

International

OF
&
MANUFACTURERS
DIRECTORY



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International Photovoltaic Products & Manufacturers Directory, 1995

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Florida Solar Energy Center
Cocoa, Florida
USA

Abstract

This international directory of over 500 photovoltaic-related manufacturers is intended to guide potential users of photovoltaics to sources for systems and their components. In addition to alphabetized firm listings (domestic and foreign), two indexes help the user to locate firms and materials: the COUNTRY INDEX lists companies by 42 nations; the PRODUCT INDEX groups firms by 20 major product categories, plus five areas of photovoltaic manufacturing and services. For more technical information on optimal system operation and maintenance, the reader is referred to additional sources of information, including directories, guides, publications, instruction, and international organizations specializing in photovoltaic project assistance and education. A glossary describes equipment and terminology commonly used in the photovoltaic industry.

MASTER

Acknowledgements

The editor thanks the members of the international photovoltaic industry who have patiently and generously responded to multiple requests for company and product information. The following individuals provided valuable review and comments on early versions of this document: Gerard Ventre and Jim Dunlop (Florida Solar Energy Center); Mike Thomas and Anne Van Arsdall (Sandia National Laboratories); and Vincent Rice (U.S. Department of Energy).

Preface

The PHOTOVOLTAIC PRODUCTS & MANUFACTURERS DIRECTORY is the result of efforts by the Florida Solar Energy Center (FSEC) under contract to the Photovoltaics Design Assistance Center at Sandia National Laboratories. The DIRECTORY is one of several documents published by the Design Assistance Center. These publications reflect a common goal shared by both Centers: to promote the knowledge and appropriate use of photovoltaic technology through education and technical assistance. Sandia and FSEC also work cooperatively with the renewable energy industry in the United States to promote the growing markets for photovoltaic-powered products in the United States and internationally.

Sandia's Photovoltaic Design Assistance Center is a national resource for technical information about renewable energy technologies. Established in 1984 as part of the U.S. Department of Energy's National Photovoltaics Program, the Center assures transfer of the technology base and encourages contact between potential users and suppliers of systems and components. Since 1987, the Center has also provided technical assistance on other renewable energy technologies in support of the U.S. Committee on Renewable Energy Commerce and Trade (CORECT). The Center is part of Sandia National Laboratories in Albuquerque, New Mexico, in the southwestern United States. Sandia is a multi-program research and development engineering laboratory operated for the U.S. Department of Energy.

The Florida legislature created the Florida Solar Energy Center in 1974 to research renewable energy technologies, to ensure the quality of solar energy equipment in the state, and to educate Floridians about energy efficiency and alternatives. FSEC works closely with Sandia National Laboratories in various aspects of renewable energies, especially photovoltaics.

Every attempt has been made to assure the accuracy of the listings in this document; however, neither the Florida Solar Energy Center nor Sandia National Laboratories can endorse or recommend any of the businesses or products presented here.

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Section I: Introduction

The main purpose of this guide is to direct potential photovoltaic users to sources for photovoltaic systems, components, and related equipment. The DIRECTORY contains addresses and phone listings for over 500 photovoltaic system and/or component manufacturers worldwide, and is indexed by 42 countries and 25 product categories.

For technical information on how to best install, operate and maintain systems please refer to the references presented in ADDITIONAL SOURCES OF INFORMATION at the end of this document. Here you will find listings for informative manuals, books, and courses, along with addresses for groups specializing in solar and other renewable energy technologies.

A NOTE ON FINDING EQUIPMENT

The international photovoltaic supply network is extensive and growing. The indexes and firms presented here will help you locate sources for equipment and hardware; also, the photovoltaic associations listed in Additional Sources of Information will help you find and assess a reputable contractor. In addition, many hardware stores, lighting outlets and general stores worldwide carry small, pre-designed photovoltaic systems.

If possible, seek out experienced and reputable system suppliers and installers who use quality equipment and provide warranties and local support services. The way you approach this will depend on your project, location and institutional set-up. You may wish to advertise your system needs as a competitive bid opportunity through a mass mailing to the industry, and/or postings in pertinent industry journals, periodicals, work places, computerized bulletin boards, etc.. When preparing a bid request clearly state what you want the system to do; choose the supplier with the most suitable system for the least cost and the most appropriate qualifications and experience.

HOW TO USE THIS DIRECTORY

This directory consists of five sections: an introduction, two indexes (by country and product), and two address sections (domestic and foreign).

PRODUCT - MANUFACTURER INDEX (SECTION II)— Use this index to identify firms by the products they manufacture. All products are grouped into one or more of the categories listed below (full definitions appear at the beginning of the PRODUCT INDEX). Many products fall under more than one category: marine navigation lighting, for example, comes under both Transportation and Lighting.

- Batteries
- Cathodic Protection
- Communications
- Concentrators
- Electrical/Hardware
- Hybrid Systems/Generators
- Inverters & Power Conditioners
- Lighting
- Meters, Instrumentation & Controls
- Miscellaneous
- Power Systems
- Photovoltaics (Cells, Modules, Components, Equipment, & Services)
- Pumps & Motors
- Refrigeration
- Software
- Specialties
- Support Structures
- Trackers
- Transportation
- Voltage Regulators/Charge Controllers

Please note that a small diamond icon (♦) distinguishes complete photovoltaic system manufacturers from those that produce components alone; two diamonds (♦♦) indicate that only custom designed systems are available (that is, not pre-packaged or "off-the-shelf"). If no diamond appears, assume that these firms make a component appropriate for use in a photovoltaic system. For example, a solar lantern manufacturer that buys photovoltaic modules and lamps and then electronically connects them is listed as a complete lighting system manufacturer; the company that produces the lamp is listed as a lighting component manufacturer.

SECTION I: INTRODUCTION

How to use this directory / Who is included?

COUNTRY-MANUFACTURER INDEX (SECTION III) — This index groups photovoltaic manufacturers geographically by 42 countries. Refer to the COUNTRY INDEX to locate firms with main offices situated in a particular country. Only main offices are listed for foreign companies; in most cases, both main and branch offices are listed for those located within the United States.

DOMESTIC AND FOREIGN MANUFACTURERS (SECTIONS IV & V) — Check here for an alphabetized address list of manufacturers and their products. Main and branch offices for U.S. manufacturers are listed in Section IV. Section V presents main offices for manufacturers located outside the United States. The company name, address, phone, fax, best contact, and a brief product list appear for each firm. For example:

SUN-GATOR, INC.

The Rodeo Building

Box 1234

567 Solar Way

Nobelton, FL 32223, USA

Ph: 408-777-8888 Fax: 408-777-9999

Telex:

Best Contact: Dr. M. Connell, President

PV Products: Lighting □ ♦ Pumps & Motors □ ♦ Refrigeration □ ♦♦ Power System □ ♦ Specialties (remote alligator tracking) □ Voltage Regulators/Charge Controllers □ PV: Mfr cells & modules.

- ▶ Main company name.
- ▶ Street or postal box address.
- ▶ City, state, zipcode and country.
- ▶ Phone, Fax and Telex numbers. For companies located outside the U.S., the *country code - city code - local number* appear; domestic numbers only include the *area code - local number*.
- ▶ Best sales contact, followed by title.
- ▶ Photovoltaic product listing. A single diamond icon ♦ indicates that a complete PV system package is available; two icons ♦♦ show that this manufacturer only offers custom-built systems. Please refer to the PRODUCT INDEX for detailed definitions of each product category.

WHO IS INCLUDED?

This directory includes firms that manufacture or assemble a photovoltaic-related system or component. We focus on *manufactured* products only; a company may also *distribute* a variety of other photovoltaic-related items, but these will not necessarily be mentioned here.

Our definition of manufacturing is broad, encompassing both system assemblers that purchase components, as well as companies that produce all system components. For example, in addition to producers of basic of photovoltaic cells, we include companies that purchase cells to assemble modules. Similarly, a company that designs and assembles a complete photovoltaic system from purchased components is also considered a manufacturer.

Who is included?

All company and product information presented here comes from phone and mail surveys, supplemented by renewable energy newsletters, personal contacts, conference and product literature, as well as other directories. Although every effort has been made to present the most accurate information possible, this is a dynamic, growing industry in which manufacturing activities change rapidly. Any firm that has been overlooked or misrepresented is requested to contact the editor to insure correct listing in future editions. Please address queries, comments or corrections to:

Lisa Shepperd
Florida Solar Energy Center
1679 Clearlake Road
Cocoa, FL 32922, USA

Ph: 407-638-1000 Fax: 407-638-1010

To obtain copies of this and other Sandia publications, please contact Peggy Valencia at Sandia National Laboratories, phone: 505-844-3698, fax: 505-844-2890.

Section II: Photovoltaic Product-Manufacturer Index

PRODUCT CATEGORIES

Batteries — Deep cycle rechargeable, including flooded lead-acid, sealed lead-acid, and nickel-cadmium, among others.

Cathodic Protection — Components or systems that provide electrical protection from metal corrosion on bridges, pipelines, etc.

Communications — Components or systems, such as radio transmitters, call boxes, etc.

Concentrators — Modules or components. Usually refers to a photovoltaic array which includes an optical component such as a lens or focusing mirror to direct sunlight onto a solar cell.

Electrical/Hardware — Specifically related to photovoltaic systems, including wiring, adapters, connectors, receptacle/junction boxes, etc.

Hybrid Systems/Generators — Systems or components. Typically diesel generators coupled with battery chargers and/or any co-generation systems (photovoltaics, wind, hydro, grid, etc.)

Inverters & Power Conditioners — An electronic device which transforms the quality/type of power flowing from an energy source (in this case photovoltaics) to an end use, such as an appliance. In addition to dc-ac current converters, this category includes Uninterruptible Power Supplies (UPS) and Maximum Power Point Trackers (MPPT). Voltage regulators and charge controllers are grouped separately.

Lights — Includes energy efficient components (ballasts, fixtures, bulbs) as well as complete photovoltaic lighting systems and controls (timers).

Meters, Instrumentation & Controls — Gages, meters and instruments involved in measuring, monitoring, or controlling photovoltaic system/component performance.

Miscellaneous — Components only. Includes Balance of System (BOS) and other *components*; refer to SPECIALTIES for larger/complete *systems* not covered in any other category.

Photovoltaics — Includes flat plate, concentrator, cells, materials, and test/production equipment manufacturers; also includes services, such as testing, lamination or wafer slicing. See POWER SYSTEMS for photovoltaic-powered battery charging units. This category is broken into five subdivisions:

PV Cells — Basic PV cells/wafers ready for assembly into modules.

PV Modules — Custom or standard.

Components — Includes raw or basic materials used in any aspect of photovoltaic development (i.e. aluminum for frames, glass, unprocessed silicon, etc.)

Manufacturing Equipment — Any equipment used to produce a PV cell or module (i.e. slicers, pullers, etc.)

Manufacturing Services — Any service necessary to produce a PV cell or modules (i.e. slicing, laminating, etc.)

Power Systems — Any photovoltaic power system with an unspecified application. Includes home/RV/marine kits, photovoltaic battery charging kits, and large power generation facilities; see separate categories for power systems with a specified function, such as lighting, pumping, etc.

Pumps & Motors — DC pumps and electric motors (systems and components). Motors may have a variety of applications (such as electric vehicles, fans, refrigerators, etc.)

Refrigeration — Any dc system or component related to cooling, including air conditioning. Includes compressors and motors.

Software — Commercially available computer software specifically designed for photovoltaic sizing (systems and components), measuring/monitoring performance, economic analysis, etc.

Specialties — Includes complete photovoltaic *systems* not covered in other product categories, such as solar cars, planes, ovens, fans, ventilators, irrigation systems, toys, desalination, etc.; see MISCELLANEOUS for components.

Support Structures — Mounting equipment for stationary photovoltaic arrays/modules.

Trackers (Sun) — Any type of pivoting apparatus that enables a photovoltaic module/array (flat or concentrator) to face the sun throughout the day.

Transportation — Any photovoltaic-powered device regularly used in the transportation sector. Includes: cathodic protection, communications, lighting (external), signs (electronic), signals, vehicular sensing devices, railways, navigation (beacons, buoys, etc.), and water systems (median irrigation, rest rooms, etc.)

Voltage Regulators/Charge Controllers — An electronic device which controls the *quantity* of power flowing between an energy source (in this case photovoltaics) and a battery (for charging and energy storage).

BATTERIES*Domestic*

AC BATTERY CORPORATION
 ANANDA POWER TECHNOLOGIES, INC.
 BETTER WAY PRODUCTS, INC.
 C & D CHARTER POWER SYSTEMS
 CHLORIDE STANDBY BATTERIES
 DELCO REMY
 DIRECT POWER & WATER CORPORATION
 DOUGLAS BATTERY MANUFACTURER
 E-MOTION
 EAGLE-PICHER INDUSTRIES, INC.
 EAST PENN MFG. CO., INC.
 ELECTROSOURCE (Horizon Batteries)
 ENERGIZER POWER SYSTEMS
 ENERGY CONVERSION DEVICES, INC.
 ENERGY PHOTOVOLTAICS, INC. (See EPV)
 EPV (ENERGY PHOTOVOLTAICS, INC.) (formerly IDM, Inc.)
 EXIDE CORPORATION
 GENERAL RESEARCH LABORATORIES
 GNB INDUSTRIAL BATTERY CO.
 GP BATTERIES (formerly Quantum)
 HARDING ENERGY SYSTEMS
 HAWKER ENERGY PRODUCTS
 HOPPECKE BATTERY SYSTEMS, INC.
 HYDROCAP CORPORATION
 INDUSTRIAL BATTERY ENGINEERING, INC. (IBE)
 JOHNSON CONTROLS, INC.
 LITHIUM TECHNOLOGY CORPORATION (formerly Hope Technologies)
 NORTON BATTERY MANUFACTURING
 OMNION POWER ENGINEERING CORPORATION
 OVONIC BATTERY COMPANY (See also ECD)
 PACIFIC WEST SUPPLY CO.
 POWER SONIC CORPORATION
 QUANTUM BATTERIES (See GP Batteries)
 SAFT NIFE, INC.
 SANYO ENERGY CORPORATION
 SONNENSCHNEIN BATTERIES, INC. (See East Penn Mfg. Co.)
 SOUTHWEST PV SYSTEMS, INC.
 SURRETTE AMERICA
 TIDELAND SIGNAL CORPORATION
 TRIGG INDUSTRIES, INC.
 TROJAN BATTERY COMPANY
 U.S. BATTERY MANUFACTURING
 UTILITY FREE, INC.
 YUASA BATTERY (AMERICA) INC.
 ZOMEWORKS CORPORATION

Foreign

ACUMULADORES MEXICANOS, S.A. DE C.V. (ACUMEX)
 ALTECH TELECOMMS
 CAPSA
 EBARA CORPORATION
 ENVIRONMENTAL BATTERY SYSTEMS
 EPOS/PVI
 FURUKAWA BATTERY COMPANY, LTD.
 HAGEN BATTERIE AG

HOPPECKE Accumulatorenwerke
 IBC Int'l Battery & Solar Power Co.
 JAPAN STORAGE BATTERY CO., LTD.
 MATSUSHITA BATTERY
 MOLI ENERGY LIMITED
 RAYO S.A.
 RENEWABLE ENERGY SYSTEMS (RES)
 SANYO ELECTRIC CO., LTD.
 SOLARCOM FRANCE SA
 SONNENSCHNEIN GMBH
 SUNTRONIC SOLAR-ELECTRONIC Peer-G. Cruse
 VARTA BATTERIE AG
 WILLARD BATTERIES
 YUASA CORPORATION

CATHODIC PROTECTION*Domestic*

*ADVANCED PHOTOVOLTAIC SYSTEMS, INC. (APS)
 INTEGRATED POWER CORPORATION (IPC)
 PHOTOCOMM INC. - CA
 POLAR POWER
 *SOLAR ELECTRIC SPECIALTIES CO. (SES)
 **SOUTHWEST PV SYSTEMS, INC.

Foreign

ACUMULADORES MEXICANOS, S.A. DE C.V. (ACUMEX)
 *ADVANCED ENERGY SYSTEMS PTY LTD
 AUSTRALIAN ENERGY RESEARCH LABS P/L
 *BP SOLAR AUSTRALIA PTY LTD
 *BP SOLAR ESPANA SA
 *BP SOLAR LTD.
 *CENTRAL ELECTRONICS, LTD. (CEL)
 *DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
 **EGYCEL
 *IBC Int'l Battery & Solar Power Co.
 ITALSOLAR S.P.A.
 PHOTOWATT INTERNATIONAL S.A.
 *R&S RENEWABLE ENERGY SYSTEMS BV
 SOLAPAK LIMITED
 *SOLAR ENERGIE TECHNIK GMBH
 *SOLARTEC/NEW WORLD Sociedad Anonima
 TONEN CORPORATION

COMMUNICATIONS*Domestic*

*ADVANCED PHOTOVOLTAIC SYSTEMS, INC. (APS)
 *APOLLO ENERGY SYSTEMS, INC.
 *APPLIED POWER (formerly Solar Engineering Services)
 APPLIED RESOURCES GROUP INC.
 **ATLANTIC SOLAR PRODUCTS, INC.
 **C-RAN CORPORATION

SECTION II: PHOTOVOLTAIC PRODUCT-MANUFACTURER INDEX

...Communications — Concentrators — Electrical/Hardware

CUBIC COMMUNICATIONS
♦DIGITAL RECORDERS, INC.
♦HOMESTEAD ELECTRIC
INTEGRATED POWER CORPORATION (IPC)
♦INTERNATIONAL SOLAR CONTROL SYSTEMS
MCCOY INDUSTRIES, INC.
♦♦NORTHERN POWER SYSTEMS
♦PHOTOCOMM, INC.
SIEMENS SOLAR INDUSTRIES, INC.
SIMPLER SOLAR SYSTEMS, INC.
♦♦SOLAR ELECTRIC OF SANTA BARBARA
♦SOLAR ELECTRIC SPECIALTIES CO. (SES)
♦SOLAR ENGINEERING SERVICES (See Applied Power)
SOLAREX
♦♦SOUTHWEST PV SYSTEMS, INC.
♦SYSTEMS RESEARCH GROUP, INC.
♦TIDELAND SIGNAL CORPORATION

Foreign

ALTECH TELECOMMS
AUDIO-LIGHT A/S
♦BP SOLAR AUSTRALIA PTY LTD
♦BP SOLAR ESPANA SA
♦BR SOLAR LTDA
♦CENTRAL ELECTRONICS, LTD. (CEL)
♦♦CENTRONIX
♦DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
♦♦EGYCEL
♦IBC Int'l Battery & Solar Power Co.
MATSUSHITA BATTERY
MITSUBISHI ELECTRIC CORPORATION
♦♦OMAN SOLAR SYSTEMS LLC. (OSS)
PHOTOWATT INTERNATIONAL S.A.
♦R&S RENEWABLE ENERGY SYSTEMS BV
♦RENEWABLE ENERGY SYSTEMS (RES) Pvt. Ltd.
♦REONAC ENERGY SYSTEMS, INC.
♦SAIRAM SOLAR SYSTEMS PVT. LTD
♦SISTEMI ENERGETICI INTEGRATI (SEI)
SOLAPAK LIMITED
SOLARCOM FRANCE SA
TOTAL ENERGIE
TOTAL ENERGY DEVELOPMENT

CONCENTRATORS

Domestic

3M OPTICS TECHNOLOGY DEVELOPMENT
ALPHA SOLARCO
AMONIX, INC.
APPLIED SOLAR ENERGY CORPORATION
ASTROPOWER INC.
ENTECH, INC.
FLEXI-GUIDE
KOPIN CORPORATION
MCCOY INDUSTRIES, INC.
MIDWAY LABS, INC.

POWER KINETICS
FYRON, INC.
SEA CORPORATION
SOLAR ENERGY APPLICATIONS (SEA)
SOLAREX
SPECTROLAB INC.
SUNPOWER CORPORATION
SUNWATT CORPORATION
VARIAN ASSOCIATES

Foreign

RAPCO Remote Alternative Power Co.
SOLID STATE ELECTRIC
SUN POWER SYSTEMS LTD

ELECTRICAL/HARDWARE

Domestic

AMP, INC.
ANANDA POWER TECHNOLOGIES, INC.
INTEGRATED POWER CORPORATION (IPC)
PACIFIC SCIENTIFIC
PANDUIT CORPORATION
PHOTRON, INC.
POLAR POWER
PRECISION SOLAR CONTROLS, INC.
SOLAREX
SOLEC INTERNATIONAL, INC.
SPECTRUM INTERNATIONAL
TEKSOLR
THOMAS & BETTS CORPORATION

Foreign

ACUMULADORES MEXICANOS, S.A. DE C.V. (ACUMEX)
BP SOLAR ARABIA
BP SOLAR INDIA (TATAS)
BP THAI SOLAR CORPORATION
CENTRONIX
DEHN + SOHNE ELECTROTECHNISCHE FABRIK
DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
FURUKAWA BATTERY COMPANY, LTD.
JAPAN STORAGE BATTERY CO., LTD.
KYOCERA CORPORATION
M.S.K. CORPORATION
NATIONAL LUNA
PHOTOWATT INTERNATIONAL S.A.
PIRELLI Conker S.A.
SHARP CORPORATION - JAPAN
SOLITE-LITE MANUFACTURING LTD
SUN POWER SYSTEMS LTD

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

HYBRID SYSTEMS/ GENERATORS

Domestic

ALASKA DIESEL ELECTRIC
AMPLE POWER COMPANY
♦APPLIED POWER (formerly Solar Engineering Services)
♦♦ATLANTIC SOLAR PRODUCTS, INC.
FISHER ELECTRIC MOTOR TECHNOLOGY, INC.
FUJI ELECTRIC CORP. OF AMERICA
GEOSOLAR ENERGY SYSTEMS, INC. 12 Volt Catalog
HARRIS HYDROELECTRIC SYSTEMS
INDUSTRIAL BATTERY ENGINEERING, INC. (IBE)
♦INTEGRATED POWER CORPORATION (IPC)
LESTER ELECTRICAL OF NEBRASKA, INC.
MAGNETEK INC.
NEWMAR
♦NORTHERN POWER SYSTEMS
ONAN CORPORATION
PHOTRON, INC.
POLAR POWER
SMALL HYDROELECTRIC SYSTEMS & EQUIP.
♦SOLAR ENGINEERING SERVICES (See Applied Power)
♦♦SOLAR ELECTRIC OF SANTA BARBARA
♦SOLAR ELECTRIC SPECIALTIES CO. (SES)
SOLO POWER
♦♦SOUTHWEST PV SYSTEMS, INC.
♦SUNWIZE ENERGY SYSTEMS
TRACE ENGINEERING COMPANY
VANNER, INC.
♦WIND BARON

Foreign

♦ADVANCED ENERGY SYSTEMS PTY LTD
AUDIO-LIGHT A/S
♦BP SOLAR AUSTRALIA PTY LTD
♦BP SOLAR ESPANA SA
♦DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
♦IBC Int'l Battery & Solar Power Co.
LISTER-PETTER AUSTRALIA PTY. LTD.
MEIDENSHA CORPORATION
♦NAPS INTERNATIONAL HEAD OFFICE
♦NIPPON ELECTRIC INDUSTRY CO., LTD.
♦POWER REFLEX PTY. LTD.
♦R&S RENEWABLE ENERGY SYSTEMS BV
RAPCO Remote Alternative Power Co.
♦♦SAIRAM SOLAR SYSTEMS PVT. LTD.
SOLAPAK LIMITED
SOLAR CELLS PTY LTD
♦SOLARTRONICS INTERNATIONAL LTD
♦SONEL POWER CORPORATION
SUN POWER SYSTEMS LTD
♦SUNTRON ENERGY COMPANY
TOTAL ENERGIE
TOTAL ENERGY DEVELOPMENT
♦YUASA CORPORATION

INVERTERS & POWER CONDITIONERS

Domestic

ABACUS CONTROLS, INC
ACHEVAL WIND ELECTRONICS
ADVANCED PHOTOVOLTAIC SYSTEMS, INC. (APS)
AMERICAN POWER CONVERSION CORPORATION
BEST POWER TECHNOLOGY SALES CORP.
CHLORIDE SYSTEMS
CURTIS INSTRUMENTS, INC.
DELCO REMY
DIMENSIONS UNLIMITED, INC.
DINH SOLAR CO., INC. also Heat Pipe Technology, Inc.
DYNAMOTE CORPORATION
DYTEK LABORATORIES
ELGAR CORPORATION
EPE/TOPAZ
ETA ENGINEERING
EXELTECH
GEOSOLAR ENERGY SYSTEMS, INC. 12 Volt Catalog
HEART INTERFACE CORPORATION
HELIONETICS INC.
INTEGRATED POWER CORPORATION (IPC)
KENYON MARINE
MAGNETEK INC.
NEWMAR
OMNION POWER ENGINEERING CORPORATION
OUTSIDE POWER TECHNOLOGIES
PACIFIC INVERTER, INC.
PHOTOELECTRIC, INC.
POWERSTAR PRODUCTS, INC.
SAFT NIFE, INC.
SOLA ELECTRIC
SOLECTRIA
SOLEQ CORPORATION
SUNALEX CORPORATION
SUNAMP POWER COMPANY
TAYTRONICS
TRACE ENGINEERING COMPANY
TRIPP-LITE
UTILITY POWER GROUP
VANNER, INC.
WESTEC SYSTEMS

Foreign

ADVANCED ENERGY SYSTEMS PTY LTD
ALTECH TELECOMMS
AUSTRALIAN ENERGY RESEARCH LABS P/L
DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
DULAS ENGINEERING LTD.
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HAGEN BATTERIE AG
HITACHI LTD
IBC Int'l Battery & Solar Power Co.

SECTION II: PHOTOVOLTAIC PRODUCT-MANUFACTURER INDEX

...Inverters/Power Conditioners — Lighting...

INVERTOMATIC SA
ITALSOLAR S.P.A.
JAPAN STORAGE BATTERY CO., LTD.
KYOCERA CORPORATION
MATSUSHITA BATTERY
MEIDENSHA CORPORATION
NATIONAL LUNA
NIPPON ELECTRIC INDUSTRY CO., LTD.
NISSIN ELECTRIC COMPANY, LTD.
RAJASTHAN ELECTRONICS & INSTRUMENTS (REIL)
RENEWABLE ENERGY SYSTEMS (RES) Pvt. Ltd.
SANYO ELECTRIC CO., LTD.
SHARP CORPORATION - JAPAN
SOLAR ENERGIE TECHNIK GMBH
SOLARTRONICS INTERNATIONAL LTD
STATPOWER TECHNOLOGIES CORPORATION
SUN POWER SOLARTECHNIK GMBH
SUN POWER SYSTEMS LTD
SVE SOLARENERGIE-VERTRIEBS-UND
ENTWICKLUNGSGESELLSCHAFT MBH
TEKNIKRAFT
TOSHIBA CORPORATION
VISTAR ELECTRONICS (P) LTD.
YUASA CORPORATION

LIGHTING

Domestic

3M Traffic Control Materials Division
ADVANCE TRANSFORMER CO.
♦ADVANCED PHOTOVOLTAIC SYSTEMS, INC. (APS)
♦ALPAN INC.
AMERICAN ELECTRIC
APPLETON ELECTRIC CO.
♦APPLIED POWER (formerly Solar Engineering Services)
APPLIED RESOURCES GROUP INC.
♦ASCENSION TECHNOLOGY, INC.
♦ATLANTIC SOLAR PRODUCTS, INC.
♦C-RAN CORPORATION
CHLORIDE SYSTEMS
COMMAND ELECTRONICS, INC.
♦CURRIN CORPORATION
EASTROCK MFG. & TECHNOLOGY, INC.
EDWARDS
♦ELECTRO SOLAR PRODUCTS
♦ELECTRODEX INC.
♦ENERGY PHOTOVOLTAICS, INC. (See EPV)
♦EPV (ENERGY PHOTOVOLTAICS, INC.) (formerly IDM,
Inc.)
GE LIGHTING
♦GEOSOLAR ENERGY SYSTEMS, INC. 12 Volt Catalog
♦HEINZ SOLAR
♦INTEGRATED POWER CORPORATION (IPC)
♦INTERNATIONAL ENERGY SYSTEMS CORP. (formerly
Applied Energy Technology)
♦INTERPLEX SOLAR
IOTA ENGINEERING COMPANY

♦KYOCERA AMERICA
LIGHTING TECHNOLOGIES, INC.
LURALINE
♦MAGNARAY INTERNATIONAL
MAGNETEK INC.
♦MCCOY INDUSTRIES, INC.
♦MIDWEST CONSERVATION SYSTEMS INC.
♦NORTHERN POWER SYSTEMS
NRG LIGHTING INC.
OSRAM CORPORATION
PHILIPS LIGHTING COMPANY
PHOTOCOMM
POLAR POWER
♦PRECISION SOLAR CONTROLS, INC.
PREMIER FENCE SYSTEM
PRIMELITE MANUFACTURING CORPORATION
RADIONIC INDUSTRIES INC.
♦RGA, INC.
SANYO ENERGY CORPORATION
♦SCIENTIFIC ENGINEERING (formerly Scientific Analysis)
♦SEPCO (Solar Electric Power Co.)
♦SIEMENS SOLAR INDUSTRIES, INC.
♦SIMPLER SOLAR SYSTEMS, INC.
♦SOLAR CITY
♦SOLAR ENGINEERING SERVICES (See Applied Power)
♦SOLAR ELECTRIC SPECIALTIES CO. (SES)
♦SOLAR ELECTRIC SYSTEMS OF KANSAS CITY
♦SOLAR OUTDOOR LIGHTING, INC.
♦SOLAR TEK
♦SOLAREX
♦SOLEC INTERNATIONAL, INC.
♦SOLO POWER
♦SOUTHWEST PV SYSTEMS, INC.
SPECIALTY CONCEPTS, INC. (SCI)
SPECTRUM INTERNATIONAL
♦STATE PAVING COMPANY
SUNALEX CORPORATION
♦SUNAMP POWER COMPANY
♦SUNELCO
♦SUNWIZE ENERGY SYSTEMS
♦SYSTEMS RESEARCH GROUP
♦THE SEANAV CORPORATION
THIN-LITE CORPORATION
♦TIDELAND SIGNAL CORPORATION
UDEP CORPORATION
UNIVERSAL ENERGY CONTROL, INC. (UNENCO)
♦WESTERN LIGHTING INDUSTRIES dba Orgatech Omegalux
WIDE-LITE

Foreign

ACUMULADORES MEXICANOS, S.A. DE C.V. (ACUMEX)
ALTECH TELECOMMS
AUDIO-LIGHT A/S
AUSTRALIAN ENERGY RESEARCH LABS P/L
♦BP SOLAR AUSTRALIA PTY LTD
♦BP SOLAR ESPANA SA
♦BP SOLAR LTD.
♦CENTRAL ELECTRONICS, LTD. (CEL)
DAICHI COMPANY LTD

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

♦ DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
 ♦ ECOSOLAIRE
 ♦ EGYCEL
 ENE S.A.
 EPOS/PVI
 EUROSOLARE S.R.L.
 ♦ GANSU GNERI PV COMPANY
 ♦ HELIODINAMICA
 HELIOS TECHNOLOGY
 HITACHI LTD
 ♦ HOXAN CORPORATION
 IBC Int'l Battery & Solar Power Co.
 ♦ ITALSOLAR S.P.A.
 ♦ KYOCERA CORPORATION
 ♦ LFI/BESTEK GROUP, INC.
 ♦ M.S.K. CORPORATION
 MATSUSHITA BATTERY
 MITSUBISHI ELECTRIC CORPORATION
 ♦ NAPS FRANCE (formerly Chronar France)
 ♦ NAPS INTERNATIONAL
 ♦ NATIONAL LUNA
 ♦ OMAN SOLAR SYSTEMS LLC. (OSS)
 ♦ OPTITRON SOLAR
 ♦ PHOTOWATT INTERNATIONAL S.A.
 ♦ POWER & SUN PVT LTD
 ♦ PT R&S
 ♦ R&S RENEWABLE ENERGY SYSTEMS BV
 RAJASTHAN ELECTRONICS & INSTRUMENTS (REIL)
 ♦ RENEWABLE ENERGY SYSTEMS (RES) Pvt. Ltd.
 ♦ SAIRAM SOLAR SYSTEMS PVT. LTD
 SHARP CORPORATION - JAPAN
 SOLAPAK LIMITED
 ♦ SOLAR CELLS PTY LTD
 ♦ SOLAR ELECTRIC LIGHT & POWER CO. BV (SEPL)
 ♦ SOLAR ENERGIE TECHNIK GMBH
 SOLAR INDIA GROUP
 SOLARCOM FRANCE SA
 ♦ SOLARTEC/NEW WORLD Sociedad Anonima
 ♦ SOLITE-LITE MANUFACTURING LTD
 ♦ SUNTRON ENERGY COMPANY
 ♦ SURYOONICS LIMITED (See also ECD)
 ♦ TEKNIKRAFT
 TONEN CORPORATION
 ♦ TOTAL ENERGIE
 ♦ TOTAL ENERGY DEVELOPMENT
 ♦ YUASA CORPORATION

METERS, INSTRUMENTATION & CONTROLS

Domestic

AMPLE POWER COMPANY
 ANANDA POWER TECHNOLOGIES, INC.

APPLIED POWER (formerly Solar Engineering Services)
 APPLIED TECHNICAL SYSTEMS
 BACKWOODS CABIN ELECTRIC SYSTEMS
 BASLER ELECTRIC
 BATCON
 CAMPBELL SCIENTIFIC, INC.
 COMPTUS INC. (formerly Controlex)
 CRUISING EQUIPMENT COMPANY
 CURTIS INSTRUMENTS, INC.
 DANIEL FLOW PRODUCTS
 EPPLEY LABORATORY
 HAMAMATSU CORPORATION
 INTEGRATED POWER CORPORATION (IPC)
 KIPP & ZONEN
 LASHWAY INSTRUMENTS
 LUMENITE ELECTRONIC COMPANY
 PHOTRON, INC.
 POLAR POWER
 POWER KINETICS
 SOLAR ENGINEERING SERVICES (See Applied Power)
 SOLECTRIA
 SOUTHWEST REGION EXPERIMENT STATION
 SPECIALTY CONCEPTS, INC. (SCI)
 SPIRE CORPORATION, INC. (SPI)
 SUNAMP POWER COMPANY
 TAYTRONICS
 VERITEK

Foreign

ACUMULADORES MEXICANOS, S.A. DE C.V. (ACUMEX)
 BP SOLAR AUSTRALIA PTY LTD
 BP SOLAR ESPANA SA
 DULAS ENGINEERING LTD.
 EKO INSTRUMENTS TRADING CO., LTD
 INSTRUMENT RESEARCH ASSOC. PVT. LTD.
 JAPAN STORAGE BATTERY CO., LTD.
 KYOCERA CORPORATION
 NISSIN ELECTRIC COMPANY, LTD.
 SOLAR CELLS PTY LTD
 SONEL POWER CORPORATION
 SUN POWER SOLARTECHNIK GMBH
 THEBEN

MISCELLANEOUS

Domestic

ADVANCED PHOTOVOLTAIC SYSTEMS, INC. (APS)
 AFG INDUSTRIES
 ANANDA POWER TECHNOLOGIES, INC.
 COURTAULDS (formerly Gila River)
 EPITAXY
 GEOSOLAR ENERGY SYSTEMS, INC. 12 Volt Catalog
 GLOBAL PHOTOVOLTAIC SPECIALISTS, INC.
 HYDROCAP CORPORATION
 INTEGRATED POWER CORPORATION (IPC)
 MCCOY INDUSTRIES, INC.
 PAWLING CORPORATION

SECTION II: PHOTOVOLTAIC PRODUCT-MANUFACTURER INDEX

...Miscellaneous — Photovoltaics...

POLAR POWER
SOLAR CAR CORPORATION
SUNAMP POWER COMPANY
TACTICAL FABs, INC.
VOLTAIX, INC.

Foreign

ACUMULADORES MEXICANOS, S.A. DE C.V. (ACUMEX)
FLACHGLAS-SOLARTECHNIK GMBH
HELIODINAMICA
IBC Int'l Battery & Solar Power Co.
KYOCERA CORPORATION
NAPS INTERNATIONAL
NATIONAL LUNA
NIPPON SHEET GLASS
OXFORD APPLIED RES.
PHOTEC S.A.
PHOTOWATT INTERNATIONAL S.A.
SHAPING SYSTEMS
SITIX (formerly Osaka Titanium - Sumimoto subs)
SOLAR CELLS PTY LTD
SUN POWER SYSTEMS LTD
TONEN CORPORATION

PHOTOVOLTAICS (cells, modules, components, equipment, & services)

Domestic

3T & ASSOCIATES, INC. (formerly 3T Tanakaya)
ADVANCED PHOTOVOLTAIC SYSTEMS, INC. (APS)
ADVANCED SILICON MATERIALS, INC.
AFG INDUSTRIES
ALPHA SOLARCO
AMERICAN SOLAR MANUFACTURING, INC.
AMONIX, INC.
ANSALDO SISTEMI INDUSTRIALI (US)
APPLIED SOLAR ENERGY CORPORATION
ASE AMERICAS, INC. (formerly Mobil Solar Energy)
ASTROPOWER INC.
ATLANTIS ENERGY SYSTEMS
BOEING AEROSPACE
BTU INTERNATIONAL
COURTAULDS (formerly Gila River)
CRYSTAL SYSTEMS
DINH SOLAR CO., INC. also Heat Pipe Technology, Inc.
DIRECT GAIN
EBARA SOLAR, INC.
ELKEM CHEMICAL AND ELECTRONICS
EMCORE CORPORATION
ENERGY CONVERSION DEVICES, INC.
ENERGY PHOTOVOLTAICS, INC. (See EPV)
ENTECH, INC.
EPV (ENERGY PHOTOVOLTAICS, INC.) (formerly IDM, Inc.)
GLOBAL PHOTOVOLTAIC SPECIALISTS, INC.
GOLDEN PHOTON (formerly Photon Energy)
GT EQUIPMENT TECHNOLOGIES (GTI)
HAMAMATSU CORPORATION
INTERNATIONAL ENERGY SYSTEMS CORP.

