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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.
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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   Indonesia □ Italy □ Japan □ Luxembourg □ Malta □ Mexico □
   Norway □ Oman □ Pakistan □ Peru □ Russia □ Saudi Arabia □
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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, workplaces, 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

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

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 SPECIALITIES 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)
- Nortec Battery Manufacturing
- Omnic Power Engineering Corporation
- Ovonnic Battery Company (See also ECD)
- Pacific West Supply Co.
- Power Sonic Corporation
- Quantum Batteries (See GP Batteries)
- Saft Nife, Inc.
- Sanyo Energy Corporation
- Sonnenschein Batteries, Inc. (See East Penn Mfg. Co.)
- Southwest PV Systems, Inc.
- Surrrette America
- Tideland Signal Corporation
- Triog 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)
- Advanced Photovoltaic Systems, Inc. (APS)
- Advanced Energy Systems Pty Ltd
- Australian Energy Research Labs P/L
- BP Solar Australia Pty Ltd
- BP Solar España SA
- BP Solar Ltd.
- Central Electronics, Ltd. (CEL)
- Deutsche Aerospace (formerly Telefunken Systemtechnik)
- Egycel
- Italsolar S.P.A.
- Photowatt International S.A.
- R & S Renewable Energy Systems BV
- Solarpak Limited
- Solar Energie Technik GMBH
- SolarTec/New World Sociedad Anónima
- Toren Corporation

### Cathodic Protection

**Domestic**
- Advanced Photovoltaic Systems, Inc. (APS)
- Integrated Power Corporation (IPC)
- Photocomm Inc.
- Solar Electric Specialties Co. (SES)
- Southwest PV Systems, Inc.

**Foreign**
- Advanced Energy Systems Pty Ltd
- Australian Energy Research Labs P/L
- BP Solar Australia Pty Ltd
- BP Solar España SA
- BP Solar Ltd.
- Central Electronics, Ltd. (CEL)
- Deutsche Aerospace (formerly Telefunken Systemtechnik)
- Egycel
- Italsolar S.P.A.
- Photowatt International S.A.
- R & S Renewable Energy Systems BV
- Solarpak Limited
- Solar Energie Technik GMBH
- SolarTec/New World Sociedad Anónima
- Toren 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*

**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
SOLAR 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

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*Complete PV system package available; may also supply system components.
**Custom PV systems only (vs. standard package); may also supply system components.
**SECTION II: PHOTOVOLTAIC PRODUCT-MANUFACTURER INDEX**

...Hybrid Systems/Generators — Inverters/Power Conditioners...

**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)
- 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.
- DYNAMITE CORPORATION
- DYTEK LABORATORIES
- ELGAR CORPORATION
- EPSTOPOZ
- 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.
- PHOTOLELECTRIC, INC.
- POWERSTAR PRODUCTS, INC.
- SAFT NIE, INC.
- SOLA ELECTRIC
- SOLECTRIA
- SOLEG 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.
- EPOS/PVI
- FLACHGLAS-SOLARTECHNIK GMBH
- FURUKAWA BATTERY COMPANY, LTD.
- HAGEN BATTERIE AG
- HITACHI LTD
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
SOLARTRANSONICS 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.
*SIMPHER 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
*SOLARTEK INTERNATIONAL, INC.
*SOLO POWER
*SOUTHWEST PV SYSTEMS, INC.
*SPECIALTY CONCEPTS, INC. (SCI)
*SPECTRUM INTERNATIONAL
**STATE PAVING COMPANY
*SUNALEX CORPORATION
**SUNAMP POWER COMPANY
**SUNELCO
*SUNWISE ENERGY SYSTEMS
*SYSTEMS RESEARCH GROUP
*THE SEANAV CORPORATION
THIN-LITE CORPORATION
*TIDELAND SIGNAL CORPORATION
UDEC 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.
SECTION II: PHOTOVOLTAIC PRODUCT-MANUFACTURER INDEX

...Lighting — Meters, Instrumentation & Controls — Miscellaneous...

DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
ECOSOLAIR
EGYCEL
ENE S.A.
EPOS/PVI
EUROSO-LARE S.R.L.
GANSHU GNERI PV COMPANY
HELODINAMICA
HELIOS TECHNOLOGY
HITACHI LTD
HOXAN CORPORATION
ITALSOLAR S.P.A.
KYOCERA CORPORATION
LPI/BESTEK GROUP, INC.
M.S.K. CORPORATION
MATISUSHITA BATTERY
MITUSBISHI 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) Pvt. Ltd.
SAILRAM 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
SURYOVONICS LIMITED (See also ECD)
TEKNIKRAFT
TONEK CORPORATION
TOTAL ENERGIE
TOTAL ENERGY DEVELOPMENT
YUASA CORPORATION

APPLIED POWER (formerly Solar Engineering Services)
APPLIED TECHNICAL SYSTEMS
BACKW OODS CABIN ELECTRIC SYSTEMS
BASLER ELECTRIC
BATCON
CAMPBELL SCIENTIFIC, INC.
COMPTUS INC. (formerly Controlex)
CRUISING EQUIPMENT COMPANY
CURTI S INSTRUMENTS, INC.
DANIEL FLOW PRODUCTS
EPPLER 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)
SOLECTRIX
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
SOLEL 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

METERS, INSTRUMENTATION & CONTROLS

Domestic
AMPLE POWER COMPANY
ANANDA POWER TECHNOLOGIES, INC.
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)
FLACHGOLAS-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)
ASTPOWER 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.
VAV 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.
SECTION II: PHOTOVOLTAIC PRODUCT- MANUFACTURER INDEX

...Photovoltaics • Photovoltaics: cells...

CENTRAL ELECTRONICS, LTD. (CEL)
CENTRONIX
CRYSTALOX LTD.-ENGLAND
DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
DORNIER GMBH
ECOSOLAR
EGYCEL
ELETTROJAVA SPA
ELKEM A/S
ENE S.A.
EUROSO LARE 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 LTD/HOXAN 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
MICROTECH HELLAS S.A.
MITSUBISHI ELECTRIC CORPORATION
MITSUI TOATSU CHEM.
MOSCHOW 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
SOUDAIX EQUIPMENT
SOVLUX
SUMITOMO ELECTRIC
SUN POWER SYSTEMS LTD
SURYOVONICS 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/HC
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)
ASTROPPOWER 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 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.
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.
SECTION II: PHOTOVOLTAIC PRODUCT - MANUFACTURER INDEX

...Photovoltaics: modules • components...

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

Foreign
ANSAL DO 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
PENAFOUR 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 Sociiedad Anonima
SOLEMS S.A. Y DEV.
SOLITE LITE MANUFACTURING LTD
SOLTECH
SONEL POWER CORPORATION
Soudax EQUIPMENT
SUMITOMO ELECTRIC
SUN POWER SYSTEMS LTD
SURYOVONICS LIMITED (See also ECD)
SVE SOLARENERGIE - VERTRIEBS- UND ENTWICKLUNGSGESELLSCHAFT MBH
TAIYO YUDEN 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.
AFI 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 THIN FILM TECHNOLOGIES, INC.
SOLAREX
SOLEC INTERNATIONAL, INC.
SPECTROLAB INC.
SPIRE CORPORATION, INC. (SPI)
VAW OF AMERICA, INC.
...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)
TRANSILUMIN INTERNATIONAL

Foreign
AIXTRON GMBH
BHEL. (Bharat Heavy Electricals Limited)
CRYSTALOX LTD. - ENGLAND
DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
ELETTROGRAVA 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 BAOSEL
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
SOUDEX 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
*CARRIN CORPORATION
*DIHN 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.
Section II: Photovoltaic Product-Manufacturer Index

Power Systems — Pumps & Motors...

