELOPMENT PLAN
Renewable Energy Industries

APPENDIX III

FY '82 Third Quarter

Trade Shows, Exhibits and Fairs

Overseas

25. *Energy '82
Tokyo, Japan
April 6-9, 1982
26. Energy Exhibit Conference
Copenhagen, Denmark
April 20-25, 1982
27. Austrian Heating and Air Conditioning
Environmental Exhibit
Vienna International Trade Fair
Vienna, Austria
April 21-24, 1982
28. Norwegian Technical Trade Fair
Oslo, Norway
May 1982
29. Technology Resources Exchange Fair
Sydney, Australia (Fairgrounds)
May 1982
30. Energy Exhibition
Essen, West Germany
May 19-22, 1982
31. *EXPOCLIMA---Air Conditioning and Refrigeration
England, U.K.
May 24-28, 1982
32. International Heating/Ventilating/
Air Conditioning Exhibit
Birmingham, England, UK
May 24-28, 1982

*Procured by DOC

FY '82 Third Quarter

Trade Shows, Exhibits and Fairs

Domestic

- 33. Cleveland Electrical Energy Exposition
Cleveland, Ohio (Convention Center)
April 1982
 - 34. **1982 World's Fair
Knoxville, Tennessee
May 1, 1982-October 31, 1982
 - 35. **World Energy Congress/World's Fair Energy Expo
Knoxville, Tennessee
May 23-27, 1982
 - 36. **American Section of the International Solar
Energy Society (ISES) Annual Conference
Solar Technologies International Exposition
Houston, Texas (A. Thomas Convention Center)
June 1-5, 1982
 - 37. Bio-Energy Congress Exposition
Atlanta, Georgia
June 14-17, 1982
- **U.S. DOC Foreign Buyer Program-supported event

Trade Missions

- 38. IOGA "Renewable Energy Technologies and Products"
May 1982
Spain, France, Italy and Greece

FY '82 Third Quarter

Seminars

Overseas

39. "Electrical Power Equipment"
DOC sponsored and procured
June 20-30, 1982
Chile Argentina, Brazil & Paraguay

Domestic

40. "Export Management Seminars"
co-sponsored by DOC and SEIA
April 1982---Denver, Colorado

June 1982---San Francisco, California

Export Awareness

Providing that export trading company enabling legislation is passed by Congress and signed by the President, initiate SEIA/DOC discussions to: 1) arrange an export awareness campaign of export trading companies conducted by local DOC district Offices, and 2) explore the possibility of including export trading companies in DOC fee-paid export trading lists (categorized by technology, industry or product expertise)

FY '82 Fourth Quarter

Trade Shows, Exhibits and Fairs

Overseas

41. *Damascus International Trade Fair
Damascus, Syria
August 22-October 1982
42. *Algiers International Trade Fair
Algiers, Algeria
September 1982
43. *Solar Energy Exhibit
France (name of city not yet available)
September 1982
44. *Electrical Power Generation Exhibit
Caracas, Venezuela
September 21-25, 1982

Seminars

Overseas

45. "Solar & Alternate Energy Sources"
Sponsored and procured by DOC
July 12-16, 1982
Thailand, Philippines, Taiwan & Indonesia

Export Awareness

complete and summarize survey of export capabilities and experience of SEIA member firms. Forward to DOC list of those firms determined to be export capable for specialized counseling by Commerce Department local district offices.

FY '83 First Quarter

Trade Shows, Exhibits and Fairs

Overseas

46. *Santiago International General Industrial Fair
Santiago, Chile
October, 1982
47. International Technical Exhibit
Turin, Italy
October-November 1982
48. Stockholm Technical Fair
Stockholm, Sweden
October 21-27, 1982
49. Energy Conservation Utilization
Conference & Exhibit
London, UK
November 1982
50. ARABUILD/SOLTECH
Manama, Bahrain
November 14-19, 1982
51. International Technical Exhibit
Lima, Peru (Fairgrounds)
November 19-28, 1982

Domestic

52. Cincinatti Energy Trade Show
Cincinntti, Ohio (Convention Center)
September-October 1982
53. Association of Energy Engineers
Atlanta, Georgia (World Congress Center)
November 4-6, 1982
54. International Energy Management Facilities
Improvement Show
Chicago, Illinois (Expo Center)
November 9-11, 1982

FY '83 First Quarter

Trade Missions

55. DOC - "Telecommunications"
October 1982
Thailand, Malaysia and Indonesia
56. DOC - "Electric Power Generation"
November 1982
Pakistan, Malaysia, Bangladesh & Burma

Export Promotion

Establish effective contact with various United Nations agencies and multilateral development institutions regarding renewable energy projects, and joint venture/licensing opportunities in developing countries.