IOWA THIN FILM TECHNOLOGIES, INC.
ISET (Int'l Solar Electric Technology)
KOPIN CORPORATION
KYOCERA AMERICA
LUMINA RESOURCES CORPORATION
M. SETEK U.S.A. COMPANY
MARTIN MARIETTA
MATERIALS RESEARCH GROUP, INC.
MIDWAY LABS, INC.
MVSYSTEMS, INC.
PAWLING CORPORATION
PHOTOCOMM, INC.
PHOTON TECHNOLOGIES, INC.
SANYO ENERGY CORPORATION
SEA CORPORATION
SECO (Utility Power Group)
SIEMENS SOLAR INDUSTRIES, INC.
SILICON SENSORS INC.
SOLAR CELLS, INC.
SOLAR ELECTRIC ENGINEERING, INC.
SOLAR ENERGY APPLICATIONS (SEA)
SOLAR ENERGY RESEARCH CENTER
SOLAR WORLD
SOLAREX
SOLAREX Thin Film Division
SOLEC INTERNATIONAL, INC.
SOLECTRIA
SPECTROLAB INC.
SPIRE CORPORATION, INC. (SPI)
SUNPOWER CORPORATION
SUNWATT CORPORATION
SUNWIZE ENERGY SYSTEMS
TACTICAL FABs, INC.
TEXAS INSTRUMENTS, INC.
THE SEANAV CORPORATION
TIDELAND SIGNAL CORPORATION
TRANSLUMIN INTERNATIONAL
TRANTEX Transportation Products of Texas, Inc.
UNITED SOLAR SYSTEMS CORPORATION (See also ECD)
UTILITY POWER GROUP Silicon Energy Corp.
VAW OF AMERICA, INC.
VOLTAIX, INC.
WACKER SILTRONIC
WESTINGHOUSE ELECTRIC CORPORATION
WIND BARON

Foreign

AIXTRON GMBH
ANSALDO SISTEMI INDUSTRIALI SPA
ASE GMBH Angewandte Solarenergie
ATLANTIS ENERGY SYSTEM
AUDIO-LIGHT A/S
BAYER AG
BHEL (Bharat Heavy Electricals Limited)
BP SOLAR ARABIA
BP SOLAR AUSTRALIA PTY LTD Head Office
BP SOLAR ESPANA SA
BP SOLAR INDIA (TATAS)
BP THAI SOLAR CORPORATION
CARL BAASEL Lastertechnik GmbH

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

CENTRAL ELECTRONICS, LTD. (CEL)
 CENTRONIX
 CRYSTALOX LTD. - ENGLAND
 DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
 DORNIER GMBH
 ECOSOLAR
 EGYCEL
 ELETTRORAVA SPA
 ELKEM A/S
 ENE S.A.
 EUROSOLARE S.R.L.
 FLACHGLAS-SOLARTECHNIK GMBH
 FUJI ELECTRIC CO., LTD.
 FURUKAWA BATTERY COMPANY, LTD.
 GPV GALLIVARE PHOTOVOLTAIC AB
 HCT SHAPING SYSTEMS S.A.
 HELIODINAMICA
 HELIOS POWER
 HELIOS TECHNOLOGY
 HITACHI LTDHOXAN CORPORATION
 IMFA GROUP
 IMPEX INDIA LTD
 INDIAN METALS
 INTERSOLAR LTD.
 INTERTECHNOLOGY
 ISOFOTON S.A.
 ITALSOLAR S.P.A.
 KANEKA CORPORATION
 KOMATSU LTD.
 KONCAR SOLAR CELLS
 KYOCERA CORPORATION
 M. SETEK COMPANY LTD.
 M.S.K. CORPORATION
 MATSUSHITA BATTERY
 MBB ENERGY & INDUSTRIAL TECHNOLOGY
 MEIDENSHA CORPORATION
 MICROCHEMISTRY LTD
 MICROTTECH HELLAS S.A.
 MITSUBISHI ELECTRIC CORPORATION
 MITSUI TOATSU CHEM.
 MOSCOW GENERAL IND
 MSETEC CO LTD
 NAPS FRANCE (formerly Chronar France)
 NAPS INTERNATIONAL HEAD OFFICE
 NIPPON MINING CO.
 NIPPON SHEET GLASS
 NUKEM GMBH
 OMAN SOLAR SYSTEMS LLC. (OSS)
 OXFORD APPLIED RES.
 PAKISTAN SOLAR POWER
 PB TECHNIK
 PENTAFOUR SOLEC TECHNOLOGY LTD.
 PHOTEC S.A.
 PHOTON TECHNOLOGY
 PHOTOTRONICS SOLARTECHNIK GMBH (PST)
 PHOTOWATT INTERNATIONAL S.A.
 POWER & SUN PVT LTD
 PT R&S
 PV ELECTRIC GMBH
 QINHUANGDAO HUA-MEI PV ELECTRONICS

R&S RENEWABLE ENERGY SYSTEMS BV
 RAJASTHAN ELECTRONICS & INSTRUMENTS (REIL)
 RENEWABLE ENERGY SYSTEMS (RES) Pvt. Ltd.
 SANYO ELECTRIC CO., LTD.
 SHAPING SYSTEMS
 SHARP CORPORATION - JAPAN
 SHOWA ARCO SOLAR KK
 SIEMENS SOLAR GMBH
 SINONAR
 SITIX (formerly Osaka Titanium - Sumimoto subs)
 SOLAR INDIA GROUP
 SOLAR SILICON PVT
 SOLARCAN POWER CORPORATION
 SOLARCOM FRANCE SA
 SOLARCOMM
 SOLARTEC/NEW WORLD Sociedad Anonima
 SOLEMS S.A. Y DEV.
 SOLID STATE ELECTRIC
 SOLITE-LITE MANUFACTURING LTD
 SOLTECH
 SONEL POWER CORPORATION
 SOUDAX EQUIPMENT
 SOVLUX
 SUMITOMO ELECTRIC
 SUN POWER SYSTEMS LTD
 SURYOONICS LIMITED (See also ECD)
 TAIYO YUDEN CO. LTD.
 TDK CORPORATION
 TEIJIN LTD.
 TONEN CORPORATION
 TOTAL CHIMIC
 TURBIN SUD SRL
 TUV RHEINLAND
 UDHAYA SEMICONDUCTOR PVT. LTD.
 UDTS/HCR
 UNISEARCH LIMITED
 VENERGIA
 WACKER CHEMITRONIC GMBH
 ZONTECHNOLOGY NETHERLANDS

Photovoltaic cells

Domestic

ADVANCED PHOTOVOLTAIC SYSTEMS, INC. (APS)
 AMONIX, INC.
 APPLIED SOLAR ENERGY CORPORATION
 ASE AMERICAS, INC. (formerly Mobil Solar Energy)
 ASTROPOWER INC.
 BOEING AEROSPACE
 DINH SOLAR CO., INC. also Heat Pipe Technology, Inc.
 EBARA SOLAR, INC.
 ENERGY CONVERSION DEVICES, INC.
 ENERGY PHOTOVOLTAICS, INC. (See EPV)
 ENTECH, INC.
 EPV (ENERGY PHOTOVOLTAICS, INC.) (formerly IDM, Inc.)
 GOLDEN PHOTON (formerly Photon Energy)
 HAMAMATSU CORPORATION
 IOWA THIN FILM TECHNOLOGIES, INC.
 ISET (Int'l Solar Electric Technology)

SECTION II: PHOTOVOLTAIC PRODUCT-MANUFACTURER INDEX

...Photovoltaics: cells • modules...

KOPIN CORPORATION
KYOCERA AMERICA
LUMINA RESOURCES CORPORATION
MARTIN MARIETTA
SANYO ENERGY CORPORATION
SECO (Utility Power Group)
SIEMENS SOLAR INDUSTRIES, INC.
SILICON SENSORS INC.
SOLAR CELLS, INC.
SOLAR WORLD
SOLAREX
SOLAREX
SOLEC INTERNATIONAL, INC.
SPECTROLAB INC.
SUN-MATE CORPORATION
TEXAS INSTRUMENTS, INC.
UNITED SOLAR SYSTEMS CORPORATION (See also ECD)
WESTINGHOUSE ELECTRIC CORPORATION
WIND BARON

Foreign

ASE GMBH Angewandte Solarenergie
BAYER AG
BHEL (Bharat Heavy Electricals Limited)
BP SOLAR AUSTRALIA PTY LTD
BP SOLAR ESPANA SA
CENTRAL ELECTRONICS, LTD. (CEL)
DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
ECOSOLAR
EUROSOLARE S.R.L.
FUJI ELECTRIC CO., LTD.
HELIODINAMICA
HELIOS POWER
HELIOS TECHNOLOGY
HOXAN CORPORATION
INTERSOLAR LTD.
INTERTECHNOLOGY
ISOFOTON S.A.
ITALSOLAR S.P.A.
KANEKA CORPORATION
KONCAR SOLAR CELLS
KYOCERA CORPORATION
MATSUSHITA BATTERY
MBB ENERGY & INDUSTRIAL TECHNOLOGY
MICROCHEMISTRY LTD
MICROTECH HELLAS S.A.
MOSCOW GENERAL IND
NAPS FRANCE (formerly Chronar France)
NAPS INTERNATIONAL
NIPPON MINING CO.
NUKEM GMBH
OMAN SOLAR SYSTEMS LLC. (OSS)
PHOTOTRONICS SOLARTECHNIK GMBH (PST)
PHOTOWATT INTERNATIONAL S.A.
R&S RENEWABLE ENERGY SYSTEMS BV
RAJASTHAN ELECTRONICS & INSTRUMENTS (REIL)
RENEWABLE ENERGY SYSTEMS (RES) Pvt. Ltd.
SANYO ELECTRIC CO., LTD.
SHARP CORPORATION - JAPAN
SHOWA ARCO SOLAR KK

SIEMENS SOLAR GMBH
SINONAR
SOLAR SILICON PVT
SOLARCOM FRANCE SA
SOLEMS S.A. Y DEV.
SOLTECH
TAIYO YUDEN CO. LTD.
TDK CORPORATION
TONEN CORPORATION
TOTAL CHIMIC
TURBIN SUD SRL
UDHAYA SEMICONDUCTOR PVT. LTD.
UDTS/HCR
UNISEARCH LIMITED
VENERGIA

Photovoltaic modules

Domestic

ADVANCED PHOTOVOLTAIC SYSTEMS, INC. (APS)
ALPHA SOLARCO
AMERICAN SOLAR MANUFACTURING, INC.
ASE AMERICAS, INC. (formerly Mobil Solar Energy)
ASTROPOWER INC.
ATLANTIS ENERGY SYSTEMS
DIRECT GAIN
EBARA SOLAR, INC.
ENERGY CONVERSION DEVICES, INC.
ENERGY PHOTOVOLTAICS, INC. (See EPV)
ENTECH, INC.
EPV (ENERGY PHOTOVOLTAICS, INC.) (formerly IDM, Inc.)
GOLDEN PHOTON (formerly Photon Energy)
HAMAMATSU CORPORATION
INTERNATIONAL ENERGY SYSTEMS CORP.
IOWA THIN FILM TECHNOLOGIES, INC.
ISET (Int'l Solar Electric Technology)
KYOCERA AMERICA
LUMINA RESOURCES CORPORATION
M. SETEK U.S.A. COMPANY
MARTIN MARIETTA
MIDWAY LABS, INC.
PHOTOCOMM, INC.
PHOTON TECHNOLOGIES, INC.
SANYO ENERGY CORPORATION
SEA CORPORATION
SECO (Utility Power Group)
SIEMENS SOLAR INDUSTRIES, INC.
SILICON SENSORS INC.
SOLAR GELLS, INC.
SOLAR ELECTRIC ENGINEERING, INC.
SOLAR ENERGY APPLICATIONS (SEA)
SOLAR ENERGY RESEARCH CENTER
SOLAR WORLD
SOLAREX
SOLAREX Thin Film Division
SOLEC INTERNATIONAL, INC.
SOLECTRIA
SPECTROLAB INC.
SUN-MATE CORPORATION

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

SUNELCO
 SUNPOWER CORPORATION
 SUNWATT CORPORATION
 SUNWIZE ENERGY SYSTEMS
 TEXAS INSTRUMENTS, INC.
 THE SEANAV CORPORATION
 TIDELAND SIGNAL CORPORATION
 TRANSLUMIN INTERNATIONAL
 TRANTEX Transportation Products of Texas, Inc.
 UNITED SOLAR SYSTEMS CORPORATION (See also ECD)
 UTILITY FREE, INC.
 UTILITY POWER GROUP
 WIND BARON

Foreign

ANSALDO SISTEMI INDUSTRIALI SPA
 ASE GMBH Angewandte Solarenergie
 ATLANTIS ENERGY SYSTEM
 AUDIO-LIGHT A/S
 BHEL (Bharat Heavy Electricals Limited)
 BP SOLAR ARABIA
 BP SOLAR AUSTRALIA PTY LTD
 BP SOLAR ESPANA SA
 BP SOLAR INDIA (TATAS)
 BP THAI SOLAR CORPORATION
 CENTRAL ELECTRONICS, LTD. (CEL)
 CENTRONIX
 CONDUMEX
 DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
 ECOSOLAR
 EGYCEL
 ENE S.A.
 EUROSOLARE S.R.L.
 FUJI ELECTRIC CO., LTD.
 FURUKAWA BATTERY COMPANY, LTD.
 GPV GALLIVARE PHOTOVOLTAIC AB
 HELIODINAMICA
 HELIOS POWER
 HELIOS TECHNOLOGY
 HITACHI LTD
 HOXAN CORPORATION
 IMFA GROUP
 IMPEX INDIA LTD
 INTERSOLAR LTD.
 INTERTECHNOLOGY
 ISOFOTON S.A.
 ITALSOLAR S.P.A.
 KANEKA CORPORATION
 KOMATSU LTD.
 KONCAR SOLAR CELLS
 KYOCERA CORPORATION
 M.S.K. CORPORATION
 MATSUSHITA BATTERY
 MBB ENERGY & INDUSTRIAL TECHNOLOGY
 MEIDENSHA CORPORATION
 MICROCHEMISTRY LTD
 NAPS FRANCE (formerly Chronar France)
 NAPS INTERNATIONAL
 NUKEM GMBH
 PENTAFOUR SOLEC TECHNOLOGY LTD.

PHOTON TECHNOLOGY
 PHOTOTRONICS SOLARTECHNIK GMBH (PST)
 PHOTOWATT INTERNATIONAL S.A.
 POWER & SUN PVT LTD
 PT R&S
 PV ELECTRIC GMBH
 R&S RENEWABLE ENERGY SYSTEMS BV
 RAJASTHAN ELECTRONICS & INSTRUMENTS (REIL)
 RENEWABLE ENERGY SYSTEMS (RES) Pvt. Ltd.
 SANYO ELECTRIC CO., LTD.
 SHARP CORPORATION - JAPAN
 SHOWA ARCO SOLAR KK
 SIEMENS SOLAR GMBH
 SINONAR
 SOLAR INDIA GROUP
 SOLAR SILICON PVT
 SOLARCAN POWER CORPORATION
 SOLARCOM FRANCE SA
 SOLARCOMM
 SOLARTEC/NEW WORLD Sociedad Anonima
 SOLEMS S.A. Y DEV.
 SOLITE-LITE MANUFACTURING LTD
 SOLTECH
 SONEI POWER CORPORATION
 SOUDAX EQUIPMENT
 SUMITOMO ELECTRIC
 SUN POWER SYSTEMS LTD
 SURYOONICS LIMITED (See also ECD)
 SVE SOLARENERGIE-VERTRIEBS-UND
 ENTWICKLUNGSGESELLSCHAFT MBH
 TAIYO YUEN CO. LTD.
 TEIJIN LTD.
 TONEN CORPORATION
 TOTAL CHIMIC
 TURBIN SUD SRL
 UDTS/HCR
 UNISEARCH LIMITED
 VENERGIA
 ZONTECHNOLOGY NETHERLANDS

Photovoltaic components***Domestic***

3T & ASSOCIATES, INC. (formerly 3T Tanakaya)
 ADVANCED PHOTOVOLTAIC SYSTEMS, INC. (APS)
 ADVANCED SILICON MATERIALS, INC.
 AFG INDUSTRIES
 COURTAULDS (formerly Gila River)
 CRYSTAL SYSTEMS
 DINH SOLAR CO., INC. aka Heat Pipe Technology, Inc.
 ELKEM CHEMICAL AND ELECTRONICS
 EBARA SOLAR, INC.
 IOWA THIN FILM TECHNOLOGIES, INC.
 PAWLING CORPORATION
 SOLAREX
 SOLEC INTERNATIONAL, INC.
 SPECTROLAB INC.
 SPIRE CORPORATION, INC. (SPI)
 VAW OF AMERICA, INC.

SECTION II: PHOTOVOLTAIC PRODUCT-MANUFACTURER INDEX

...Photovoltaics: components • manufacturing equipment • services — Power Systems...

VOLTAIX, INC.
WACKER SILTRONIC

Foreign

BAYER AG
CRYSTALOX LTD. - ENGLAND
ELKEM A/S
EUROSOLARE S.R.L.
FLACHGLAS-SOLARTECHNIK GMBH
HELIODINAMICA
HELIOS TECHNOLOGY
INDIAN METALS
M. SETEK COMPANY LTD.
MOSCOW GENERAL IND
NIPPON SHEET GLASS
PB TECHNIK
SITIX (formerly Osaka Titanium - Sumimoto subs)
WACKER CHEMITRONIC GMBH

Photovoltaic manufacturing equipment

Domestic

AMERICAN SOLAR MANUFACTURING, INC.
ASTROPOWER INC.
BTU INTERNATIONAL
CRYSTAL SYSTEMS
EMCORE CORPORATION
ENERGY PHOTOVOLTAICS, INC. (See EPV)
EPV (ENERGY PHOTOVOLTAICS, INC.) (formerly IDM, Inc.)
GLOBAL PHOTOVOLTAIC SPECIALISTS, INC.
GT EQUIPMENT TECHNOLOGIES (GTi)
MATERIALS RESEARCH GROUP, INC.
MVSYSTEMS, INC.
SPECTROLAB INC.
SPIRE CORPORATION, INC. (SPI)
TRANSLUMIN INTERNATIONAL

Foreign

AIXTRON GMBH
BHEL (Bharat Heavy Electricals Limited)
CRYSTALOX LTD. - ENGLAND
DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
ELETTORAVA SPA
ELKEM A/S
HCT SHAPING SYSTEMS S.A.
ISOFOTON S.A.
M. SETEK COMPANY LTD.
M.S.K. CORPORATION
MICROCHEMISTRY LTD
PHOTEC S.A.
SONEL POWER CORPORATION

Photovoltaic manufacturing services

Domestic

ASTROPOWER INC.
ELKEM CHEMICAL AND ELECTRONICS

MATERIALS RESEARCH GROUP, INC.
SPIRE CORPORATION, INC. (SPI)
TACTICAL FABs, INC.

Foreign

BAYER AG
BP SOLAR AUSTRALIA PTY LTD
BP SOLAR ESPANA SA
CARL BAASEL
DORNIER GMBH
ELKEM A/S
M. SETEK COMPANY LTD.
M.S.K. CORPORATION
MOSCOW GENERAL IND
OXFORD APPLIED RES.
PB TECHNIK
SHAPING SYSTEMS
SITIX (formerly Osaka Titanium - Sumimoto subs)
SOLAR SILICON PVT
SONEL POWER CORPORATION
SOUDAX EQUIPMENT
TUV RHEINLAND

POWER SYSTEMS

Domestic

♦ADVANCED PHOTOVOLTAIC SYSTEMS, INC. (APS)
♦AMERICAN SOLAR MANUFACTURING, INC.
♦AMONIX, INC.
♦AMPLE POWER COMPANY
♦APPLIED POWER (formerly Solar Engineering Services)
♦APPLIED RESOURCES GROUP INC.
♦ASE AMERICAS, INC. (formerly Mobil Solar Energy)
♦ATLANTIC SOLAR PRODUCTS, INC.
♦C-RAN CORPORATION
♦CARRIZO SOLAR CORPORATION
♦CURRIN CORPORATION
♦DINH SOLAR CO., INC. aka Heat Pipe Technology, Inc.
♦EARTH OPTIONS
♦ECS (Energy Conservation Services)
♦ENERGY CONSERVATION SERVICES (See ECS)
♦ENERGY PHOTOVOLTAICS, INC. (See EPV)
♦ENTECH, INC.
♦EPV (ENERGY PHOTOVOLTAICS, INC.) (formerly IDM)
♦FOWLER SOLAR ELECTRIC
♦GENERAL RESEARCH LABORATORIES
♦GEOSOLAR ENERGY SYSTEMS, INC. 12 Volt Catalog
♦HARDING CONTROLLED ENERGY
♦INTEGRATED POWER CORPORATION (IPC)
♦INTERNATIONAL ENERGY SYSTEMS CORP.
♦JADE MOUNTAIN
♦MCCOY INDUSTRIES, INC.
♦NEW LIGHT ENERGY COMPANY
♦NEW WORLD POWER CORPORATION
♦NORTHERN POWER SYSTEMS
♦PHOTOCOMM INC. - CA
♦PHOTRON, INC.

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

POLAR POWER

♦POWERLIGHT CORPORATION
 ♦PYRON, INC.
 ♦REAL GOODS TRADING COMPANY
 REMOTE POWER INC.
 ♦RV SOLAR ELECTRIC
 ♦SANYO ENERGY CORPORATION
 ♦SEA CORPORATION
 SIEMENS SOLAR INDUSTRIES, INC.
 ♦SMALL HYDROELECTRIC SYSTEMS & EQUIP.
 ♦SOLAR DEPOT (aka Energy Depot)
 ♦SOLAR ELECTRIC OF SANTA BARBARA
 ♦SOLAR ELECTRIC SPECIALTIES CO. (SES)
 ♦SOLAR ENGINEERING SERVICES (See Applied Power)
 ♦SOLAR WORLD
 ♦SOLAREX
 ♦SOLAREX Thin Film Division
 ♦SOLARJACK
 ♦SOLARMETRICS, INC.
 ♦SOLEC INTERNATIONAL, INC.
 SOLO POWER
 ♦SOUTHWEST PV SYSTEMS, INC.
 ♦SUNAMP POWER COMPANY
 ♦SUNELCO
 ♦SUNWATT CORPORATION
 ♦SUNWIZE ENERGY SYSTEMS
 ♦SYSTEMS RESEARCH GROUP, INC.
 ♦TECHNIART INC.
 ♦TIDELAND SIGNAL CORPORATION
 ♦UNITED SOLAR SYSTEMS CORPORATION (See also ECD)
 ♦UTILITY FREE, INC.
 ♦UTILITY POWER GROUP
 WIND BARON
 ♦WOODLAND ENERGY COMPANY

Foreign

♦ADVANCED ENERGY SYSTEMS PTY LTD
 AEG TECHNIQUE & INDUSTRIE
 ♦ALTECH TELECOMMS
 ANIT S.R.L.
 ♦BP SOLAR ARABIA
 ♦BP SOLAR AUSTRALIA PTY LTD
 ♦BP SOLAR ESPANA SA
 ♦BP SOLAR INDIA (TATAS)
 ♦BP THAI SOLAR CORPORATION
 ♦CENTRAL ELECTRONICS, LTD. (CEL)
 ♦CENTRONIX
 ♦CONDUMEX
 ♦DEUTSCHE AEROSPACE (formerly Telefunken
 Systemtechnik)
 ♦DULAS ENGINEERING LTD.
 ♦ECOSOLAR
 ENE S.A.
 ♦FLACHGLAS-SOLARTECHNIK GMBH
 FURUKAWA BATTERY COMPANY, LTD.
 ♦HELIODINAMICA
 HELIODYNAMI LTD
 ♦IBC Int'l Battery & Solar Power Co.
 ♦INTERTECHNOLOGY
 ISOFOTON S.A.

♦♦IT POWER LTD.
 ITALSOLAR S.P.A.
 ♦JAPAN STORAGE BATTERY CO., LTD.
 ♦KYOCERA CORPORATION
 ♦M.S.K. CORPORATION
 MATSUSHITA BATTERY
 MEIDENSHA CORPORATION
 NAPS FRANCE (formerly Chronar France)
 ♦NAPS INTERNATIONAL
 ♦NATIONAL LUNA
 ♦NIPPON ELECTRIC INDUSTRY CO., LTD.
 ♦NISSIN ELECTRIC COMPANY, LTD.
 ♦POWER & SUN PVT LTD
 ♦PT R&S
 ♦R&S RENEWABLE ENERGY SYSTEMS BV
 ♦RAJASTHAN ELECTRONICS & INSTRUMENTS (REIL)
 ♦RAPCO Remote Alternative Power Co.
 ♦RENEWABLE ENERGY SYSTEMS (RES) Pvt. Ltd.
 REONAC ENERGY SYSTEMS, INC.
 ♦SAIRAM SOLAR SYSTEMS PVT. LTD
 ♦SANYO ELECTRIC CO., LTD.
 SHARP CORPORATION - JAPAN
 ♦SOLAHART
 SOLAPAK LIMITED
 ♦SOLAR CELLS PTY LTD
 ♦SOLAR ENERGIE TECHNIK GMBH
 ♦SOLAR INDIA GROUP
 ♦SOLARCAN POWER CORPORATION
 SOLARCOM FRANCE SA
 ♦SOLARTEC/NEW WORLD Sociedad Anonima
 ♦SOLARTRONICS INTERNATIONAL LTD
 ♦SOLEMS S.A. Y DEV.
 SOLITE-LITE MANUFACTURING LTD
 ♦SOLTECH
 ♦SONEL POWER CORPORATION
 ♦SUN POWER SYSTEMS LTD
 ♦SUNNYSIDE SOLAR
 ♦SUNTRON ENERGY COMPANY
 SURYOONICS LIMITED (See also ECD)
 TONEN CORPORATION
 TOSHIBA CORPORATION
 YUASA CORPORATION

PUMPS & MOTORS*Domestic*

♦A.Y. MCDONALD MANUFACTURING COMPANY
 ♦APOLLO ENERGY SYSTEMS, INC.
 ♦APPLIED POWER (formerly Solar Engineering Services)
 ♦ATLANTIC SOLAR PRODUCTS, INC.
 BAKER MANUFACTURING COMPANY
 CANON USA, INC.
 CARVER PUMP COMPANY
 ♦CURRIN CORPORATION
 DART CONTROLS, INC.
 DAYTON ELECTRIC MANUFACTURING CO.
 ♦DINH SOLAR CO., INC. also Heat Pipe Technology, Inc.

SECTION II: PHOTOVOLTAIC PRODUCT-MANUFACTURER INDEX

...Pumps & Motors — Refrigeration...

EASTERN AIR DEVICES (EAD)
EG7G ROTRON
♦ENERGY PHOTOVOLTAICS, INC. (See EPV)
♦EPV (ENERGY PHOTOVOLTAICS, INC.) (formerly IDM)
FINISH THOMPSON, INC.
♦FISHER ELECTRIC MOTOR TECHNOLOGY, INC
FLOJET CORPORATION
GENERAL ELECTRIC
GENERAL MOTORS ELECTRIC VEHICLES
♦GEOSOLAR ENERGY SYSTEMS, INC. 12 Volt Catalog
GRUNDFOS PUMPS CORPORATION
HATHAWAY CORPORATION
HELIOTROPE GENERAL
HOMESTEAD ELECTRIC
♦HYDRASOL CORPORATION - USA
♦IVAN LABS INC.
JACUZZI BROTHERS (See Hydrasol for solar pumps)
JENSEN MANUFACTURING CO. INC.
JOHNSON CONTROLS
KOLLMORGEN INDUSTRIAL DRIVES
LAING THERMOTECH, INC.
LEESON ELECTRIC CORPORATION
LITTON POLY-SCIENTIFIC
MAGNETEK INC.
MARCH MANUFACTURING COMPANY
♦MCCOY INDUSTRIES, INC.
MILTON ROY COMPANY
MINNESOTA ELECTRIC TECHNOLOGY, INC. (MET, Inc.)
MONO GROUP, INC. (MGI)
PACIFIC SCIENTIFIC
PERMANENT MAGNET CO., INC.
PHOTOCOMM INC. - CA
♦PHOTOCOMM, INC.
POLAR POWER
PRICE PUMP COMPANY
PROCON PRODUCTS
♦PYRON, INC.
RECOVERY ENGINEERING, INC.
REULAND ELECTRIC MOTORS
SHURFLO
SIMPLER SOLAR SYSTEMS, INC.
♦SOLAR CONTRACTORS INC.
♦SOLAR ELECTRIC SPECIALTIES CO. (SES)
♦SOLAR ENGINEERING SERVICES (See Applied Power)
SOLARJACK
SOLATROL INCORPORATED
SOLECTRIA
♦SOLO POWER
♦SUNAMP POWER COMPANY
TACO, INC.
♦TOUCHSTONE TECHNOLOGY
TRUSTY WARNS
UNIQUE MOBILITY
UNITED TECHNOLOGIES MOTOR SYSTEMS, INC
VANTON PUMP & EQUIPMENT CORPORATION
♦WIND BARON
♦WINDY DANKOFF, PVSS

Foreign

♦BP SOLAR AUSTRALIA PTY LTD

♦BP SOLAR ESPANA SA
♦CANADIAN AGTECHNOLOGY PARTNERS (CAP)
CENTRAL ELECTRONICS, LTD. (CEL)
♦DEUTSCHE AEROSPACE
♦EBARA CORPORATION
♦EGYCEL
ENE S.A.
EPOS/PVI
EUROSOLARE S.R.L.
FLUXINOS ITALIA
♦GRUNDFOS A/S
♦HELIODINAMICA
HITACHI LTD
♦HYDRASOL CORPORATION
IBC Int'l Battery & Solar Power Co.
♦INTERTECHNOLOGY
ITALSOLAR S.P.A.
JAPAN STORAGE BATTERY CO., LTD.
♦KYOCERA CORPORATION
MATSUSHITA BATTERY
MEIDENSHA CORPORATION
MITSUBISHI ELECTRIC CORPORATION
MONO PUMPS LTD.
NAPS FRANCE (formerly Chronar France)
♦OMAN SOLAR SYSTEMS LLC. (OSS)
R&S RENEWABLE ENERGY SYSTEMS BV
RAJASTHAN ELECTRONICS & INSTRUMENTS (REIL)
♦RENEWABLE ENERGY SYSTEMS (RES) Pvt. Ltd.
♦SAIRAM SOLAR SYSTEMS PVT. LTD
♦SOLAR CELLS PTY LTD
♦SOLAR ELECTRIC INTERNATIONAL
♦SOLAR ENERGIE TECHNIK GMBH
SOLAR INDIA GROUP
♦SUNTRON ENERGY COMPANY
SUNTRONIC SOLAR-ELECTRONIC
TOTAL ENERGIE
TOTAL ENERGY DEVELOPMENT

REFRIGERATION

Domestic

APPLIED RESOURCES GROUP INC.
DANFOSS, INC.
♦DINH SOLAR CO., INC. also Heat Pipe Technology, Inc.
♦ENERGY PHOTOVOLTAICS, INC. (See EPV)
♦EPV (ENERGY PHOTOVOLTAICS, INC.) (formerly IDM)
FISHER ELECTRIC MOTOR TECHNOLOGY, INC.
GLOBAL THERMIONICS INC.
KENYON MARINE
NORCOLD
PHOTOCOMM INC. - CA
PHOTOCOMM, INC.
♦POLAR POWER
♦SOLAR CONVERSIONS
♦SOLAREX
SUNAMP POWER COMPANY
♦SUNFROST

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

Foreign

♦ADVANCED ENERGY SYSTEMS PTY LTD
 AUDIO-LIGHT A/S
 ♦BP SOLAR LTD.
 ♦CENTRAL ELECTRONICS, LTD. (CEL)
 ♦DULAS ENGINEERING LTD.
 ♦♦EGYCEL
 ♦ELECTROLUX (LUXEMBOURG)
 ♦FNMA-INGENIERIE - BELGIUM
 ♦HELIODINAMICA
 HITACHI LTD
 ♦HOXAN CORPORATION
 ITALSOLAR S.P.A.
 KOOLTRON CORP.
 KYOCERA CORPORATION
 MATSUSHITA BATTERY
 ♦NAPS INTERNATIONAL
 NATIONAL LUNA
 ♦R&S RENEWABLE ENERGY SYSTEMS BV
 SANYO ELECTRIC CO., LTD.
 ♦SOLAR ENERGIE TECHNIK GMBH
 SOLARCOM FRANCE SA
 SUNTRONIC SOLAR-ELECTRONIC
 TOTAL ENERGIE
 TOTAL ENERGY DEVELOPMENT

SOFTWARE**Domestic**

AMPLE POWER COMPANY
 F-CHART SOFTWARE
 FREDERICK A. COSTELLO, INC.
 INTEGRATED POWER CORPORATION (IPC)
 PHOTOVOLTAIC RESOURCES INTERNATIONAL
 PHOTRON, INC.
 SAFT NIFE, INC.
 SANDIA NATIONAL LABORATORIES
 SOLAR ENERGY LABORATORY

Foreign

ACUMULADORES MEXICANOS, S.A. DE C.V. (ACUMEX)
 DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
 FLACHGLAS-SOLARTECHNIK GMBH
 FURUKAWA BATTERY COMPANY, LTD.
 IBC Int'l Battery & Solar Power Co.
 SUN POWER SYSTEMS LTD

SPECIALTIES**Domestic**

♦♦ADVANCED ENERGY CONSTRUCTION (sailboat power)
 ♦ARIZONA INSTITUTE OF BIOELECTRONICS (novelties)
 ♦ASCENSION TECHNOLOGY, INC. (remote monitoring devices)

ATLANTIS ENERGY SYSTEMS
 ♦AUTOMATIC GATE SUPPLY CO. (gate opener)
 ♦C-RAN CORPORATION (water purification)
 ♦COBRA (radar detector)
 CURRIN CORPORATION (fan)
 DALE & ASSOCIATES
 ♦DANIEL FLOW PRODUCTS (computerized liquid flow measurement device)
 DIRECT POWER & WATER CORPORATION
 EARTH OPTIONS
 ELECTRA CRAFT
 ♦ELECTRIC LAUNCH COMPANY (ELCO) (boat)
 ♦♦ETA ENGINEERING (pool alarm)
 ♦FLOATRON, INC. (pool water purification)
 ♦GALLAGHER POWER FENCE (electric fence)
 ♦♦GEOSOLAR ENERGY SYSTEMS, INC. (fan)
 ♦GTO, INC. (gate opener)
 ♦HOMESTEAD ELECTRIC (fan)
 ♦INTEGRATED POWER CORPORATION (IPC) (oil/gas automation)
 LESTER ELECTRICAL OF NEBRASKA, INC.
 ♦♦LOS ALAMOS TECHNICAL ASSOC., INC. (water purification)
 ♦MCCOY INDUSTRIES, INC. (PV golf cart)
 ♦MICROTECH INTERNATIONAL, INC. (laptop computer power)
 ♦MIOX CORPORATION (water purification)
 OXI GENERATORS, INC. (water purification)
 ♦PARKER-MCCRORY MANUFACTURING CO. (electric fence)
 ♦PHOTOCOMM, INC. (irrigation, evaporative cooler, blender)
 ♦POWERLIGHT CORPORATION (bldg-integrated roof assembly)
 ♦PREMIER FENCE SYSTEM (electric fence)
 RENAISSANCE CARS, INC. (EV)
 RESEARCH PRODUCTS Blankenship
 ♦SANYO ENERGY CORPORATION (plane)
 ♦SHARP ELECTRONICS CORPORATION (calculator)
 ♦SOLAR 4 SYSTEMS (water purification)
 ♦SOLAR CAR CORPORATION (EV)
 ♦SOLAR CONVERSIONS (evaporative cooler for autos)
 ♦SOLAR ELECTRIC ENGINEERING, INC. (car, vent, fan)
 ♦SOLAR ELECTRIC SYSTEMS OF KANSAS CITY (irrigation)
 ♦SOLAR MUSIC INC. (music box)
 ♦SOLAR WORLD (novelties)
 ♦SOLARTHERM PRODUCTS (EV, boat)
 ♦SOLATROL INCORPORATED (irrigation control)
 ♦SOLEC INTERNATIONAL, INC. (car vent, music, cd player, tools, etc.)
 ♦SOLETRIA Electronics Division (EV)
 ♦SOLO POWER Division of Zomeworks (attic vent)
 SOPHISTICATED SYSTEMS
 ♦SUN-MATE CORPORATION RBM International (novelties)
 SUNAMP POWER COMPANY
 ♦SUNWIZE ENERGY SYSTEMS (boat)
 ♦TECHNIART INC. (novelties)
 ♦TEXAS HUNTER PRODUCTS (game feeder)
 ♦VEHMA INTERNATIONAL - USA (EV)
 ♦ZOMEWORKS CORPORATION (stock tank de-icer)