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
Heliodynamo Ltd
*Bc Intl Battery & Solar Power Co.
*InterTechnologie
Isopoton 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
*Natal Luna
*Nippon Electric Industry Co., Ltd.
*Nissin Electric Company, Ltd.
*Power & Sun Pvt Ltd
*Pt R&S
*R&R Renewable Energy Systems Bv
*Rajasthan Electronics & Instruments (Rel)
*Rapco Remote Alternative Power Co.
*Reonac Energy Systems, Inc.
*Sairam Solar Systems Pvt. Ltd
*Sanyo Electric Co., Ltd.
*Sharp Corporation
*Solar Corporation - Japan
*Solahart
*Solapak Limited
*Solar Cells Pty Ltd
*Solar Energie Technik Gmbh
*Solar India Group
*Solarcan Power Corporation
*Solarcom France Sa
*Solar Tec New World Sociedad Anonima
*Solartronics International Ltd
*Solems S.A. Y Dev.
*Solite-Lite Manufacturing Ltd
*Soltech
*Sonel Power Corporation
*Sun Power Systems Ltd
*Sunny Side Solar
*Suntron Energy Company
*Suryovonics 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)
EO7G ROTRON
ENERGY PHOTOVOLTAICS, INC. (See EPV)
ENTEP (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 Hydrosol 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)
SOLARIACK
SOLATROL INCORPORATED
SOLECTRIA
*SOLO POWER
*SUNAMP POWER COMPANY
TACO, INC.
*TUCHSTONE TECHNOLOGY
TURSTY 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.
FLUXINUS 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
MATSUISHITA 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 THERMONICS 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.
SECTION II: PHOTOVOLTAIC PRODUCT-MANUFACTURER INDEX

...Refrigeration — Software — Specialties...

Foreign
*ADVANCED ENERGY SYSTEMS PTY LTD
*AUDIOLIGHT A/S
*BIP 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)
*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 RPRODUCTS (EV, boat)
*SOLATROL INCORPORATED (irrigation control)
*SOLAR undead INCORPORATED (novelties)
*SOLAR INTERNATIONAL, INC. (car vent, music, cd player, tools, etc.)
*SOLECTRIA Electronics Division (EV)
*SOLO POWER Division of Zomeworks (attic vent)
*SOPHISTICATED SYSTEMS
*SUN-MATE CORPORATION RM International (novelties)
*SUNAMP POWER COMPANY
*SUNWIZE ENERGY SYSTEMS (boat)
*TECHNIART INC. (novelties)
*TEXAS HUNTER PRODUCTS (game feeder)
*VEHMA INTERNATIONAL - USA (EV)
*ZOMWORKS CORPORATION (stock tank de-icer)
SECTION II: PHOTOVOLTAIC PRODUCT-MANUFACTURER INDEX

...Specialties — Support Structures — Trackers

**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)
- NATIONAL LUNA
- 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
- SOLARENERGIE-VERTRIEBS-UND ENTWICKLUNGSGESELLSCHAFT MBH
- TEIJIN LTD. (novelties)
- TEKNIKRAFT (insecticide sprayer)

**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)
- DEUTSCHE AEROSPACE (formerly Telefunken Systemtechnik)
- DULAS ENGINEERING LTD.
- ECOSOLAR
- FUJI SASH COMPANY, LTD.
- HELIODINAMICA
- HELIOS TECHNOLOGY
- KYOCERA CORPORATION
- M.S.K. CORPORATION
- MEIDENSHA CORPORATION
- NATIONAL LUNA
- PHOTOWATT INTERNATIONAL S.A.
- RENEWABLE ENERGY SYSTEMS (RES) Pvt. Ltd.
- SANYO ELECTRIC CO., LTD.
- SHARP CORPORATION - JAPAN
- SOLLAR TECHNOLOGIES
- SUN POWER SYSTEMS LTD
- SUNTRON ENERGY COMPANY
- ZOMEWORKS CORPORATION

**Trackers**

**Domestic**
- APPLIED SOLAR ENERGY CORPORATION
- EPPLEY LABORATORY
- INTEGRATED POWER CORPORATION (IPC)
- PEERLESS-WINSWORTH, 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 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

### Foreign

- ADVANCED ENERGY SYSTEMS PTY LTD
- AUTO-SOL GDP
- BP SOLAR AUSTRALIA PTY LTD
- BP SOLAR ESPANA SA
- CENTRAL ELECTRONICS, LTD. (CEL)
- ELECTROLYSER CORPORATION
- HOXAN CORPORATION
- KYOCERA CORPORATION
- LTU 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

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

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

*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.
LPI/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
GRUNDPOS 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.
SOLAFAK 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.
SOUDEX EQUIPMENT
SECTION III: COUNTRY-MANUFACTURER INDEX

France — Japan...

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
SONNENSCHEIN 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

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
SURUYOVONICS 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
ELETTORAVA 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
HOKAN 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.

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
SECTION III: COUNTRY-MANUFACTURER INDEX

...Japan — Thailand

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

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)
ASTROPWNER INC.
ATLANTA 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.
BOBIEER 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.
DAD & 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
DYNELABORATORIES
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.
SECTION III: COUNTRY-MANUFACTURER INDEX

...USA...

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
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
HELIOMETRICS INC.
HELIOROPE GENERAL
HOMESTAED 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.
ISF (Intl 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-MCCORY 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
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.
SOLAR THERM PRODUCTS
SOLATROL INCORPORATED
SOLEC INTERNATIONAL, INC.
SOLECTRIA
SOLEQ CORPORATION
SOLO POWER
SONNENSCHNEATTERIES, 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 FABS, 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
TRANTEK Transportation Products of Texas, Inc.
TRIGG INDUSTRIES, INC.
TRIPP-LITE
TROJAN BATTERY COMPANY
TRUSTY WARNS
U.S. BATTERY MANUFACTURING
UDEC 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
WHLEN ENGINEERING COMPANY
WIDE-LITE
WIND BARON
WINDY DANKOFF, PVSS
WOODLAND ENERGY COMPANY
WORK AREA PROTECTION CORPORATION
YUASA BATTERY (AMERICA) INC.
ZOMWORKS CORPORATION

VENEZUELA
VENERGIA

WALES
DULAS ENGINEERING LTD.

ZIMBABWE
SOLARCOMM
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: Components ▪ Power

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

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

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: 813-791-4876
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

ADVANCED SILICON MATERIALS, INC.
P.O. Box 720
Washougal, WA 98671, USA
Ph: 206-835-9856 Fax:
Best contact: Jan Mauritis
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 Lereh, V.P Sales & Marketing
PV Products: Lighting

ALPHA SOLARCO
11354 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]

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

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

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20505 US Highway 19
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Best contact: David Oldack
PV Products: Specialties (sailboat power)

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Best contact: Chris Lynch

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P.O. Box 720
Washougal, WA 98671, USA
Ph: 206-835-9856 Fax:
Best contact: Jan Mauritis
PV Products: PV: Components

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Telex: 32-0145
PV Products: Hybrid Systems/Generators

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85 North Central Drive
O'Fallon, MO 63366-2338, USA
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Best contact: Rolf G. Albers
PV Products: Transportation

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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 Lereh, V.P Sales & Marketing
PV Products: Lighting

ALPHA SOLARCO
11354 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: 901-682-7767
PV Products: Lighting

AMERICAN POWER CONVERSION CORPORATION
267 Boston Road #2
Billerica, MA 01862, USA
Ph: 978-670-2440 Fax: 978-670-2380
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: 602-951-5070
Best contact: James A. Chaney, President
PV Products: Power System

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

ANALSA SYSTEMS INDUSTRIAL
1600 Rt. 22 East, 2nd Floor
Union, NJ 07083, USA
Ph: 908-771-7410 Fax: 908-771-7410
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: 800-335-8588 Fax: 409-825-2625
Best contact: Tom Rocket, General Manager

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: 28860 SES UR
Best contact: Tim Ball

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
1525 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: 318-868-7413
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: 602-993-6360
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)
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: 302-366-6474  
Telex: 205854 ASTRO UR  
Best contact: Philip J. Leach, Director  
PV Products: Concentrators ○ PV: Mfr. cells & modules, services, mfrg equipment [PC-SI, PC-SHEET]  