FY '83 Second Quarter

Trade Shows, Exhibits and Fairs

Overseas

57. *Cairo International Exhibit
Cairo, Egypt
March 1983

*procured by DOC

Trade Missions

58. DOC - "Energy Savings Equipment & Products
January 1983
Japan, Hong Kong & Korea

Seminars

Overseas

59. "Electrical Power Generation"
Sponsored and procured by DOC
February 1983
Zimbabwe, Zambia & Kenya

Domestic

60. "Export Management Seminar"
co-sponsored by SEIA and DOC
January 1983
Los Angeles, California

Export Promotion

Establish by the end of this quarter
an "Export Council" composed of the
various trade associations and institutes
within the Renewable Energy Industries sector.

FY '83 Third Quarter

Trade Shows, Exhibits and Fairs

Overseas

61. *Casablanca International Exhibition
Casablanca, Morocco
April 1983
62. *Cyprus Fair
"Solar Energy Heating and Cooling"
(Catalogue Exhibit)
Nicosia, Cyprus
May 1983

*procured by DOC

Domestic

To be scheduled

Trade Missions

63. IOGA - "Renewable Energy Technologies & Products"
April 1983
Saudi Arabia, Kuwait, Persian Gulf States,
Jordan, Egypt, Tunisia, Algeria and/or Morocco

Seminars

Overseas

64. "Electrical Energy"
sponsored and procured by DOC
April 1983
Turkey, Yugoslavia, Israel & Italy

FY '83 Third Quarter

Seminars

Domestic

65. "Export Management Seminars"
co-sponsored by SEIA & DOC
April 1983 - New York, N.Y.
(Wall Street location)

June 1983 - Boston, Mass.

Technology and Export Awareness

Produce and disseminate by the end of this
Quarter a combined renewable energy technology/
product catalogue and industry profile.

FY '83 Fourth Quarter

Trade Shows, Exhibits and Fairs

Overseas

To be Scheduled

Domestic

To be Scheduled

Trade Missions

66. IOGA - "Renewable Energy Technologies & Products"
end of July - August, 1983
*West Germany, Sweden, Denmark, Norway & Finland
(*to coincide with Hamburg Trade Fair in early August)

Seminars

Overseas

67. "Telecommunications"
sponsored and procured by DOC
July 1983
Columbia, Chile, Honduras & Guatamala

Domestic

68. "Export Management Seminars"
co-sponsored by SEIA & DOC
September 1983 - Miami, Florida

Technical Awareness and Export Promotion

Publish and disseminate by the end of this Quarter
an edition of Commercial News USA exclusively
devoted to renewable energy technologies and products.

FY '84 First Quarter

Trade Shows, Exhibits and Fairs

Overseas

To be scheduled

Domestic

To be scheduled

Seminars

Overseas

To be scheduled

Domestic

To be scheduled

Export Awareness and Promotion

Create and disseminate by the end of this Quarter a renewable energy trade newsletter, containing commercial leads, export events, and articles of interest to specific industry subsectors.

FY '84 Second Quarter

Trade Shows, Exhibits and Fairs

Overseas

To Be scheduled

Domestic

To Be scheduled

Trade Missions

69. IOGA - "Renewable Energy Technologies and Products"
February 1984
Philippines, Indonesia, Malaysia,
Thailand and Singapore

Seminars

Overseas

To be scheduled

Domestic

70. "Export Management Seminars"
co-sponsored by SEIA and DOC
January 1984 -Phoenix, Arizona

FY '84 Third Quarter

Trade Shows, Exhibits and Fairs

Overseas

To be scheduled

Domestic

To be scheduled

Trade Missions

71. IOGA - "Renewable Energy Technologies & Product"
May - June 1984

Greece, Yugoslavia, Italy, France and Spain

Seminars

Overseas

To be scheduled

Domestic

72. "Export Management Seminars" co-sponsored
by SEIA and DOC April 1984 - Baltimore, Maryland
June 1984 - Denver, Colorado

Export Promotion

Create a video catalogue of renewable energy products systems and arrange for Dept. of State, Dept. of Commerce, and International Communications Agency distribution of this video catalogue in major and potential market countries around the world.

FY '84 Fourth Quarter

Trade Shows, Exhibits and Fairs

Overseas

To be scheduled

Domestic

To be scheduled

Trade Missions

73. IOGA - "Renewable Energy Technologies & Products"
September 1984
Mexico, Costa Rica, Panama,
Venezuela, Columbia Brazil and Peru

Seminars

Overseas

To be scheduled

Domestic

74. "Export Awareness Seminar"
co-sponsored by SEIA & DOC
September 1984 - San Francisco, California

Market Research

Market research scheduled by Department of
Commerce is to be completed by the end of
this quarter and issued in the form of a
Global Market Survey.

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