SECTION II: PHOTOVOLTAIC PRODUCT-MANUFACTURER INDEX

...Specialties — Support Structures — Trackers

Foreign

ATLANTIS ENERGY SYSTEM
♦AUTO-SOL GDBR (EV)
CENTRAL ELECTRONICS, LTD. (CEL)
EBARA CORPORATION (water purification)
♦ELECTROLYSER CORPORATION (PV->hydrogen)
♦HOXAN CORPORATION (car vent)
♦INSTRUMENT RESEARCH ASSOC. PVT. LTD. (data logger)
♦INTERSOLAR LTD. (fan, car vent)
KOOLTRON CORP.
♦KYOCERA CORPORATION (vent)
M.S.K. CORPORATION
♦♦MBB ENERGY & INDUSTRIAL TECHNOLOGY (sun roof)
♦OMAN SOLAR SYSTEMS LLC. (OSS) (desalinization)
♦PHOTOTRONICS SOLARTECHNIK GMBH (PST) (car vent, sun roof)
PT R&S
♦PV ELECTRIC GMBH Division of Siemens (sun roof)
♦R&S RENEWABLE ENERGY SYSTEMS BV
♦RAJASTHAN ELECTRONICS & INSTRUMENTS (REIL)
♦SAIRAM SOLAR SYSTEMS PVT. LTD. (PV educational kits)
SHARP CORPORATION - JAPAN
SOLTECH
SUNTRONIC SOLAR-ELECTRONIC
♦TEIJIN LTD. (novelties)
♦TEKNIKRAFT (insecticide sprayer)

SUPPORT STRUCTURES

Domestic

ADVANCED PHOTOVOLTAIC SYSTEMS, INC. (APS)
APPLIED POWER (formerly Solar Engineering Services)
BACKWOODS CABIN ELECTRIC SYSTEMS
DIRECT POWER & WATER CORPORATION
HELIOTROPE GENERAL
INTEGRATED POWER CORPORATION (IPC)
INTERNATIONAL ENERGY SYSTEMS CORP. (formerly Applied Energy Technology)
LEVELEG
MCCOY INDUSTRIES, INC.
MIDWAY LABS, INC.
PHOTOCOMM, INC.
PHOTRON, INC.
POWERLIGHT CORPORATION
RHINO RAK/RCF ENTERPRISES
ROBBINS ENGINEERING, INC.
SIEMENS SOLAR INDUSTRIES, INC.
SOLAR ENGINEERING SERVICES (See Applied Power)
SOLAREX
SOUTHWEST PV SYSTEMS, INC.
SUNAMP POWER COMPANY
SUNSEARCH Sunracks
ZOMEWORKS CORPORATION

Foreign

ACUMULADORES MEXICANOS, S.A. DE C.V. (ACUMEX)
ALTECH TELECOMMS
BP SOLAR ARABIA
BP SOLAR INDIA (TATAS)
BP THAI SOLAR CORPORATION
CENTRAL ELECTRONICS, LTD. (CEL)
CENTRONIX
DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
DULAS ENGINEERING LTD.
ECOSOLAR
FUJI SASH COMPANY, LTD.
FURUKAWA BATTERY COMPANY, LTD.
HELIODINAMICA
HELIOS TECHNOLOGY
IBC Int'l Battery & Solar Power Co.
KYOCERA CORPORATION
M.S.K. CORPORATION
MEIDENSHA CORPORATION
NATIONAL LUNA
PHOTOWATT INTERNATIONAL S.A.
PT R&S
RENEWABLE ENERGY SYSTEMS (RES) Pvt. Ltd.
SANYO ELECTRIC CO., LTD.
SHARP CORPORATION - JAPAN
SOLAPAK LIMITED
SOLAR CELLS PTY LTD
SOLAR ENERGIE TECHNIK GMBH
SOLARTEC/NEW WORLD Sociedad Anonima
SOLTECH
SONEL POWER CORPORATION
SUN POWER SYSTEMS LTD
SUNTRON ENERGY COMPANY
SVE SOLARENERGIE-VERTRIEBS-UND ENTWICKLUNGSGESELLSCHAFT MBH

TRACKERS

Domestic

APPLIED SOLAR ENERGY CORPORATION
EPPLEY LABORATORY
INTEGRATED POWER CORPORATION (IPC)
PEERLESS-WINSMITH, INC.
POWER KINETICS
PRIME MANUFACTURING INC.
ROBBINS ENGINEERING, INC.
SOLAR TECHNOLOGIES
UTILITY POWER GROUP
ZOMEWORKS CORPORATION

Foreign

RENEWABLE ENERGY SYSTEMS (RES) Pvt. Ltd.
SOLAR CELLS PTY LTD
SUN POWER SYSTEMS LTD
SUNTRON ENERGY COMPANY
SUNTRONIC SOLAR-ELECTRONIC

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

TRANSPORTATION*Domestic*

3M Traffic Control Materials Division
 3M OPTICS TECHNOLOGY DEVELOPMENT
 ♦ADDCO MANUFACTURING CO., INC.
 ♦ALBERS MANUFACTURING COMPANY, INC.
 ♦ALLMAND BROS., INC.
 APPLIED POWER (formerly Solar Engineering Services)
 APPLIED RESOURCES GROUP INC.
 ♦ATLANTIC SOLAR PRODUCTS, INC.
 ♦AUTOMATIC GATE SUPPLY CO.
 ♦BIGHORN VENTURES, LTD.
 ♦C-RAN CORPORATION
 ♦COMARCO
 ♦CONTROL SPECIALISTS COMPANY
 ♦CUBIC COMMUNICATIONS
 ♦DIGITAL RECORDERS, INC.
 E-MOTION
 EDWARDS
 ♦ELECTRO SOLAR PRODUCTS
 ♦ETA ENGINEERING
 FISHER ELECTRIC MOTOR TECHNOLOGY, INC.
 FLEXI-GUIDE
 GENERAL ELECTRIC
 GENERAL MOTORS ELECTRIC VEHICLES
 ♦GEOSOLAR ENERGY SYSTEMS, INC. 12 Volt Catalog
 HATHAWAY CORPORATION
 ♦HORIZON SIGNAL INC.
 ♦INTEGRATED POWER CORPORATION (IPC)
 ♦INTERNATIONAL SOLAR CONTROL SYSTEMS
 ♦INTERPLEX SOLAR
 JOHNSON CONTROLS
 KOLLMORGEN INDUSTRIAL DRIVES
 LAKE TECHNOLOGIES INC.
 MAGNETEK INC.
 ♦MCCOY INDUSTRIES, INC.
 ♦NORTHERN POWER SYSTEMS
 PACIFIC SCIENTIFIC
 ♦PATTERSON & ASSOC.
 ♦PHOTOCOMM, INC.
 PHOTRON, INC.
 POLAR POWER
 ♦PRECISION SOLAR CONTROLS, INC.
 ♦PROTECTION SERVICES, INC.
 ♦QUALITY REPAIR AND SERVICE TECHNOLOGY
 RENAISSANCE CARS, INC.
 REULAND ELECTRIC MOTORS
 ♦RGA, INC.
 ♦SERVICE & MATERIALS CO., INC.
 ♦SIMPLER SOLAR SYSTEMS, INC.
 ♦SOLAR CAR CORPORATION
 ♦SOLAR ELECTRIC ENGINEERING, INC.
 ♦SOLAR ELECTRIC SYSTEMS OF KANSAS CITY
 ♦SOLAR ENERGY RESEARCH CENTER
 ♦SOLAR ENGINEERING SERVICES (See Applied Power)
 ♦SOLAR OUTDOOR LIGHTING, INC.
 ♦SOLAR TEK
 ♦SOLARMAX CORPORATION

♦SOLEC INTERNATIONAL, INC.
 ♦SOLECTRIA Electronics Division
 SOLEQ CORPORATION
 ♦SOLO POWER
 ♦SOUTHWEST PV SYSTEMS, INC.
 SPECIALTY VEHICLE MANUFACTURING CORP.
 ♦STATE PAVING COMPANY
 SUNAMP POWER COMPANY
 ♦SUNWIZE ENERGY SYSTEMS
 ♦THE SEANAV CORPORATION
 THIN-LITE CORPORATION
 ♦TIDELAND SIGNAL CORPORATION
 ♦TRAFCON INDUSTRIES, INC.
 ♦TRANSLUMIN INTERNATIONAL
 ♦TRANTEX Transportation Products of Texas, Inc.
 ♦TRIGG INDUSTRIES, INC.
 UNIQUE MOBILITY
 UNITED TECHNOLOGIES MOTOR SYSTEMS, INC.
 ♦VEHMA INTERNATIONAL - USA
 ♦WANCO MANUFACTURING COMPANY
 WESTERN LIGHTING INDUSTRIES dba Orgatech Omegalux
 ♦WESTERN TRAFFIC CONTROL
 ♦WHELEN ENGINEERING COMPANY
 ♦WORK AREA PROTECTION CORPORATION

Foreign

♦ADVANCED ENERGY SYSTEMS PTY LTD
 ♦AUTO-SOL GDBR
 BP SOLAR AUSTRALIA PTY LTD
 BP SOLAR ESPANA SA
 ♦CENTRAL ELECTRONICS, LTD. (CEL)
 ♦ELECTROLYSER CORPORATION
 HOXAN CORPORATION
 ♦KYOCERA CORPORATION
 LFI/BESTEK GROUP, INC.
 ♦M.S.K. CORPORATION
 ♦NAPS INTERNATIONAL
 NATIONAL LUNA
 OMAN SOLAR SYSTEMS LLC. (OSS)
 ♦OPTITRON SOLAR
 PHOTOWATT INTERNATIONAL S.A.
 ♦R&S RENEWABLE ENERGY SYSTEMS BV
 ♦SAIRAM SOLAR SYSTEMS PVT. LTD
 ♦SHARP CORPORATION - JAPAN
 ♦SISTEMI ENERGETICI INTEGRATI (SEI)
 SOLITE-LITE MANUFACTURING LTD
 SUNTRONIC SOLAR-ELECTRONIC

**VOLTAGE REGULATORS/
CHARGE CONTROLLERS***Domestic*

ALTERNATIVE ENERGY ENGINEERING
 AMPLE POWER COMPANY
 ANANDA POWER TECHNOLOGIES, INC.
 APPLIED POWER (formerly Solar Engineering Services)
 BACKWOODS CABIN ELECTRIC SYSTEMS

SECTION II: PHOTOVOLTAIC PRODUCT-MANUFACTURER INDEX

...Voltage Regulators/Charge Controllers

BOBIER ELECTRONICS, INC. (Sun Selector)
CURRIN CORPORATION
CURTIS INSTRUMENTS, INC.
DIGITAL SOLAR TECHNOLOGIES
EPE/TOPAZ
GENERAL RESEARCH LABORATORIES
HELIOTROPE GENERAL
INTEGRATED POWER CORPORATION (IPC)
INTERNATIONAL ENERGY SYSTEMS CORP.
MCCOY INDUSTRIES, INC.
MORNINGSTAR CORPORATION
NORTHERN POWER SYSTEMS
ORION ENERGY
PHOTOCOMM, INC.
PHOTRON, INC.
POLAR POWER
PRECISION SOLAR CONTROLS, INC.
RV SOLAR ELECTRIC
SIEMENS SOLAR INDUSTRIES, INC.
SOLAR ELECTRIC SPECIALTIES CO. (SES)
SOLAR ENGINEERING SERVICES (See Applied Power)
SOLAREX
SOLEQ CORPORATION
SPECIALTY CONCEPTS, INC. (SCI)
SPECTRUM INTERNATIONAL
SUNAMP POWER COMPANY
TRACE ENGINEERING COMPANY
VERITEK

SOLARTEC/NEW WORLD Sociedad Anonima
SOLITE-LITE MANUFACTURING LTD
SUN POWER SOLARTECHNIK GMBH
SUN POWER SYSTEMS LTD
SUNTRON ENERGY COMPANY
SVE SOLARENERGIE-VERTRIEBS-UND
ENTWICKLUNGSGESELLSCHAFT MBH
YUASA CORPORATION

Foreign

ACUMULADORES MEXICANOS, S.A. DE C.V. (ACUMEX)
ADVANCED ENERGY SYSTEMS PTY LTD
ALTECH TELECOMMS
AUDIO-LIGHT A/S
AUSTRALIAN ENERGY RESEARCH LABS P/L
BP SOLAR ARABIA
BP SOLAR AUSTRALIA PTY LTD
BP SOLAR ESPANA SA
BP SOLAR INDIA (TATAS)
BP SOLAR LTD.
BP THAI SOLAR CORPORATION
CENTRAL ELECTRONICS, LTD. (CEL)
CENTRONIX
COMERCIO Y TECNOLOGIA INDUSTRIAL (CTI)
DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
DULAS ENGINEERING LTD.
ECOSOLAIRE
FURUKAWA BATTERY COMPANY, LTD.
HELIODINAMICA
HELIOS TECHNOLOGY
IBC Int'l Battery & Solar Power Co.
JAPAN STORAGE BATTERY CO., LTD.
MEIDENSHA CORPORATION
NAPS INTERNATIONAL HEAD OFFICE
NATIONAL LUNA
PHOTOWATT INTERNATIONAL S.A.
POWER & SUN PVT LTD
PT R&S
R&S RENEWABLE ENERGY SYSTEMS BV
RENEWABLE ENERGY SYSTEMS (RES) Pvt. Ltd.
REONAC ENERGY SYSTEMS, INC.
SIEMENS SOLAR GMBH
SOLAPAK LIMITED
SOLAR CELLS PTY LTD

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

Section III: Country-Manufacturer Index

ALGERIA

UDTS/HCR

ARGENTINA

SOLARTEC/NEW WORLD Sociedad Anonima

AUSTRALIA

ADVANCED ENERGY SYSTEMS PTY LTD
 AUSTRALIAN ENERGY RESEARCH LABS P/L
 BP SOLAR AUSTRALIA PTY LTD
 LISTER-PETTER AUSTRALIA PTY. LTD.
 POWER REFLEX PTY. LTD.
 SOLAHART
 SOLAR CELLS PTY LTD
 SOLARTRONICS INTERNATIONAL LTD
 SUNTRON ENERGY COMPANY
 UNISEARCH LIMITED

BELGIUM

ENE S.A.
 FNMA-INGENIERIE - BELGIUM
 PHOTON TECHNOLOGY
 SOLTECH

BRAZIL

BR SOLAR LTDA
 HELIODINAMICA

CANADA

CANADIAN AGTECHNOLOGY PARTNERS (CAP)
 ELECTROLYSER CORPORATION
 ENVIRONMENTAL BATTERY SYSTEMS
 KOOLTRON CORP.
 LFI/BESTEK GROUP, INC.
 MOLI ENERGY LIMITED
 REONAC ENERGY SYSTEMS, INC.
 SOLARCAN POWER CORPORATION
 SONEL POWER CORPORATION
 STATPOWER TECHNOLOGIES CORPORATION
 VEHMA INTERNATIONAL - CANADA

CHINA

GANSU GNERI PV COMPANY
 QINHUANGDAO HUA-MEI PV ELECTRONICS

CROATIA

KONCAR SOLAR CELLS
 MM TECHNICS LTD.

DENMARK

GRUNDFOS A/S

EGYPT

EGYCEL

ENGLAND

BP SOLAR LTD.
 CHRONAR LTD. (See EPV Ltd.)
 CRYSTALOX LTD. - ENGLAND
 ECOSOLAR
 INTERSOLAR LTD.
 IT POWER LTD.
 MONO PUMPS LTD.
 OXFORD APPLIED RES.
 SOLAPAK LIMITED

FINLAND

MICROCHEMISTRY LTD
 NAPS INTERNATIONAL
 NESTE ADVANCED POWER SYSTEMS (See Naps Int'l &
 Naps-France)

FRANCE

AEG TECHNIQUE & INDUSTRIE
 CHRONAR FRANCE (See Naps France)
 ECOSOLAIRE
 NAPS FRANCE (formerly Chronar France)
 PHOTEC S.A.
 PHOTOWATT INTERNATIONAL S.A.
 SERELIO (See Ecosolaire)
 SOLARCOM FRANCE SA
 SOLEMS S.A. Y DEV.
 SOUDAX EQUIPMENT

SECTION III: COUNTRY-MANUFACTURER INDEX

...France — Japan...

TOTAL CHIMIC
TOTAL ENERGIE
TOTAL ENERGY DEVELOPMENT

GERMANY

AIXTRON GMBH
ASE GMBH Angewandte Solarenergie
AUTO-SOL GDBR
BAYER AG
CARL BAASEL Lastertechnik Gmbh
DEHN + SOHNE ELECTROTECHNISCHE FABRIK
DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
DORNIER GMBH
FLACHGLAS-SOLARTECHNIK GMBH
HAGEN BATTERIE AG
HOPPECKE
HYDRASOL CORPORATION
IBC Int'l Battery & Solar Power Co.
MBB ENERGY & INDUSTRIAL TECHNOLOGY
NUKEM GMBH
PHOTOTRONICS SOLARTECHNIK GMBH (PST)
PV ELECTRIC GMBH
SIEMENS SOLAR GMBH
SOLAR ENERGIE TECHNIK GMBH
SONNENSCHNITT GMBH
SUN POWER SOLARTECHNIK GMBH
SUNTRONIC SOLAR-ELECTRONIC
SVE SOLARENERGIE-VERTRIEBS-UND
ENTWICKLUNGSGESELLSCHAFT MBH
TELEFUNKEN SYSTEMTECHNIK GMBH (See Deutsche
Aerospace)
THEBEN
TUV RHEINLAND
VARTA BATTERIE AG
WACKER CHEMITRONIC GMBH

GREECE

HELIODYNAMI LTD
MICROTECH HELLAS S.A.

HOLLAND

R&S RENEWABLE ENERGY SYSTEMS BV
SOLAR ELECTRIC LIGHT & POWER CO. BV (SEPL)
ZONTECHNOLOGY NETHERLANDS

HONG KONG

SOLITE-LITE MANUFACTURING LTD
SUN POWER SYSTEMS LTD

HUNGARY

EPOS/PVI

INDIA

BHEL (Bharat Heavy Electricals Limited)
BP SOLAR INDIA (TATAS)
CENTRAL ELECTRONICS, LTD. (CEL)
IMFA GROUP
IMPEX INDIA LTD
INDIAN METALS
INSTRUMENT RESEARCH ASSOC. PVT. LTD.
PENTAFOUR SOLEC TECHNOLOGY LTD.
RAJASTHAN ELECTRONICS & INSTRUMENTS (REIL)
RENEWABLE ENERGY SYSTEMS (RES) Pvt. Ltd.
SAIRAM SOLAR SYSTEMS PVT. LTD
SOLAR INDIA GROUP
SOLAR SILICON PVT
SOLID STATE ELECTRIC
SURYOVONICS LIMITED (See also ECD)
TEKNIKRAFT
UDHAYA SEMICONDUCTOR PVT. LTD.
VISTAR ELECTRONICS (P) LTD.

INDONESIA

CENTRONIX
PT R&S

ITALY

ANIT S.R.L.
ANSALDO SISTEMI INDUSTRIALI SPA
ELETTRORAVA SPA
EUROSOLARE S.R.L.
FLUXINOS ITALIA
HELIOS TECHNOLOGY
ITALSOLAR S.P.A.
SISTEMI ENERGETICI INTEGRATI (SEI)
TURBIN SUD SRL

JAPAN

DAICHI COMPANY LTD
EBARA CORPORATION
EKO INSTRUMENTS TRADING CO., LTD
FUJI ELECTRIC CO., LTD.
FUJI SASH COMPANY, LTD.
FURUKAWA BATTERY COMPANY, LTD.
HITACHI LTD
HOXAN CORPORATION
JAPAN STORAGE BATTERY CO., LTD.
KANEKA CORPORATION
KOMATSU LTD.
KYOCERA CORPORATION
M. SETEK COMPANY LTD.
M.S.K. CORPORATION
MATSUSHITA BATTERY
MEIDENSHA CORPORATION
MITSUBISHI ELECTRIC CORPORATION
MITSUI TOATSU CHEM.

MSETEC CO LTD
 NIPPON ELECTRIC INDUSTRY CO., LTD.
 NIPPON MINING CO.
 NIPPON SHEET GLASS
 NISSIN ELECTRIC COMPANY, LTD.
 SANYO ELECTRIC CO., LTD.
 SANYO ELECTRIC CO., LTD.
 SHARP CORPORATION - JAPAN
 SHOWA ARCO SOLAR KK
 SITIX (formerly Osaka Titanium - Sumimoto subs)
 SUMITOMO ELECTRIC
 TAIYO YUDEN CO. LTD.
 TDK CORPORATION R&D Center
 TEIJIN LTD.
 TONEN CORPORATION
 TOSHIBA CORPORATION
 YUASA CORPORATION

LUXEMBOURG

ELECTROLUX (LUXEMBOURG)

MALTA

SOLAR ELECTRIC INTERNATIONAL

MEXICO

ACUMULADORES MEXICANOS, S.A. DE C.V. (ACUMEX)
 COMERCIO Y TECNOLOGIA INDUSTRIAL (CTI)
 CONDUMEX

NORWAY

AUDIO-LIGHT A/S
 ELKEM A/S

OMAN

OMAN SOLAR SYSTEMS LLC. (OSS)

PAKISTAN

BALOCHISTAN SOLAR SYSTEMS PRIVATE LTD.
 PAKISTAN SOLAR POWER

PERU

CAPSA
 PIRELLI
 RAYO S.A.

RUSSIA

INTERTECHNOLOGY
 MOSCOW GENERAL IND
 SOVLUX

SAUDI ARABIA

BP SOLAR ARABIA

SOUTH AFRICA

ALTECH TELECOMMS
 HELIOS POWER
 NATIONAL LUNA
 OMNIPOWER TECHNOLOGIES (See Optitron Solar)
 OPTITRON SOLAR
 RAPCO
 WILLARD BATTERIES

SPAIN

BP SOLAR ESPANA SA
 ISOFOTON S.A.

SRI LANKA

POWER & SUN PVT LTD

SWEDEN

GPV GALLIVARE PHOTOVOLTAIC AB
 NIFE (See Saft Nife)

SWITZERLAND

ATLANTIS ENERGY SYSTEM
 HCT SHAPING SYSTEMS S.A.
 INVERTOMATIC SA
 PB TECHNIK
 SHAPING SYSTEMS

TAIWAN

SINONAR

THAILAND

BP THAI SOLAR CORPORATION

SECTION III: COUNTRY-MANUFACTURER INDEX

...USA...

USA

3M Traffic Control Materials Division
3M OPTICS TECHNOLOGY DEVELOPMENT
3T & ASSOCIATES, INC. (formerly 3T Tanakaya)
A.Y. MCDONALD MANUFACTURING COMPANY
ABACUS CONTROLS, INC
AC BATTERY CORPORATION
ACHEVAL WIND ELECTRONICS
ADDCO MANUFACTURING CO., INC.
ADVANCE TRANSFORMER CO.
ADVANCED ENERGY CONSTRUCTION
ADVANCED PHOTOVOLTAIC SYSTEMS, INC. (APS)
ADVANCED SILICON MATERIALS, INC.
AFG INDUSTRIES
ALASKA DIESEL ELECTRIC
ALBERS MANUFACTURING COMPANY, INC.
ALLMAND BROS., INC.
ALPAN INC.
ALPHA SOLARCO
ALTERNATIVE ENERGY ENGINEERING
AMERICAN ELECTRIC
AMERICAN POWER CONVERSION CORPORATION
AMERICAN SOLAR MANUFACTURING, INC.
AMOCO/ENRON SOLAR (See Solarex)
AMOCO/ENRON SOLAR POWER DEVELOPMENT
AMONIX, INC.
AMP, INC.
AMPLE POWER COMPANY
ANANDA POWER TECHNOLOGIES, INC.
ANSALDO SISTEMI INDUSTRIALI (US)
APOLLO ENERGY SYSTEMS, INC.
APPLETON ELECTRIC CO.
APPLIED POWER (formerly Solar Engineering Services)
APPLIED RESOURCES GROUP INC.
APPLIED SOLAR ENERGY CORPORATION
APPLIED TECHNICAL SYSTEMS
ARIZONA INSTITUTE OF BIOELECTRONICS
ASCENSION TECHNOLOGY, INC.
ASE AMERICAS, INC. (formerly Mobil Solar Energy)
ASTROPOWER INC.
ATLANTIC SOLAR PRODUCTS, INC.
ATLANTIS ENERGY SYSTEMS
AUTOMATIC GATE SUPPLY CO.
BACKWOODS CABIN ELECTRIC SYSTEMS
BAKER MANUFACTURING COMPANY
BASLER ELECTRIC
BATCON
BEST POWER TECHNOLOGY SALES CORP.
BETTER WAY PRODUCTS, INC.
BIGHORN VENTURES, LTD.
BOBIER ELECTRONICS, INC. (Sun Selector)
BOEING AEROSPACE
BTU INTERNATIONAL
C & D CHARTER POWER SYSTEMS
C-RAN CORPORATION
CAMPBELL SCIENTIFIC, INC.
CANON USA, INC.
CARRIZO SOLAR CORPORATION
CARVER PUMP COMPANY
CHLORIDE STANDBY BATTERIES
CHLORIDE SYSTEMS
COBRA
COMARCO
COMMAND ELECTRONICS, INC.
COMPTUS INC. (formerly Controlex)
CONTROL SPECIALISTS COMPANY
COURTAULDS (formerly Gila River)
CRUISING EQUIPMENT COMPANY
CRYSTAL SYSTEMS
CUBIC COMMUNICATIONS
CURRIN CORPORATION
CURTIS INSTRUMENTS, INC.
DALE & ASSOCIATES
DANFOSS, INC.
DANIEL FLOW PRODUCTS
DART CONTROLS, INC.
DAYTON ELECTRIC MANUFACTURING CO.
DELCO REMY
DIGITAL RECORDERS, INC.
DIGITAL SOLAR TECHNOLOGIES
DIMENSIONS UNLIMITED, INC.
DINH SOLAR CO., INC. also Heat Pipe Technology, Inc.
DIRECT GAIN
DIRECT POWER & WATER CORPORATION
DOUGLAS BATTERY MANUFACTURER
DYNAMOTE CORPORATION
DYTEK LABORATORIES
E-MOTION
EAGLE-PICHER INDUSTRIES, INC.
EARTH OPTIONS
EAST PENN MFG. CO., INC.
EASTERN AIR DEVICES (EAD)
EASTROCK MFG. & TECHNOLOGY, INC.
EBARA SOLAR, INC.
ECS (Energy Conservation Services)
EDWARDS
EG7G ROTRON
ELECTRA CRAFT
ELECTRIC LAUNCH COMPANY (ELCO)
ELECTRO SOLAR PRODUCTS
ELECTRODEX INC.
ELECTROSOURCE (Horizon Batteries)
ELGAR CORPORATION
ELKEM CHEMICAL AND ELECTRONICS
EMCORE CORPORATION
ENERGIZER POWER SYSTEMS
ENERGY CONSERVATION SERVICES (See ECS)
ENERGY CONVERSION DEVICES, INC.
ENERGY DEPOT (See Solar Depot)
ENERGY PHOTOVOLTAICS, INC. (See EPV)
ENTECH, INC.
EPE/TOPAZ
EPITAXY
EPPLEY LABORATORY
EPV (ENERGY PHOTOVOLTAICS, INC.) (formerly IDM, Inc.)
ETA ENGINEERING
EXELTECH
EXIDE CORPORATION
F-CHART SOFTWARE
FINISH THOMPSON, INC.

- FISHER ELECTRIC MOTOR TECHNOLOGY, INC.
 FLEXI-GUIDE
 FLOATRON, INC.
 FLOJET CORPORATION
 FOWLER SOLAR ELECTRIC
 FREDERICK A. COSTELLO, INC.
 FUJI ELECTRIC CORP. OF AMERICA
 GALLAGHER POWER FENCE
 GE LIGHTING
 GENERAL ELECTRIC
 GENERAL MOTORS ELECTRIC VEHICLES
 GENERAL RESEARCH LABORATORIES
 GEOSOLAR ENERGY SYSTEMS, INC. 12 Volt Catalog
 GLOBAL PHOTOVOLTAIC SPECIALISTS, INC.
 GLOBAL THERMIONICS INC.
 GNB INDUSTRIAL BATTERY CO.
 GOLDEN PHOTON (formerly Photon Energy)
 GP BATTERIES (formerly Quantum)
 GRUNDFOS PUMPS CORPORATION
 GT EQUIPMENT TECHNOLOGIES (GTi)
 GTO, INC.
 HAMAMATSU CORPORATION
 HARDING CONTROLLED ENERGY
 HARDING ENERGY SYSTEMS
 HARRIS HYDROELECTRIC SYSTEMS
 HATHAWAY CORPORATION
 HAWKER ENERGY PRODUCTS
 HEART INTERFACE CORPORATION
 HEINZ SOLAR
 HELIONETICS INC.
 HELIOTROPE GENERAL
 HOMESTEAD ELECTRIC
 HOPPECKE BATTERY SYSTEMS, INC.
 HORIZON SIGNAL INC.
 HYDRASOL CORPORATION - USA
 HYDROCAP CORPORATION
 INDEPENDENT POWER (See Photocomm Inc.)
 INDUSTRIAL BATTERY ENGINEERING, INC. (IBE)
 INTEGRATED POWER CORPORATION (IPC)
 INTERNATIONAL ENERGY SYSTEMS CORP. (formerly
 Applied Energy Technology)
 INTERNATIONAL SOLAR CONTROL SYSTEMS
 INTERPLEX SOLAR
 IOTA ENGINEERING COMPANY
 IOWA THIN FILM TECHNOLOGIES, INC.
 ISET (Int'l Solar Electric Technology)
 IVAN LABS INC.
 JACUZZI BROTHERS (See Hydrasol for solar pumps)
 JADE MOUNTAIN
 JENSEN MANUFACTURING CO. INC.
 JOHNSON CONTROLS
 JOHNSON CONTROLS, INC.
 KENYON MARINE
 KIPP & ZONEN
 KOLLMORGEN INDUSTRIAL DRIVES
 KOPIN CORPORATION
 KYOCERA AMERICA
 LAING THERMOTECH, INC.
 LAKE TECHNOLOGIES INC.
 LASHWAY INSTRUMENTS
 LEESON ELECTRIC CORPORATION
 LESTER ELECTRICAL OF NEBRASKA, INC.
 LEVELEG
 LIGHTING TECHNOLOGIES, INC.
 LITHIUM TECHNOLOGY CORP. (formerly Hope Technologies)
 LITTON POLY-SCIENTIFIC
 LOS ALAMOS TECHNICAL ASSOC., INC.
 LUMENITE ELECTRONIC COMPANY
 LUMINA RESOURCES CORPORATION
 LURALINE
 M. SETEK U.S.A. COMPANY
 MAGNARAY INTERNATIONAL
 MAGNETEK INC.
 MARCH MANUFACTURING COMPANY
 MARTIN MARIETTA
 MATERIALS RESEARCH GROUP, INC.
 MCCOY INDUSTRIES, INC.
 MICROTECH INTERNATIONAL, INC.
 MIDWAY LABS, INC.
 MIDWEST CONSERVATION SYSTEMS INC.
 MILTON ROY COMPANY
 MINNESOTA ELECTRIC TECHNOLOGY, INC. (MET, Inc.)
 MIOX CORPORATION
 MJM ENERGY INTERNATIONAL GROUP
 MOBIL SOLAR (See ASE Americas)
 MONO GROUP, INC. (MGI)
 MORNINGSTAR CORPORATION
 MVSYSTEMS, INC.
 NEW LIGHT ENERGY COMPANY
 NEW WORLD POWER CORPORATION
 NEWMAR
 NORCOLD
 NORTHERN POWER SYSTEMS
 NORTON BATTERY MANUFACTURING
 NRG LIGHTING INC.
 OMNION POWER ENGINEERING CORPORATION
 ONAN CORPORATION
 ORION ENERGY
 OSRAM CORPORATION
 OUTSIDE POWER TECHNOLOGIES
 OVONIC BATTERY COMPANY
 OXI GENERATORS, INC.
 PACIFIC INVERTER, INC.
 PACIFIC SCIENTIFIC Fischer-Pierce
 PACIFIC SCIENTIFIC
 PACIFIC WEST SUPPLY CO.
 PANDUIT CORPORATION
 PARKER-MCCRORY MANUFACTURING CO.
 PATTERSON & ASSOC.
 PAWLING CORPORATION
 PEERLESS-WINSMITH, INC.
 PERMANENT MAGNET CO., INC.
 PHILIPS LIGHTING COMPANY
 PHOTOCOMM INC. - CA
 PHOTOCOMM, INC.
 PHOTOELECTRIC, INC.
 PHOTON TECHNOLOGIES, INC.
 PHOTOVOLTAIC RESOURCES INTERNATIONAL
 PHOTRON, INC.
 POLAR POWER

SECTION III: COUNTRY-MANUFACTURER INDEX

...USA...

POWER KINETICS
POWER SONIC CORPORATION
POWERLIGHT CORPORATION
POWERSTAR PRODUCTS, INC.
PRECISION SOLAR CONTROLS, INC.
PREMIER FENCE SYSTEM
PRICE PUMP COMPANY
PRIME MANUFACTURING INC.
PRIMELITE MANUFACTURING CORPORATION
PROCON PRODUCTS
PROTECTION SERVICES, INC.
PYRON, INC.
QUALITY REPAIR AND SERVICE TECHNOLOGY
QUANTUM BATTERIES (See GP Batteries)
RADIONIC INDUSTRIES INC.
REAL GOODS TRADING COMPANY
RECOVERY ENGINEERING, INC.
REMOTE POWER INC.
RENAISSANCE CARS, INC.
RESEARCH PRODUCTS
REULAND ELECTRIC MOTORS
RGA, INC.
RHINO RAK/RCF ENTERPRISES
ROBBINS ENGINEERING, INC.
RV SOLAR ELECTRIC
SAFT NIFE, INC.
SANDIA NATIONAL LABORATORIES
SANYO ENERGY CORPORATION
SCIENTIFIC ENGINEERING (formerly Scientific Analysis)
SEA CORPORATION
SECO (Utility Power Group)
SEPCO (Solar Electric Power Co.)
SERVICE & MATERIALS CO., INC.
SHARP ELECTRONICS CORPORATION
SHURFLO
SIEMENS SOLAR INDUSTRIES, INC.
SILICON SENSORS INC.
SIMPLER SOLAR SYSTEMS, INC.
SMALL HYDROELECTRIC SYSTEMS & EQUIP.
SOLA ELECTRIC
SOLAR 4 SYSTEMS
SOLAR CAR CORPORATION
SOLAR CELLS, INC.
SOLAR CITY
SOLAR CONTRACTORS INC.
SOLAR CONVERSIONS
SOLAR DEPOT (aka Energy Depot)
SOLAR ELECTRIC ENGINEERING, INC.
SOLAR ELECTRIC OF SANTA BARBARA
SOLAR ELECTRIC SPECIALTIES CO. (SES)
SOLAR ELECTRIC SYSTEMS OF KANSAS CITY
SOLAR ENGINEERING SERVICES (See Applied Power)
SOLAR ENERGY APPLICATIONS (SEA)
SOLAR ENERGY LABORATORY
SOLAR ENERGY RESEARCH CENTER
SOLAR MUSIC INC.
SOLAR OUTDOOR LIGHTING, INC.
SOLAR TECHNOLOGIES
SOLAR TEK
SOLAR WORLD
SOLAREX Thin Film Division
SOLAREX
SOLARJACK
SOLARMAX CORPORATION
SOLARMETRICS, INC.
SOLARTHERM PRODUCTS
SOLATROL INCORPORATED
SOLEC INTERNATIONAL, INC.
SOLECTRIA
SOLEQ CORPORATION
SOLO POWER
SONNENSCHNEIN BATTERIES, INC. (See East Penn Mfg. Co.)
SOPHISTICATED SYSTEMS
SOUTHWEST PV SYSTEMS, INC.
SOUTHWEST REGION EXPERIMENT STATION
SOUTHWEST WINDPOWER (See Wind Baron)
SOVONICS SOLAR SYSTEMS (See United Solar Systems)
SPECIALTY CONCEPTS, INC. (SCI)
SPECIALTY VEHICLE MANUFACTURING CORP.
SPECTROLAB INC.
SPECTRUM INTERNATIONAL
SPIRE CORPORATION, INC. (SPI)
SUN SELECTOR (See Bobier Electronics)
SUN-MATE CORPORATION
SUNALEX CORPORATION
SUNAMP POWER COMPANY
SUNELCO
SUNFROST
SUNNYSIDE SOLAR
SUNPOWER CORPORATION
SUNSEARCH Sunracks
SUNWATT CORPORATION
SUNWIZE ENERGY SYSTEMS, INC.
SURRETTE AMERICA
SYSTEMS RESEARCH GROUP, INC.
TACO, INC.
TACTICAL FABRS, INC.
TAYTRONICS
TECHNIART INC.
TEKSOLR
TEXAS HUNTER PRODUCTS
TEXAS INSTRUMENTS, INC.
THE SEANAV CORPORATION
THIN-LITE CORPORATION
THOMAS & BETTS CORPORATION
TIDELAND SIGNAL CORPORATION
TOUCHSTONE TECHNOLOGY
TRACE ENGINEERING COMPANY
TRAFCON INDUSTRIES, INC.
TRANSLUMIN INTERNATIONAL
TRANTEX Transportation Products of Texas, Inc.
TRIGG INDUSTRIES, INC.
TRIPP-LITE
TROJAN BATTERY COMPANY
TRUSTY WARNS
U.S. BATTERY MANUFACTURING
UEDEC CORPORATION
UNIQUE MOBILITY
UNITED SOLAR SYSTEMS CORPORATION (See also ECD)
UNITED TECHNOLOGIES MOTOR SYSTEMS, INC

UNIVERSAL ENERGY CONTROL, INC. (UNENCO)
UTILITY FREE, INC.
UTILITY POWER GROUP
VANNER, INC.
VANTON PUMP & EQUIPMENT CORPORATION
VARIAN ASSOCIATES
VAW OF AMERICA, INC.
VEHMA INTERNATIONAL - USA
VERITEK
VOLTAIX, INC.
WACKER SILTRONIC
WANCO MANUFACTURING COMPANY
WESTEC SYSTEMS
WESTERN LIGHTING INDUSTRIES dba Orgatech Omegalux
WESTERN TRAFFIC CONTROL
WESTINGHOUSE ELECTRIC CORPORATION
WHELEN ENGINEERING COMPANY
WIDE-LITE
WIND BARON
WINDY DANKOFF, PVSS
WOODLAND ENERGY COMPANY
WORK AREA PROTECTION CORPORATION
YUASA BATTERY (AMERICA) INC.
ZOMEWORKS CORPORATION

VENEZUELA

VENERGIA

WALES

DULAS ENGINEERING LTD.