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 Towne 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: 608-682-5100 Fax: 608-682-6776  
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  

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: Bob Bobier, President  
PV Products: Voltage Regulators/Charge Controllers  

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

BUT INTERNATIONAL  
23 Esquire Road  
North Billerica, MA 01862, USA  
Ph: 508-667-4111 Fax: 508-667-9068  
PV Products: PV: Mfr. 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: 319-363-3410 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: 203-777-9057 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.
SECTION IV: DOMESTIC MANUFACTURERS

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

COCRA
480-T Vandell Way
Campbell, CA 95008-6908, USA
Ph: 408-559-9101
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: 616-679-401
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: 21062 17827 PSHARPTOR
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: 978-745-0088 Fax: 978-744-5059
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: *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. Cumin, 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 5535
Houston, TX 77255, USA
Ph: 713-827-5177 Fax: 713-827-3887
Telex: 31653 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: 919-361-2947 Fax:
Best contact: Joanne Duncan Alpiser
PV Products: *Communications *Transportation
### SECTION IV: DOMESTIC MANUFACTURERS

**Digital Solar Technologies — Electrosource**

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Address</th>
<th>Products</th>
<th>Contact Person</th>
<th>Phone</th>
<th>Fax</th>
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</thead>
<tbody>
<tr>
<td><strong>DIGITAL SOLAR TECHNOLOGIES</strong></td>
<td>5765 Arapaho Ave.</td>
<td>PV Products: Voltage Regulators/ Charge Controllers</td>
<td>Dan Pringle, President</td>
<td>303-442-6553</td>
<td>303-442-6555</td>
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<tr>
<td></td>
<td>Boulder, CO 80303, USA</td>
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<tr>
<td><strong>DIMENSIONS UNLIMITED, INC.</strong></td>
<td>1800 Buercle Road</td>
<td>PV Products: Inverters</td>
<td>Doug Blanchard, Sales</td>
<td>800-553-6418</td>
<td>612-770-0847</td>
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<td></td>
<td>St. Paul, MN 55110, USA</td>
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<tr>
<td><strong>DINH SOLAR CO., INC.</strong></td>
<td>5765 Arapaho Ave.</td>
<td>PV Products: Inverters, Power Conditioners</td>
<td>Khanh Dinh</td>
<td>904-776-2256</td>
<td>904-776-2257</td>
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<tr>
<td>(aka Heat Pipe Technology, Inc.)</td>
<td>St. Louis, MO 63133, USA</td>
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<td>Alachua, FL 32615, USA</td>
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<td></td>
<td>McMinnville, OR 97128-0556, USA</td>
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<td>Lon Gillas, Proprietor</td>
<td>503-434-4332</td>
<td>503-434-1518</td>
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<td><strong>EAGLE-PICHER INDUSTRIES, INC.</strong></td>
<td>Seneca, MO 64865, USA</td>
<td>PV Products: Batteries</td>
<td>Alan Lindsay, Manager</td>
<td>510-829-4550</td>
<td>510-829-4555</td>
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<td><strong>EARTH OPTIONS</strong></td>
<td>6930 McKinley Street</td>
<td>PV Products: Batteries</td>
<td>Clyde Elium, V.P.</td>
<td>203-677-2256</td>
<td>203-677-2257</td>
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<tr>
<td></td>
<td>Sebastopol, CA 95472, USA</td>
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<tr>
<td><strong>EART PENN MFG. CO., INC.</strong></td>
<td>Deka Road</td>
<td>PV Products: Batteries</td>
<td>Arnold McKinney, V.P.</td>
<td>215-682-6361</td>
<td>215-682-4781</td>
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<td></td>
<td>Lyon Station, PA 19536, USA</td>
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<td><strong>EASTERN AIR DEVICES (EAD)</strong></td>
<td>1 Progress Drive</td>
<td>PV Products: Batteries</td>
<td>Cheryl Toller</td>
<td>312-679-2401</td>
<td>312-679-7080</td>
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<td>Dover, NH 03820, USA</td>
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<td><strong>EAGLE-PICHER INDUSTRIES, INC.</strong></td>
<td>165 Keyland Ct.</td>
<td>PV Products: Inverters, Power Conditioners</td>
<td>Tom Lane</td>
<td>904-377-8866</td>
<td>904-338-0056</td>
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<td></td>
<td>Bohemia, NY 11716, USA</td>
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<tr>
<td><strong>ECD (See Energy Conversion Devices)</strong></td>
<td>31265-B LaBaya Drive #B</td>
<td>Product System: Power System</td>
<td>Robert Handley</td>
<td>912-382-1250</td>
<td>912-382-1251</td>
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<td></td>
<td>Austin, TX 78744-1131, USA</td>
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<td><strong>ECS (Energy Conservation Services)</strong></td>
<td>4110 SW 34th Street, Suite 15</td>
<td>Power System: Lighting</td>
<td>Tony Lane</td>
<td>512-445-6606</td>
<td>512-445-6819</td>
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<td></td>
<td>Gainesville, FL 32608, USA</td>
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<td>Albuquerque, NM 87107, USA</td>
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<tr>
<td><strong>DIRECT POWER &amp; WATER CORP.</strong></td>
<td>P.O. Box 130</td>
<td>Product System: Power System</td>
<td>Alan Lindsley, Manager</td>
<td>914-691-3777</td>
<td>914-691-3799</td>
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<tr>
<td></td>
<td>Seneca, MO 64865, USA</td>
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<td><strong>DOUGLAS BATTERY MFR</strong></td>
<td>P.O. Box 12159</td>
<td>Product System: Power System</td>
<td>Andy Mele</td>
<td>203-677-0070</td>
<td>203-677-0070</td>
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<td></td>
<td>Winston Salem, NC 27107, USA</td>
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<td><strong>DYNAMOTE CORPORATION</strong></td>
<td>1200 W. Nickerson</td>
<td>Product System: Power System</td>
<td>William Craven</td>
<td>813-753-5663</td>
<td>813-753-7049</td>
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<td>Seattle, WA 98119, USA</td>
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<tr>
<td><strong>DYTEK LABORATORIES</strong></td>
<td>165 Keyland Ct.</td>
<td>Product System: Power System</td>
<td>David Rosey, President</td>
<td>206-282-1000</td>
<td>206-282-7714</td>
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<td>Bohemia, NY 11716, USA</td>
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<td><strong>ELECTRA CRAFT</strong></td>
<td>31265-B LaBaya Drive #B</td>
<td>Product System: Power System</td>
<td>Cheryl Toller</td>
<td>912-382-1250</td>
<td>912-382-1251</td>
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<td>Austin, TX 78744-1131, USA</td>
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<td><strong>ELECTRO SOLAR PRODUCTS</strong></td>
<td>P.O. Box 769</td>
<td>Product System: Power System</td>
<td>Steve Guritz, Proprietor</td>
<td>813-753-5663</td>
<td>813-753-7049</td>
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<tr>
<td></td>
<td>Hackettstown, NJ 07840, USA</td>
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<td><strong>ELECTRO SOURCE</strong></td>
<td>6209 17th Street East</td>
<td>Product System: Power System</td>
<td>Mike Guritz, Proprietor</td>
<td>813-753-5663</td>
<td>813-753-7049</td>
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<td>Bradenton, FL 34203, USA</td>
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*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

Elgar Corporation — Flojet Corporation

ELGAR CORPORATION
9250 Brown Deer Road
San Diego, CA 92121, USA
Ph: 619-450-0085 Fax: 619-458-0267
Telex: 21063 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: 908-271-9001
Best contact: Nancy Bacon
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

ENERGY DEPOT (See Solar Depot)

ENERGY PHOTOVOLTAICS, INC. (See EPV)

EPCHART 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

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

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

EPCHART 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

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

FLEXI-GUIDE
All West Plastics, Inc.
15251 Pipeline Lane
Huntington Beach, CA 92649, USA
Ph: 714-834-9922 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

EPCHART 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
**SECTION IV: DOMESTIC MANUFACTURERS**

*Fowler Solar Electric — Harris Hydroelectric Systems*

---

**FOSTER 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
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 Controllers

---

**GEOSOLAR ENERGY SYSTEMS, INC.**
12 Volt Catalog
3401 North Federal Hwy
Boca Raton, FL 33431, USA
Ph: 400-321-8658 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: Mfr equipment

**GLOBAL THERMIIONS INC.**
37 South Detroit Street
Xenia, OH 45385, USA
Ph: 513-376-8233 Fax: 513-376-2781
Best contact: Stephen L. Vechy, Marketing Manager
PV Products: Batteries

**GNB INDUSTRIAL BATTERY CO.**
Woodlake Corporate Park
829 Parkview Boulevard
Lombard, IL 60148-3249, USA
Telex: GOULDLAHN 5 106672056
Best contact: Grant Peeples
PV Products: *Specialties (gate opener)

**GRUNDFOSS 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 (GTT)**
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 Capital 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

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

**Custom PV systems only (vs. standard package); may also supply system components."
<table>
<thead>
<tr>
<th>Company Name</th>
<th>Address</th>
<th>Phone Numbers</th>
<th>Contact Person</th>
<th>PV Products</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HATHAWAY CORPORATION</td>
<td>8700 Turnpike Drive, Westminster, CO 80030, USA</td>
<td>303-426-1600, 303-426-0932</td>
<td>William Kinney</td>
<td>Pumps &amp; Motors, Transportation</td>
<td></td>
</tr>
<tr>
<td>HEART INTERFACE CORP.</td>
<td>811 1st Avenue South, Kent, WA 98032, USA</td>
<td>206-859-0640, 160563 HEART UT</td>
<td>Jerry Russes</td>
<td>Inverters &amp; Power Conditioners</td>
<td></td>
</tr>
<tr>
<td>HEINZ SOLAR</td>
<td>16575 Via Corto East, Desert Hot Springs, CA 92240, USA</td>
<td>619-251-6886, 619-251-6886</td>
<td>Mark J. Heinz</td>
<td>Lighting, Power Systems, Power Conditioners</td>
<td></td>
</tr>
<tr>
<td>HELIONETICS INC.</td>
<td>2300 Main Street, Irvine, CA 92714-6223, USA</td>
<td>714-261-8313, 714-261-0413</td>
<td>Stan Boyle</td>
<td>Inverters &amp; Power Conditioners</td>
<td></td>
</tr>
<tr>
<td>HELIOTROPE GENERAL</td>
<td>3733 Kenora Drive, Spring Valley, CA 91977, USA</td>
<td>619-460-9211</td>
<td>Alan Colldeweih</td>
<td>Pumps &amp; Motors, Support Structures, Voltage Regulators, Charge Controllers</td>
<td></td>
</tr>
<tr>
<td>HOMESTEAD ELECTRIC</td>
<td>PO Box 451, Northport, WA 99157, USA</td>
<td>509-732-6142</td>
<td>Mario Lembro</td>
<td>Batteries</td>
<td></td>
</tr>
<tr>
<td>HOPPECKE BATTERY SYSTEMS</td>
<td>10 Park Place, Butler, NJ 07405, USA</td>
<td>201-492-0045, 201-492-2714</td>
<td>Mario Lembro</td>
<td>Batteries</td>
<td></td>
</tr>
<tr>
<td>HORIZON SIGNAL INC.</td>
<td>202 Conestoga Road, Wayne, PA 19087, USA</td>
<td>800-852-8796, 215-687-5123</td>
<td></td>
<td>Lighting, Power Systems, Power Conditioners</td>
<td></td>
</tr>
<tr>
<td>INDEPENDENT POWER (See Photocomm Inc.)</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTERNATIONAL ENERGY SYSTEMS CORP.</td>
<td>P.O. Box 588, Barrington, IL 60011, USA</td>
<td>708-381-0203, 708-381-3997</td>
<td>Charles Thomas, President</td>
<td>Lighting, Power System, Support Structures, Voltage Regulators, Charge Controllers, PV Modules, PV Assemblies</td>
<td></td>
</tr>
<tr>
<td>INTERNATIONAL SOLAR CONTROL SYSTEMS</td>
<td>P.O. Box 98, Palm Harbor, FL 34682-0098, USA</td>
<td>813-789-5011</td>
<td>Rick Jones, President</td>
<td>Communications, Transportation</td>
<td></td>
</tr>
<tr>
<td>INTERPLEX SOLAR</td>
<td>1003 West Thomas Street, Arlington Heights, IL 60004-4547, USA</td>
<td>708-392-1976, 708-392-1976</td>
<td>Robert Nellermann, Director, Sales &amp; Marketing</td>
<td>Lighting, Transportation</td>
<td></td>
</tr>
<tr>
<td>IOTA ENGINEERING COMPANY</td>
<td>P.O. Box 11846, Tucson, AZ 85734, USA</td>
<td>602-294-3292, 602-741-2837</td>
<td>Steve Martens</td>
<td>Mfr cells &amp; modules, components [A-Si, CIS(R&amp;D)]</td>
<td></td>
</tr>
<tr>
<td>IOWA THIN FILM TECHNOLOGIES, INC.</td>
<td>ISIS Center, Suite 607, 2501 North Loop Drive, Ames, IA 50010-8283, USA</td>
<td>515-294-7005, 515-294-9584</td>
<td>Steve Martens</td>
<td>Lighting, Transportation</td>
<td></td>
</tr>
<tr>
<td>ISET</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Int'l Solar Electric Technology)</td>
<td>8635 Aviation Boulevard, Inglewood, CA 90301, USA</td>
<td>310-216-4427, 310-216-2908</td>
<td>Vijay Kapur, President</td>
<td>Mfr cells &amp; modules, components [A-Si, CIS, etc.]</td>
<td></td>
</tr>
</tbody>
</table>
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 Hydrosol 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

**JACUZZI BROTHERS**
(See Hydrosol 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
Coffeeville, 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

**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

**KIPP & ZONEN**
Division of Enraf Nomius
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, Mkting 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
861 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: *Power System ◆ 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 ◆ Transportation

**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: 773-750-6000 Fax: 773-750-6000
PV Products: Pumps & Motors ◆ Specialties

*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

Lumina Resources Corporation — New World Power Corporation

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: 201-967-6700 Fax: 201-967-1359
PV Products: Hybrid Systems/ Generators
Inverters & Power Conditioners
Lighting Pump & Motors
Transportation

MARCH MANUFACTURING COMPANY
1819 Pickwick Avenue
Glencoe, 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: Pavan Bhat, President
PV Products: PV: Services, mfrg equipment [THIN FILM]

MCCOY INDUSTRIES, INC.
7350 S. Tarniami 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 Brandle, 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 Berksen, 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

MV SYSTEMS, INC.
327 Lamber 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, CT 06039, USA
Ph: 203-435-4000 Fax: 203-435-0505
Best contact: John D. Kuhns
PV Products: *Power System
<table>
<thead>
<tr>
<th><strong>Newmar</strong> — <strong>Peerless-Winsmith</strong></th>
</tr>
</thead>
</table>

**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 Nobletown 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: 290476 (US.)  
**PV Products:** Hybrid Systems/Generators

**ORION ENERGY**  
18131 Mez 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 Siemens Company  
110 Bracken Road  
Montgomery, NY 12549, USA  
Ph: 518-846-2627  
Fax: 518-846-2632  
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 Dev.  
**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: 619-497-5938  
Fax: 619-479-1549  
Best contact: David Ross, President  
**PV Products:** Inverters & Power Conditioners