ZIMBABWE

SOLARCOMM

3M — Alpha Solarco

Section IV: Domestic Manufacturers

3M Traffic Control Materials Division
3M Center, 223-3N-01
St. Paul, MN 55144-1000, USA
Ph: Fax:
PV Products: Lighting □ Transportation

3M OPTICS TECHNOLOGY DEVELOPMENT
Division of MMM Corporation
3M Center, 225-2N-06
St. Paul, MN 55144-1000, USA
Ph: 612-733-1110 Fax: 612-736-3893
Best contact: Paul Jaster
PV Products: Concentrators □ Transportation

3T & ASSOCIATES, INC.
(formerly 3T Tanakaya)
550 N. Brand Blvd., Suite 1940
Glendale, CA 91203, USA
Ph: 818-507-9777 Fax: 818-507-0171
Best contact: Hiro Ambill, Sales Manager
PV Products: PV: Components

A.Y. MCDONALD MANUFACTURING COMPANY
4800 Chavenelle Road
PO Box 508
Dubuque, IA 52004-0508, USA
Ph: 319-583-7311 Fax: 319-588-0720
Telex: 43-9020 AYMCD DUQU
Best contact: John D. Eckel, Manager, Energy Products
PV Products: ♦Pumps & Motors

ABACUS CONTROLS, INC
80 Readinton Road
Somerville, NJ 08876-6010, USA
Ph: 908-526-6010 Fax: 908-526-6866
Best contact: George A. O'Sullivan, President
PV Products: Inverters & Power Conditioners

AC BATTERY CORPORATION
2010 Energy Drive
P.O. Box 325
East Troy, WI 53120, USA
Ph: 414-642-7416 Fax: 414-642-7760
Best contact: Robert J. Flemming, President/CEO
PV Products: Batteries

ACHEVAL WIND ELECTRONICS
P.O. Box 127
Lowell, MA 01853, USA
Ph: 508-453-0874 Fax:
Best contact: Don Bingley
PV Products: Inverters & Power Conditioners

ADDCO MANUFACTURING CO., INC.
69 Empire Drive
St. Paul, MN 55103-1856, USA
Ph: 612-224-8800 Fax: 612-224-1411
PV Products: ♦♦Transportation

ADVANCE TRANSFORMER CO.
10275 West Higgins Road
Rosemont, IL 60018, USA
Ph: 708-390-5000 Fax: 708-390-5109
Best contact: Ronald F. Remley
PV Products: Lighting

ADVANCED ENERGY CONSTRUCTION
20505 US Highway 19
Suite 12
Clearwater, FL 34624, USA
Ph: 813-449-2509 Fax: 813-791-48
Best contact: David Oldack
PV Products: ♦♦Specialties (sailboat power)

ADVANCED PHOTOVOLTAIC SYSTEMS, INC. (APS)
P.O. Box 7093
Princeton, NJ 08543-7093, USA
Ph: 609-275-5000 Fax: 609-275-0599
Best contact: Chris Lynch
PV Products: ♦Cathodic Protection □ ♦Communications □ Inverters & Power Conditioners □ ♦Lighting □ Misc. □ ♦Power System □ Support Structures □ PV: Mfr cells & modules, components [A-SI]

ADVANCED PHOTOVOLTAIC SYSTEMS, INC. (APS)
150 Tehama Court
San Bruno, CA 94066, USA
Ph: 415-871-2275 Fax: 415-871-2279
Best contact: Dan Shugar, V.P. Sales
PV Products: Inverters & Power Conditioners □ ♦Lighting □ Misc. □ ♦Power System □ Support Structures □ PV: Mfr cells & modules, components [A-SI]

ADVANCED SILICON MATERIALS, INC.
P.O. Box 720
Washougal, WA 98671, USA
Ph: 206-835-9856 Fax:
Best contact: Jan Maurits
PV Products: PV: Components

AFG INDUSTRIES
P.O. Box 929
Kingsport, TN 37662, USA
Ph: 615-229-7200 Fax: 615-229-7459
Best contact: Dick Orton, Sr. Tech Services Eng.
PV Products: Misc. □ PV: Components

ALASKA DIESEL ELECTRIC
4420 14th Ave., NW
PO Box 70543
Seattle, WA 98107-0543, USA
Ph: 206-789-3880 Fax: 206-782-5455
Telex: 32-0145
PV Products: Hybrid Systems/ Generators

ALBERS MANUFACTURING COMPANY, INC.
85 North Central Drive
O'Fallon, MO 63366-2338, USA
Ph: 314-272-1220 Fax: 314-272-1440
Best contact: Rolf G. Albers
PV Products: ♦Transportation

ALLMAND BROS., INC.
P.O. Box 546
Holdrege, NE 68949, USA
Ph: 308-995-4495 Fax:
Best contact: Steve Allmand, Vice President
PV Products: ♦Transportation

ALPAN INC.
547-A Constitution Avenue
Camarillo, CA 93012, USA
Ph: 805-383-8880 Fax: 805-383-8890
Best contact: Phil Lerch, V.P. Sales & Marketing
PV Products: ♦Lighting

ALPHA SOLARCO
11534 Gondola Drive
Cincinnati, OH 45241, USA
Ph: 513-771-1690 Fax: 513-771-5902
Best contact: Ed Schmidt, President
PV Products: Concentrators □ PV: Assemble modules [SC-SI concentrator]

♦Complete PV system package available; may also supply system components.

♦♦Custom PV systems only (vs. standard package); may also supply system components.

**ALTERNATIVE ENERGY
ENGINEERING**

PO Box 339
Redway, CA 95560, USA
Ph: 707-923-2277 Fax: 707-923-3009
Best contact: Dave Katz
PV Products: Voltage Regulators/ Charge
Controllers

AMERICAN ELECTRIC

1555 Lynnfield Road
Memphis, TN 38119, USA
Ph: 901-682-7766 Fax:
PV Products: Lighting

**AMERICAN POWER CONVERSION
CORPORATION**

267 Boston Road #2
Billerica, MA 01862, USA
Ph: 508-670-2440 Fax: 508-670-2380
Best contact: Manny Lanman
PV Products: Inverters & Power
Conditioners

**AMERICAN SOLAR
MANUFACTURING, INC.**

7882 East Gray Road
Suite 1
Scottsdale, AZ 85260, USA
Ph: 602-951-9330 Fax: 601-951-5070
Best contact: James A. Chaney, President
PV Products: ♦ Power System □ PV:
Assemble modules, mfrg equipment
[SC-SI, PC-SI]

**AMOCO/ENRON SOLAR (See
Solarex)****AMOCO/ENRON SOLAR POWER
DEVELOPMENT Division of**

Amoco/Enron Solar
1400 Smith Street
P.O. Box 1188
Houston, TX 77251-1188, USA
Ph: 713-853-7494 Fax: 713-646-8870
Best contact: Robert C. Kelly, CEO
PV Products:

AMONIX, INC.

3425 Fujita Street
Torrance, CA 90505, USA
Ph: 310-325-8091 Fax: 310-325-0771
Best contact: Vahan Garboushian,
President
PV Products: Concentrators □ ♦ Power
System □ PV: Cell R&D

AMP, INC.

P.O. Box 3608
Harrisburg, PA 17105, USA
Ph: 800-367-8267 Fax:
PV Products: Electrical/Hardware

AMPLE POWER COMPANY

1150 NW 52nd Street
Seattle, WA 98107, USA
Ph: 800-541-7789 Fax: 206-789-9003
Best contact: Emil Riccardi
PV Products: Hybrid Systems/ Generators
□ Meters, Instrumentation & Controls □
Power System □ Software □ Voltage
Regulators/Charge Controllers

**ANANDA POWER TECHNOLOGIES,
INC.**

14618 Tyler Foote Road
Nevada City, CA 95959, USA
Ph: 916-292-3834 Fax: 916-292-3330
Best contact: Jeff Rice, Marketing
Director
PV Products: Batteries □ Electrical/ •
Hardware □ Meters, Instrumentation &
Controls □ Misc. □ Voltage Regulators/
Charge Controllers

**ANSALDO SISTEMI INDUSTRIALI
(US)**

1600 Rt. 22 East, 2nd Floor
Union, NJ 07083, USA
Ph: 908-771-7410 Fax:
Best contact: Sandra Larosa
PV Products: PV [SC-SI]

APOLLO ENERGY SYSTEMS, INC.

200 Louise Street
P.O. Box 238
Navasota, TX 77868-0238, USA
Ph: 800-535-8588 Fax: 409-825-2625
Best contact: Tom Rocket, General
Manager
PV Products: ♦ Communications □
♦♦ Pumps & Motors

APPLETON ELECTRIC CO.

1701 West Wellington Avenue
Chicago, IL 60657, USA
Ph: 312-327-7200 Fax: 312-975-6349
Best contact: Michael Lynch
PV Products: Lighting

APPLIED POWER

(formerly Solar Engineering Services)
1210 Homann Drive SE
Lacey, WA 98503, USA
Ph: 206-438-2110 Fax: 206-438-2115
Telex: 288860 SES UR
Best contact: Tim Ball
PV Products: ♦ Communications □
♦ Hybrid Systems/Generators □ ♦ Lighting □
Meters, Instrumentation & Controls □
♦ Power System □ ♦ Pumps & Motors □
Support Structures □ Transportation □
Voltage Regulators/Charge Controllers

APPLIED RESOURCES GROUP INC.

37 Harvard Street
Brookline, MA 02146, USA
Ph: 617-277-2102 Fax: 617-277-2421
Best contact: Richard T. d'Aquanni, P.E.
PV Products: Communications □ Lighting
□ Power System □ Refrigeration □
Transportation

**APPLIED SOLAR ENERGY
CORPORATION**

15251 E. Don Julian Road
P.O. Box 1212
City of Industry, CA 91749, USA
Ph: 818-968-6581 Fax: 818-336-8694
Telex: 910-584-4890
Best contact: Dave Kozak
PV Products: Concentrators □ Trackers □
PV: Mfr cells/raw materials [GA-AS]

APPLIED TECHNICAL SYSTEMS

P.O. Box 8670
Shreveport, LA 71148-8670, USA
Ph: 318-868-7413 Fax:
Best contact: Jim Reccelli, Marketing
PV Products: Meters, Instrumentation &
Controls

**ARIZONA INSTITUTE OF
BIOELECTRONICS**

13627 North 18th Drive
Phoenix, AZ 85029, USA
Ph: 602-993-6360 Fax:
Best contact: Dave L. Carey
PV Products: ♦ Specialties (novelties)

ASCENSION TECHNOLOGY, INC.

P.O. Box 314
Lincoln Center, MA 01773, USA
Ph: 617-890-8844 Fax: 617-890-2050
Best contact: Miles Russell
PV Products: ♦♦ Specialties (remote
monitoring/metering devices)

SECTION IV: DOMESTIC MANUFACTURERS

ASE Americas — Chloride Standby Batteries

ASE AMERICAS, INC.

(formerly Mobil Solar Energy)
4 Suburban Park Drive
Billerica, MA 01821-3980, USA
Ph: 800-977-0777 x266
Fax: 508-663-2868

Best contact: Evelyn Bennett, Marketing & Sales

PV Products: ♦Power System □ PV: Mfr cells & modules [PC-SI-SHEET]

ASTROPOWER INC.

Solar Park
Newark, DE 19716-2000, USA
Ph: 302-366-0400 Fax: 302-368-6474
Telex: 205854 ASTRO UR

Best contact: Philip J. Leach, Director, Mktg & Sales

PV Products: Concentrators □ PV: Mfr cells & modules, services, mfrg equipment [PC-SI (THIN FILM), SC-SI, GA-AS]

ATLANTIC SOLAR PRODUCTS, INC.

9351-J Philadelphia Road
PO Box 70060
Baltimore, MD 21237-4114, USA
Ph: 410-686-2500 Fax: 410-686-6221

Best contact: Doug Keller, V.P.

PV Products: ♦♦Communications □
♦Hybrid Systems/Generators □ ♦♦Lighting
□ ♦♦Power System □ ♦♦Pumping □
♦Transportation

ATLANTIS ENERGY SYSTEMS

7700 College Town Drive, Suite 210
Sacramento, CA 95826, USA
Ph: 916-381-1177 Fax: 916-381-7732

Best contact: Jim Walker

PV Products: Specialties □ PV:
Assemble modules [SC-SI, PC-SI]

AUTOMATIC GATE SUPPLY CO.

16521 Saticoy Street
Van Nuys, CA 91406, USA
Ph: 800-423-3090 Fax: 818-994-4217

Best contact: Keith Naber, Manager

PV Products: ♦Specialties (gate opener)
□ ♦Transportation

BACKWOODS CABIN ELECTRIC SYSTEMS

8530 Rapid Lightning Creek Rd.
Sandpoint, ID 83864, USA
Ph: 208-263-4290 Fax:

PV Products: Meters, Instrumentation & Controls □ Support Structures □ Voltage Regulators/Charge Controllers

BAKER MANUFACTURING COMPANY

133 Enterprise Street
Evansville, WI 53536-1497, USA
Ph: 608-882-5100 Fax: 608-882-6776

Best contact: Dennis Atkinson, Sales

PV Products: Pumps & Motors

BASLER ELECTRIC

Box 269
Highland, IL 62249, USA
Ph: 618-654-2341 Fax: 618-654-2351
Telex: 510-100-3841

PV Products: Meters, Instrumentation & Controls

BATCON

107 South Avenue
Fort Walton Beach, FL 32547, USA
Ph: 904-863-8828 Fax: 904-862-7815

Best contact: Roland Nordlie

PV Products: Meters, Instrumentation & Controls

BEST POWER TECHNOLOGY SALES CORP.

P.O. Box 11
Necedah, WI 54646, USA
Ph: 800-356-5794 Fax: 608-565-2221
Telex: 701934 BESTPOWERUD

PV Products: Inverters & Power Conditioners

BETTER WAY PRODUCTS, INC.

71913 C.R. 23
New Paris, IN 46553, USA
Ph: 219-831-3340 Fax: 219-831-3611

Best contact: Roger Korenstra

PV Products: Batteries

BIGHORN VENTURES, LTD.

222 East Main Street, Suite 300
Bozeman, MT 59715, USA
Ph: 406-586-9765 Fax:

Best contact: Steven Wood

PV Products: ♦♦Transportation

BOBIER ELECTRONICS, INC.

(Sun Selector)
3701 Murdoch Ave.
Parkersburg, WV 26101, USA
Ph: 304-485-6303 Fax: 304-422-3931

Best contact: Robert Bobier, President

PV Products: Voltage Regulators/ Charge Controllers

BOEING AEROSPACE

Seattle, WA, USA
PV Products: PV: Mfr cells/raw materials [THIN FILM]

BTU INTERNATIONAL

23 Esquire Road
North Billerica, MA 01862, USA
Ph: 508-667-4111 Fax: 508-667-9068
PV Products: PV: Mfrg equipment

C & D CHARTER POWER SYSTEMS

3043 Walton Road
Plymouth Meeting, PA 19462, USA
Ph: 215-828-9000 Fax: 215-834-7306
Telex: 6851059 CD BAT UW
PV Products: Batteries

C-RAN CORPORATION

699 4th Street, NW
Largo, FL 34640-2439, USA
Ph: 813-585-3850 Fax: 813-586-1777

Best contact: Mark A. Rose

PV Products: ♦♦Communications □
♦Lighting □ ♦Power System □ ♦Specialties (mobile water purification) □
♦Transportation

CAMPBELL SCIENTIFIC, INC.

Industrial Group
815 W. 1800 North
Logan, UT 84321-1784, USA
Ph: 801-753-2342 Fax: 801-752-3268
Telex: 453058

PV Products: Meters, Instrumentation & Controls

CANON USA, INC.

Components Division
One Canon Plaza
Lake Success, NY 11042, USA
Ph: 516-488-6700 Fax: 516-354-1114
PV Products: Pumps & Motors

CARRIZO SOLAR CORPORATION

1320 12th Street
Albuquerque, NM 87104, USA
Ph: 505-764-0345 Fax: 505-242-7684
Best contact: Mike Elliston, President
PV Products: ♦Power System

CARVER PUMP COMPANY

2415 Park Avenue
P.O. Box 389
Muscatine, IA 52761, USA
Ph: 319-263-3410 Fax: 319-263-4565
Best contact: Dean Young
PV Products: Pumps & Motors

CHLORIDE STANDBY BATTERIES

P.O. Box 492
North Haven, CT 06473, USA
Ph: 203-777-0037 Fax: 203-773-1010
PV Products: Batteries

*Complete PV system package available; may also supply system components.

♦♦Custom PV systems only (vs. standard package); may also supply system components.

CHLORIDE SYSTEMS**Emergency Light Division**

126 Chloride Road
Burgaw, NC 28425, USA
Ph: 919-259-1000
Fax: 919-259-1148/1149

PV Products: Inverters & Power
Conditioners □ Lighting

COBRA

480-T Vandell Way
Campbell, CA 95008-6908, USA
Ph: 408-559-9131 Fax:

PV Products: *Specialties (radar detector)

COMARCO

South Old Springs Road
Anaheim, CA 92808-1299, USA
Ph: 714-921-0672 Fax:

Best contact: Rob Wattenberg, Quality
Assurance Manager

PV Products: *Transportation

COMMAND ELECTRONICS, INC.

11811 Saver Road
Schoolcraft, MI 49087, USA
Ph: 616-679-4011 Fax: 616-679-5410

Best contact: Cary Campagna, Vice
President, Mfrg

PV Products: Lighting

COMPTUS INC.

(formerly Controlex)

342 Lyndeboro Road
New Boston, NH 03070, USA
Ph: 603-487-5512 Fax: 603-487-5513
Telex: 2106217827IPSHARPTOR

Best contact: Pat Butler

PV Products: Meters, Instrumentation &
Controls

**CONTROL SPECIALISTS
COMPANY**

3423 All American Blvd.
Orlando, FL 32810, USA
Ph: 407-295-7920 Fax: 407-297-5835

Best contact: Virgil Nazworth

PV Products: *Transportation

**COURTAULDS (formerly Gila River)
Industrial Products Group**

6615 W. Boston Street
Chandler, AZ 85226, USA
Ph: 602-961-1651 Fax: 602-961-3220

Best contact: Jane Palmer

PV Products: Misc. □ PV: Components

CRUISING EQUIPMENT COMPANY

6315 Seaview Avenue NW
Seattle, WA 98107, USA
Ph: 206-782-8100 Fax: 206-782-4336
PV Products: Meters, Instrumentation &
Controls

CRYSTAL SYSTEMS

Shetland Industrial Park
27 Congress Street
Salem, MA 01970, USA
Ph: 508-745-0088 Fax: 508-744-5059
Telex: TWX710-347-1523

Best contact: Frederick Schmid, President

PV Products: PV: Components [SC-SI,
PC-SI (MULTICRYSTALLINE INGOT
& WAFERS)]

CUBIC COMMUNICATIONS

P.O. Box 85587
San Diego, CA 92186-5587, USA
Ph: 619-277-6780 Fax:

Best contact: Thayne M. Folkman

PV Products: Communications □
*Transportation

CURRIN CORPORATION

5307 Sturgeon Avenue
PO Box 1191
Midland, MI 48641-1191, USA
Ph: 517-835-7387 Fax: 517-835-7395
Telex: 271203 CURRN UR

Best contact: Cedric G. Currin, President

PV Products: *Lighting □ *Power System
□ *Pumps & Motors □ *Specialties (fan) □
Voltage Regulators/Charge Controllers

CURTIS INSTRUMENTS, INC.

200 Kisco Avenue
Mt. Kisco, NY 10549, USA
Ph: 914-666-2971 Fax: 914-666-2188
Telex: 710-571-2163

PV Products: Inverters & Power
Conditioners □ Meters, Instrumentation &
Controls □ Voltage Regulators/Charge
Controllers

DALE & ASSOCIATES

2221 Advance Dr.
Beloit, WI 53511, USA
Ph: 608-362-1495 Fax:

PV Products: Specialties

DANFOSS, INC.

16 McKee Drive
Mahwah, NJ 07430, USA
Ph: 201-529-4900 Fax: 201-529-9346
Telex: 642414-

Best contact: Stephen M. Madigan, Sales
& Marketing Manager

PV Products: Refrigeration

DANIEL FLOW PRODUCTS

Electronics Division
9753 Pine Lake Drive
P.O. Box 55435
Houston, TX 77255, USA
Ph: 713-827-5177 Fax: 713-827-3887
Telex: 311653 DAN HOU IND

Best contact: Lew Fontaine, Application
Specialist

PV Products: Meters, Instrumentation &
Controls □ *Specialties (computerized
liquid flow measurement device)

DART CONTROLS, INC.

5000 West 106th Street
Zionsville, IN 46077, USA
Ph: 317-873-5211 Fax: 317-873-1105

Best contact: Pete Hawryluk, Director of
Marketing

PV Products: Pumps & Motors

**DAYTON ELECTRIC
MANUFACTURING CO.**

5959 W. Howard Street
Niles, IL 60648, USA
Ph: 708-647-0124 Fax: 708-647-6995

PV Products: Pumps & Motors

DELCO REMY

Division of General Motors

2401 Columbus Ave.
P.O. Box 2439
Anderson, IN 46018-9986, USA
Ph: 317-646-2063 Fax:

Best contact: Robert Ryder

PV Products: Batteries □ Inverters &
Power Conditioners

DIGITAL RECORDERS, INC.

4900 Prospectus Drive #1000
P.O. Box 14068
Research Triangle Park, NC 27709-4068,
USA

Ph: 800-222-9583 Fax: 919-361-2947

Best contact: Joanne Duncan Alpiser

PV Products: *Communications □
*Transportation

SECTION IV: DOMESTIC MANUFACTURERS

Digital Solar Technologies — Electrosorce

DIGITAL SOLAR TECHNOLOGIES

5765 Arapaho Ave.
Boulder, CO 80303, USA
Ph: 303-442-6553 Fax: 303-442-6555
Best contact: Dan Pringle, President
PV Products: Voltage Regulators/ Charge
Controllers

DIMENSIONS UNLIMITED, INC.

1800 Buerkle Road
St. Paul, MN 55110, USA
Ph: 800-553-6418 Fax: 612-770-0847
Best contact: Doug Blanchard, Sales
PV Products: Inverters & Power
Conditioners

DINH SOLAR CO., INC.

(aka Heat Pipe Technology, Inc.)
803 N.E. 1 St.
P.O. Box 999
Alachua, FL 32615, USA
Ph: 904-462-3464 Fax: 904-462-2041
Best contact: Khanh Dinh
PV Products: Inverters & Power
Conditioners □ Power System □ Pumps
& Motors □ Refrigeration □ PV: Mfr
cells/raw materials, components [PC-SI]

DIRECT GAIN

23 Coxing Road
Cottekill, NY 12419, USA
Ph: 914-687-2406 Fax: 914-687-2408
Best contact: Rick Lewandowski, Pres.
PV Products: PV: Assemble modules

DIRECT POWER & WATER CORP.

3455-A Princeton Northeast
Albuquerque, NM 87107, USA
Ph: 505-889-3585 Fax: 505-889-3548
Best contact: Jeffrey J. Randall
PV Products: Batteries □ Specialties □
Support Structures

DOUGLAS BATTERY MFR

P.O. Box 12159
Winston Salem, NC 27107, USA
Ph: 800-368-4527 Fax: 919-650-7057
Best contact: Ed Kronberg, Prg Mgr.
PV Products: Batteries

DYNAMOTE CORPORATION

1200 W. Nickerson
Seattle, WA 98119, USA
Ph: 206-282-1000 Fax: 206-283-7714
Telex: 503732 DYNNAH SEATTLE
Best contact: Stephen O. Handley, Pres.
PV Products: Inverters & Power
Conditioners

DYTEK LABORATORIES

165 Keyland Ct.
Bohemia, NY 11716, USA
Ph: 516-589-9030 Fax: 516-589-3907
PV Products: Inverters & Power
Conditioners

E-MOTION

P.O. Box 556
7025 Riverside Drive
McMinnville, OR 97128-0556, USA
Ph: 503-434-4332 Fax: 503-434-1518
Best contact: Lon Gillas, Proprietor
PV Products: Battery assembly □
Transportation

EAGLE-PICHER INDUSTRIES, INC.

P.O. Box 130
Seneca, MO 64865, USA
Ph: 417-776-2256 Fax: 417-776-2257
Telex: TWX 910-774-4533
PV Products: Batteries

EARTH OPTIONS

6930 McKinley Street
Sebastopol, CA 95472, USA
Ph: 707-829-4550 Fax:
Best contact: Alan Lindsley, Manager
PV Products: Power System □
Specialties

EAST PENN MFG. CO., INC.

Deka Road
Lyon Station, PA 19536, USA
Ph: 215-682-6361 Fax: 215-682-4781
Best contact: Clyde Elium, V.P.
PV Products: Batteries

EASTERN AIR DEVICES (EAD)

1 Progress Drive
Dover, NH 03820, USA
Ph: 603-742-3330 Fax: 603-742-9080
Telex: 510-297-4454
PV Products: Pumps & Motors

EASTROCK MFG. & TECH. INC.

P.O. Box 769
Hackettstown, NJ 07840, USA
Ph: 201-852-0826 Fax: 201-852-2816
PV Products: Lighting

EBARA SOLAR, INC.

(formerly Blue Ridge Ind. Dev. Group)
811 Route 51 South
Large, PA 15025, USA
Best contact: Richard Rosey, President
Ph: 412-382-1250 Fax: 412-382-1251
PV Products: PV: Mfr cells & modules
[SC-SI, R&D on dendritic web crystal
growth], components [raw materials]

ECD (See Energy Conversion Devices)

ECS (Energy Conservation Services)

4110 SW 34th Street, Suite 15
Gainesville, FL 32608, USA
Ph: 904-377-8866 Fax: 904-338-0056
Best contact: Tom Lane
PV Products: Power System

EDWARDS Unit of General Signal

Signaling Products Division
Farmington, CT 06032, USA
Ph: 203-678-0410 Fax: 203-677-5881
PV Products: Lighting □ Transportation

EG7G ROTRON

9 Hasbrouck Lane
Woodstock, NY 12498, USA
Ph: 914-679-2401 Fax: 914-679-7080
Best contact: Thomas R. England
PV Products: Pumps & Motors

ELECTRA CRAFT

31265-B LaBaya Drive #B
Westlake Village, CA 91362-4025, USA
Ph: 818-991-2257 Fax: 818-991-2282
Best contact: Cheryl Toller
PV Products: Specialties

ELECTRIC LAUNCH CO. (ELCO)

261 Upper North Road
Highland, NY 12528, USA
Ph: 914-691-3777 Fax: 914-691-3799
Best contact: Andy Mele
PV Products: Specialties (solar boat)

ELECTRO SOLAR PRODUCTS

P.O. Box 7458
Pensacola, FL 32534-8458, USA
Ph: 904-479-2191 Fax: 904-857-0070
Best contact: Arnold E. McKinney, V.P.
PV Products: Lighting □ Transportation

ELECTRODEX INC.

6209 17th Street East
Bradenton, FL 34203, USA
Ph: 813-753-5663 Fax: 813-753-7049
Best contact: Mike Guritz, Proprietor
PV Products: Lighting

ELECTROSOURCE (Horizon)

3800 B Drossett Drive
Austin, TX 78744-1131, USA
Ph: 512-445-6606 Fax: 512-445-6819
Best contact: William Craven
PV Products: Batteries

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

ELGAR CORPORATION

9250 Brown Deer Road
San Diego, CA 92121, USA
Ph: 619-450-0085 Fax: 619-458-0267
Telex: 211063 ELSD UR
PV Products: Inverters & Power
Conditioners

**ELKEM CHEMICAL AND
ELECTRONICS - PV Marketing**

P.O. Box 3595
Frederick, MD 21701-3595, USA
Ph: 301-473-8530 Fax: 301-473-8528
Best contact: Robert Brennenman, Int'l
Marketing Manager
PV Products: PV: Services, components

EMCORE CORPORATION

35 Elizabeth Avenue
Somerset, NJ 08873, USA
Ph: 908-271-9090 Fax: 908-271-9686
PV Products: PV: Mfrg equipment
[MOCVD, GA-AS, INP, ZNSE]

**ENERGIZER POWER SYSTEMS
(formerly Gates Energy Products)**

Division of Eveready Battery Co.
P.O. Box 147114
Gainesville, FL 32614-7114, USA
Ph: 904-462-3911 Fax: 904-462-6210
Best contact: Marta Pollite, Sr. Customer
Service Specialist
PV Products: Batteries

**ENERGY CONSERVATION
SERVICES (See ECS)****ENERGY CONVERSION DEVICES,
INC. (ECD)**

1675 West Maple Road
Troy, MI 48084, USA
Ph: 313-280-1900 Fax: 313-280-1456
Best contact: Nancy Bacon
PV Products: Batteries □ PV: Mfr cells
& modules [A-SI]

ENERGY DEPOT (See Solar Depot)**ENERGY PHOTOVOLTAICS, INC.
(See EPV)****ENTECH, INC.**

P.O. Box 612246
DFW Airport, TX 75261, USA
Ph: 214-456-0900 Fax: 214-456-0904
Telex: 265350 ENTECH UR
Best contact: Mr. O'Neil
PV Products: Concentrators □ ♦ Power
System □ PV: Mfr cells & modules

EPE/TOPAZ

A Subsidiary of Square D Co.
1660 Scenic Avenue
Costa Mesa, CA 92626, USA
Ph: 714-557-1636 Fax: 714-957-1103
Best contact: Gary Jasinski
PV Products: Inverters & Power
Conditioners □ Voltage Regulators/ Charge
Controllers

EPITAXY

555 Aldo Ave.
P.O. Box 4778
Santa Clara, CA 95054, USA
Ph: 408-988-2161 Fax: 408-988-1855
PV Products: Misc.

EPPLEY LABORATORY

12 Sheffield Avenue
Newport, RI 02840, USA
Ph: 401-847-1020 Fax: 401-847-1031
Best contact: George L. Kirk
PV Products: Meters, Instrumentation &
Controls □ Trackers

**EPV (ENERGY PHOTOVOLTAICS,
INC.) (formerly IDM, Inc.)**

P.O. Box 7456
Princeton, NJ 08543, USA
Ph: 609-587-3000 Fax: 609-587-5355
Best contact: Eva S. Csige, Marketing
Coordinator
PV Products: Batteries □ ♦ Lighting □
♦ Power System □ ♦ Pumps & Motors □
♦ Refrigeration □ PV: Mfr cells &
modules, mfrg equipment [A-SI SINGLE
JUNCTION), CIS]

ETA ENGINEERING

8502 East Cactus Wren Road
Scottsdale, AZ 85250, USA
Ph: 602-991-8272 Fax: 602-948-0912
Best contact: Lane Garrett, President
PV Products: Inverters & Power
Conditioners □ ♦♦ Specialties (pool alarm)
□ ♦♦ Transportation

EXELTECH

7018 Baker Boulevard
Ft. Worth, TX 76118-6324, USA
Ph: 800-886-4683 Fax: 817-595-1290
Best contact: Gary Chemelewski,
President
PV Products: Inverters & Power
Conditioners

EXIDE CORPORATION

645 Penn Street
PO Box 14205
Reading, PA 19612-4205, USA
Ph: 800-523-8954 Fax: 215-378-0748
Best contact: Joe Calio, VP of Marketing
PV Products: Batteries

F-CHART SOFTWARE

University of Wisconsin
Solar Energy Laboratory
4406 Fox Bluff Road
Middleton, WI 53562, USA
Ph: 608-836-8536 Fax: 608-836-8536
Best contact: Sanford Klein
PV Products: Software

FINISH THOMPSON, INC.

921 Greengarden Road
Erie, PA 16501-1591, USA
Ph: 814-455-4478 Fax: 814-455-8518
PV Products: Pumps & Motors

**FISHER ELECTRIC MOTOR
TECHNOLOGY, INC.**

2860 Scherer Drive
St. Petersburg, FL 33716, USA
Ph: 813-572-9328 Fax: 813-572-8470
Best contact: Nancy J. Preis, President
PV Products: Hybrid Systems/ Generators
□ ♦ Pumps & Motors □ Refrigeration □
Transportation

FLEXI-GUIDE

All West Plastics, Inc.
15251 Pipeline Lane
Huntington Beach, CA 92649, USA
Ph: 714-894-9922 Fax: 213-598-0081
Best contact: L. Scott Leishman,
President
PV Products: Concentrators □
Transportation

FLOATRON, INC.

P.O. Box 51000
Phoenix, AZ 85076, USA
Ph: 602-345-2222 Fax: 602-345-6699
PV Products: ♦ Specialties (pool water
purifier)

FLOJET CORPORATION

12 Morgan Street
Irvine, CA 92718, USA
Ph: 714-859-4945 Fax: 714-859-1153
Telex: 6831943
PV Products: Pumps & Motors

SECTION IV: DOMESTIC MANUFACTURERS

Fowler Solar Electric — Harris Hydroelectric Systems

FOWLER SOLAR ELECTRIC

13 Bashan Hill Road
Worthington, WA 01098, USA
Ph: 413-238-5974 Fax:
Best contact: Jeffrey Fowler
PV Products: ♦♦ Power System

FREDERICK A. COSTELLO, INC.

12864 Tewksbury Drive
Herndon, VA 22071, USA
Ph: 703-620-4942 Fax:
Best contact: Frederick A. Costello
PV Products: Software

FUJI ELECTRIC CORP. OF AMERICA

515 South Flower Street
Suite 1660
Los Angeles, CA 90071, USA
Ph: 213-622-4490 Fax: 213-488-9382
PV Products: Hybrid Systems/ Generators

GALLAGHER POWER FENCE

P.O. Box 708900
San Antonio, TX 78270, USA
Ph: 800-531-5908 Fax:
Best contact: Erwin Quinn, President
PV Products: ♦ Specialties (PV fence)

GE LIGHTING

Nela Park
Cleveland, OH 44112, USA
Ph: 216-266-3900 Fax:
PV Products: Lighting

GENERAL ELECTRIC

Motor Division Headquarters
1635 Broadway
Fort Wayne, IN 46804, USA
Ph: 219-439-2000 Fax: 219-380-2071
PV Products: Pumps & Motors □
Transportation

GENERAL MOTORS ELECTRIC VEHICLES

432 North Saginaw Street
Flint, MI 48502-9922, USA
Ph: 800-253-5328 Fax:
PV Products: Pumps & Motors □
Transportation

GENERAL RESEARCH LABS

5 Valley Street
Hawthorne, NJ 07506, USA
Ph: 201-427-1160 Fax:
Best contact: Jim Crawford
PV Products: Batteries □ Power System □
Voltage Regulators/Charge Control-lers?