**PACIFIC SCIENTIFIC Fischer-Pierce**  
90 Libby 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: 815-226-8274  
Fax: 815-226-3122  
Best contact: Bob Barke, 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-MCCRARY 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 14111-0530, USA  
Ph: 716-592-9311  
Fax: 716-592-9362  
Telex: 754612  
Best contact: George Tedesco, Jr.  
**PV Products:** Trackers

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*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

**Permanent Magnet Co. — Procon Products**

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Address</th>
<th>Phone</th>
<th>Fax</th>
<th>Best Contact</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERMANENT MAGNET CO., INC.</td>
<td>44th &amp; Bragdon, Indianapolis, IN 46226, USA</td>
<td>Ph: 317-547-1336 Fax: 317-549-9259</td>
<td></td>
<td>Sandy Burns, Sales Manager</td>
<td>Pumps &amp; Motors</td>
</tr>
<tr>
<td>PHOTOVOLTAIC RESOURCES INTERNATIONAL</td>
<td>1440 West Meseta Avenue, Mesa, AZ 85202, USA</td>
<td>Ph: 602-897-6427 Fax: 602-833-1711</td>
<td></td>
<td>Bill Caszeta</td>
<td>Software</td>
</tr>
<tr>
<td>PHOTRON, INC.</td>
<td>1220 Blosser Lane, P.O. Box 578, Willits, CA 95490, USA</td>
<td>Ph: 707-459-3211 Fax: 707-459-2165 Telex: 9102500820</td>
<td></td>
<td>Vicki Wallace, Vice President</td>
<td>Inverters</td>
</tr>
<tr>
<td>POLAR POWER</td>
<td>2808 Oregon Ct., Bldg. K4, Torrance, CA 90802, USA</td>
<td>Ph: 310-320-3514 Fax: 301-320-3135 Telex: 494045 I POLAR LSR</td>
<td></td>
<td>Arthur D. Sams, President</td>
<td>Electrical/Hardware</td>
</tr>
<tr>
<td>POWER KINETICS</td>
<td>415 River Street, 4th floor, Troy, NY 12180-2822, USA</td>
<td>Ph: 518-271-7743 Fax: 518-271-0782 Telex: 6007222</td>
<td></td>
<td>Robert Rogers</td>
<td>Generators</td>
</tr>
<tr>
<td>POWERLIGH CORPORATION</td>
<td>2550 Benvenue, Berkeley, CA 94704, USA</td>
<td>Ph: 510-525-9495 Fax: 510-525-7392</td>
<td></td>
<td>Thomas Dinwoodie</td>
<td>Batteries</td>
</tr>
<tr>
<td>POWER SONIC CORPORATION</td>
<td>PO Box 5242, Redwood City, CA 94063, USA</td>
<td>Ph: 415-364-5001 Fax: 415-366-3662 Telex: 348400</td>
<td></td>
<td></td>
<td>Batteries</td>
</tr>
<tr>
<td>POWERSTAR PRODUCTS, INC.</td>
<td>1001 North Foothill Blvd., Cupertino, CA 95014, USA</td>
<td>Ph: 408-973-8502 Fax: 408-973-8573</td>
<td></td>
<td></td>
<td>Generators</td>
</tr>
<tr>
<td>PRECISION SOLAR CONTROLS, INC.</td>
<td>2915 National Court, Garland, TX 75041, USA</td>
<td>Ph: 214-278-0553 Fax: 214-271-9583</td>
<td></td>
<td>Steve Bacilleri, Product Manager</td>
<td>PV Products: Inverters &amp; Power Conditioners</td>
</tr>
<tr>
<td>PREMIER FENCE SYSTEM</td>
<td>Box 89, Washington, IA 52353, USA</td>
<td>Ph: 319-653-7622 Fax: 319-653-6304</td>
<td></td>
<td>Douglas R. Bailey, Field Engineer</td>
<td>PV Products: Inverters &amp; Power</td>
</tr>
<tr>
<td>PRIME MANUFACTURING INC.</td>
<td>1490 Pumphrey Avenue, Auburn, AL 36860, USA</td>
<td>Ph: 205-821-6334 Fax: 205-821-6596</td>
<td></td>
<td>Donny A. Daugherty, Vice President</td>
<td>Trackers</td>
</tr>
<tr>
<td>PRIME MANUFACTURING CORPORATION</td>
<td>407 South Main Street, Freeport, L.I., NY 11520, USA</td>
<td>Ph: 516-868-4411 Fax: 516-868-4509</td>
<td></td>
<td>Ben Heit</td>
<td>Inverters &amp; Power</td>
</tr>
<tr>
<td>PROCON PRODUCTS</td>
<td>Division of Roehlen Industries, 910 Ridgely Road, Murfreesboro, TN 37129, USA</td>
<td>Ph: 615-890-5710 Fax: 615-897-8000 Telex: 348400</td>
<td></td>
<td></td>
<td>Trackers</td>
</tr>
<tr>
<td>Company Name</td>
<td>Address</td>
<td>Phone</td>
<td>Fax</td>
<td>Contact Person</td>
<td>PV Products</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td>-------</td>
<td>-----</td>
<td>----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>PROTECTION SERVICES, INC.</td>
<td>635 Lucknow Road, Harrisburg, PA 17110, USA</td>
<td>717-236-9307</td>
<td>717-236-1281</td>
<td>Craig S. Noll, Manager</td>
<td>Transportation</td>
</tr>
<tr>
<td>PYRON, INC.</td>
<td>1253 La Jolla Rancho Road, La Jolla, CA 92037, USA</td>
<td>619-454-6371</td>
<td>619-454-7198</td>
<td>John Laing, CEO</td>
<td>Concentrators, Power System, Pumps &amp; Motors</td>
</tr>
<tr>
<td>QUALITY REPAIR AND SERVICE TECHNOLOGY</td>
<td>4409 Cambridge Court, Independence, MO 65055, USA</td>
<td>816-373-6442</td>
<td></td>
<td></td>
<td>Lighting</td>
</tr>
<tr>
<td>RESEARCH PRODUCTS</td>
<td>Blankenship, 2639 And Jond Dallas, TX 75220, USA</td>
<td>214-358-4238</td>
<td>214-350-7919</td>
<td>E. Bayne Blankenship, President</td>
<td>Specialties, Transportation</td>
</tr>
<tr>
<td>REULEAND ELECTRIC MOTORS</td>
<td>E. Railroad St., P.O. Box 1464, Industry, CA 91749, USA</td>
<td>818-964-6411</td>
<td>818-965-1283</td>
<td>Andy Keel</td>
<td>Lighting, Transportation</td>
</tr>
<tr>
<td>RGA, INC.</td>
<td>454 Southlake Blvd, Richmond, VA 23266, USA</td>
<td>804-794-1592</td>
<td>804-379-1016</td>
<td>Rick C. Fee</td>
<td>Pumps &amp; Motors, Transportation</td>
</tr>
<tr>
<td>RHINO RAK/RCF ENTERPRISES</td>
<td>27865 Rosamond Drive, Canyon Country, CA 91351, USA</td>
<td>805-251-4960</td>
<td>805-251-6590</td>
<td></td>
<td>Support Structures, Transportation</td>
</tr>
<tr>
<td>RV SOLAR ELECTRIC</td>
<td>14415 North 73rd Street #112, Scottsdale, AZ 85260-3130, USA</td>
<td>602-443-8520</td>
<td></td>
<td>Noel Kirkby</td>
<td>Power System, Voltage Regulators/Charge Controllers</td>
</tr>
<tr>
<td>RENAISSANCE CARS, INC.</td>
<td>2300 Commerce Park Blvd., Suite 1, Palm Bay, FL 32905, USA</td>
<td>407-676-2228</td>
<td>407-676-2229</td>
<td>James H. Muir, Vice President, Design</td>
<td>Specialties, Transportation</td>
</tr>
<tr>
<td>SEA CORPORATION</td>
<td>305 North Mathilda Avenue, Sunnyvale, CA 94086, USA</td>
<td>408-720-1804</td>
<td>408-720-9405</td>
<td>Neil Kaminar, VP Engineering</td>
<td>Concentrators, Power System, PV: Assemble modules [SC-SI (CONCENTRATOR)]</td>
</tr>
<tr>
<td>SECOP (Solar Electric Power Co.)</td>
<td>P.O. Box 2165, Palm City, FL 34990, USA</td>
<td>407-220-6615</td>
<td>407-220-8616</td>
<td>Steve R. Robbins, President</td>
<td>Power System, Lighting</td>
</tr>
<tr>
<td>QUALITY REPAIR AND SERVICE TECHNOLOGY</td>
<td>4409 Cambridge Court, Independence, MO 65055, USA</td>
<td>816-373-6442</td>
<td>816-379-1016</td>
<td>Craig Clifton, President</td>
<td>Transportation</td>
</tr>
<tr>
<td>QUALITY REPAIR AND SERVICE TECHNOLOGY</td>
<td>Independence, MO 65055-4951, USA</td>
<td>816-373-6442</td>
<td>816-379-1016</td>
<td>Craig Clifton, President</td>
<td>Transportation</td>
</tr>
<tr>
<td>QUALITY REPAIR AND SERVICE TECHNOLOGY</td>
<td>San Diego, CA 92073, USA</td>
<td>619-661-6620</td>
<td>619-661-6743</td>
<td>Kuwata</td>
<td>Batteries, Inverters &amp; Power Conditioners, Software</td>
</tr>
<tr>
<td>QUALITY REPAIR AND SERVICE TECHNOLOGY</td>
<td>4409 Cambridge Court, Independence, MO 65055, USA</td>
<td>816-373-6442</td>
<td>816-379-1016</td>
<td>Craig Clifton, President</td>
<td>Transportation</td>
</tr>
<tr>
<td>QUALITY REPAIR AND SERVICE TECHNOLOGY</td>
<td>Independence, MO 65055-4951, USA</td>
<td>816-373-6442</td>
<td>816-379-1016</td>
<td>Craig Clifton, President</td>
<td>Transportation</td>
</tr>
<tr>
<td>QUALITY REPAIR AND SERVICE TECHNOLOGY</td>
<td>San Diego, CA 92073, USA</td>
<td>619-661-6620</td>
<td>619-661-6743</td>
<td>Kuwata</td>
<td>Batteries, Inverters &amp; Power Conditioners, Software</td>
</tr>
</tbody>
</table>

*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**

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Address</th>
<th>Phone</th>
<th>Fax</th>
<th>Best Contact</th>
<th>PV Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHURFLO</td>
<td>12650 Westminster Avenue, Santa Ana, CA 92706-2100, USA</td>
<td>800-854-3218</td>
<td>714-554-4721</td>
<td>Tony Barber, Industrial Mktg Manager</td>
<td>Pumps &amp; Motors</td>
</tr>
<tr>
<td>SHARP ELECTRONICS CORPORATION</td>
<td>1 Sharp Plaza, Mahwah, NJ 07495, USA</td>
<td>800-BE-SHARP/2374277</td>
<td>9105912707</td>
<td>Tony Barber, Industrial Mktg Manager</td>
<td>Pumps, Motors, Batteries, Regulators, Charge Controllers, Solar Cells, Modules [SC-SI, CIS]</td>
</tr>
<tr>
<td>SIEMENS SOLAR INDUSTRIES, INC.</td>
<td>4650 Adohr Lane, Camarillo, CA 93010, USA</td>
<td>800-272-6765</td>
<td>805-388-6395</td>
<td></td>
<td>Pumps &amp; Motors</td>
</tr>
<tr>
<td>SILICON SENSORS INC.</td>
<td>Old Highway 18 East, Dodgeville, WI 53533, USA</td>
<td>608-935-2707</td>
<td>608-935-2775</td>
<td></td>
<td>Mfr cells &amp; modules [SC-SI, CIS]</td>
</tr>
<tr>
<td>SIMPLER SOLAR SYSTEMS, INC.</td>
<td>3118 W. Tharpe Street, Tallahassee, FL 32302, USA</td>
<td>904-576-5271</td>
<td>904-576-5274</td>
<td>Al Simpler</td>
<td>Communications, Pumps &amp; Motors, Transportation</td>
</tr>
<tr>
<td>SMALL HYDROELECTRIC SYSTEMS &amp; EQUIP.</td>
<td>1717 Busse Road, Elk Grove, IL 60007, USA</td>
<td>800-289-7652</td>
<td>800-626-6269</td>
<td>William Kiching, Manager</td>
<td>Inverters &amp; Power Conditioners, Power System</td>
</tr>
<tr>
<td>SOLAR ELECTRIC</td>
<td>3400 Curtis Drive, Suite 301, Hillcrest Heights, MD 20746, USA</td>
<td>301-702-1574</td>
<td></td>
<td>Thelma Cromwell Moss, President</td>
<td>Specialties (water purification)</td>
</tr>
<tr>
<td>SOLAR 4 SYSTEMS</td>
<td>1300 Lake Washington Road, Melbourne, FL 32935, USA</td>
<td>407-254-2997</td>
<td>407-254-4773</td>
<td>Doug Cobb, President</td>
<td>Specialties (EV, vent. fan), Transportation</td>
</tr>
<tr>
<td>SOLAR CAR CORPORATION</td>
<td>2650 North Reynolds Road, Toledo, OH 43615, USA</td>
<td>419-537-0131</td>
<td>419-537-8831</td>
<td>James Brown</td>
<td>Mfr cells &amp; modules [A-SI]</td>
</tr>
<tr>
<td>SOLAR CITIES</td>
<td>4305 West Alva Street, Tampa, FL 33614, USA</td>
<td>813-877-5120</td>
<td>813-877-5767</td>
<td>Ben Bentley, President</td>
<td>Lighting</td>
</tr>
<tr>
<td>SOLAR CONTRACTORS INC.</td>
<td>PO Box 37073, Houston, TX 77237-7073, USA</td>
<td>713-668-2906</td>
<td>405-295-3119</td>
<td>Earl Robbins</td>
<td>Pumps &amp; Motors</td>
</tr>
<tr>
<td>SOLAR CONVERSIONS</td>
<td>6801 Bluebonnet, Amarillo, TX 79108, USA</td>
<td>806-381-2299</td>
<td>806-358-0179</td>
<td>Bill Patke</td>
<td>Refrigeration, Specialties (evap. cooler for autos)</td>
</tr>
<tr>
<td>SOLAR DEPOT (aka Energy Depot)</td>
<td>61 Paul Drive, San Rafael, CA 94903, USA</td>
<td>415-499-1333</td>
<td>415-499-0316</td>
<td>Shawn Moshfeghi, Applications Engineer</td>
<td>Pumps, Motors, Voltage Regulators, Charge Controllers</td>
</tr>
<tr>
<td>SOLAR ELECTRIC ENGINEERING, INC.</td>
<td>116 4th Street, Santa Rosa, CA 95401, USA</td>
<td>800-832-1986</td>
<td>707-586-0690</td>
<td>Alex Kimball, Public Relations</td>
<td>Communications, Hybrid/Generators, Power System</td>
</tr>
<tr>
<td>SOLAR ELECTRIC SYSTEMS OF SANTA BARBARA</td>
<td>232 Anacapa Street, Santa Barbara, CA 93101, USA</td>
<td>805-963-9667</td>
<td>805-963-9929</td>
<td>Scott Williams, Industrial Sales Engineer</td>
<td>Solar Electric Specialties (SES)</td>
</tr>
<tr>
<td>SOLAR ELECTRIC SYSTEMS OF KANSAS CITY</td>
<td>13700 West 108th Street, Lenexa, KS 66215, USA</td>
<td>913-338-1939</td>
<td>913-469-5522</td>
<td>Bill Robbins, President</td>
<td>Pumps, Motors, Voltage Regulators, Charge Controllers, Lighting, Specialties (irrigation), Transportation</td>
</tr>
</tbody>
</table>