GEOSOLAR ENERGY SYSTEMS, INC. 12 Volt Catalog

3401 North Federal Hwy
Boca Raton, FL 33431, USA
Ph: 800-321-8658 Fax: 407-487-0821
Best contact: Amir Abtahi, P.E.
PV Products: Hybrid Systems/ Generators
□ Inverters & Power Conditioners □
♦ Lighting □ Misc. □ ♦♦ Power System □
♦♦ Specialties (fans) □ ♦ Transportation

GLOBAL PHOTOVOLTAIC SPECIALISTS, INC.

21525 Parphinia Street
Canoga Park, CA 91304, USA
Ph: 818-709-7022 Fax: 818-887-4860
Best contact: Howard Somberg
PV Products: Misc. □ PV: Mfrg equipment

GLOBAL THERMIONICS INC.

37 South Detroit Street
Xenia, OH 45385, USA
Ph: 513-376-8233 Fax: 513-376-2781
Best contact: Chris Meyer
PV Products: Refrigeration

GNB INDUSTRIAL BATTERY CO.

Woodlake Corporate Park
829 Parkview Boulevard
Lombard, IL 60148-3249, USA
Ph: 708-629-5200 Fax: 708-629-2635
Telex: GOULDLAHN 5106672056
Best contact: Stephen L. Vechy,
Marketing Manager
PV Products: Batteries

GOLDEN PHOTON

(formerly Photon Energy)
P.O. Box 4040
Golden, CO 80402, USA
Ph: 303-271-7177 Fax: 303-271-7410
Best contact: Dan Gacnik
PV Products: PV: Mfr cells & modules
[CDTE]

GP BATTERIES

(formerly Quantum)
11235 W. Bernardo Court
San Diego, CA 92127, USA
Ph: 619-674-5620 Fax: 619-674-7237
Best contact: Steve Whyte, Inside Sales
Manager
PV Products: Batteries

GRUNDFOS PUMPS CORPORATION

2555 Clovis Avenue
Clovis, CA 93612, USA
Ph: 209-292-8000 Fax: 209-291-1357
Telex: 35-5353
Best contact: Catherine Michelini
PV Products: Pumps & Motors

GT EQUIPMENT TECHNOLOGIES (GTI)

472 Amherst Street
Nashua, NH 03063, USA
Ph: 603-883-5200 Fax: 603-595-6993
Best contact: Kedar Gupta, President
PV Products: PV: Mfrg equipment

GTO, INC.

738 Captial Circle, N.W.
Tallahassee, FL 32304, USA
Ph: 904-575-0176 Fax: 904-575-8912
Best contact: Grant Peeples
PV Products: ♦ Specialties (gate opener)

HAMAMATSU CORPORATION

2875 Moorpark Avenue - Suite 110
San Jose, CA 95128, USA
Ph: 408-261-2022 Fax: 408-261-2522
Best contact: Norris Brown, Office
Manager
PV Products: Meters, Instrumentation &
Controls □ PV: Mfr cells & modules
[A-SI]

HARDING CONTROLLED ENERGY

969 - 140th Avenue
Wayland, MI 49348, USA
Ph: 616-792-9410 Fax: 616-792-0211
Best contact: David Lankheet
PV Products: ♦ Power System

HARDING ENERGY SYSTEMS

Licensee of Ovonic Technology
One Energy Center
Norton Shores, MI 49441-5629, USA
Ph: 616-798-7033 Fax: 616-798-7044
Best contact: Margaret Mitchell-Jones,
Director, Marketing
PV Products: Batteries

HARRIS HYDROELECTRIC SYSTEMS

632 Swanton Road
Davenport, CA 95017, USA
Ph: 408-425-7652 Fax:
PV Products: Hybrid Systems/ Generators

♦ Complete PV system package available; may also supply system components.

♦♦ Custom PV systems only (vs. standard package); may also supply system components.

HATHAWAY CORPORATION

8700 Turnpike Drive
Westminster, CO 80030, USA
Ph: 303-426-1600 Fax: 303-426-0932
PV Products: Pumps & Motors □
Transportation

HAWKER ENERGY PRODUCTS

4318 Rainbow Blvd. #730
Kansas City, KA 66103, USA
Ph: 800-730-7733 Fax: 913-362-3993
PV Products: Batteries

HEART INTERFACE CORP.

811 1st Avenue South
Kent, WA 98032, USA
Ph: 206-859-0640 Fax:
Telex: 160563 HEART UT
PV Products: Inverters & Power
Conditioners

HEINZ SOLAR

16575 Via Corto East
Desert Hot Springs, CA 92240, USA
Ph: 619-251-6886 Fax: 619-251-6886
Best contact: Mark J. Heinz, Proprietor
PV Products: ♦ Lighting

HELIONETICS INC.

DECC Division
2300 Main Street
Irvine, CA 92714-6223, USA
Ph: 714-261-8313 Fax: 714-261-0413
Telex: 910-5952829
Best contact: Stan Boyle
PV Products: Inverters & Power
Conditioners

HELIOTROPE GENERAL

3733 Kenora Drive
Spring Valley, CA 91977, USA
Ph: 800-552-8838 Fax: 619-460-9211
Best contact: Alan Colldeweih
PV Products: Pumps & Motors □ Support
Structures □ Voltage Regulators/ Charge
Controllers

HOMESTEAD ELECTRIC

PO Box 451
Northport, WA 99157, USA
Ph: 509-732-6142 Fax:
PV Products: ♦ Communications □ Pumps
& Motors □ Specialties (fan)

HOPPECKE BATTERY SYSTEMS

10 Park Place
Butler, NJ 07405, USA
Ph: 201-492-0045 Fax: 201-492-2714
Best contact: Mario Lembro, Prod. Mgr
PV Products: Batteries

HORIZON SIGNAL INC.

202 Conestoga Road
Wayne, PA 19087, USA
Ph: 800-852-8796 Fax: 215-687-5123
Best contact: William Kinney
PV Products: ♦ Transportation

HYDRASOL CORPORATION - USA

1001 Alt. A1A
Jupiter, FL 33477, USA
Ph: 407-747-3388 Fax: 407-746-1055
Best contact: Gottfried W. Kleiber
PV Products: ♦ Pumps & Motors

HYDROCAP CORPORATION

975 NW 95th Street
Miami, FL 33150-2095, USA
Ph: 305-696-2504 Fax:
Best contact: George Peroni
PV Products: Batteries □ Misc.

INDEPENDENT POWER

(See Photocomm Inc.)

**INDUSTRIAL BATTERY
ENGINEERING, INC. (IBE)**

9121 DeGarmo Avenue
Sun Valley, CA 91352, USA
Ph: 818-767-7067 Fax: 818-767-7173
Best contact: Jerry Russes, General Sales
Manager
PV Products: Batteries □ Hybrid
Systems/Generators

**INTEGRATED POWER
CORPORATION (IPC)**

Subsidiary of Westinghouse
7524 Standish Place
Rockville, MD 20855, USA
Ph: 301-294-9133 Fax: 301-294-0809
Telex: 79-7799
Best contact: Craig Shoots
PV Products: Cathodic Protection □
Communications □ Electrical/Hardware □
♦ Hybrid Systems/Generators □ Inverters &
Power Conditioners □ ♦ Lighting □ Meters,
Instrumentation & Controls □ Misc. □
♦ Power System □ Software □ ♦ Specialties
(oil/gas automation) □ Support Structures □
♦ Transportation □ Trackers □ Voltage
Regulators/Charge Controllers

**INTERNATIONAL ENERGY
SYSTEMS CORP.**

(formerly Applied Energy Technology)
P.O. Box 588
Barrington, IL 60011, USA
Ph: 708-381-0203 Fax: 708-381-3997
Best contact: Charles Thomas, President
PV Products: ♦ Lighting □ Power System
□ Support Structures □ Voltage
Regulators/Charge Controllers □ PV:
Assemble modules

**INTERNATIONAL SOLAR
CONTROL SYSTEMS**

P.O. Box 98
Palm Harbor, FL 34682-0098, USA
Ph: 813-789-5011 Fax:
Best contact: Rick Jones, President
PV Products: ♦ Communications □
♦ Transportation

INTERPLEX SOLAR

1003 West Thomas Street
Arlington Heights, IL 60004-4547, USA
Ph: 708-392-1976 Fax: 708-392-1976
Best contact: Robert Nellemann, Director,
Sales & Mktg
PV Products: ♦ Lighting □ ♦ Transportation

IOTA ENGINEERING COMPANY

P.O. Box 11846
Tucson, AZ 85734, USA
Ph: 602-294-3292 Fax: 602-741-2837
PV Products: Lighting

**IOWA THIN FILM
TECHNOLOGIES, INC.**

ISIS Center, Suite 607
2501 North Loop Drive
Ames, IA 50010-8283, USA
Ph: 515-294-7005 Fax: 515-294-9584
Best contact: Steve Martens
PV Products: PV: Mfr cells & modules,
components [A-SI, CIS(R&D)]

ISET

(Int'l Solar Electric Technology)
8635 Aviation Boulevard
Inglewood, CA 90301, USA
Ph: 310-216-4427 Fax: 310-216-2908
Best contact: Vijay Kapur, President
PV Products: PV: Cell & module R&D
[A-SI, CIS, ETC.]

SECTION IV: DOMESTIC MANUFACTURERS

Ivan Labs — Lumenite Electronic Company

IVAN LABS INC.

305 Circle West
Jupiter, FL 33458, USA
Ph: 407-747-5354 Fax:
Best contact: Dan Fieldman, President
PV Products: *Pumps & Motors

JACUZZI BROTHERS

(See Hydrasol for solar pumps)

JADE MOUNTAIN

P.O. Box 4616
Boulder, CO 80306-4616, USA
Ph: 800-442-1972 Fax: 303-449-8266
Best contact: Steve Troy
PV Products: *Power System

JENSEN MANUFACTURING CO. INC.

P.O. Box 1509
Coffeerville, KS 67337, USA
Ph: 800-331-2662 Fax: 316-251-3622
Best contact: Charles H. Marler
PV Products: Pumps & Motors

JOHNSON CONTROLS

Automotive Systems Group
49200 Halyard
Plymouth, MI 48170, USA
Ph: 313-454-5000 Fax: 313-454-5843
Telex: 810-223-2410
PV Products: Pumps & Motors □
Transportation

JOHNSON CONTROLS, INC.

Specialty Battery Division
900 East Keefe Avenue
Milwaukee, WI 53212, USA
Ph: 414-961-6500 Fax: 414-961-6506
Telex: 026 650
PV Products: Batteries

KENYON MARINE

New Whitfield Street
Guilford, CT 06437, USA
Ph: 203-453-4374 Fax: 203-453-6109
Best contact: Philip H. Williams, Division
Manager
PV Products: Inverters & Power
Conditioners □ Refrigeration

KIPP & ZONEN

Division of Enraf Nonius
390 Central Avenue
Bohemia, NY 11716, USA
Ph: 800-645-1025 Fax: 516-589-2068
Telex: 960250
Best contact: William Novack
PV Products: Meters, Instrumentation &
Controls

KOLLMORGEN INDUSTRIAL DRIVES

201 Rock Road
Radford, VA 24141-4099, USA
Ph: 703-633-4124 Fax: 703-731-0847
Telex: 710-875-3743
Best contact: Cynthia T. White, Mktg
Services Manager
PV Products: Pumps & Motors □
Transportation

KOPIN CORPORATION

695 Myles Standish Blvd.
Taunton, MA 02780, USA
Ph: 508-824-6696 Fax: 508-822-1381
Best contact: Ron Gale
PV Products: Concentrators □ PV: Mfr
cells/raw materials [GAAS]

KYOCERA AMERICA

Solar Energy Division
8611 Balboa Avenue
San Diego, CA 92123-1580, USA
Ph: 800-537-0294
Fax: 619-569-9412/5600576
Telex: 4723069
Best contact: Al Panton, Solar Sales
Manager
PV Products: *Lighting □ PV: Mfr cells
& modules [PC-SI, A-SI]

LAING THERMOTECH, INC.

632 Marsat Court
Chula Vista, CA 91911, USA
Ph: 619-575-7466 Fax: 619-575-2739
Telex: (RCA#) 294225 LTIUR
PV Products: Pumps & Motors

LAKE TECHNOLOGIES INC.

28248 County Road 561
P.O. Box 1008
Tavares, FL 32778, USA
Ph: 904-742-2220 Fax:
Best contact: John Rinehart, Tech. Eng.
PV Products: Transportation

LASHWAY INSTRUMENTS

9517 Dona Margerita, N.E.
Albuquerque, NM 87111, USA
Ph: 505-292-5002 Fax:
Best contact: Clin Lashway, President
PV Products: Meters, Instrumentation &
Controls

LEESON ELECTRIC CORP.

Box 241
2100 Washington Street
Grafton, WI 53024, USA
Ph: 414-377-8810 Fax: 414-377-9025
PV Products: Pumps & Motors

LESTER ELECTRICAL OF NEBRASKA, INC.

625 West A Street
Lincoln, NE 68522, USA
Ph: 402-477-8988 Fax: 402-474-1769
PV Products: Hybrid Systems/ Generators
□ Specialties

LEVELEG Division of Denesco Inc.

8656 Commerce Avenue
San Diego, CA 92121, USA
Ph: 619-271-6240 Fax: 619-693-1434
Best contact: Pat Dennis
PV Products: Support Structures

LIGHTING TECHNOLOGIES, INC.

2540 Frontier Avenue, Suite 107
Boulder, CO 80301, USA
Ph: 303-449-5791 Fax: 303-449-5864
Best contact: Mark Jongewaard
PV Products: Lighting

LITHIUM TECHNOLOGY CORPORATION (formerly Hope Technologies)

5115 Campus Drive
Plymouth Meeting, PA 19462-1129, USA
Ph: 610-940-6090 Fax: 610-940-6091
Best contact: David Cade, V.P.,
Marketing
PV Products: Batteries

LITTON POLY-SCIENTIFIC

1213 North Main Street
Blacksburg, VA 24060, USA
Ph: 703-552-3011 Fax: 703-953-1841
Best contact: Willa Caldwell
PV Products: Pumps & Motors

LOS ALAMOS TECHNICAL ASSOC., INC.

2400 Louisiana Boulevard, NE
Building 1, Suite 400
Albuquerque, NM 87110, USA
Ph: 505-884-3800 Fax: 505-880-3560
Best contact: Rodger Hoppe, P.E.
PV Products: **Specialties (water
purification)

LUMENITE ELECTRONIC COMPANY

2331 North 17th Avenue
Franklin Park, IL 60131, USA
Ph: 800-323-8510 Fax: 708-455-0127
PV Products: Meters, Instrumentation &
Controls

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

LUMINA RESOURCES CORP.

200 Union Boulevard, Suite 317
Lakewood, CO 80228, USA
Ph: 303-989-9060 Fax: 303-989-9066

Best contact: Donald Hardy, President
PV Products: PV: Cell & module R&D [CD-TE]

LURALINE

2388 NW 150th Street
Opa Locka, FL 33054, USA
Ph: 305-522-9903 Fax: 305-685-6500

PV Products: Lighting

M. SETEK U.S.A. COMPANY

4962 El Camino Real # 119
Los Altos, CA 94022, USA
Ph: 415-961-7134 Fax:

PV Products: PV: Assemble modules [SC-SI, PC-SI]

MAGNARAY INTERNATIONAL

P.O. Box 990-S
Bradenton, FL 34206, USA
Ph: 813-755-2111 Fax: 813-751-5483

Best contact: Larry Leetzow, President
PV Products: ♦♦ Lighting

MAGNETEK INC.

200 Robin Road
Paramus, NJ 07652, USA
Ph: 201-967-7600 Fax: 201-967-1359

PV Products: Hybrid Systems/ Generators
□ Inverters & Power Conditioners □
Lighting □ Pumps & Motors □
Transportation

MARCH MANUFACTURING COMPANY

1819 Pickwick Avenue
Glenview, IL 60025, USA
Ph: 708-729-5300 Fax: 708-729-7062

PV Products: Pumps & Motors

MARTIN MARIETTA

P.O. Box 179, MC 4000
Denver, CO 80201, USA
Ph: 303-977-3000 Fax: 303-971-4902

Best contact: Public Affairs
PV Products: PV: Cell & module R&D [CIS]

MATERIALS RESEARCH GROUP, INC.

12441 West 49th Ave., Suite 2
Wheat Ridge, CO 80033-1927, USA
Ph: 303-425-6688 Fax: 303-425-6562

Best contact: Pawan Bhat, President
PV Products: PV: Services, mfrg equipment [THIN FILM]

MCCOY INDUSTRIES, INC.

7350 S. Tamiami Trail #7
Sarasota, FL 34231, USA
Ph: 813-925-9664 Fax: 813-922-7919

Best contact: Tom McCoy, President
PV Products: Communications □
Concentrators □ ♦ Lighting □ Misc. □
♦ Power System □ ♦ Pumps & Motors □
♦ Specialties (golf cart) □ Support
Structures □ ♦ Transportation □ Voltage
Regulators/ Charge Controllers

MICROTECH INTERNATIONAL, INC.

158 Commerce street
East Haven, CT 06512, USA
Ph: 800-626-4276 Fax: 203-468-6466

Best contact: Bonnie Nadeau, Sales Representative
PV Products: ♦ Specialties (PV power for laptop computer)

MIDWAY LABS, INC.

2255 East 75th Street, Suite 303
Chicago, IL 60649, USA
Ph: 312-933-2026 Fax: 312-933-2039

Best contact: Bob Hoffmann, Project Engineer
PV Products: Concentrators □ Support
Structures □ PV: Assemble modules [SC-SI]

MIDWEST CONSERVATION SYSTEMS INC.

P.O. Box 397
Silver Lake, KS 66539, USA
Ph: 800-696-4509 Fax: 913-582-4816

Best contact: Edward J. Irvine, Owner
PV Products: ♦ Lighting

MILTON ROY COMPANY

Hartell Division
70 Industrial Dr.
Iveyland, PA 18974, USA
Ph: 215-322-0730 Fax:

Best contact: Dick Branbley, Marketing
PV Products: Pumps & Motors

MINNESOTA ELECTRIC TECHNOLOGY, INC. (MET, Inc.)

1507 First Ave. North
P.O. Box 3445
Mankato, MN 56001, USA

Ph: 507-625-6117 Fax: 507-625-1485
Telex: 312381 MET UD
Best contact: Kirk Witbeck, Eastern Sales Manager

PV Products: Pumps & Motors

MIOX CORPORATION

5500 Midway Park Place, NE
Albuquerque, NM 87109, USA
Ph: 800-662-6239 Fax: 505-343-0093

Best contact: Tony Berkson, Customer Support
PV Products: ♦ Specialties (water purification)

MJM ENERGY INTERNATIONAL GROUP

P.O. Box 21351
Rio Pedras, PR 00928, USA
Ph: 809-751-5444 Fax:

PV Products:

MOBIL SOLAR (See ASE Americas)**MONO GROUP, INC. (MGI)**

P.O. Box 1426
9201 Wilmot Road
Kenosha, WI 53141-1426, USA

Ph: 414-942-0166 Fax: 414-942-0177
Telex: 433-0463-MONVI

Best contact: Nick Kiefer, Int'l Sales Manager
PV Products: Pumps & Motors

MORNINGSTAR CORPORATION

P.O. Box 958
Olney, MD 20830, USA
Ph: 301-774-3107 Fax: 301-774-3072

PV Products: Voltage Regulators/ Charge Controllers

MVSYSYSTEMS, INC.

327 Lamb Lane
Golden, CO 80401, USA
Ph: 303-526-9016 Fax: 303-526-1408

Best contact: Arun Madan
PV Products: PV: Mfrg equipment [THIN FILM]

NEW LIGHT ENERGY COMPANY

16417 New Light Road
Wake Forrest, NC 27567, USA
Ph: 919-528-2687 Fax: 919-481-8402

Best contact: John Hudepohl
PV Products: ♦ Power System

NEW WORLD POWER CORPORATION

The Farmhouse
558 Lime Rock Road
Lime Rock, CN 06039, USA

Ph: 203-435-4000 Fax: 203-435-0505
Best contact: John D. Kuhns
PV Products: ♦ Power System

SECTION IV: DOMESTIC MANUFACTURERS

Newmar — Peerless-Winsmith

NEWMAR

P.O. Box 1306
Newport Beach, CA 92663, USA
Ph: 714-751-0488 Fax: 714-957-1621
Telex: 371-8786

Best contact: John Wise
PV Products: Hybrid Systems/ Generators
□ Inverters & Power Conditioners

NORCOLD

600 Kuther Road
Sidney, OH 45365, USA
Ph: 513-492-1111 Fax: 513-498-6990
PV Products: Refrigeration

NORTHERN POWER SYSTEMS

1 North Wind Road
Moretown, VT 05660, USA
Ph: 802-496-2955 Fax: 802-496-2953
Telex: 957034

Best contact: Woody Stevens, Manager,
Portable Systems
PV Products: ♦♦Communications □
♦Hybrid Systems/ Generators □ ♦Lighting
□ ♦Power System □ ♦Transportation □
Voltage Regulators/ Charge Controllers

NORTON BATTERY MANUFACTURING

2175 S. Willow
PO Box 2440
Rialto, CA 92377, USA
Ph: 714-877-2161 Fax:
PV Products: Batteries

NRG LIGHTING INC.

2212 Noblestown Road
Pittsburgh, PA 15205, USA
Ph: 412-937-1550 Fax: 412-937-0718
PV Products: Lighting

OMNION POWER ENGINEERING CORPORATION

2010 Energy Drive
P.O. Box 879
East Troy, WI 53120, USA
Ph: 414-642-7200 Fax: 414-642-7760
Best contact: Hans Meyer, President
PV Products: Batteries □ Inverters &
Power Conditioners

ONAN CORPORATION

1400 73rd Ave., N.E.
Minneapolis, MN 55432, USA
Ph: 612-574-5000 Fax: 612-574-8087
Telex: 29 0476 (U.S.)
PV Products: Hybrid Systems/ Generators

ORION ENERGY

18131 Metz Dr.
Germantown, MD 20874, USA
Ph: 301-428-0577 Fax: 301-428-0577
Best contact: Doug Danley
PV Products: Voltage Regulators/ Charge
Controllers

OSRAM CORPORATION

A Seimens Company
110 Bracken Road
Montgomery, NY 12549, USA
Ph: 800-846-2627 Fax: 800-846-2632
Best contact: Bob Horner, Manager,
Commercial Eng.
PV Products: Lighting

OUTSIDE POWER TECHNOLOGIES

7477 Lakeshore Drive
Spirit Lake, IA 51360, USA
Ph: 712-336-5045 Fax: 712-336-5046
Best contact: Bradley O'Mara
PV Products: Inverters & Power
Conditioners

OVONIC BATTERY COMPANY

Subsidiary of ECD (see also)
1826 Northwood Drive
Troy, MI 48084, USA
Ph: 313-362-1750 Fax: 313-362-0332
Telex: 230648
Best contact: Paul Gifford, Director,
Product Devel.
PV Products: Batteries

OXI GENERATORS, INC.

218 Southgate Avenue #B
Virginia Beach, VA 23462-2521, USA
Ph: 804-497-3128 Fax: 804-624-2128
Best contact: Joe Houska, Director of
Marketing
PV Products: Specialties (water
purification)

PACIFIC INVERTER, INC.

509 Granite View Lane
Spring Valley, CA 91977, USA
Ph: 619-479-5938 Fax: 619-479-1549
Best contact: David Ross, President
PV Products: Inverters & Power
Conditioners

PACIFIC SCIENTIFIC Fischer-Pierce

90 Libbey Parkway
Weymouth, MA 02189, USA
Ph: 617-340-0700 Fax: 617-340-0728
Best contact: Craig Rosenquist
PV Products: Electrical/Hardware

PACIFIC SCIENTIFIC

Motor & Controls Division
P.O. Box 106
Rockford, IL 61105-0106, USA
Ph: 800-237-8274 Fax: 815-226-3122
Best contact: Bob Burke, VP, Sales &
Marketing
PV Products: Pumps & Motors □
Transportation

PACIFIC WEST SUPPLY CO.

P.O. Box 2116
Lake Oswego, OR 97035, USA
Ph: 503-226-7331 Fax: 503-598-0652
PV Products: Batteries

PANDUIT CORPORATION

17301 South Ridgeland Avenue
Tinley Park, IL 60477, USA
Ph: 708-532-1800 Fax: 708-532-1811
Telex: 25-4560
PV Products: Electrical/Hardware

PARKER-MCCRORY MANUFACTURING CO.

2000 Forest Avenue
Kansas City, MO 64108, USA
Ph: 816-221-2000 Fax: 816-221-9879
Best contact: Ken Turner, President
PV Products: ♦Specialties (electric fence)

PATTERSON & ASSOC.

26123 Rampart Blvd.
Punta Gorda, FL 33983-6206, USA
Ph: 813-624-4277 Fax:
Best contact: William Patterson
PV Products: ♦Transportation

PAWLING CORPORATION

Extrusion Division
157 Charles Colman Blvd.
Pawling, NY 12564-1188, USA
Ph: 914-855-1000 Fax: 914-855-1937
Telex: 646720
Best contact: Stephen J. Smith, Vice
President
PV Products: Misc. □ PV: Components

PEERLESS-WINSMITH, INC.

172 Eaton St.
P.O. Box 530
Springville, NY 14141-0530, USA
Ph: 716-592-9311 Fax: 716-592-9362
Telex: 754612
Best contact: George Tedesco, Jr.
PV Products: Trackers

♦Complete PV system package available; may also supply system components.

♦♦Custom PV systems only (vs. standard package); may also supply system components.

PERMANENT MAGNET CO., INC.
44th & Bragdon
Indianapolis, IN 46226, USA
Ph: 317-547-1336 Fax: 317-549-9259
Best contact: Sandy Burns, Sales
Manager
PV Products: Pumps & Motors

PHILIPS LIGHTING COMPANY
200 Franklin Square Drive
Somerset, NJ 08875, USA
Ph: 201-563-3000 Fax: 800-635-3818
PV Products: Lighting

PHOTOCOMM INC. - TX
13130 Stafford Road
Stafford, TX 77477, USA
Ph: 713-933-1578 Fax: 713-933-1599
Best contact: Kevin Conlin
PV Products: ♦Cathodic Protection □
♦Communications □ Electrical/Hardware □
♦Lighting □ ♦Power Systems □ Supports □
♦Transportation

PHOTOCOMM, INC.
Executive Headquarters
7681 East Gray Road
Scottsdale, AZ 85260, USA
Ph: 602-948-8003 Fax: 602-483-6431
Best contact: Robert Spotts
PV Products: ♦Communications □
♦Pumps & Motors □ Refrigeration □
♦Specialties (irrigation, evap. cooler &
blenders) □ Support Structures □
♦Transportation □ Voltage Regulators/
Charge Controllers □ PV: Assemble
modules [PC-SI]

PHOTOELECTRIC, INC.
9191 Towne Centre Dr.
Suite 220
San Diego, CA 92122, USA
Ph: 800-233-3411 Fax: 619-453-5510
Best contact: Jack White, President
PV Products: Inverters & Power
Conditioners

PHOTON TECHNOLOGIES, INC.
P.O. Box 790
Severna Park, MD 21146, USA
Ph: 410-544-0911 Fax: 410-544-4075
Best contact: Robert Mulligan
PV Products: PV: Assemble modules
[SC-SI, PC-SI]

**PHOTOVOLTAIC RESOURCES
INTERNATIONAL**
1440 West Meseto Avenue
Mesa, AZ 85202, USA
Ph: 602-897-6427 Fax: 602-833-1711
Best contact: Bill Caszeta
PV Products: Software

PHOTRON, INC.
1220 Blosser Lane
P.O. Box 578
Willits, CA 95490, USA
Ph: 707-459-3211 Fax: 707-459-2165
Telex: 9102500820 PHOTRON
Best contact: Vicki Wallace, Vice
President
PV Products: Electrical/Hardware □
Hybrid Systems/Generators □ Meters,
Instrumentation & Controls □ Power
System □ Software □ Support Structures □
Transportation □ Voltage Regulators/
Charge Controllers

POLAR POWER
2808 Oregon Ct., Bldg. K4
Torrance, CA 90503, USA
Ph: 310-320-3514 Fax: 310-320-3135
Telex: 4940451 POLAR LSR
Best contact: Arthur D. Sams, President
PV Products: Cathodic Protection □
Electrical/Hardware □ Hybrid Systems/
Generators □ Lighting □ Meters,
Instrumentation & Controls □ Misc. □
Power System □ Pumps & Motors □
♦Refrigeration □ Transportation □ Voltage
Regulators/Charge Controllers

POWER KINETICS
415 River Street, 4th floor
Troy, NY 12180-2822, USA
Ph: 518-271-7743 Fax: 518-271-0782
Telex: 6007222
Best contact: Robert Rogers
PV Products: Concentrators □ Meters,
Instrumentation & Controls □ Trackers

POWERLIGHT CORPORATION
2550 Benvenue
Berkely, CA 94704, USA
Ph: 510-525-9495 Fax: 510-525-7392
Best contact: Thomas Dinwoodie
PV Products: ♦Power System □
♦Specialties □ Support Structures

POWER SONIC CORPORATION
PO Box 5242
Redwood City, CA 94063, USA
Ph: 415-364-5001 Fax: 415-366-3662
Telex: 348400
PV Products: Batteries

POWERSTAR PRODUCTS, INC.
10011 North Foothill Blvd.
Cupertino, CA 95014, USA
Ph: 408-973-8502 Fax: 408-973-8573
PV Products: Inverters & Power
Conditioners

**PRECISION SOLAR CONTROLS,
INC.**
2915 National Court
Garland, TX 75041, USA
Ph: 214-278-0553 Fax: 214-271-9583
Best contact: Steve Bacilieri, Product
Manager
PV Products: Electrical/Hardware □
♦Lighting □ ♦Transportation □ Voltage
Regulators/Charge Controllers

PREMIER FENCE SYSTEM
Box 89
Washington, IA 52353, USA
Ph: 319-653-7622 Fax: 319-653-6304
Best contact: Douglas R. Bailey, Field
Engineer
PV Products: Lighting □ ♦Specialties
(electric fence)

PRICE PUMP COMPANY
1 Pump Way
PO Box Q
Sonoma, CA 95476, USA
Ph: 800-345-7867 Fax: 707-938-0764
PV Products: Pumps & Motors

PRIME MANUFACTURING INC.
1490 Pumphrey Avenue
Auburn, AL 36860, USA
Ph: 205-821-6334 Fax: 205-821-6596
Best contact: Donny A. Daugherty, Vice
President
PV Products: Trackers

**PRIMELITE MANUFACTURING
CORPORATION**
407 South Main Street
Freeport, L.I., NY 11520, USA
Ph: 516-868-4411 Fax: 516-868-4509
Best contact: Ben Heit
PV Products: Lighting

PROCON PRODUCTS
Division of Roehlen Industries
910 Ridgely Road
Murfreesboro, TN 37129, USA
Ph: 615-890-5710 Fax: 615-896-7729
Telex: 55-5181
PV Products: Pumps & Motors

SECTION IV: DOMESTIC MANUFACTURERS

Protection Services — SEPCO

PROTECTION SERVICES, INC.

635 Lucknow Road
Harrisburg, PA 17110, USA
Ph: 717-236-9307 Fax: 717-236-1281
Best contact: Craig S. Noll, Manager,
Field Services
PV Products: *Transportation

PYRON, INC.

1253 La Jolla Rancho Road
La Jolla, CA 92037, USA
Ph: 619-454-6371 Fax: 619-454-7198
Best contact: John Laing, CEO
PV Products: Concentrators □ *Power
System □ *Pumps & Motors

QUALITY REPAIR AND SERVICE TECHNOLOGY

4409 Cambridge Court
Independence, MO 65055-4951, USA
Ph: 816-373-6442 Fax:
Best contact: Craig Clifton, President
PV Products: *Transportation

QUANTUM BATTERIES (See GP Batteries)

RADIONIC INDUSTRIES INC.

6625 West Diversey Avenue
Chicago, IL 60635-2218, USA
Ph: 312-804-0100 Fax: 312-804-0180
Best contact: Frank Jungman, Director,
Sales & Mktg
PV Products: Lighting

REAL GOODS TRADING COMPANY

966 Mazzoni Street
Ukiah, CA 95482, USA
Ph: 800-762-7325 Fax: 707-468-0301
Best contact: Doug Pratt
PV Products: *Power System

RECOVERY ENGINEERING, INC.

2229 Edgewood Avenue So.
Minneapolis, MN 55426, USA
Ph: 800-845-7873 Fax: 612-541-1230
Best contact: Bill Kuehn, Sales
PV Products: Pumps & Motors

REMOTE POWER INC.

1608 Riverside Drive
Ft Collins, CO 80524, USA
Ph: 303-482-9507 Fax: 303-482-9610
Best contact: Charlie Backman, Sales
Manager
PV Products: Power System

RENAISSANCE CARS, INC.

2300 Commerce Park Blvd., Suite 1
Palm Bay, FL 32905, USA
Ph: 407-676-2228 Fax: 407-676-2229
Best contact: James H. Muir, Vice
President, Design
PV Products: Specialties □ Transportation

RESEARCH PRODUCTS

Blankenship
2639 Andjon
Dallas, TX 75220, USA
Ph: 214-358-4238 Fax: 214-350-7919
Telex: 730-161
Best contact: E. Bayne Blankenship,
President
PV Products: Specialties

REULAND ELECTRIC MOTORS

E. Railroad St.
P.O. Box 1464
Industry, CA 91749, USA
Ph: 818-964-6411 Fax: 818-965-1283
PV Products: Pumps & Motors □
Transportation

RGA, INC.

454 Southlake Blvd
Richmond, VA 23236, USA
Ph: 804-794-1592 Fax: 804-379-1016
Best contact: Andy Keel
PV Products: *Lighting □ *Transportation

RHINO RAK/RCF ENTERPRISES

27865 Rosamond Drive
Canyon Country, CA 91351, USA
Ph: 805-251-4960 Fax: 805-251-6590
Best contact: Rick C. Fee
PV Products: Support Structures

ROBBINS ENGINEERING, INC.

1641-25 McCulloch Boulevard
Suite 294
Lake Havasu City, AZ 86403, USA
Ph: 602-855-3670 Fax: 602-855-3670
Best contact: Roland Robbins, M.E.,
President
PV Products: Support Structures □
Trackers

RV SOLAR ELECTRIC

14415 North 73rd Street #112
Scottsdale, AZ 85260-3130, USA
Ph: 602-443-8520 Fax:
Best contact: Noel Kirkby
PV Products: *Power System □ Voltage
Regulators/Charge Controllers

SAFT NIFE, INC.

Industrial Sales Headquarters
711 Industrial Boulevard
Valdosta, GA 31601, USA
Ph: 912-247-2331 Fax: 912-247-8486
PV Products: Batteries □ Inverters &
Power Conditioners □ Software

SANDIA NATIONAL LABORATORIES

Photovoltaic Design Assistance Center
Department 6218
Albuquerque, NM 87185-5800, USA
Ph: 505-844-3698 Fax: 505-844-6541
Best contact: Peggy Valencia
PV Products: Software

SANYO ENERGY CORPORATION

1201 Sanyo Avenue
San Diego, CA 92073, USA
Ph: 619-661-6620 Fax: 619-661-6743
Best contact: Kuwata
PV Products: Batteries □ Lighting □
*Power System □ *Specialties (airplane) □
PV: Mfr cells & modules [A-SI]

SCIENTIFIC ENGINEERING (formerly Scientific Analysis)

5960 East Shirley Lane
Montgomery, AL 36117, USA
Ph: 800-345-2575 Fax: 205-271-0818
Best contact: John Allen Gunn, President
PV Products: *Lighting

SEA CORPORATION

305 North Mathilda Avenue
Sunnyvale, CA 94086, USA
Ph: 408-720-1804 Fax: 408-720-9405
Best contact: Neil Kaminar, VP
Engineering
PV Products: Concentrators □ *Power
System □ PV: Assemble modules [SC-SI
(CONCENTRATOR)]

SECO (Utility Power Group)

P.O. Box 4445
Chatsworth, CA 91313, USA
Ph: 818-700-1995 Fax: 818-700-2518
PV Products: PV: Mfr cells & modules
[A-SI]

SEPCO (Solar Electric Power Co.)