---

**Note:** The table above lists companies and their products related to solar electric systems. Each entry includes the company name, address, telephone number, fax number, contact person, and the types of products they manufacture or supply. The table is organized by categories such as PV Products, Communications, Power Systems, and Specialties. The products range from basic components like solar cells and modules to more complex systems like inverters and power conditioners. Each company is detailed with its specific contact information, making it easier for users to connect with the appropriate representatives for their needs.
**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 Urban
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:

Best contact: Alan Hurst, President
PV Products: *Specialties (novelties/music boxes)

**SOLAR OUTDOOR LIGHTING, INC.**

3131 S.E. Waaler Street
Stuart, FL 33497, USA
Ph: 407-286-9461 Fax: 407-286-9616

Best contact: Alan Hurst, President
PV Products: *Lighting ♦ Transportation

**SOLAR TECHNOLOGIES**

P.O. Drawer 899
Ingles, FL 32649, USA
Ph: 800-330-76527
Fax: 904-447-0051

Best contact: Jim Seidel

**SOLAR THERMAL PRODUCTS**

1315 Apple Avenue
Silver Spring, MD 20910, USA
Ph: 301-878-8686 Fax:

Best contact: Carl Schleicher
PV Products: *Specialties (boat, EV) ♦ Transportation

**SOLEX INTERNATIONAL, INC.**

12533 Chadron Avenue
Hawthorne, CA 90250, USA
Ph: 310-970-0665 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]

**SOLEC ELECTRONICS DIVISION**

27 Jason street
Arlington, MA 02174, USA
Ph: 508-658-2231 Fax: 508-658-3224

Best contact: Anita Rajan

**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

**SOLAR POWER**

Division of Zeworks
1011 B Swannill Road NW
Albuquerque, NM 87104, USA
Ph: 505-243-5187

Best contact: Don Doench
PV Products: Hybrid Systems/Generators ♦ *Lighting ♦ *Power System ♦ *Pumps & Motors ♦ *Specialties (attic vents) ♦ *Transportation

**SONNENSCHEIN BATTERIES, INC.**

(See East Penn Mfg. Co. Inc.)

**SOPHISTICATED SYSTEMS**

3785 Alt. 19 North
Palm Harbor, FL 34683, USA
Ph: 800-544-7258 Fax: 305-243-5187

Best contact: R. Davidson Keller, President
PV Products: Specialties

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*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

Southwest PV Systems — Sunwatt Corporation

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, Cathodic Protection, Communications, Hybrid Systems/Generators, Lighting, Power System, Support Systems, Transportation

SOUTHWEST REGION EXPERIMENT STATION
SW Technology Development Institute
P.O. Box 30001/Dept. 350L
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 Gladesdale Avenue
Sylmar, CA 91342, USA
Ph: 818-365-4611 Fax: 818-365-7680
Telex: 182881SPECTILLMSYM
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, Telex: 182881SPECTILLMSYM
PV Products: 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
9250 Washburn Road
Downey, CA 90241, USA
Ph: 310-904-3434 Fax: 310-904-3439
Best contact: Don Duffy, President
PV Products: Transportation

SUNALEX CORPORATION
5955 NW 31st Avenue
Ft. Lauderdale, FL 33309, USA
Ph: 954-963-2948 Fax: 954-964-8015
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

SUNELCO
P.O. Box 1499
Hamilton, MT 59840, USA
Ph: 406-363-6924 Fax:
Best contact: Becky Brandborg
PV Products: Refrigeration

SUNFROST
P.O. Box 1101
Arcata, CA 95521, USA
Ph: 707-822-9095 Fax: 707-822-6213
Best contact: Larry Schussler, Owner
PV Products: Refrigeration

SUNNYVIDE SOLAR
RD 4 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
P.O. Box 30001 Dept. 3SOL
Las Cruces, NM 88003-0001, USA
P.O. Box 30001 Dept. 3SOL
Las Cruces, NM 88003, USA
Ph: 505-646-1049 Fax:
Best contact: Marshall Blalock, President
PV Products: Concentrators, Power System, PV: Assemble modules
Sunwize Energy Systems — Trantex

SUNWISE 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
& 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 FABS, 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)

TEKSLOR
8270 Hidden Bay Trail N
Lake Elmo, MN 55042, USA
Ph: 612-770-1057 Fax:
Best contact: Gordy Grunde
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
13558 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 70503-2038, 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

TRAC 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

TRASLUMIN 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, mfg equip-ment

TRANTEX
Transportation Products of Texas, Inc.
3310-D Frick Road
Houston, TX 77086, USA
Ph: 713-591-6727
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.
<table>
<thead>
<tr>
<th>Company</th>
<th>Address</th>
<th>Phone</th>
<th>Fax</th>
<th>Best Contact</th>
<th>PV Products</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SECTION IV: DOMESTIC MANUFACTURERS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Trigg Industries — Wacker Siltronic</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trigg Industries, Inc.</td>
<td>345 Wrexham Court, Hampton, VA 23669, USA</td>
<td>804-851-3744</td>
<td>804-851-6583</td>
<td>Harry E. Trigg, President</td>
<td>Batteries, Hybrid Systems/Generators, Inverters &amp; Power Conditioners</td>
</tr>
<tr>
<td>TRIPP-LITE</td>
<td>Division of Tripe Mfg. Co., 500 N. Orleans St., Chicago, IL 60610, USA</td>
<td>312-329-1777</td>
<td>312-644-6505</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trojan Battery Company</td>
<td>12380 Clark Street, Santa Fe Springs, CA 90670, USA</td>
<td>800-422-6569</td>
<td>310-941-6038</td>
<td>Jim Drizos, Product Application Spec.</td>
<td>Batteries, Inverters &amp; Power Conditioners</td>
</tr>
<tr>
<td>Trusty Warns</td>
<td>Warns Solar Pumps, 1414 Lunt Avenue, Elk Grove Village, IL 60007, USA</td>
<td>708-766-9015</td>
<td></td>
<td></td>
<td>Batteries, Pumps &amp; Motors</td>
</tr>
<tr>
<td>U.S. Battery Manufacturing</td>
<td>1675 Sampson Avenue, Corona, CA 91719, USA</td>
<td>714-371-8090</td>
<td>714-371-4158/4671</td>
<td></td>
<td>Batteries, Lighting</td>
</tr>
<tr>
<td>UDEC Corporation</td>
<td>241 Crescent Street, Waltham, MA 02154, USA</td>
<td>617-899-6400</td>
<td>617-899-6403</td>
<td></td>
<td>Batteries, Solar Cells, &amp; Modules [A-SI, PIN/PIN]</td>
</tr>
<tr>
<td>United Solar Systems Corporation (See also ECD)</td>
<td>1100 W. Maple Road, Troy, MI 48084, USA</td>
<td>313-362-4170/3120</td>
<td>313-362-4442</td>
<td>Jim Young, Midwest Sales Manager</td>
<td>Batteries, Pumps &amp; Motors, Power System, Mfr cells &amp; modules [A-SI, PIN/PIN]</td>
</tr>
<tr>
<td>United Technologies Motor Systems, Inc.</td>
<td>P.O. Box 228, McCrory Road, Columbus, MS 3904-2228, USA</td>
<td>601-328-4150</td>
<td>601-245-4491</td>
<td>L.E. Miller, VP</td>
<td>Commercial Sales, Pumps &amp; Motors, Transportation</td>
</tr>
<tr>
<td>Utility Free, Inc.</td>
<td>P.O. Box 228, Basalt, CO 81621, USA</td>
<td>303-928-0846</td>
<td>303-928-0847</td>
<td></td>
<td>Batteries, Power System</td>
</tr>
<tr>
<td>Vanton Pump &amp; Equipment Corporation</td>
<td>201 Sweetland Avenue, Hillsdale, NJ 07205, USA</td>
<td>908-688-4216</td>
<td>908-686-9314</td>
<td>Ken Comerford, National Sales Manager</td>
<td>Batteries, Pumps &amp; Motors, Transportation, Trackers</td>
</tr>
<tr>
<td>VAW of America, Inc.</td>
<td>P.O. Box 6726, Phoenix, AZ 85005, USA</td>
<td>602-269-2488</td>
<td>602-269-0220</td>
<td>Todd Erbach, Sales</td>
<td>Batteries, Power System, Miscellaneous</td>
</tr>
<tr>
<td>Vehma International - USA</td>
<td>1200 Chicago Road, Troy, MI 48083, USA</td>
<td>313-585-4800</td>
<td>313-585-4221</td>
<td>Ken Hart</td>
<td>Batteries, Power System, Specialties (EV)</td>
</tr>
<tr>
<td>Veritek</td>
<td>P.O. Box 172, Allendale, MI 49401-0172, USA</td>
<td>616-895-5546</td>
<td>616-892-4606</td>
<td>Jim Wilkinson</td>
<td>Batteries, Power System, Voltage Regulators/Charge Controllers</td>
</tr>
<tr>
<td>Voltairx, Inc.</td>
<td>197 Meister Ave, PO Box 5357, North Branch, NJ 08876, USA</td>
<td>908-231-9060</td>
<td>908-231-9063</td>
<td>James Mann</td>
<td>Batteries, Power System, Miscellaneous, Components</td>
</tr>
<tr>
<td>Wacker Siltronic</td>
<td>2425 N. Central Expressway, Suite 201, Richardson, TX 75080, USA</td>
<td>214-690-3657</td>
<td>214-680-3331</td>
<td>Danny Davis, District Sales Manager</td>
<td>Batteries, Power System, Miscellaneous, Components [SC-SI]</td>
</tr>
</tbody>
</table>
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: 818-341-6684
Telex: 805-522-4984
PV Products: Inverters & Power Conditioners