P.O. Box 2165
Palm City, FL 34990, USA
Ph: 407-220-6615 Fax: 407-220-8616
Best contact: Steve R. Robbins, President
PV Products: *Lighting

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

SECTION IV: DOMESTIC MANUFACTURERS

Service & Materials Co. — Solar Electric Systems of Kansas City

SERVICE & MATERIALS CO., INC.
Division of Lukens General Industries
 2200 South J Street
 Elwood, IN 46036, USA
 Ph: 317-552-3352 Fax: 800-428-8185
Best contact: John Pappas, Sales & Marketing Manager
PV Products: ♦Transportation

SHARP ELECTRONICS CORPORATION
 1 Sharp Plaza
 Box G
 Mahwah, NJ 07495, USA
 Ph: 800-BE-SHARP/2374277 Fax:
 Telex: 426903 SHARPAM PARA
PV Products: ♦Specialties

SHURFLO
 12650 Westminster Avenue
 Santa Ana, CA 92706-2100, USA
 Ph: 800-854-3218 Fax: 714-554-4721
 Telex: 9105912707
Best contact: Tony Barber, Industrial Mktg Manager
PV Products: Pumps & Motors

SIEMENS SOLAR INDUSTRIES, INC.
 4650 Adohr Lane
 P.O. Box 6032
 Camarillo, CA 93010, USA
 Ph: 800-272-6765 Fax: 805-388-6395
 Telex: 6716260
PV Products: Communications □
 ♦Lighting □ ♦Power System □ Support Structures □ Voltage Regulators/Charge Controllers □ PV: Mfr cells & modules [SC-SI, CIS]

SILICON SENSORS INC.
 Old Highway 18 East
 Dodgeville, WI 53533, USA
 Ph: 608-935-2707 Fax: 608-935-2775
 Telex: 910-280-1430 DODV
Best contact: Phil Lulewicz
PV Products: PV: Mfr cells & modules [SC-SI]

SIMPLER SOLAR SYSTEMS, INC.
 3118 W. Tharpe Street
 Tallahassee, FL 32303, USA
 Ph: 904-576-5271 Fax: 904-576-5274
 Telex: 9102407142
Best contact: Al Simpler
PV Products: ♦Communications □
 ♦Lighting □ ♦Pumps & Motors □
 ♦Transportation

SMALL HYDROELECTRIC SYSTEMS & EQUIP.
(Peltech Hydraulic Turbines)
 5141 Wickersham Road
 Acme, WA 98220, USA
 Ph: 206-595-2312 Fax:
Best contact: William Kitching, Manager
PV Products: Hybrid Systems/ Generators □ ♦Power System

SOLA ELECTRIC
Unit of General Signal
 1717 Busse Road
 Elk Grove, IL 60007, USA
 Ph: 800-289-7652 Fax: 800-626-6269
Best contact: Richard Boyd
PV Products: Inverters & Power Conditioners

SOLAR 4 SYSTEMS
 3400 Curtis Drive, Suite 301
 Hillcrest Heights, MD 20746, USA
 Ph: 301-702-1574 Fax:
Best contact: Thelma Cromwell Moss, President
PV Products: ♦Specialties (water purification)

SOLAR CAR CORPORATION
 1300 Lake Washington Road
 Melbourne, FL 32935, USA
 Ph: 407-254-2997 Fax: 407-254-4773
Best contact: Doug Cobb, President
PV Products: Misc. □ ♦Specialties (EV) □
 ♦Transportation

SOLAR CELLS, INC.
 2650 North Reynolds Road
 Toledo, OH 43615, USA
 Ph: 419-537-0131 Fax: 419-537-8831
Best contact: James Brown
PV Products: PV: Mfr cells & modules [A-SI]

SOLAR CITY
 4305 West Alva Street
 Tampa, FL 33614, USA
 Ph: 813-877-5120 Fax: 813-877-5767
Best contact: Ben Bentley, President
PV Products: ♦Lighting

SOLAR CONTRACTORS INC.
 PO Box 37073
 Houston, TX 77237-7073, USA
 Ph: 713-668-2906 Fax: 405-295-3119
Best contact: Earl Robbins
PV Products: ♦Pumps & Motors

SOLAR CONVERSIONS
 8601 Bluebonnet
 Amarillo, TX 79108, USA
 Ph: 806-381-2299 Fax: 806-358-0179
Best contact: Bill Patke
PV Products: ♦Refrigeration □
 ♦Specialties (evap. cooler for autos)

SOLAR DEPOT (aka Energy Depot)
 61 Paul Drive
 San Rafael, CA 94903, USA
 Ph: 415-499-1333 Fax: 415-499-0316
Best contact: Shawn Moshfeghi, Applications Engineer
PV Products: ♦Power System

SOLAR ELECTRIC ENGINEERING, INC.
 116 4th Street
 Santa Rosa, CA 95401, USA
 Ph: 800-832-1986 Fax: 707-586-0690
Best contact: Alex Kimball, Public Relations
PV Products: ♦Specialties (EV, vent, fan) □
 □ ♦Transportation □ PV: Assemble modules

SOLAR ELECTRIC OF SANTA BARBARA
Division of Solar Electric Specialties
 232 Anacapa Street
 Santa Barbara, CA 93101, USA
 Ph: 805-963-9667 Fax: 805-963-9929
 Telex: 510-6012219
Best contact: Scott Williams, Industrial Sales Engineer
PV Products: ♦♦Communications □
 ♦♦Hybrid/Generators □ ♦♦Power System

SOLAR ELECTRIC SPECIALTIES CO. (SES)
 P.O. Box 537
 Willits, CA 95490, USA
 Ph: 800-344-2003 Fax: 707-459-5132
Best contact: Douglas Wayne Robertson, Dealer, Remote Homes
PV Products: ♦Cathodic Protection □
 ♦Communications □ ♦Hybrid Systems/Generators □ ♦Lighting □ ♦Power System □
 ♦Pumps & Motors □ Voltage Regulators/Charge Controllers

SOLAR ELECTRIC SYSTEMS OF KANSAS CITY
 13700 West 108th Street
 Lenexa, KS 66215, USA
 Ph: 913-338-1939 Fax: 913-469-5522
Best contact: Bill Roush, President
PV Products: ♦Lighting □ ♦Specialties (irrigation) □ ♦Transportation

SECTION IV: DOMESTIC MANUFACTURERS

Solar Energy Applications — Sophisticated Systems

SOLAR ENERGY APPLICATIONS

305 North Mathilda Avenue
Sunnyvale, CA 94086, USA
Ph: 408-720-1804 Fax: 408-720-9405
Best contact: Bill Lapson, President
PV Products: Concentrators □ PV:
Assemble modules

SOLAR ENERGY LABORATORY

University of Wisconsin
1500 Johnson Drive
Madison, WI 53706, USA
Ph: 608-263-1589 Fax:
Best contact: Ruth Urpan
PV Products: Software

SOLAR ENGINEERING SERVICES

(See Applied Power)

SOLAR MUSIC INC.

15751 Roxford St.
Suite K
Sylmar, CA 91342, USA
Ph: 818-362-9100 Fax:
PV Products: ♦Specialties
(novelties/music boxes)

SOLAR OUTDOOR LIGHTING, INC.

3131 S.E. Waaler Street
Stuart, FL 34997, USA
Ph: 407-286-9461 Fax: 407-286-9616
Best contact: Alan Hurst, President
PV Products: ♦Lighting □ ♦Transportation

SOLAR TECHNOLOGIES

P.O. Drawer 899
Inglis, FL 32649, USA
Ph: 800-330-76527
Fax: 904-447-0051
Best contact: David Harding
PV Products: Trackers

SOLAR TEK

P.O. Box 795102
Dallas, TX 75379, USA
Ph: 214-235-8537 Fax: 214-701-8744
Telex: 251621 DISINT
Best contact: Jim Seidel
PV Products: ♦Lighting □ ♦Transportation

SOLAR WORLD

2807 North Prospect
Colorado Springs, CO 80907, USA
Ph: 719-635-5125 Fax: 719-635-5398
Best contact: Brad Thompson
PV Products: ♦Power System □
♦Specialties (novelties)

SOLAREX

Division of Amoco/Enron Solar
630 Solarex Court
Frederick, MD 21701, USA
Ph: 301-698-4338 Fax: 301-698-4201
Telex: 64358 SOLX UR
Best contact: Leonard J. May, Mktg Dir
PV Products: Communications □
Concentrators □ Electrical/Hardware □
♦Lighting □ ♦Power System □
♦Refrigeration □ Support Structures □
Voltage Regulators/Charge Controllers □
PV: Mfr cells & modules, components
[PC-SI, A-SI]

SOLAREX Thin Film Division

826 Newtown-Yardley Rd.
Newtown, PA 18940, USA
Ph: 215-860-0902 Fax: 215-860-2986
Best contact: David Lehmicke, Project
Engineer
PV Products: ♦Power System □ PV: Mfr
cells & modules [A-SI, CIS]

SOLARJACK

325 East Main Street
Safford, AZ 85546, USA
Ph: 602-428-1092 Fax: 602-428-1291
PV Products: Pumps & Motors

SOLARMAX CORPORATION

2929 Tallevast Road
Sarasota, FL 34243, USA
Ph: 813-351-6443 Fax: 813-351-2699
Best contact: Lloyd Koehler, CEO
PV Products: ♦Transportation

SOLARMETRICS, INC.

140 Bouchard Street
Manchester, NH 03103, USA
Ph: 800-356-4751 Fax: 603-668-8484
Best contact: Earl Farley
PV Products: ♦Power System

SOLARTHERM PRODUCTS

1315 Apple Avenue
Silver Spring, MD 20910, USA
Ph: 301-587-8686 Fax:
Best contact: Carl Schleicher
PV Products: ♦Specialties (boat, EV) □
♦Transportation

SOLATROL INCORPORATED

11080 Roselle Street
San Diego, CA 92121, USA
Ph: 619-452-4500 Fax: 619-453-7320
Best contact: George Cagala, Marketing
Com.
PV Products: Pumps & Motors □
♦Specialties (irrigation control system)

SOLEC INTERNATIONAL, INC.

12533 Chadron Avenue
Hawthorne, CA 90250, USA
Ph: 310-970-0065 Fax: 310-970-1065
Telex: 910-325-6215
Best contact: Joel Davidson, Director,
Sales & Mktg
PV Products: Electrical/Hardware □
♦Lighting □ ♦Power System □ ♦Specialties
(car vent, music, CD player, tools, etc.) □
♦Transportation □ PV: Mfr cells &
modules [SC-SI]

SOLECTRIA

Electronics Division
27 Jason street
Arlington, MA 02174, USA
Ph: 508-658-2231 Fax: 508-658-3224
Best contact: Anita Rajan
PV Products: Inverters & Power
Conditioners □ Meters, Instrumentation &
Controls □ Pumps & Motors □ ♦Specialties
(EV) □ ♦Transportation □ PV: Assemble
modules [SC-SI]

SOLEQ CORPORATION

5969 North Elston Avenue
Chicago, IL 60646, USA
Ph: 312-792-3811
Fax: 312-792-0315/2164
Best contact: S. Ohba, Engineer
PV Products: Inverters & Power
Conditioners □ Transportation □ Voltage
Regulators/Charge Controllers

SOLO POWER

Division of Zomeworks
1011 B Sawmill Road NW
Albuquerque, NM 87104, USA
Ph: 800-279-7656 Fax: 505-243-5187
Best contact: Don Doench
PV Products: Hybrid Systems/ Generators
□ ♦Lighting □ Power System □ ♦Pumps &
Motors □ ♦Specialties (attic vents) □
♦Transportation

SONNENSCHNEIDER BATTERIES, INC. (See East Penn Mfg. Co. Inc.)

SOPHISTICATED SYSTEMS

3785 Alt. 19 North
Palm Harbor, FL 34683, USA
Ph: 800-544-7258/9389475
Fax: 813-937-5689
Best contact: R. Davidson Keller,
President
PV Products: Specialties

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

SOUTHWEST PV SYSTEMS, INC.

212 East Main Street
Tomball, TX 77375, USA
Ph: 713-351-0031 or 2923
Fax: 713-351-8356

Best contact: Marshall Blalock, President

PV Products: Batteries □ ♦♦Catholic Protection □ ♦♦Communications □ ♦♦Hybrid Systems/Generators □ ♦Lighting □ ♦Power System □ Support Structures □ ♦Transportation

**SOUTHWEST REGION
EXPERIMENT STATION**

SW Technology Development Institute
P.O. Box 30001/Dept. 3SOL
Las Cruces, NM 88003-0001, USA
Ph: 505-646-1049 Fax:

Best contact: Steve Durand, PV Program Manager

PV Products: Meters, Instrumentation & Controls

**SOUTHWEST WINDPOWER
(See Wind Baron)****SOVONICS SOLAR SYSTEMS (See
United Solar Systems Corporation)****SPECIALTY CONCEPTS, INC. (SCI)**

8954 Mason Ave.
Chatsworth, CA 91311, USA
Ph: 818-998-5238 Fax: 818-998-5253
Telex: 662914 SCI CNPK UD

PV Products: Lighting □ Meters, Instrumentation & Controls □ Voltage Regulators/Charge Controllers

**SPECIALTY VEHICLE
MANUFACTURING CORP.**

9250 Washburn Road
Downey, CA 90241, USA
Ph: 310-904-3434 Fax: 310-904-3439

Best contact: Don Duffy, President

PV Products: Transportation

SPECTROLAB INC.

A Division of Hughes Aircraft

12500 Gladstone Avenue
Sylmar, CA 91342, USA
Ph: 818-365-4611 Fax: 818-365-7680
Telex: 182881SPECTILLMSYLM

Best contact: J. Albeck

PV Products: Concentrators □ PV: Mfr cells & modules, components, mfrg equipment [GA-AS, SC-SI]

**SPECTRUM INTERNATIONAL
Division of Rural Communications
Corp.**

402 Broad Street
Milford, PA 18337-1509, USA
Ph: 717-828-9504 Fax: 717-828-9201

PV Products: Electrical/Hardware □ Lighting □ Voltage Regulators/Charge Controllers

SPIRE CORPORATION, INC. (SPI)

One Patriots Park
Bedford, MA 01730-2396, USA
Ph: 617-275-6000 Fax: 617-275-7470
Telex: 951072

Best contact: Steve Hogan, Manager, Energy Equipment

PV Products: Meters, Instrumentation & Controls □ PV: Services, components, mfrg equipment [A-SI, GA-AS]

**SOLAR ENERGY RESEARCH
CENTER**

**Division of Elk Industries, Inc.
(formerly State Paving Company)**
4018 North 30th Ave.

Hollywood, FL 33021, USA
Ph: 954-963-2948 Fax: 954-964-8015

Best contact: Rob Elkins, President

PV Products: ♦♦Lighting □ ♦♦Transportation □ PV: Assemble modules

**SUN SELECTOR
(See Bobier Electronics)****SUN-MATE CORPORATION
RBM International**

8110 Remmet Avenue
Canoga Park, CA 91304, USA
Ph: 818-883-7766 Fax: 818-883-8171

Best contact: Albert Stern

PV Products: ♦Specialties (novelties - gadgets & toys)

SUNALEX CORPORATION

5955 NW 31st Avenue
Ft. Lauderdale, FL 33309, USA
Ph: 305-973-3230 Fax: 305-971-3647

Best contact: Angelo V. Palermo, President

PV Products: Inverters & Power Conditioners □ Lighting

SUNAMP POWER COMPANY

1902 North Country Club Drive
Suite 8
Mesa, AZ 85201, USA
Ph: 602-833-1550 Fax: 602-833-1711

Best contact: Joe Wise, Sales Manager

PV Products: Inverters & Power Conditioners □ ♦♦Lighting □ Meters, Instrumentation & Controls □ Misc. □ ♦Power System □ Pumps & Motors □ Refrigeration □ Specialties □ Support Structures □ Transportation □ Voltage Regulators/Charge Controllers

SUNELCO

P.O. Box 1499
Hamilton, MT 59840, USA
Ph: 406-363-6924 Fax:

Best contact: Becky Brandborg

PV Products: ♦♦Lighting □ ♦Power System

SUNFROST

P.O. Box 1101
Arcata, CA 95521, USA
Ph: 707-822-9095 Fax: 707-822-6213

Best contact: Larry Schlusser, Owner

PV Products: ♦Refrigeration

SUNNYSIDE SOLAR

RD4 Box 808
Green River Road
Brattleboro, VT 05301
Ph: 802-257-1482 Fax: 802-254-4670

Best contact: Carol Levin

PV Products: ♦Power System

SUNPOWER CORPORATION

435 Indio Way
Sunnyvale, CA 94086, USA
Ph: 408-991-0900 Fax: 408-739-7713

Best contact: Richard Swanson, Vice President

PV Products: Concentrator R&D □ PV: Module R&D [SC-SI (concentrator)]

SUNSEARCH Sunracks

P.O. Box 590
Guilford, CT 06437, USA
Ph: 203-453-6591 Fax: 203-453-1259

Best contact: Everett M. Barber, Jr.

PV Products: Support Structures

SUNWATT CORPORATION

RFD Box 751
Addison, ME 04606, USA
Ph: 207-497-2204 Fax:

Best contact: Richard Komp, President

PV Products: Concentrators □ ♦Power System □ PV: Assemble modules

SECTION IV: DOMESTIC MANUFACTURERS

Sunwise Energy Systems — Trantex

SUNWIZE ENERGY SYSTEMS, INC.

Sales & Service (a Besicorp Co.) 1151
Flatbush Road
Kingston, NY 12401, USA

Ph: 800-832-7652 Fax: 914-336-7172

Best contact: Dave Kulik, Chief
Operations Officer

PV Products: ♦Hybrid Systems/
Generators □ ♦Lighting □ ♦Power System □
♦Specialties (boat) □ ♦Transportation □
PV: Assemble modules

SURRETTE AMERICA

Division of Atlantic Battery Company
15 Park Street

PO Box 249

Tilton, NH 03276, USA

Ph: 603-286-8974 Fax: 603-286-7770

Best contact: Howard Cullen, General
Manager

PV Products: Batteries

SYSTEMS RESEARCH GROUP, INC.

12424 Research Parkway, Suite 162
Orlando, FL 32826, USA

Ph: 407-381-8255 Fax: 407-381-5830

PV Products: ♦Lighting □ ♦Power System

TACO, INC.

1160 Cranston

Cranston, RI 02920, USA

Ph: 401-942-8000 Fax: 401-542-2360

Best contact: Robert Barbour

PV Products: Pumps & Motors

TACTICAL FABRS, INC.

270 E. Brokaw Rd.

San Jose, CA 95112, USA

Ph: 408-436-9600 Fax: 408-436-1472

PV Products: Misc. □ PV: Services

TAYTRONICS

430 Ritt Street

St. Peter, MN 56082, USA

Ph: 507-931-1406 Fax: 507-931-1842

Best contact: Chad Ogren, Sales

PV Products: Inverters & Power
Conditioners □ Meters, Instrumentation &
Controls

TECHNIART INC.

P.O. Box 500

Unionville, CT 06085, USA

Ph: 203-675-6001 Fax: 203-675-9131

PV Products: ♦Power System □

♦Specialties (novelties)

TEKSOLR

8270 Hidden Bay Trail N

Lake Elmo, MN 55042, USA

Ph: 612-770-1057 Fax:

Best contact: Gordy Grundeen

PV Products: Electrical/Hardware

TEXAS HUNTER PRODUCTS

PO Box 5087

San Antonio, TX 78201, USA

Ph: 512-734-5189 Fax: 512-734-0601

Best contact: Glen Watts, Electronics

Manager

PV Products: ♦Specialties (game feeders)

TEXAS INSTRUMENTS, INC.

Photovoltaic Program

13588 N. Central Exp., MS 147

Dallas, TX 75243, USA

Ph: 214-995-0155 Fax: 214-995-6558

Best contact: Eric Graph, Marketing
Manager

PV Products: PV: Cell & module R&D
[spherical silicon] (NOTE: PV program
suspended 2-95)

THE SEANAV CORPORATION

P.O. Box 32038

Lafayette, LA 70593-2038, USA

Ph: 318-235-1004 Fax: 318-235-1055

Best contact: Bobby Miller, Technical
Services/Sales

PV Products: ♦Lighting □ ♦Transportation
□ PV: Assemble modules [SEMI
CRYSTALLINE]

THIN-LITE CORPORATION

530 Constitution Avenue

Camarillo, CA 93010, USA

Ph: 805-987-5021 Fax: 805-388-0921

Telex: 662203 RECSPEC CAMA

Best contact: Patricia Cramer

PV Products: Lighting □ Transportation

THOMAS & BETTS CORPORATION

1001 Frontier Road

Bridgewater, NJ 08807-2941, USA

Ph: 908-685-1600 Fax: 901-682-7766

PV Products: Electrical/Hardware

TIDELAND SIGNAL

CORPORATION SE Regional Office

1994 Eastwood Road

Wilmington, NC 28403, USA

Ph: 910-256-3768 Fax: 910-256-3760

Telex: 762327 TICOR HOU

Best contact: Victor G. Taylor, Vice
President

PV Products: Batteries □

♦Communications □ ♦Lighting □ ♦Power
System □ ♦Transportation □ PV: Assemble
modules [SC-SI]

TOUCHSTONE TECHNOLOGY

17500 Lemarsh Street

Northridge, CA 91325, USA

Ph: 818-993-9871 Fax: 818-349-8608

Best contact: Paul B. Scott

PV Products: ♦Pumps & Motors

TRACE ENGINEERING COMPANY

5917 195th Street NE

Arlington, WA 98223, USA

Ph: 206-435-8826 Fax: 206-435-2229

PV Products: Hybrid Systems/ Generators

□ Inverters & Power Conditioners □

Voltage Regulators/ Charge Controllers

TRAFCON INDUSTRIES, INC.

81 Texaco Road

Mechanicsburg, PA 17055, USA

Ph: 717-691-8007 Fax: 717-697-0813

Best contact: George Park, Design
Engineer

PV Products: ♦Transportation

TRANSLUMIN INTERNATIONAL

1401 NW Boulevard

Franklin, LA 70538, USA

Ph: 318-828-1944 Fax: 318-828-5986

Best contact: Todd Harris, Project
Director

PV Products: ♦Transportation □

PV: Assemble modules, mfrg equip-ment

TRANTEX

Transportation Products of Texas, Inc.

3310-D Frick Road

Houston, TX 77086, USA

Ph: 800-348-7710 Fax: 713-591-6827

Best contact: Cliff Hoffman, Equipment
Manager

PV Products: ♦Transportation □ PV:
Assemble modules

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

TRIGG INDUSTRIES, INC.
345 Wrexham Court
Hampton, VA 23669, USA
Ph: 804-851-3744 Fax: 804-851-6583
Best contact: Harry E. Trigg, President
PV Products: Batteries □ *Transportation

TRIPP-LITE
Division of Trippe Mfg. Co.
500 N. Orleans St.
Chicago, IL 60610, USA
Ph: 312-329-1777 Fax: 312-644-6505
Telex: 255159
PV Products: Inverters & Power Conditioners

TROJAN BATTERY COMPANY
12380 Clark Street
Santa Fe Springs, CA 90670, USA
Ph: 800-423-6569 Fax: 310-941-6038
Best contact: Jim Drizos, Product Application Spec.
PV Products: Batteries

TRUSTY WARNS
Warns Solar Pumps
1414 Lunt Avenue
Elk Grove Village, IL 60007, USA
Ph: 708-766-9015 Fax:
Telex: 210012UR
PV Products: Pumps & Motors

U.S. BATTERY MANUFACTURING
1675 Sampson Avenue
Corona, CA 91719, USA
Ph: 714-371-8090
Fax: 714-371-4158/4671
Best contact: Sandy Kemp, Director of Marketing
PV Products: Batteries

UDEC CORPORATION
241 Crescent Street
Waltham, MA 02154, USA
Ph: 617-899-6400 Fax: 617-899-6403
PV Products: Lighting

UNIQUE MOBILITY
425 Corporate Circle
Golden, CO 80401, USA
Ph: 303-278-2002 Fax: 303-278-7007
Best contact: Robert L. Rehn, VP, Vehicle Systems
PV Products: Pumps & Motors □ Transportation

UNITED SOLAR SYSTEMS CORPORATION (See also ECD)
1100 W. Maple Road
Troy, MI 48084, USA
Ph: 313-362-4170/3120
Fax: 313-362-4442
Best contact: Jim Young, Midwest Sales Manager
PV Products: *Power System □ PV: Mfr cells & modules [A-SI, PIN/PIN]

UNITED TECHNOLOGIES MOTOR SYSTEMS, INC
P.O. Box 2228
McCrary Road
Columbus, MS 39704-2228, USA
Ph: 601-328-4150 Fax: 601-245-4491
Best contact: L.E. Miller, VP Commercial Sales
PV Products: Pumps & Motors □ Transportation

UNIVERSAL ENERGY CONTROL, INC. (UNENCO)
2555 Nicholson Street
San Leandro, CA 94577, USA
Ph: 510-352-1802 Fax: 510-895-5753
PV Products: Lighting

UTILITY FREE, INC.
P.O. Box 228
Basalt, CO 81621, USA
Ph: 303-928-0846 Fax: 303-928-0847
Best contact: John Deangelo
PV Products: Batteries □ *Power System

UTILITY POWER GROUP Silicon Energy Corp.
9410-G DeSoto Avenue
Chatsworth, CA 91311, USA
Ph: 818-700-1995 Fax: 818-700-2518
Best contact: Michael Stern
PV Products: Inverters & Power Conditioners □ *Power System □ Trackers □ PV: Assemble modules [A-SI]

VANNER, INC.
4282 Reynolds Drive
Hilliard, OH 43026, USA
Ph: 614-771-2718 Fax: 614-771-4904
Telex: 6874646 INTRADE COLS
Best contact: Chuck Bennett
PV Products: Hybrid Systems/ Generators □ Inverters & Power Conditioners

VANTON PUMP & EQUIPMENT CORPORATION
201 Sweetland Avenue
Hillside, NJ 07205, USA
Ph: 908-688-4216 Fax: 908-686-9314
Telex: 138-478
Best contact: Ken Comerford, National Sales Manager
PV Products: Pumps & Motors

VARIAN ASSOCIATES
611 Hansen Way K-222
Palo Alto, CA 94303, USA
Ph: 415-493-4000 Fax: 415-493-0307
PV Products: Concentrators

VAW OF AMERICA, INC.
P.O. Box 6726
Phoenix, AZ 85005, USA
Ph: 602-269-2488 Fax: 602-269-0220
Best contact: Todd Erbach, Sales
PV Products: PV: Components

VEHMA INTERNATIONAL - USA
1200 Chicago Road
Troy, MI 48083, USA
Ph: 313-585-4800 Fax: 313-585-4221
Best contact: Ken Hart
PV Products: *Specialties (EV) □ *Transportation

VERITEK
P.O. Box 172
Allendale, MI 49401-0172, USA
Ph: 616-895-5546 Fax: 616-892-4606
Best contact: Jim Wilkinson
PV Products: Meters, Instrumentation & Controls □ Voltage Regulators/Charge Controllers

VOLTAIX, INC.
197 Meister Ave
PO Box 5357
North Branch, NJ 08876, USA
Ph: 908-231-9060 Fax: 908-231-9063
Best contact: James Mann
PV Products: Misc. □ PV: Components

WACKER SILTRONIC
2425 N. Central Expressway
Suite 201
Richardson, TX 75080, USA
Ph: 214-690-3057 Fax: 214-680-3331
Best contact: Danny Davis, District Sales Manager
PV Products: PV: Components [SC-SI]

SECTION V: FOREIGN MANUFACTURERS

Wanco Manufacturing Company — Zomeworks Corporation

WANCO MANUFACTURING COMPANY

1630 West Evans Street
Unit L
Englewood, CO 80110, USA
Ph: 303-935-0617 Fax: 303-935-1647
Best contact: Michael Wanasz
PV Products: *Transportation

WESTEC SYSTEMS

P.O. Box 3183
Chatsworth, CA 91313-3183, USA
Ph: 818-341-6684 Fax:
Telex: 805-522-4984
PV Products: Inverters & Power
Conditioners

WESTERN LIGHTING INDUSTRIES

dba Orgatech Omegalux
3540 Valhalla Drive
Burbank, CA 91505-1126, USA
Ph: 818-841-7896 Fax: 818-841-8910
Best contact: Stan Strangberg, CEO
PV Products: *Lighting □ Transportation

WESTERN TRAFFIC CONTROL

3501 S. Cicero
Cicero, IL 60650, USA
Ph: 708-656-0900 Fax:
Best contact: Bill Lucas
PV Products: *Transportation

WESTINGHOUSE ELECTRIC CORPORATION (See also

Photocomm, IPS, NPS, NWP)
P.O. Box 10864, Route 51
Pittsburgh, PA 15236-0864, USA
Ph: 412-382-4942 Fax: 412-382-7042
Best contact: Lanny Kirkpatrick
PV Products: PV: Cell R&D

WHELEN ENGINEERING COMPANY

Route 145, Winthrop Road
Chester, CN 06412-0684, USA
Ph: 203-526-9504 Fax: 203-526-4078
Best contact: Tom Fredericks, Product
Manager
PV Products: *Transportation

WIDE-LITE

500 Wonder World Drive
P.O. Box 606
San Marcos, TX 78667, USA
Ph: 512-392-5821 Fax: 512-353-5822
Best contact: Weldon W. Roffe,
Marketing Projects Mgr
PV Products: Lighting

WIND BARON

3920 East Huntington Drive
Flagstaff, AZ 86004, USA
Ph: 602-526-6400 Fax: 602-526-5498
Best contact: John DePoe
PV Products: *Hybrid
Systems/Generators □ Power System □
*Pumps & Motors □ PV: Mfr
cells & modules

WINDY DANKOFF, PVSS

P.O. Box 548
Santa Cruz, NM 87567, USA
Ph: 505-351-2100 Fax: 505-351-2100
Best contact: Windy Dankoff
PV Products: *Pumps & Motors

WOODLAND ENERGY COMPANY

2 Pleasant Street
S. Ashburnham, MA 01466, USA
Ph: 508-348-3396 Fax:
Best contact: Woodward Johnson
PV Products: *Power System

WORK AREA PROTECTION CORPORATION

Division of Stabler Co.
2500 Production Drive
P.O. Box 87
St. Charles, IL 60174, USA
Ph: 708-377-9100 Fax: 708-377-9270
Best contact: Thomas Bednar
PV Products: *Transportation

YUASA BATTERY (AMERICA) INC.

12070 Telegraph Road, Suite 100
Santa Fe Springs, CA 90670, USA
Ph: 310-949-4266 Fax: 310-949-5527
Best contact: Bill Remer, Sales
PV Products: Batteries

ZOMEWORKS CORPORATION

1011A Sawmill Road NW
P.O. Box 25805
Albuquerque, NM 87125, USA
Ph: 505-242-5354 Fax: 505-243-5187
Best contact: Jeff Randall, Vice President
PV Products: ###
Batteries □ *Specialties (stock tank de-
icer) □ Support Structures □ Trackers

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

Section V: Foreign Manufacturers

**ACUMULADORES MEXICANOS,
S.A. DE C.V. (ACUMEX)**
Aramberri 711
Apdo. Postal 976
Monterrey, Nuevo Leon 64000, MEXICO
Ph: 52-83-439884/24
Fax: 52-83-439455
Best contact: Jose Clariond, Solar Energy
Manager
PV Products: Batteries □ Cathodic
Protection □ Electrical/Hardware □
Lighting □ Meters, Instrumentation &
Controls □ Misc. □ Software □ Support
Structures □ Voltage Regulators/Charge
Controllers

**ADVANCED ENERGY SYSTEMS
PTY LTD**
Brodie Hall Drive
Technology Park, Bentley 6102,
AUSTRALIA
Ph: 61-9-470-4633
Fax: 61-9-470-4504
Best contact: Pat Lee, Manager,
Customer Service
PV Products: ♦Cathodic Protection □
♦Hybrid Systems/Generators □ Inverters &
Power Conditioners □ ♦Power System □
♦Refrigeration □ ♦Transportation □
Voltage Regulators/Charge Controllers

AEG TECHNIQUE & INDUSTRIE
Division Equipement/Systemes PV
10 avenue Reaumur
Clamart 92142, FRANCE
Ph: 33-1-45-37-98-65
Fax: 33-1-46-32-28-67
PV Products: Power System

AIXTRON GMBH
Kackertstr. 15-17
D-5100 Aachen, GERMANY
Ph: 49-241-8909-0
Fax: 49-241-8909-40
Best contact: Reinhard Kalla
PV Products: PV: Mfrg equipment

ALTECH TELECOMMS
Alternative Energy Division
13 Top Road
Anderbolt Boksborg 1459
P.O. Box 10196
Fonteinriet 1464, SOUTH AFRICA
Ph: 27-11-894-8261
Fax: 27-11-894-5219 Telex: 7-40660SA
Best contact: Willi Hook, Sales/
Marketing Manager
PV Products: Batteries □
Communications □ Inverters & Power
Conditioners □ Lighting □ ♦Power System
□ Support Structures □ Voltage
Regulators/Charge Controllers

ANIT S.R.L.
Via Pacinotti 20
Genova-Sampierdarena 16151, ITALY
Ph: 39-10-412501/466137
Fax: 39-10-413012
Best contact: Gianquido Fassino, General
Manager
PV Products: ♦Power System (large
power plants)

**ANSALDO SISTEMI INDUSTRIALI
SPA**
45 Pieragospini
Genova 16105, ITALY
Ph: 39-10-4103 Fax:
Best contact: Gianguido Fassino, General
Manager
PV Products: PV: Assemble modules
[SC-SI]

ASE GMBH
Angewandte Solarenergie
Industrie Strasse 13
Alcenau 63755, GERMANY
Ph: Fax:
PV Products: PV: Mfr cells & modules
[PC-SI, A-SI]

ATLANTIS ENERGY SYSTEM
Thunstrasse 43 A
3005 Bern, SWITZERLAND
Ph: 41-31-434843 Fax:
Best contact: Mario Posnansky
PV Products: Specialties □ PV:
Assemble modules [SC-SI, PC-SI]

AUDIO-LIGHT A/S
Ensjoveien 20A
Oslo 6 0661, NORWAY
Ph: 47-2-19-4200 Fax: 47-2-68-0059
Best contact: Nils Vollestad
PV Products: Communications □ Hybrid
Systems/Generators □ Lighting □
Refrigeration □ Voltage Regulators/
Charge Controllers □ PV: Assemble
modules

**AUSTRALIAN ENERGY RESEARCH
LABS P/L**
MS 660
Proston 4613, AUSTRALIA
Ph: 61-71-689-308
Fax: 61-71-689-197
Best contact: Stuart Watkinson
PV Products: Cathodic Protection □
Inverters & Power Conditioners □ Lighting
□ Voltage Regulators/Charge Controllers

AUTO-SOL GDBR
Bucklestrasse 23
D-7750 Konstanz, GERMANY
Ph: 49-7531-56785 Fax:
Best contact: Michael Simon
PV Products: ♦Specialties (EV) □
♦Transportation

BALOCHISTAN SOLAR SYSTEMS
P.O. 10434
Sadar, Karachi, PAKISTAN
Ph: 92-21-519-429 Fax: 92-21-516-746
PV Products: Mfr balance of systems

BAYER AG
Geschattsbereich
Pigmente und Keramik
Krefeld-Uerdingen 4150, GERMANY
Ph: 49-21151-887168 Fax:
PV Products: PV: Mfr cells/raw
materials, services, components [PC-SI]

BHEL
(Bharat Heavy Electricals Limited)
Electronics Division, P.B. 2606
Mysore Road
Bangalore. 560026, INDIA
Ph: 91-812-624283 Fax: 91-812-610137
Telex: 0845-2436 BHCE IN
Best contact: Ashok Ramakrishna,
Manager
PV Products: PV: Mfr cells & modules,
mfrg equipment [SC-SI, A-SI]

SECTION V: FOREIGN MANUFACTURERS

BP Solar Arabia — Crystalox

BP SOLAR ARABIA

P.O. Box 85652
Riyadh 11612, SAUDI ARABIA
Ph: 966-1-4984864 Fax: 966-1-4984796
Telex: 403981 Beppee SJ

Best contact: T. Choudry

PV Products: Electrical/Hardware □
♦Power System □ Support Structures □
Voltage Regulators/Charge Controllers □
PV: Assemble modules [SC-SI]

BP SOLAR AUSTRALIA PTY LTD

Head Office

100 Old Pittwater Road
P.O. Box 519
Brookvale, New South Wales 2100,
AUSTRALIA
Ph: 61-2-9385111 Fax: 61-2-9391548
Telex: AA 17065

Best contact: T.J. Ind

PV Products: ♦Cathodic Protection □
♦Communications □ ♦Hybrid Systems/
Generators □ ♦Lighting □ Meters,
Instrumentation & Controls □ ♦Power
System □ ♦Pumps & Motors □
Transportation □ Voltage Regulators/
Charge Controllers □ PV: Mfr cells &
modules, services [SC-SI]

BP SOLAR ESPANA SA

Calle Primera No. 5
Valportillo
Alcobendas
Madrid, SPAIN
Ph: 34-1-661-1614 Fax: 34-1-661-2703
Telex: 48496 BPSE E

Best contact: J. Fuentes

PV Products: ♦Cathodic Protection □
♦Communications □ ♦Hybrid Systems/
Generators □ ♦Lighting □ Meters,
Instrumentation & Controls □ ♦Power
System □ ♦Pumps & Motors □
Transportation □ Voltage Regulators/
Charge Controllers □ PV: Mfr cells &
modules, services [SC-SI]

BP SOLAR INDIA (TATAS)

A-101 Block II,
KSSIDC Multistorey Bldg
Electronic City
Hebbagodi Hosur Road
Bangalore 562158, INDIA
Ph: 91-812-422081/2/3
Fax: 91-812-422417
Telex: 8408224 TABP IN

Best contact: A. Parr

PV Products: Electrical/Hardware □
♦Power System □ Support Structures □
Voltage Regulators/Charge Controllers □
PV: Assemble modules [SC-SI]

BP SOLAR LTD.

(UK Sales & Marketing)
Credsec House
Oxford Road
Stone
Aylesbury, Bucks HP17 8PL, ENGLAND
Ph: 44-296-74722 Fax 44-296-748111
Telex: 838867 BPSOL G

Best contact: Mark Hammonds

PV Products: ♦Cathodic Protection □
♦Lighting □ ♦Refrigeration □ Voltage
Regulators/ Charge Controllers

BP THAI SOLAR CORPORATION

101/47/9 Nava Nakorn
Industrial Estate
Phaholyothin Road, Klong 1
Klongluang, Pathumthani, THAILAND
Ph: 66-2-529-1105 Fax: 66-2-236-8169
Telex: 20889 BPTHSOL TH

Best contact: V. Sommai

PV Products: Electrical/Hardware □
♦Power System □ Support Structures □
Voltage Regulators/Charge Controllers □
PV: Assemble modules [SC-SI]

BR SOLAR LTDA

Rua Visconde de Piraja, 547 CJ. 1111
Rio de Janeiro, BRAZIL
Ph: 5521-512-1260 Fax: 5521-512-0046
Best contact: Ruberval Baldini, President
PV Products: ♦Communications

CANADIAN AGTECHNOLOGY PARTNERS (CAP)

5037-50th Street
P.O. Box 2457
Olds, Alberta TOM IPO, CANADA
Ph: 403-556-8779 Fax: 403-556-7799
Best contact: Eric Jensen, President
PV Products: ♦Pumps & Motors

CAPSA

Av. Republica de Panama 1491
Lima, PERU
Ph: 51-14-724920/715553 Fax:
PV Products: Batteries

CARL BAASEL

Lastertechnik GmbH
Petersbrunner Str 1B
8130 Starnberg, GERMANY
Ph: 49-8151/7 76-0 Fax:
PV Products: PV: Services

CENTRAL ELECTRONICS, LTD.

(CEL) Solar PV Group
4, Industrial Area
Sahibabad, (U.P.) 201010, INDIA
Ph: 91-8733640/8768276
Fax: 91-8731843 Telex: 592203
Best contact: R.K. Razdan, Gen. Mgr.
PV Products: ♦Cathodic Protection □
♦Communications □ ♦Lighting □ ♦Power
System □ Pumps & Motors □
♦Refrigeration □ Specialties □ Support
Structures □ ♦Transportation □ Voltage
Regulators/Charge Controllers □ PV: Mfr
cells & modules [SC-SI]

CENTRONIX

36, Jalan Matraman Raya
Jakarta 13150, INDONESIA
Ph: 62-21-8509870-71
Fax: 62-21-8583186
Best contact: Ir. P. Iwansantoso,
Corporate Advisor
PV Products: ♦♦Communications □
Electrical/Hardware □ ♦♦Power System □
Support Structures □ Voltage Regulators/
Charge Controllers □ PV: Assemble
modules [SC-SI (mainly)]

CHRONAR FRANCE

(See Naps France)

CHRONAR LTD. (See EPV - USA)

COMERCIO Y TECNOLOGIA INDUSTRIAL (CTI)

Carretera Miguel Aleman, No 920
San Nicolas de los Garza, Nuevo Leon
C.P. 66473, MEXICO
Ph: 52-83-645661 Fax: 52-83-645287
PV Products: Voltage Regulators/ Charge
Controllers

CONDUMEX

Nacional de Conductores Electricos
Fulton #2, Colonia Central Ind.
Tlalnepantla, Estado de Mexico 54030,
MEXICO
Ph: 52-5-390-2434 Fax:
Best contact: Enrique Hill Bochelen
PV Products: ♦♦Power System

CRYSTALOX LTD. - ENGLAND

1 Limborough Road
Wantage, Oxfordshire OX12 9AJ,
ENGLAND
Ph: 44-235-770044 Fax: 44-235-770111
Telex: 838851 CRYSTL G
Best contact: Iain Dorrity
PV Products: PV: Components, mfrg
equipment [PC-SI (multi)]

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

DAICHI COMPANY LTD

3F Taiyo Bldg
323-26 Toyo, Koto-Ku
Tokyo 135, JAPAN
Ph: 81-3-647-1231 Fax:
PV Products: Lighting

DEHN + SOHNE**ELECTROTECHNISCHE FABRIK**

Hans-Dehn D\Strasse 1
Postfach 1640
D 8430
Neumarkt, GERMANY
Ph: 49-91 81 906-0
Fax: 49-91 81 906-100
Best contact: R. Linder
PV Products: Electrical/Hardware

DEUTSCHE AEROSPACE**(formerly Telefunken Systemtechnik)**

Energy & Solar Systems Division
Industriestrasse 23-33
D-2000 Wedel (Holstein), GERMANY
Ph: 49-4103-600 Fax: 49-4103-604701
Telex: 2189520

Best contact: Cordes, VP & General Manager

PV Products: ♦Cathodic Protection □
♦Communications □ Electrical/Hardware □
♦Hybrid Systems/Generators □ Inverters &
Power Conditioners □ ♦Lighting □ ♦Power
System □ ♦Pumps & Motors □ Software □
Support Structures □ Voltage
Regulators/Charge Controllers □ PV: Mfr
cells & modules [SC-SI, PC-SI, A-SI,
GA-AS]

DORNIER GMBH**Division of Deutsche Aerospace**

Postfach 1420
D-7990 Friedrichshafen, GERMANY
Ph: 49-7545-81 Fax: 49-7545-8-4411
Telex: 734209-0

Best contact: Mr. Lindemann
PV Products: PV: Services

DULAS ENGINEERING LTD.**Renewable Energy Systems**

The Old School
Eylwystach, Machynlleth SY20 8SX,
WALES
Ph: 44-654-781332 Fax: 44-654-781390
Telex: 35851 CYMEA G

Best contact: Guy Watson

PV Products: Inverters & Power
Conditioners □ Meters, Instrumentation &
Controls □ ♦Power System □
♦Refrigeration □ Support Structures □
Voltage Regulators/Charge Controllers

EBARA CORPORATION

11-1, Hameda-Asahi-cho
Ohta-ku
Tokyo 144, JAPAN
Ph: 81-3-3743-6031
Fax: 81-3-3745-3010

Best contact: Kazuyoshi Terashima
PV Products: Batteries □ ♦Pumps &
Motors □ Specialties (water purification)

ECOSOLAIRE**Division of Serelio**

19 rue Pavee
75004 Paris, FRANCE
Ph: 33-148874360 Fax: 33-148878627
Telex: 214 235 MISIV

Best contact: Jean-Claude Bernard,
President

PV Products: ♦Lighting □ Voltage
Regulators/Charge Controllers

ECOSOLAR**Subsidiary of the Intersolar Group**

Factory 3, Cock Lane
High Wycombe
Bucks HP13 7DE, ENGLAND
Ph: 44-1494-452941
Fax: 44-1494-452941

Best contact: Trevor Howes, Sales
Director

PV Products: ♦Power System □ Support
Structures □ PV: Mfr cells & modules
[A-SI]

EGYCEL

9 Marouf Street
Cairo, EGYPT
Ph: 20-2-758609 Fax: 20-2-760633

Best contact: Yehia Z. Bahnas, Vice
Chairman & CEO

PV Products: ♦♦Communications □
♦♦Cathodic Protection □ ♦♦Lighting □
♦♦Pumps & Motors □ ♦♦Refrigeration □
PV: Assemble modules [SC-SI, PC-SI]

EKO INSTRUMENTS TRADING CO., LTD

21-8, Hatagaya 1-Chome
Shibuya-Ku
Tokyo 151, JAPAN
Ph: 81-3-3469-4511
Fax: 81-3-3469-4593
Telex: J25364EKOTRA

Best contact: Toshikazu Hasegawa,
Director

PV Products: Meters, Instrumentation &
Controls

ELECTROLUX (LUXEMBOURG)

4, rue de la Frontiere
L-9412 Vianden, LUXEMBOURG
Ph: 352-84595 Fax: 848-11-300 Telex:
3468 ELUX VI
PV Products: ♦Refrigeration

ELECTROLYSER CORPORATION

122 The West Mall
Etobicoke
Toronto, Ontario M9C 1B9, CANADA
Ph: 416-621-9410 Fax: 416-621-9830

Best contact: Andrew T.B. Stuart,
Manager, Energy Products

PV Products: ♦Specialties (PV-
>hydrogen) □ ♦Transportation

ELETTRORAVA SPA

Via Don Sapino 176
10040 Savonera-Torino, ITALY
Ph: 39-11-424-0237
Fax: 39-11-424-0364

Best contact: P. Rava

PV Products: PV: Mfrg equipment

ELKEM A/S

Bremanger Smelteverk
N-6930 Svelgen, NORWAY
Ph: 47-57-93200 Fax: 47-57-93578

Best contact: Cyrus Zahedi

PV Products: PV: Services, components,
(mfrg equipment?) [PC-SI]

ENE S.A.

Avenue van der Meerschelaan 188
1150 Brussels, BELGIUM
Ph: 32-2-7711328 Fax: 32-2-7711328
Telex: 69945

Best contact: Guy R. Smekens

PV Products: Lighting □ Power System □
Pumps & Motors □ PV: Assemble
modules [PC-SI]

ENVIRONMENTAL BATTERY SYSTEMS

Toronto, Ontario, CANADA
Ph: Fax:

PV Products: Batteries

EPOS/PVI (See also EPV-USA)

P.O. Box 45
1601 Budapest, HUNGARY
Ph: 36 11 861 560
Fax: 36 11 830 323

Best contact: Zoltan Kiss

PV Products: Batteries □ Inverters &
Power Conditioners □ Lighting □ Pumps &
Motors

SECTION V: FOREIGN MANUFACTURERS

Eurosolare S.R.L. — Hitachi

EUROSOLARE S.R.L.

Via del Serfico 89/91
I-00142 Rome, ITALY
Ph: 39-6-50-39-24-15
Fax: 39-6-50-39-24-50

Best contact: Valter Pasqua, General Manager

PV Products: Lighting □ Pumps & Motors □ PV: Mfr cells & modules, components [PC-SI, SC-SI]

FLACHGLAS-SOLARTECHNIK

Muhleingasse 7
D-5000 Koln 1, GERMANY
Ph: 49-221-235191
Fax: 49-221-243811 Telex: 172214258

Best contact: Oussama Chehab, Head - Special Glass & PV

PV Products: Inverters & Power Conditioners □ Misc. □ *Power System □ Software □ PV: Components (PV-integrated glass facades)

FLUXINOS ITALIA

Export Office
C.P. 77 - Via Campestre 19
20091 Bresso (MI), ITALY
Ph: 39-2-6101731/732
Fax: 39-2-6101376

Best contact: Terry Manning

PV Products: Pumps & Motors

FNMA-INGENIERIE - BELGIUM

Rue Aviateur
Thieffry 53 Boite 7
1040 Brussels, BELGIUM
Ph: 32-2-7337542 Fax:

PV Products: *Refrigeration

FUJI ELECTRIC CO., LTD.

New Yuraku-cho Bldg.
1-12-1, 1-chome
Yuraku-cho, Chiyoda-ku
Tokyo 100, JAPAN
Ph: 81-3-3211-7111
Fax: 81-3-3215-8321

Best contact: T. Kenori Shigemasa

PV Products: PV: Mfr cells & modules [A-SI]

FUJI SASH COMPANY, LTD.

R&D Division
135 Nakamaruko Nakahara-ku
Kawasaki-shi 211, JAPAN
Ph: 81-44-422-1135
Fax: 81-44-434-2637

PV Products: Support Structures

FURUKAWA BATTERY COMPANY, LTD.

Industrial Division

No. 4-1, 2 Chome
Hoshikawa Hodogaya-ku
Yokohama 240, JAPAN
Ph: 81-45-336-5045

Fax: 81-45-333-3411

Best contact: Masayuki Tanaka, Gen. Manager, Tech. Dept.

PV Products: Batteries □ Electrical/Hardware □ Inverters & Power Conditioners □ Power System □ Software □ Support Structures □ Voltage Regulators/Charge Controllers □ PV: Assemble modules

GANSU GNERI PV COMPANY

77 S. Dinx Road
Lanzhou, GANSU 73000-0, CHINA
Ph: 86-931-25211 Fax: 86-931-486243

PV Products: *Lighting

GPV GALLIVARE PHOTOVOLTAIC AB

Foretagscentrum
P.O. Box 840
S-982 28 Gallivare, SWEDEN
Ph: 46-970-168-45 Fax: 46-970-158-98

Best contact: Peter H. Johnson

PV Products: PV: Assemble modules [SC-SI, PC-SI]

GRUNDFOS A/S

Poul Due Jensens Vej 7
8850 Bjerringbro, DENMARK
Ph: 45-86681400

Fax: 45-8668-4472/4245

Telex: 60731 GFOS DK

Best contact: Egon fl. Sorensen

PV Products: *Pumps & Motors

HAGEN BATTERIE AG

Postfach 1461
Coesterweg 45
Soest D-4700, GERMANY
Ph: 49-2921-703-0

Fax: 49-2921-703-423

Telex: 847309 hagb d

PV Products: Batteries □ Inverters & Power Conditioners?

HCT SHAPING SYSTEMS S.A.

En Noyer Girod
CH-1163 Etoy, SWITZERLAND
Ph: 41-21-807-4169
Fax: 41-21-807-3094

Best contact: Charles Hauser, Director

PV Products: PV: Mfrg equipment

HELIODINAMICA

Rodovia Raposo Tavares
Caixa Postal 111-06730
Vargem Grande Paulista
Sao Paulo, BRAZIL

Ph: 55-11-790-0888

Fax: 55-11-790-1280/1980

Telex: 1171754

Best contact: Roxana Moraru Topel

PV Products: *Lighting □ Misc. □ *Power System □ *Pumps & Motors □ *Refrigeration □ Support Structures □ Voltage Regulators/Charge Controllers □ PV: Mfr cells & modules, components [SC-SI, PC-SI]

HELIODYNAMI LTD

224 Syngrou Avenue
17672 Kallithea, Athens, GREECE
Ph: 30-1-959-2323

Fax: 30-1-959-2322

Best contact: Evangelos Leris

PV Products: Power System

HELIOS POWER

P.O. Box 52869
Wierda Park 0149, SOUTH AFRICA
Ph: 27-12-64-4024 Fax: 27-12-64-5980

Best contact: Joe Micciarelli, General Manager

PV Products: PV: Mfr cells & modules [SC-SI]

HELIOS TECHNOLOGY

Via Postumia 11
Carmignano di Brenta, Padova 35010, ITALY

Ph: 39-49-9430288

Fax: 39-49-5958255 Telex: 431591

Best contact: Franco Traverso

PV Products: Lighting □ Support Structures □ Voltage Regulators/Charge Controllers □ PV: Mfr cells & modules, components [SC-SI]

HITACHI LTD

6, Kanda-Surugadai
4-chome, Chiyoda-ku
Tokyo 101, JAPAN

Ph: 81-3-258-1111 Fax:

PV Products: Inverters & Power Conditioners □ Lighting □ Pumps & Motors □ Refrigeration □ PV: Assemble modules

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

HOPPECKE Accumulatorenwerke
 Carl Zoellner & Sohn GmbH & Co KG
 Postfach 1140
 5790 Brilon 2, GERMANY
 Ph: 49-2963-61-265
 Fax: 49-2963-2379 Telex: 84600
Best contact: Klaus Gutzeit, Proj. Mgr.
PV Products: Batteries

HOXAN CORPORATION
Photovoltaics Division
 13-12, Ginza 5-Chome
 Chuo-Ku
 Tokyo 104, JAPAN
 Ph: 81-3-543-8757 Fax:
 Telex: 0252-4470 HOXAN J
Best contact: Shigeru Misushima
PV Products: ♦Lighting □ Refrigeration
 □ ♦Specialties (car vent) □ Transportation □
 PV: Mfr cells & modules [SC-SI]

HYDRASOL CORPORATION
 Industriestrasse 100
 6919 Bammatal, GERMANY
 Ph: 49-6223-47532
 Fax: 49-6223-48159
Best contact: G. Kleiber
PV Products: ♦Pumps & Motors

IBC Int'l Battery & Solar Power Co.
 Am Hochgericht 10
 PO Box 1107
 D-8623 Staffelstein, GERMANY
 Ph: 49-9573-3066
 Fax: 49-9573-31264/3832
 Telex: 662688 akumo d
Best contact: Udo Mohrstedt
PV Products: Batteries □ ♦Cathodic
 Protection □ ♦Communications □ ♦Hybrid
 Systems/Generators □ Inverters & Power
 Conditioners □ Lighting □ Misc. □ ♦Power
 System □ Pumps & Motors □ Software □
 Support Structures □ Voltage
 Regulators/Charge Controllers

IMFA GROUP
 Therubali 765017
 Dist. Koraput, Orissa, INDIA
 Ph: 91-80 RAYAGADA Fax:
Best contact: C.M. Singal
PV Products: PV: Assemble modules

IMPEX INDIA LTD
 New Hind House
 3 N Morarjee Marg
 Ballard Est. Bombay 400 038, INDIA
Best contact: Y.R. Rao
PV Products: PV: Assemble modules
 [A-SI]

INDIAN METALS Ferro Alloys Ltd.
 Box Therubali - 765018
 Dist. Koraput, Orissa, INDIA
 Ph: 91-RAYAGADA-80, 180 Fax:
PV Products: PV: (components?)
 [SC-SI]

**INSTRUMENT RESEARCH ASSOC.
 PVT. LTD.**
 P.B. No. 2304, No. 19
 Mysore Deviation Road
 Bangalore 560 023, INDIA
 Ph: 91-812-3300382
 Fax: 91-812-3301969
 Telex: 0845-3066 WINC IN
Best contact: H.S. Nagaraj, Managing
 Director
PV Products: Meters, Instrumentation &
 Controls □ ♦Specialties (data logger)

INTERSOLAR LTD.
 Unit 2, Cock Lane
 High Wycombe
 Bucks HP13 7DE, ENGLAND
 Ph: 44-1494-452945
 Fax: 44-1494-437045
Best contact: Philip Bouverat, Director
PV Products: ♦Specialties (fan, car vent)
 □ PV: Mfr cells & modules [A-SI]

INTERTECHNOLOGY
 Box 12
 Moscow 123436, RUSSIA
 Ph: 7-95-194-7322
 Fax: 7-95-1943060/1928040
Best contact: Fedor Kozyrev, General
 Manager
PV Products: ♦Power System □ ♦Pumps
 & Motors □ PV: Mfr cells & modules
 [SC-SI]

INVERTOMATIC SA
 CH -6595 Riazzino, (Locarno),
 SWITZERLAND
 Ph: 41-92-642525 Fax: 41-92-642854
 Telex: 846202 im ch
Best contact: C. Giovannini
PV Products: Inverters & Power
 Conditioners

ISOFOTON S.A.
Direccion y dpto. comercial
 Miguel Angel, 16
 28010 MADRID, SPAIN
 Ph: 34-1-308-2294
 Fax: 34-1-410-5989 Telex: 499440
Best contact: Jose Luis Manzano
PV Products: Power System □ PV: Mfr
 cells & modules, mfrg equipment [SC-SI]

IT POWER LTD.
 The Warren
 Bramshill Rd.
 Eversley, Hants RG27 OPR, ENGLAND
 Ph: 44-734-730073
 Fax: 44-734-730820 Telex: 846852
Best contact: Anthony Derrick
PV Products: ♦Power System

ITALSOLAR S.P.A.
 Via del Giorgione 59/63
 00147 Rome, ITALY
 Ph: 39-6-9850246/7/8
 Fax: 39-6-9850269 Telex: 612441
PV Products: Cathodic Protection □
 Inverters & Power Conditioners □
 ♦Lighting □ Power System □ Pumps &
 Motors □ Refrigeration □ PV: Mfr cells &
 modules [PC-SI, SC-SI]

**JAPAN STORAGE BATTERY CO.,
 LTD.**
International Division
 1-8-1 Nishi-Shimbashi
 Minato-ku
 Tokyo 105, JAPAN
 Ph: 81-3-3502-6528
 Fax: 81-3-3502-6857
 Telex: 222-4945 DENCHI J
Best contact: Mr. Obata
PV Products: Batteries □ Electrical/
 ardware □ Inverters & Power Conditioners
 □ Meters, Instrumentation & Controls □
 ♦Power System □ Pumps & Motors □
 Voltage Regulators/Charge Controllers

KANEKA CORPORATION
 Asahi Shimbun Gldg.
 2-4, 3-Chome, Nakanoshima, Kita-ku
 OSAKA 530, JAPAN
 Ph: 81-6-266-5032
 Fax: 81-6-266-5144
Best contact: Seishiro Mizukami,
 Manager, New Bus. Develop
PV Products: PV: Mfr cells & modules
 [A-SI]

KOMATSU LTD.
 1200, Manda
 Hiratsuka-shi
 Kanagawa, JAPAN
 Ph: 81-463-231301 Fax:
 Telex: 47995 KEMS
PV Products: PV: Assemble modules
 [SC-SI]

SECTION V: FOREIGN MANUFACTURERS

Koncar Solar Cells—Mono Pumps

KONCAR SOLAR CELLS

Tezacki put bb
58 000 Split, CROATIA
Ph: 38-58-513477 Fax: 38-58-512138
Best contact: Mehod Jurisic, General Manager
PV Products: PV: Mfr cells & modules [A-SI]

KOOLTRON CORP.

Division of URUS Corp.
27 Catherine Ave.
Brantford, Ontario N3T 1X5, CANADA
Ph: 519-759-1900 Fax:
PV Products: Refrigeration □ Specialties

KYOCERA CORPORATION

Kyoto Karasuma Office
2F Eisen Karasuma Bldg
680 Karasuma Bukkoji-sagaru
Shimogyo-ku
Kyoto 600, JAPAN
Ph: 81-75-344-8241
Fax: 81-75-344-8240
Telex: KCCP J66540

Best contact: Hiroshi Yagi, Solar Energy Division

PV Products: Electrical/Hardware □ Inverters & Power Conditioners □
♦Lighting □ Meters, Instrumentation & Controls □ Misc. □ Power System □
♦Pumps & Motors □ Refrigeration □
♦Specialties (vent) □ Support Structures □
♦Transportation □ PV: Mfr cells & modules [PC-SI, A-SI]

LFI/BESTEK GROUP, INC.

19-2485 Lancaster Road
Ottawa, Ontario K1B 5L1, CANADA
Ph: 613-523-5211 Fax: 613-521-6330
Best contact: Nae Ismail, Director, Solar Tech.
PV Products: ♦Lighting □ Transportation □ [SC-SI, PC-SI]

LISTER-PETTER AUSTRALIA PTY. LTD.

211-221 Warren Road
Smithfield, New South Wales 2164, AUSTRALIA
Ph: 61-2-609-6888 Fax: 61-2-604-2780
Best contact: Peter Iredale
PV Products: Hybrid Systems/ Generators

M. SETEK COMPANY LTD.

Daiwa Building, 3-6-16 Yanaka
Taito-ku
Tokyo 110, JAPAN
Ph: 81-3-3824-3241
Fax: 81-3-3824-0939
Telex: 2657679 MSETEK J
Best contact: Osamu Gondo, Manager
PV Products: PV: Services, components, mfrg equipment [SC-SI]

M.S.K. CORPORATION

1011, 5-12 Nishi-Shinjuku
3-chome, Shinjuku-ku
Tokyo 160, JAPAN
Ph: 81-3-3342-3838
Fax: 81-3-3342-6534
Best contact: Christophe Nappez
PV Products: Electrical/Hardware □
♦Lighting □ ♦Power System □ Specialties □
Support Structures □ ♦Transportation □
PV: Assemble modules, services, mfrg equipment [PC-SI, A-SI]

MATSUSHITA BATTERY

1-Matsushita-cho
Moriguchi-shi
Osaka 570, JAPAN
Ph: 81-6-991-1141 Fax: 81-6-991-1245
Best contact: Mr. Bogawa
PV Products: Batteries □
Communications □ Inverters & Power Conditioners □ Lighting □ Power System □
Pumps & Motors □ Refrigeration □ PV:
Mfr cells & modules [SC-SI, PC-SI, CDS/CDTE]

MBB ENERGY & INDUSTRIAL TECHNOLOGY

Postfach 801180
D-8000 Munchen 80, GERMANY
Ph: 49-89-607-31500
Fax: 49-89-607-31505
Telex: 5287-0 mbb d
PV Products: ♦♦Specialties (sun roof) □
PV: Mfr cells & modules [A-SI]

MEIDENSHA CORPORATION

New Otemachi Building
2-2-1 Otemachi
Chiyoda-ku, Tokyo 100, JAPAN
Ph: 81-3-3246-7111
Fax: 81-3-3245-1378
Best contact: Mr. Yanagisawa
PV Products: Hybrid Systems/ Generators □
Inverters & Power Conditioners □ Power System □
Pumps & Motors □ Support Structures □
Voltage Regulators/Charge Controllers □
PV: Assemble modules

MICROCHEMISTRY LTD

Subsidiary of NESTE
Keilaranta 6
Box 45
SF-02151 Espoo, FINLAND
Ph: 358-0-455-3155
Fax: 358-0-450-5700
Best contact: Tuomo Suntola, Managing Director
PV Products: PV: Cell & module R&D, mfrg equipment [CDS/CDTE]

MICROTECH HELLAS S.A.

3, Amfiritris Str.
P. Faliro
17561 Athens, GREECE
Ph: 30-1-9819425 Fax:
Best contact: E. Polyzogopoulou
PV Products: PV: Cell R&D [SC-SI]

MITSUBISHI ELECTRIC CORPORATION

2-3, Marunouchi
2-cho, Chiyoda-Ku
Tokyo 100, JAPAN
Ph: 81-3-218-3535 Fax:
PV Products: Communications □ Lighting □
Pumps & Motors □ PV: mfr cells & modules?

MITSUI TOATSU CHEM.

Kasumigaseki Bldg
2-5, Kasumigaseki
3-cho Chiyoda-Ku
Tokyo 100, JAPAN
Ph: 81-3-593-7364 Fax:
PV Products: PV [SC-SI, A-SI]

MM TECHNICS LTD.

Ksaver 200
Zagreb, CROATIA
Ph: 38-4-1424010 Fax:
PV Products:

MOLI ENERGY LIMITED

20000 Stewart Crescent
Maple Ridge, BC V2X 9E7, CANADA
Ph: 604-465-7911 Fax: 604-465-4398
Telex: 04-356708
PV Products: Batteries

MONO PUMPS LTD.

Engineering Services Division
Cromwell Trading Estate
Cromwell Road
Bredbury, Stockport, Cheshire SK6 2RF, ENGLAND
Ph: 44-61-494-6999
Fax: 44-61-494-5802 Telex: 668762
PV Products: Pumps & Motors

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

MOSCOW GENERAL IND

N Susalnei Corner, Building 5
Moscow 103064, RUSSIA
Ph: 7-095-261-3281 Fax:

Best contact: Nusuev Vyacheslav

PV Products: PV: Mfr cells/raw materials, services, components [SC-SI]

MSETEC CO LTD

Daiwa Bldg, 3-6-16
Yanaka, Taito-ku
Tokyo 110, JAPAN
Ph: 81-3-824-3241 Fax:

PV Products: PV [SC-SI]

NAPS FRANCE

Bureaux Commerciaux
Le Lizard 3
35, allée du 12 février 1934
Noiseil

77437 Marne la Vallée, Cédex 2

FRANCE

Ph: 33-1-60373560 Fax: 33-1-60378411

Best contact: Emmanuel Fabre

PV Products: Lighting □ Power System □
Pumps & Motors □ PV: Mfr cells &
modules [A-SI]

NAPS INTERNATIONAL**Division of NESTE**

P.O. Box 3
FIN-02151 Espoo, FINLAND
Ph: 358-0-4501 Fax: 358-0-4504744
Telex: 124641 neste fi

Best contact: Kimmo Kedonpaa, General
Mgr, Int'l Mktg

PV Products: ♦ Hybrid Systems/
Generators □ ♦ Lighting □ Misc. □ ♦ Power
System □ ♦ Refrigeration □ ♦ Transportation
□ Voltage Regulators/ Charge Controllers
□ PV: Mfr cells & modules [SC-SI,
PC-SI, A-SI]

NATIONAL LUNA

Harris Ave./Wagenaar
P.O. Box 8899, Sebenza
Edenglen, Edenvale 1613,
SOUTH AFRICA
Ph: 27-11-452-5438
Fax: 27-11-452-5263. Telex: 7-44904

Best contact: Peter Slement, Director

PV Products: Electrical/Hardware □
Inverters & Power Conditioners □
♦ Lighting □ Misc. □ ♦ Power System □
Refrigeration □ Support Structures □
Transportation □ Voltage Regulators/
Charge Controllers

NESTE ADVANCED POWER SYSTEMS (See Naps Int'l & Naps-France)

NIFE (See Saft Nife-USA)

NIPPON ELECTRIC INDUSTRY CO., LTD.

Power System Division
10-12, Ueno 1-chome
Taito-ku, Tokyo 110, JAPAN
Ph: 81-3-3837-3734
Fax: 81-3-3839-3066
Telex: J-24528 DENSEIKI

Best contact: Kazunari Takahashi, Mgr.

PV Products: ♦ Hybrid Systems/
Generators □ Inverters & Power
Conditioners □ ♦ Power System

NIPPON MINING CO.

R&D Group
3-17-35 Niizo-Minami
Toda, Saitama 335, JAPAN
Ph: 81-484-42-7571 Fax:

PV Products: PV: Mfr cells/raw materials [SC-SI, INP, INAR, GA-AS, CA-TE]

NIPPON SHEET GLASS

Shimbashi Sumitomo
Bldg, 11-3, 5-chome
Shimbashi, Minato-ku
Tokyo 105, JAPAN
Ph: 81-3-436-8841 Fax:

PV Products: Misc. □ PV: Components

NISSIN ELECTRIC COMPANY

47, Umezu Takase-cho,
Ukyo-ku
Kyoto 615, JAPAN
Ph: 81-75-864-8438
Fax: 81-75-882-4120
Telex: 5422-106 NISSIN J

Best contact: M. Kikkawa, Manager

PV Products: Inverters & Power
Conditioners □ Meters, Instrumentation &
Controls □ ♦ Power System

NUKEM GMBH

Geschäftsbereich Solartechnik
Industriestrasse 13
Postfach 1313
D-8755 Alzenau, GERMANY
Ph: 49-6023-911720/12
Fax: 49-6023-911700
Telex: 4188233 nuka d

Best contact: Reinhard Goethe

PV Products: PV: Mfr cells & modules [SC-SI, PC-SI, A-SI (R&D on MIS junction)]

OMAN SOLAR SYSTEMS LLC. (OSS)

P.O. Box 4922
Ruwi, Muscat, OMAN
Ph: 968-591122, 592807
Fax: 968-705490

Best contact: A. Sam Myles

PV Products: ♦ Communications □
♦ Lighting □ ♦ Pumps & Motors □
♦ Specialties (desalination) □
Transportation □ PV: Mfr cells/raw materials

OMNIPower TECHNOLOGIES (See Optitron Solar)**OPTITRON SOLAR**

OmniPower House
81 Harold Park Road
Jet Park, Boksburg
P.O. Box 8210
Ravensmoor 1469, SOUTH AFRICA
Ph: 27-11-823-3212
Fax: 27-11-823-3217

Best contact: Iain Johnston, Nat'l
Marketing Manager

PV Products: ♦ Lighting □ ♦ Transportation

OXFORD APPLIED RES.

Crawley Mill, Witney
Oxfordshire OX85TJ, ENGLAND
Ph: 44-993-73575/6 Fax:

Best contact: Ray Clampitt

PV Products: Misc. □ PV: Services

PAKISTAN SOLAR POWER

76/3 P.O. Box 13867
Clifton, Karachi 535040, PAKISTAN
Ph: Fax:

Best contact: I.H. Usmani

PV Products: PV [?]

PB TECHNIK

Gustav Maurer Strasse 25
8702 Zollikon, SWITZERLAND
Ph: 41-1-391-6858 Fax:

PV Products: PV: Services, components

PENTAFOUR SOLEC TECHNOLOGY LTD.

Chitra Towers
322-2 Arcot Road
Madras 600024, INDIA
Ph: 91-44-483-6352
Fax: 91-44-483-4517

Best contact: V. Rama Krishnan

PV Products: PV: Assemble modules [SC-SI]

Photec — Reonac Energy Systems

PHOTEC S.A.

58 rue de la Versoix
Divonne les Baines F-01200, FRANCE
Ph: 33-50-200082 Fax:
PV Products: Misc. □ PV: Mfrg
equipment [SC-SI]

PHOTON TECHNOLOGY

Heideveld 1
B-1511 Huizingen, BELGIUM
Ph: 32-2-3567321 Fax:
Best contact: Louis Frisson
PV Products: PV: Assemble modules
[SC-SI]

PHOTOTRONICS SOLARTECHNIK

Hermann-Oberth-Strasse 9
D-8011 Putzbrunn, GERMANY
Ph: 49-89-45660-310
Fax: 49-89-45660-332
Telex: 5287117 mbb d
Best contact: Wolfram Einars, Managing
Director
PV Products: ♦Specialties (car vent, sun
roof) □ PV: Mfr cells & modules [A-SI]

**PHOTOWATT INTERNATIONAL
S.A.**

33 rue St. Honore
Z.I. Champfleuri
38300 Bourgoin-Jallieu, FRANCE
Ph: 33-74-938020 Fax: 33-74-938040
Telex: 308270
Best contact: Robert de Franclieu,
Commercial Director
PV Products: Cathodic Protection □
Communications □ Electrical/Hardware □
♦Lighting □ Misc. □ Support Structures □
Transportation □ Voltage Regulators/
Charge Controllers □ PV: Mfr cells &
modules [PC-SI]

PIRELLI Conker S.A.

Av. Naciones Unidas 1003
Lima 1, PERU
Ph: 51-14-314920/313856 Fax:
PV Products: Electrical/Hardware

POWER & SUN PVT LTD

338, T.B. Jayah Mawatha
Colombo 10, SRI LANKA
Ph: 94-1-686307, 686268
Fax: 94-1-575599
Telex: 22082 X POINT CE
Best contact: Lalith Gunaratne, Joint
Managing Director
PV Products: ♦Lighting □ ♦Power System
□ Voltage Regulators/Charge Controllers □
PV: Assemble modules [PC-SI, SC-SI]

POWER REFLEX PTY. LTD.

Box 572
Unley, South Australia 5061,
AUSTRALIA
Ph: Fax:
PV Products: ♦Hybrid Systems/
Generators

**PT R&S Subsidiary of R&S
Renewable Energy Systems**

Jalan Banyumas N. 4
Jakarta 10310, INDONESIA
Ph: 62-21-390-4071-3
Fax: 62-21-361-639
Best contact: Murtadji R. de Lange
PV Products: ♦Lighting □ ♦Power System
□ Specialties □ Support Structures □
Voltage Regulators/Charge Controllers □
PV: Assemble modules [PC-SI]

PV ELECTRIC GMBH

Division of Siemens
Postfach 46070
Frankfurt Ring 152
D-8000 Munich 40, GERMANY
Ph: 49-89-3500-2215/2618
Fax: 49-89-3500-2840
Best contact: Marion Bauer
PV Products: ♦Specialties (auto sun roof)
□ PV: Assemble modules [A-SI]

**QINHUANGDAO HUA-MEI PV
ELECTRONICS**

#6 Jianguo Road
Qinhuangdao, Hebei Province, CHINA
Ph: 86-331234 or 335394 Fax:
PV Products: PV [SC-SI]

**R&S RENEWABLE ENERGY
SYSTEMS BV**

Lagedijk 25
P.O. Box 3049
5700 JC Helmond, HOLLAND
Ph: 31-4920-23335
Fax: 31-4920-49665
Best contact: Carl Ward-Hersee
PV Products: ♦Cathodic Protection □
♦Communications □ ♦Hybrid Systems/
Generators □ ♦Lighting □ ♦Power System □
Pumps & Motors □ ♦Refrigeration □
♦Specialties □ ♦Transportation □ Voltage
Regulators/Charge Controllers □ PV: Mfr
cells & modules [PC-SI]

**RAJASTHAN ELECTRONICS &
INSTRUMENTS (REIL)**

2 - Kanakpura Industrial Area
Sirsi Road
Jaipur 302012, Rajasthan, INDIA
Ph: 91-141-61981/362879
Fax: 91-141-62601
Telex: 0365-2403-REIL-IN
PV Products: Inverters & Power
Conditioners □ Lighting □ ♦Power System
□ Pumps & Motors □ ♦Specialties □ PV:
Mfr cells & modules [SC-SI]

RAPCO

Remote Alternative Power Co.
P.O. Box 76009
Wendywood 2144, SOUTH AFRICA
Ph: 27-11-445-2158
Fax: 27-11-445-2169
Best contact: C.P. Birch
PV Products: Concentrators □ Hybrid
Systems/Generators □ ♦Power System

RAYO S.A.

Av. Circunvalacion NC CLT
Lima, PERU
Ph: 51-14-722342/715553 Fax:
Best contact: Ernesto Paz
PV Products: Batteries

**RENEWABLE ENERGY SYSTEMS
(RES) PVT. LTD.**

D-52, Phase-V
IDA
Jeedimetla
Hyderabad, Andhra Pradesh 500 855,
INDIA
Ph: 91-842-896362/896497
Fax: 91-40-895807
Best contact: Jayanth Shidhaye, Director,
Marketing
PV Products: Batteries □
♦Communications □ Inverters & Power
Conditioners □ ♦Lighting □ ♦Power System
□ ♦Pumps & Motors □ Support Structures
□ Trackers □ Voltage Regulators/Charge
Controllers □ PV: Mfr cells & modules
[SC-SI]

REONAC ENERGY SYSTEMS, INC.

1493 rue Begin
Saint-Laurent, Quebec H4R 1V8,
CANADA
Ph: 514-331-5871 Fax: 514-331-2945
Best contact: Marc Suave, Product
Manager
PV Products: ♦Communications □ Power
System □ Voltage Regulators/ Charge
Controllers

♦Complete PV system package available; may also supply system components.

♦♦Custom PV systems only (vs. standard package); may also supply system components.

SAIRAM SOLAR SYSTEMS PVT. LTD.

9/7 Nehru Enclave East
New Delhi 10019, INDIA

Ph: 91-11-6440141

Fax: 91-11-6435807

Best contact: Dan L. Warnock, Director of Marketing

PV Products: ♦ Communications □
♦ Hybrid Systems/Generators □ ♦ Lighting
□ Power System □ ♦ Pumps & Motors □
♦ Specialties (PV educational kits) □
♦ Transportation

SANYO ELECTRIC CO., LTD.**Battery Business HQ**

Sumoto-city

Hyogo, JAPAN

Ph: 81-6905-4727 Fax:

PV Products: Batteries

SANYO ELECTRIC CO., LTD.**Soft Energy Business Headquarters**

222-1 Kaminaizen

Sumoto-City

Hyogo 656, JAPAN

Ph: 81-799-24-4111

Fax: 81-799-24-4128

Best contact: Yasuo Kishi, Division Manager

PV Products: Inverters & Power Conditioners □ ♦ Power System □
Refrigeration □ Support Structures □ PV: Mfr cells & modules [A-SI, PC-SI]

SERELIO (See Ecosolaire)**SHAPING SYSTEMS**

Ch. Nuyerrattes

CH-1261

Genolier, SWITZERLAND

Ph: 41-22-661636 Fax:

Best contact: C. Hauser

PV Products: Misc. □ PV: Services

SHARP CORPORATION - JAPAN**Photovoltaic Division**

282-1 Hajikami

Shinjo-cho

Kitakatsuragi-gun

Nara 639-21, JAPAN

Ph: 81-74-56-5-1161

Fax: 81-74-56-5-8253

Best contact: Akio Suzuki, Division General Manager

PV Products: Electrical/Hardware □
Inverters & Power Conditioners □ Lighting
□ Power System □ Specialties □ Support Structures □ ♦ Transportation □ PV: Mfr cells & modules [SC-SI]

SHOWA ARCO SOLAR KK

Tokyo Bldg

7-3 Marunouchi 2-cho

Chiyoda-Ku, Tokyo 100, JAPAN

Ph: 81-3-215-9661 Fax:

Best contact: Yoichi Yamazaki

PV Products: PV: Mfr cells & modules [SC-SI, A-SI]

SIEMENS SOLAR GMBH

Frankfurter Ring 152

8000 Munchen 40, GERMANY

Ph: 49-89-3500-2411/2375

Fax: 49-89-3500-2411/2676

Telex: 522297 sissg d

Best contact: Fritz Cammerer

PV Products: Voltage Regulators/ Charge Controllers □ PV: Mfr cells & modules [SC-SI, CIS (R&D)]

SINONAR

TAIWAN

Ph: Fax:

PV Products: PV: Mfr cells & modules

SISTEMI ENERGETICI INTEGRATI (SEI)

Via San Jacopo 30

50047 Prato (FI), ITALY

Ph: 39-574-24051 Fax: 39-574-36863

Best contact: Lorenzo Lori

PV Products: ♦ Communications □
♦ Transportation

SITIX

(formerly Osaka Titanium)

New Materials Sales Dept.

One Higashihamacho

Amagasaki

Hyogo 660, JAPAN

Ph: 81-6-411-1121

Fax: 81-6-412-1009

Telex: J64510/OSAKATI

PV Products: Misc. □ PV: Services, components [SI MATERIAL]

SOLAHART

Division of Hardie Energy Products

Melbourne, AUSTRALIA

Ph: Fax:

Best contact: Roger Meads, Marketing Manager

PV Products: ♦ Power System

SOLAPAK LIMITED

Intersolar Group

Factory 3, Cock Lane

High Wycombe

Bucks HP13 7DE, ENGLAND

Ph: 44-1494-452941

Fax: 44-1494-437045

Telex: 837383 SOLAPK G.

Best contact: Trevor Howes, Sales Director

PV Products: Cathodic Protection □
Communications □ Hybrid Systems/
Generators □ Lighting □ Power System □
Support Structures □ Voltage Regulators/
Charge Controllers

SOLAR CELLS PTY LTD

Unit 1, 97 Kew Street

Welshpool 6106, Western Australia,

AUSTRALIA

Ph: 61-9-3622111 Fax: 61-9-3623231

Best contact: John Hall

PV Products: Hybrid Systems/ Generators
□ ♦ Lighting □ Meters, Instrumentation &
Controls □ Misc. □ ♦ Power System □
♦ Pumps & Motors □ Support Structures □
Trackers □ Voltage Regulators/Charge
Controllers

SOLAR ELECTRIC INTERNATIONAL

77 Luqua Ind. Estate

Luqua, MALTA

Ph: 356-220875 Fax:

Telex: 792 ANTENA MW

PV Products: ♦ Pumps & Motors

SOLAR ELECTRIC LIGHT & POWER CO. BV (SEPL)

P.O. Box 45

5600 AA Eindhoven, HOLLAND

Ph: 31-40-525465 Fax: 31-40-550625

Best contact: J. Van Rooijen

PV Products: ♦ Lighting

SOLAR ENERGIE TECHNIK GMBH

1 Industriestrasse 1-3

6822 Altlusheim, GERMANY

Ph: 49-6205-3525 Fax: 49-6205-3528

Telex: 465 849 solar d

Best contact: Helmut Engelhorn

PV Products: ♦ Cathodic Protection □
Inverters & Power Conditioners □
♦ Lighting □ ♦ Power System □ ♦ Pumps &
Motors □ ♦ Refrigeration □ Support
Structures

SECTION V: FOREIGN MANUFACTURERS

Solar India Group — Sun Power Solartechnik

SOLAR INDIA GROUP

A-12 Sujan Singh Park
New Delhi 11003, INDIA
Ph: 91-11-4625122
Fax: 91-11-4627982

Best contact: Robin Greywal, Chairman

PV Products: Lighting □ *Power System
□ Pumps & Motors □ PV: Assemble
modules [PC-SI]

SOLAR SILICON PVT

15, 'Amrut'
Hansoti Rd, Cama La
Ghatkopar, Bombay 400 086, INDIA
Ph: 91-22-511 4768 Fax:
PV Products: PV: Mfr cells & modules,
services

SOLARCAN POWER CORPORATION

1535 Meyerside Drive, Unit 6
Mississauga, Ontario L5T 1M9,
CANADA
Ph: 416-795-1680 Fax: 416-795-1685
PV Products: *Power System □ PV:
Assemble modules [SC-SI]

SOLARCOM FRANCE SA

32 rue Sainte Catherine
Tarbes 65000, FRANCE
Ph: 33-62-347707 Fax: 33-62-345869
Telex: 520977

Best contact: Jean Fosse

PV Products: Batteries □
Communications □ Lighting □ Power
System □ Refrigeration □ PV: Mfr cells &
modules

SOLARCOMM

12 Lobengula Close
P.O. Box St 319
Southerton
Harare, ZIMBABWE
Ph: 263-64341/2 Fax: 263-69211/2/3
Best contact: Mike Molatt
PV Products: PV: Assemble modules

SOLARTEC/NEW WORLD

Sociedad Anonima
Ituzaingo 648
Buenos Aires 1141, ARGENTINA
Ph: 54-1-23-0229/1858
Fax: 54-1-23-6680 ph/fax
Best contact: Jose Emilio Salgado,
Presidente
PV Products: *Cathodic Protection □
*Lighting □ *Power System □ Support
Structures □ Voltage Regulators/Charge
Controllers □ PV: Assemble modules
[SC-SI]

SOLARTRONICS INTERNATIONAL LTD

64 Angove Street
North Perth, Western Australia 6006,
AUSTRALIA
Ph: 61-9-227-9011 Fax: 61-9-227-9080
Best contact: Steve Wroblewski,
Managing Director
PV Products: *Hybrid Systems/
Generators □ Inverters & Power
Conditioners □ *Power System

SOLEMS S.A. Y DEV.

Z.I. les Glaises
3 rue Leon Blum
91120 Palaiseau cedex, FRANCE
Ph: 33-1-60133440
Fax: 33-1-60133743 Telex: 604 549
Best contact: Alain Ricaud
PV Products: *Power System □ PV: Cell
R&D, assemble modules [A-SI]

SOLID STATE ELECTRIC

PO Box 7432
Bombay 400 059, INDIA
PV Products: Concentrators □ PV: Mfr
cells & modules?

SOLITE-LITE MANUFACTURING

5-7 Chatham Court
4th Floor
Tsimshatsui, Kowloon, HONG KONG
Ph: 852-369-1811 Fax: 852-724-0730
Best contact: Harold E. Voelkner
PV Products: Electrical/Hardware □
*Lighting □ Power System □
Transportation □ Voltage Regulators/
Charge Controllers □ PV: Assemble
modules

SOLTECH

Kapeldreef 60
3001 Leuven (Heverlee), BELGIUM
Ph: 32-16-270442 Fax: 32-16-270319
Telex: 26152 Imec
Best contact: Joris de Vos, Sales Mgr
PV Products: *Power System □
Specialties □ Support Structures □ PV:
Mfr cells & modules [SC-SI, PC-SI]

SONEL POWER CORPORATION

14 Grenfell Crescent, Unit 102
Nepean, Ontario K2G 0G2, CANADA
Ph: 613-723-8656 Fax: 613-723-2113
Best contact: Paul Carlson
PV Products: *Hybrid Systems/
Generators □ Meters, Instrumentation &
Controls □ *Power System □ Support
Structures □ PV: Assemble modules,
services, mfrg equipment [SC-SI, PC-SI]

SONNENSCHNEIN GMBH

Head Office
Thiergarten
D-6470 Budingen, GERMANY
Ph: 49-60-42810 Fax: 49-60-4281538
Telex: 4184619
PV Products: Batteries

SOUDEX EQUIPMENT

21 rue de la Breche
78680 Epone, FRANCE
Ph: 33-1-30959664 Fax:
PV Products: PV: Assemble modules,
services [SC-SI, PC-SI]

SOVLUX

(See also ECD-USA)
Division of Kvant Corp.
Moscow, RUSSIA
Ph: Fax:
PV Products: PV [A-SI]

STATPOWER TECHNOLOGIES CORPORATION

7012 Lougheed Highway
Burnaby, BC V5A 4V8, CANADA
Ph: 604-420-1585 Fax: 604-420-1591
Best contact: Al-Karim Kara, Distribution
Manager
PV Products: Inverters & Power
Conditioners

SUMITOMO ELECTRIC

1-1, Koyakita
1-chome
Itama, Hyogo 664, JAPAN
Ph: 81-5151 Fax:
PV Products: PV: Assemble modules
[SC-SI]

SUN POWER SOLARTECHNIK GMBH

Friedberger Landstrasse 307
6000 Frankfurt/Main 60, GERMANY
Ph: 49-69-5973061/-6130
Fax: 49-69-5974020
Telex: 4189933 supo d
Best contact: Jutta Warko, Prokuristin
PV Products: Inverters & Power
Conditioners □ Meters, Instrumentation &
Controls □ Voltage Regulators/Charge
Controllers

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

SUN POWER SYSTEMS LTD.

5-7 Chatham Court 4/F
Kowloon, HONG KONG
Ph: 852-3691811 Fax: 852-7240730

Best contact: Harold E. Voelkner

PV Products: Concentrators □ Electrical/ hardware □ Hybrid Systems/Generators □ Inverters & Power Conditioners □ Misc. □ ♦Power System □ Software □ Support Structures □ Trackers □ Voltage Regulators/Charge Controllers □ PV: Assemble modules [concentrator cells]

SUNTRON ENERGY COMPANY

Unit 2, 66-70 Railway Road
Blackburn, Victoria 3130, AUSTRALIA
Ph: 61-3-894-2544 Fax: 61-3-894-3370

Best contact: Marjan Sprajc, Power Systems Engineer

PV Products: ♦Hybrid Systems/Generators □ ♦Lighting □ ♦Power System □ ♦Pumps & Motors □ Support Structures □ Trackers □ Voltage Regulators/Charge Controllers

SUNTRONIC SOLAR-ELECTRONIC

Peer-G. Cruse
Postfach 12 0
Schertfeger Strasse 26
2400 Luebeck, GERMANY
Ph: 49-451-894908/72074
Fax: 49-451-893529
Telex: 26443 FREICO D

Best contact: Peer G. Cruse

PV Products: Batteries □ Pumps & Motors □ Refrigeration □ Specialties □ Transportation □ Trackers

SURYOVONICS LIMITED

(See also ECD-USA)

Devakripa
7-1-21A Begumpet
Hyderabad 500016, INDIA
Ph: 91-842-290827
Fax: 91-842-212032/222483
Telex: 0425-6560.IDS IN

Best contact: M Varadarajan, Chairman

PV Products: ♦Lighting □ Power System □ PV: Assemble modules [A-SI]

**SVE - Solarenergie-Vertriebs-und
Entwicklungsgesellschaft MBH**

Hanauer Landstrasse 551
D-60386 Frankfurt/Main, GERMANY
Ph: 49-69-419214/5 Fax: 49-69-419247

Best contact: Heinz Hoertrich

PV Products: Inverters & Power Conditioners □ Support Structures □ Voltage Regulators/Charge Controllers

TAIYO YUDEN CO. LTD.

562 Hongio Tsukanaka
Haruna-Machi
Gunma-Gun Gunma 370-33, JAPAN
Ph: 81-273-43-1115 Fax:

PV Products: PV: Mfr cells & modules [A-SI]

**TDK CORPORATION
R&D Center**

2-15-7, Higashi-Ohwada
Ichikawa, Chiba 272, JAPAN
Ph: 81-473-78-9097
Fax: 81-473-78-9178

Best contact: Osamu Hasegawa

PV Products: PV: Mfr cells/raw materials [A-SI]

TELJIN LTD.

Advanced Film Labs
4-3-2 Asahi-Ga-Oka
Hino, Tokyo 191, JAPAN

PV Products: ♦Specialties (novelties) □ PV: Assemble modules [A-SI]

TEKNIKRAFT

8-6 Karve Road
Null Stop
Pune 411 004, INDIA
Ph: 91-212-333684 Fax: 91-212-331250

Best contact: R.r. Divekar, Proprietor

PV Products: Inverters & Power Conditioners □ ♦Lighting □ ♦Specialties (insecticide sprayer)

**TELEFUNKEN SYSTEMTECHNIK
GMBH (See Deutsche Aerospace)****THEBEN**

THEBEN-WERK
Zeitautomatik GmbH
Postfach 20
D-7452 Haigerloch 1, GERMANY
Ph: 49-7474-692-0
Fax: 49-7474-692-150 Telex: 767414

PV Products: Meters, Instrumentation & Controls

TONEN CORPORATION

Clean Energy Group - New Bus. Dev.
Palace Side Bldg.
1-1-1 Hitotsubashi
Chiyoda-ku
Tokyo 100, JAPAN
Ph: 81-3-3286-5195
Fax: 81-3-3286-5074

Best contact: Hideo Yamamoto

PV Products: Cathodic Protection □ Lighting □ Misc. □ Power System □ PV: Mfr cells & modules [SC-SI]

TOSHIBA CORPORATION

NTT Hibiya Bldg 1-6
Uchisaiwai-cho
1-Chome, Chiyoda-ku
Tokyo 100, JAPAN
Ph: 81-3-3597-2342

Fax: 81-3-5512-8113

Telex: J22587.24681TOSHIBA

Best contact: Shigeru Ioka

PV Products: Inverters & Power Conditioners □ Power System

TOTAL CHIMIC

5 rue Michel Ange
75781 Paris, FRANCE
Ph: 33-1-7438000 Fax:

Best contact: F. Peter

PV Products: PV: Mfr cells & modules [A-SI]

TOTAL ENERGIE

7 chemin du Plateau
Z.I. le Tronchon
69570 Lyon-Dardilly, FRANCE
Ph: 33-78-474455 Fax: 33-78-649100
Telex: 306115 f

Best contact: Roland Barthes

PV Products: Communications □ Hybrid Systems/Generators □ ♦Lighting □ Pumps & Motors □ Refrigeration

TOTAL ENERGY DEVELOPMENT

Tour TOTAL A.110
24, Cours Michelet
La Defense 10
92800 Puteaux, FRANCE
Ph: 33-1-42-91-50-08
Fax: 33-1-42-91-49-95

PV Products: Communications □ Hybrid Systems/Generators □ ♦Lighting □ Pumps & Motors □ Refrigeration

TURBIN SUD SRL

Contrada Macchia Lampono
Modugno 70026, ITALY
Ph: 39-80-370842 Fax: 39-80-377782

Best contact: Giancarlo Pozzi

PV Products: PV: Mfr cells & modules

TUV RHEINLAND

Institute for Energy Technology....
Postfach 101750
5000 Cologne 1, GERMANY
Ph: 49-221-806-2711/247
Fax: 49-221-806-114
Telex: 8873659 tuv d
Best contact: W. Wiesner
PV Products: PV: Services

SECTION V: FOREIGN MANUFACTURERS

Udhaya Semiconductor — Zontechnology Netherlands

UDHAYA SEMICONDUCTOR PVT. LTD.

1 Pera Naidu Street
Peelamedu, Coimbatore 641 014, INDIA
Ph: 91-422-572914/572675 Fax:
PV Products: PV: Mfr cells/raw materials [SC-SI]

UDTS/HCR

ALGERIA
Ph: Fax:
PV Products: PV: Mfr cells & modules

UNISEARCH LIMITED

Center for PV Devices and Systems
University of New South Wales
P.O. Box 1
Kensington, New South Wales 2033,
AUSTRALIA
Ph: 61-2-697-4018/4060
Fax: 61-2-662-4240

Best contact: Martin Green, Director
PV Products: PV: Mfr cells & modules [SC-SI]

VARTA BATTERIE AG

Am Leineufer 51
3000 Hannover 21, GERMANY
Ph: 49-511-79030
Fax: 49-511-7903622
Telex: 9211750
Best contact: Peter Schwerdtmann
PV Products: Batteries

VEHMA INTERNATIONAL - CANADA

521 Newpark Blvd.
P.O. Box 149
New Market, Ontario L3Y 4X7,
CANADA
Ph: 416-737-0796 Fax: 416-836-9784
Best contact: Jim Chesney
PV Products: Specialties (EV) □
Transportation

VENERGIA VENEZUELA

Ph: Fax:
PV Products: PV: Mfr cells & modules

VISTAR ELECTRONICS (P) LTD.

42 A/1B, Erandawana
Nilgiri Apartments
Karve Road
Pune 411 038, INDIA
Ph: 91-212-339267/331207
Fax: 91-212-334704
Telex: 0145-7714 VEPL IN
Best contact: H.V. Joshi, Managing Director
PV Products: Inverters & Power Conditioners

WACKER CHEMITRONIC GMBH

Postfach 1129
D-8263 Burghausen, GERMANY
Ph: 49-8677-83-0
Fax: 49-8677-62171 Telex: 56923
PV Products: PV: Components [SC-SI, PC-SI, GA-AS]

WILLARD BATTERIES

SOUTH AFRICA
Ph: Fax:
PV Products: Batteries

YUASA CORPORATION

Industrial Power Systems Division
2-12-11 Higashi-Shimbashi
Minato-ku
Tokyo 105, JAPAN
Ph: 81-3-3437-2465 Fax:
81-3-3437-4449
Best contact: Kokichi Sasaki, Manager, Marketing
PV Products: Batteries □ ♦Hybrid Systems/Generators □ Inverters & Power Conditioners □ ♦Lighting □ Power System □ Voltage Regulators/Charge Controllers

ZONTECHNOLOGY NETHERLANDS

P.O. Box 477
5140 AL Waalwijk, Noord-Brabant,
HOLLAND
Ph: 31-4160-36717 Fax:
31-4160-39425 Telex: 20010 zon
PV Products: PV: Assemble modules [SC-SI]

*Complete PV system package available; may also supply system components.

**Custom PV systems only (vs. standard package); may also supply system components.

Additional Sources of Information

Suggestions for locating the following references come after each entry (in parentheses). Please refer to the "Sources" heading for complete mailing addresses, phones, contacts, etc..

PHOTOVOLTAIC DIRECTORIES

Cross, Bruce M., Editor. *European Directory of Renewable Energy Suppliers and Services, 1994*. London: James & James (bookstore/library or Books.Int'l, ph: 703-435-7064 • fax: 703-689-0660).

Energy Diversification Research Laboratory. *Canadian Photovoltaic Industry Directory*. March 1995: CANMET/Natural Resources Canada (see Sources).

Derrick, Anthony, Catherine Francis and Varis Bokalders. *Solar Photovoltaic Products: A Guide for Development Workers*. Second Edition, London: IT Publications, 1991 (bookstore/library/IT Power - see Sources).

Firor, Kay, Editor. *PV People Phone and Address List, August 1994*. (Blue Mountain Energy, 59943 Comstock Road, Cover, OR 97824-8100, USA • ph: 503-568-4473 • fax: 503-568-4882).

Maycock, Paul. *PV Yellow Pages*. PV News, P.O. Box 290, Casanova, VA, USA, 1995 (author - see Sources).

Schaeffer, John, et al. *Real Goods Solar Living Source Book*. Ukiah, CA: Real Goods, 1994, eighth edition (Real Goods - see DOMESTIC MANUFACTURERS).

SEIA. *Solar Industry Journal*. First Quarter 1995, Volume 6, Issue 1, updated annually (SEIA - see Sources).

Shepperd, Lisa W., Editor. *Photovoltaic Products & Manufacturers Directory, 1995*. Photovoltaic Systems Design Assistance Center, Sandia National Laboratories, Albuquerque, NM, 1995 (Sandia - see Sources).

"The 1994 Industry Directory". *Independent Energy*, December 1994, updated annually (book store/library/Independent Energy, ph: 800-922-3736).

U.S.A.I.D. *A Directory of U.S. Renewable Energy Technology Vendors*. Washington, D.C.: Committee on Renewable Energy Commerce and Trade (COR-ECT), March 1990 (U.S.A.I.D., Office of Energy, Washington D.C. 20523).

Wilkins, Paul. *Solar Electricity Today*. (PV Network News, 2303 Cedros Circle, Santa Fe, NM 87505, 505-473-1067, 1994-95).

Photovoltaic Guides / Photovoltaic Publications...

PHOTOVOLTAIC GUIDES

Barlow, Roy, Bernard McNelis, and Anthony Derrick. *Solar Pumping: An Introduction and Update on the Technology, Performance, Costs and Economics*. World Bank Technical Paper No. 168, 1993 (The World Bank or IT Power - see Sources).

Cook, Gary, Lynn Billman, and Rick Adcock. *Photovoltaic Fundamentals*. National Renewable Energy Laboratory (NREL), Golden, CO (see Sources).

Hankins, Mark. *Small Solar Electric Systems for Africa*. Commonwealth Science Council, May 1991 (see Sources).

Naval Facilities Engineering Command. *Maintenance & Operations of Stand-Alone Photovoltaic Systems*. Southern Division, Revised 1991, (NFEC, 2155 Eagle Dr., Charleston, SC 29411-0068, USA).

Photovoltaic Systems Design Manual. Energy, Mines and Resources Canada, 1991, English and French (see Sources - Energy Diversification...).

Photovoltaic Systems: A Buyer's Guide. Energy Mines and Resources Canada, 1989, English and French (see Sources - Energy Diversification...).

Sandia National Laboratories. *Stand-Alone Photovoltaic Systems: A Handbook of Recommended Design Practices*. Design Assistance Center, Albuquerque, NM, revised 1995, English and Spanish (see Sources).

Shepperd, Lisa and Elizabeth Richards. *Solar Photovoltaics for Development Applications*. SAND93-1642, Photovoltaic Systems Design Assistance Center, Sandia National Laboratories, Albuquerque, NM, 1993, English and Spanish (see Sources).

Stevens, John W., et al. *Photovoltaic Systems for Utilities*. Photovoltaic Systems Design Assistance Center, Sandia National Laboratories, Albuquerque, NM, 1990 (see Sources).

Thomas, Michael G., Harold Post, Anne V. Poore. *Photovoltaics NOW - Photovoltaic Systems for Government Agencies*. SAND88-3149, Photovoltaic Systems Design Assistance Center, Sandia National Laboratories, Albuquerque, NM, revised 1994 (see Sources).

PHOTOVOLTAIC PUBLICATIONS

Davidson, Joel and Richard J. Komp. *The New Solar Electric Home*. Second Edition, Ann Arbor, MI: aatec publications, 1987 (library/bookstore).

Fowler, Paul J. *The Solar Electric Independent Home Book*. Revised Edition, Worthington, MA: Fowler Solar Electric Inc., 1991 (library/bookstore).

Kirkby, Noel and Barbara. *RVer's Guide to Solar Battery Charging*. Ann Arbor, MI: aatec Publications, 1987 (library/bookstore).

Komp, Richard J. *Practical Photovoltaics: Electricity from Solar Cells*. 2nd Edition, Ann Arbor, MI: aatec publications, 1984 (library/bookstore).

Maycock, Paul D. and Edward N. Tirewalt. *A Guide to the Photovoltaic Revolution*. Revised, Andover, MA: BrickHouse Publishing Co., Inc., 1985 (library/bookstore/author - see Sources).

Solarex Corp., Technical Staff. *Making & Using Electricity from the Sun*. Blue Ridge Summit, PA: Tab Books, 1979 (Solarex, 1335 Piccard Dr., P.O. Box 6008, Rockville, MD 20850, USA • ph: 301-948-0202).

Strong, Steven. *The Solar Electric House: Energy for the Environmentally-Responsive, Energy-Independent Home*. Emmaus, PA: Rodale Press, 2nd revised edition, 1994 (library/bookstore).

SOURCES FOR DOCUMENTS, TECHNICAL & INDUSTRY INFORMATION

American Solar Energy Society, 2400 Central Ave., G-1, Boulder, CO 80301, USA
• ph: 303-443-3130 • fax: 303-443-3212 • Web site: <http://www.engr.wisc.edu/centers/sel/ases/ases2.html>

Energy Diversification Research Laboratory, CANMET/Natural Resources Canada, 1615 Montée Ste. Julie, P.O. Box 4800, Varennes, Québec J3X 1S6, Canada, ph: 514-652-4621 • fax: 514-652-0999.

Commonwealth Science Council, Marlborough House, Pall Mall, London SW1Y 5HX, England.

Energy Efficiency and Renewable Energy Clearinghouse (EREC - formerly CAREIRS), P.O. Box 3048, Merrifield, VA 22116, USA • ph: 800-523-2929 • fax: 703-893-0400 • Web site: <http://www.eren.doe.gov>.

Danish Renewable Energy Organization (OVE), Willemoesgade 14, 2100 Kobenhavn 0, Denmark • ph: 45-3142-9091 • fax: 45-3142-9095.

Florida Solar Energy Center, Public Information Office, 1679 Clearlake Road, Cocoa, FL 32922, USA • ph: 407-638-1000 • fax: 407-638-1010. Contact Betsy Pesce for publications.

German Solar Energy Center (Bundesverband Solarenergie - BSE), Kruppstasse 5 • D-4300 Essen 1, Germany.

International Solar Energy Society (ISES), Villa Tannheim, Wiesentalstr. 50, D-79115 Freiburg, Germany • ph: 49-761-45-906-0 • fax: 49-761-45-906-99 • Web site: <http://www.ises.org>

ADDITIONAL SOURCES OF INFORMATION

...Sources for Documents / Photovoltaic Instruction...

IT Power Ltd. The Warren, Bramshill Road, Eversley, Hants, RG27 OPR, United Kingdom • ph: 44-734-730073 • fax: 44-734-730820.

Maycock, Paul. PV Energy Systems, P.O. Box 290, Casanova, VA 22017, USA
• ph: 703-788-9626 • fax: 703-443-3212.

Meridian, 4300 King Street, Suite 400, Alexander, VA 22302, USA • ph: 703-998-3705 • fax: 703-998-0887. Contact Chris Rovero for publications.

National Center for Appropriate Technology (NCAT), P.O. Box 3838, Butte, MT 59702, USA • ph: 406-494-4572 • fax: 406-494-2905.

National Renewable Energy Laboratory (NREL, formerly SERI), Technical Inquiry Service, 1617 Cole Blvd., Golden, CO 80401, USA • ph: 303-275-3000/4065
• fax: 303-384-6568 • Web site: <http://www.nrel.gov>. Contact Steve Rubin for publications.

NTIS, U.S. Dept. of Commerce, 5285 Port Royal Road, Springfield, VA 22161, USA • ph: 703-487-4650.

Sandia National Laboratories, Design Assistance Center, Division 6218, MS 0753, Albuquerque, NM 87185-0753, USA • ph: 505-844-3698 • fax: 505-844-2890. Contact Peggy Valencia for documents.

Solar Electric Light Fund (SELF), 1739 Connecticut Ave., Washington, D.C. 20009, USA • ph: 202-234-7265 • fax: 202-328-9512. Contact Neville Williams.

Solar Energy Industries Association (SEIA), 122 C Street, NW, 4th Floor, Washington, D.C. 20001, USA • ph: 202-383-2600 • fax: 202-383-2670.

Stockholm Environment Institute, P.O. Box 2142, S-103 14 Stockholm, Sweden • ph: 46-8-723-0260 • fax: 46-8-723-0348 • Web site: <http://nn.apc.org/sei/>

The World Bank/The International Bank for Reconstruction and Development, 1818 H Street, Washington, D.C. 20433, USA • ph: 202-473-1115.

PHOTOVOLTAIC INSTRUCTION

Electric Systems - Seminar & Workshop. Sunnyside Solar, RD4 Box 808, Green River Road, Brattleboro, VT 05301, USA • ph: 802-257-1482 • fax: 802-257-4670. Contact Richard Gottlieb re one-day program, \$130.

Institute of International Education, Dept. of Science & Technology, 1400 K Street, NW, Washington, D.C. 20005, USA • ph: 202-326-7706, fax: 202-326-7694. Contact Jayne Somers or Sheri Taub for schedule and price of this five-week photovoltaic training course sponsored by the USAID.

North Carolina Solar Center, P.O. Box 7401, NC State University, Raleigh, NC 27695, USA. Contact Bill Brooks • ph: 919-515-3480 • fax: 919-515-5778.

Photovoltaic Design and Installation Workshop. Solar Energy International, P.O. Box 715, Carbondale, CO 81623, USA • ph: 303-963-8855 • fax: 303-963-8866. Two-week workshops, \$800.

Photovoltaic Systems Design Workshop. Florida Solar Energy Center, 1679 Clearlake Road, Cocoa, FL 32922, USA • ph: 407-638-1000 • fax: 407-638-1010. Contact JoAnn Stirling for course information.

Siemens Solar Industries, 4650 Adohr Lane, Camarillo, CA 93011, USA. Contact Mark Mrohs at 805-482-6800, fax: 805-388-6395 for dates and cost of one-week course.

SO-BASEC Workshop. Enersol Associates, 1 Summer Street, Somerville, MA 02143, USA • ph: 617-628-3550, fax: 617-623-5845. Call or write for information on these five-day courses in the Dominican Republic, Guatemala and Honduras.

Solar Electric Home Workshop. ME Solar Energy Assoc, Lubic, ME, USA. Contact Marian Lawrence @ 207-773-4711, or Richard Komp @ 207-497-2204.

In addition, several universities sponsor short courses, as well as two- and four-year degree programs focusing on photovoltaic and alternative energy technologies. For a 1992 directory of energy-related graduate programs in the USA, contact Home Energy at 2124 Kittridge Street #95, Berkeley, CA 94704, USA • Ph: 510-524-5405.

Glossary

ac: See *alternating current*.

Alternating current (ac): Electric current in which the direction of flow is reversed at frequent intervals; 60 cycles per second in the US, 50 cycles in Europe. This is the current flow from an electric outlet in your home or business.

Ampere-hour (Amp-hour or Ahr): A measure of electrical charge, equaling the quantity of electricity flowing in one hour past any point of a circuit. Battery capacity is measured in amp-hours.

Array: A group of photovoltaic modules wired together to produce a specific amount of power. Array size can range from one to hundreds of modules, depending on how much power will be needed.

Balance of System (BOS): Parts of a photovoltaic system other than the photovoltaic array.

Cell (photovoltaic): A semi-conductor device that converts light directly into dc electricity.

Charge controller: A component of a photovoltaic system that controls the flow of current to and from the battery to protect the batteries from over-charge and over-discharge. The charge controller may also indicate the system operational status.

Concentrator: A photovoltaic module which includes optical components, such as lenses, to direct and concentrate sunlight onto a solar cell of smaller area. Most concentrator arrays must directly face or track the sun.

dc: See *direct current*.

Deep discharge (battery): An electric storage battery that can be repeatedly charged and discharged without appreciably losing efficiency or capacity within its specified lifetime.

Direct current (dc): Electric current in which electrons flow in only one direction. This is the current flow produced by a solar system. To be used for typical 120-volt or 220-volt household appliances, it must be converted to alternating current.

Energy: The capacity for doing work. Compare to *power*.

Flat-plate module: A photovoltaic module/array in which the incident solar radiation strikes a flat surface and involves no concentration of sunlight. Compare to *concentrator*.

Grid-connected: A photovoltaic system that is connected to a centralized electrical power network.

Hybrid system: A power system consisting of two or more power generating subsystems (e.g., the combination of a wind turbine or diesel generator and a photovoltaic system).

Insolation: The amount of energy in sunlight reaching an area. Usually expressed in watts per square meter (W/m^2), but also expressed on a daily basis as watts per square meter per day ($W/m^2/day$).

Inverter: A device that converts direct current (dc) to alternating current (ac) electricity.

Kilowatt (Kw): 1000 watts.

Kilowatt-hour (Kwh): 1000 watt-hours. A typical residence in the United States consumes about 1000 kilowatt-hours each month at a price in the range of \$.06 to .15 per kilowatt-hour.

Load: In an electrical circuit, any device or appliance that uses power (such as a light bulb or water pump).

Module: A number of solar electric cells wired together to form a unit, usually in a sealed frame of convenient size for handling and assembling into arrays. Also called a "panel".

Peak Watts (Wp): The maximum power (in watts) a solar array will produce on a clear, sunny day while the array is in full sunlight and operating at $25^{\circ}C$. Actual wattage at higher temperatures is usually somewhat lower.

Photovoltaic (PV) system: A complete set of interconnected components for converting sunlight into electricity by the photovoltaic process, including array, balance-of-system components, and the load.

Power: The rate at which energy is consumed or generated. Power is measured in watts or horsepower. Compare to *energy*.

Power conditioner: The electrical equipment used to convert power from a photovoltaic array into a form suitable for subsequent use. Loosely, a collective term for inverter, transformer, voltage regulator, and other power controls.

Primary battery: A battery whose initial capacity cannot be restored by charging.

PV: See *photovoltaic*.

Secondary battery: A battery which after discharge can be recharged to a fully charged state.

Silicon: A non-metallic element that, when specially treated, is sensitive to light and capable of transforming light into electricity. Silicon is the basic material of beach sand, and is the raw material used to manufacture most photovoltaic cells.

Stand-alone photovoltaic system: A solar electric system, commonly used in remote locations, that is not connected to the main electric grid. Most stand-alone systems include some type of energy storage, such as batteries or pumped water.

Watt (W): A measure of electric power in a unit of time, equal to the rate of flow (amps) multiplied by the voltage of that flow (volts). One amp of current flowing at a potential of one volt produces one watt of power.

Watt-hour (Wh): A measure of electrical energy equal to the electrical power multiplied by the length of time (hours) the power is applied.