WESTERN LIGHTING INDUSTRIES
da Borgotech 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: PV: Cell R&D

WIDE-LITE
500 Wonder World Drive
P.O. Box 606
San Marcos, TX 78667, USA
Ph: 512-392-5821 Fax: 512-392-5822
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 PV: Mfr cells & modules

WINDY DANKOFF, PVSS
P.O. Box 548
Santa Cruz, NM 87567, USA
Ph: 505-348-3396 Fax:
Best contact: Windy Dankoff
PV Products: Transportation

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: 310-949-4256 Fax: 310-949-5527
Best contact: Bill Remer, Sales
PV Products: Batteries

ZOMERWORKS CORPORATION
1011A Sawmill Road NW
P.O. Box 25805
Albuquerque, NM 87125, USA
Ph: 505-242-5354 Fax: 505-242-5187
Best contact: Jeff Randall, Vice President
PV Products: PV: Mfr specialities (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

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Address</th>
<th>Contact Person</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aeg Technique &amp; Industrie Div. Equipment/Systemes PV</td>
<td>10 avenue Reaumur, Clamart 92142, France</td>
<td>Gianquido Fassino, General Manager</td>
<td>Power System (large power plants)</td>
</tr>
<tr>
<td>Aixtron Gmbh</td>
<td>Kackertstr. 15-17, D-5100 Aachen, Germany</td>
<td>Reinhard Kalla</td>
<td>PV: Mfgr equipment</td>
</tr>
<tr>
<td>Australian Energy Research Labs P/L</td>
<td>MS 660, Proston 4613, Australia</td>
<td>Stuart Watkinson</td>
<td>Cathodic Protection, Inverters &amp; Power Conditioners, Lighting, Voltage Regulators/Charge Controllers</td>
</tr>
<tr>
<td>Auto-Sol Gdb</td>
<td>Buckelestrasse 23, D-7750 Konstanz, Germany</td>
<td>Michael Simon</td>
<td>Specialties (EV), Transportation</td>
</tr>
<tr>
<td>Balochistan Solar Systems</td>
<td>P.O. Box 10434, Sadar, Karachi, Pakistan</td>
<td></td>
<td>Mfgr balance of systems</td>
</tr>
<tr>
<td>Bayer AG</td>
<td>Geschäftsbereich Pigmente und Keramik, Krefeld-Uerdingen 4150, Germany</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BHEL</td>
<td>(Bharat Heavy Electricals Limited) Electronics Division, P.B. 2606, Mysore Road, Bangalore 560026, India</td>
<td>Ashok Ramakrishna</td>
<td>Mfgr cells/raw materials, services, components [PC-SI]</td>
</tr>
</tbody>
</table>

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*This is a sample content for demonstration purposes.*
**BP Solar Arabia — Crystalox**

**BP SOLAR ARABIA**
P.O. Box 85652
Riyadh 11612, SAUDI ARABIA
Ph: 966-1-4984846 Fax: 966-1-4984796
Telex: 403981 Beepee 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:**
- **Communications**
- Hybrid Systems/Generators
- Lighting
- 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:**
- **Communications**
- Hybrid Systems/Generators
- Lighting
- 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 Blk
Electronic City
Hebbagodi Hosur Road
Bangalore 562158, INDIA
Ph: 91-812-422081/23
Fax: 91-812-422417
Telex: 840822 TADB 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)**
Credeck 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**
101/479 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 LTD**
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**
Lasterotechnik GmbH
Petersbrunner Str 1B
8130 Starnberg, GERMANY
Ph: 49-8151/77042 Fax: 9131843 Telex: 592203
Best contact: Iain Dorrity

**PV Products:**
- Electrical and Hardware
- Power System

**CENTRAL ELECTRONICS, LTD.**
(CELA) Solar PV Group
4 Industrial Area
Sahibabad, (U.P.) 201010, INDIA
Ph: 91-8733640/8768276
Fax: 91-8731184 Telex: 592203

**PV Products:**
- Cathodic Protection
- Communications
- Lighting
- Power System
- Pumps & Motors
- Refrigeration
- 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: 52-5-390-2434
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
ELEKTROTECHNISCHE FABRIK
Hans-Dehn D Strasse 1
Postfach 1640
D 8430
Neuwiedt, 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: 49-4103-604701 Telex: 2189520
Best contact: Cordes, VP & General Manager

DORNIER GMBH
Division of Deutsche Aerospace
Postfach 1420
D-7990 Friedrichshafen, GERMANY
Ph: 44-654-781390 Fax: 44-654-781401
Best contact: Guy Watson
Pv Products: Services

DULAS ENGINEERING LTD.
Renewable Energy Systems
The Old School
Elywystach, Machynlleth SY20 8SX, WALES
Ph: 44-654-781332 Fax: 44-654-781390 Telex: 35851 CYMEAG
Best contact: Gay Watson

EBARA CORPORATION
11-1, Hamedaa-Asahi-cho
Ohta-ku
Tokyo 144, JAPAN
Ph: 81-3-3743-6301 Fax: 81-3-3743-3010
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

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 to PV: Assemble modules [PC-SI]

EGYCEL
315, Hatagaya 1-Chome
Shibuya-Ku
Tokyo 151, JAPAN
Ph: 81-3-3469-4511 Fax: 81-3-3469-4593 Telex: J2346EKOTRA
Best contact: Toshikazu Hasegawa, Director
Pv Products: Meters, Instrumentation & Controls

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: J2346EKOTRA
Best contact: Toshikazu Hasegawa, Director
Pv Products: Meters, Instrumentation & Controls

ELECTROLUX (LUXEMBOURG)
4 rue de la Frontierie
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

ELETTORAVA SPA
Via Don Sapino 176
10040 Savona-Torino, ITALY
Ph: 39-11-424-0237 Fax: 39-11-424-0364
Best contact: P. Rava
Pv Products: PV: Mfr 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 Meerschenaan 188
1150 Brussels, BELGIUM
Ph: 32-2-7711328 Fax: 32-2-7711328 Telex: 69945
Best contact: Gay R. Smekens
Pv Products: Lighting "Power System "Pumps & Motors "PV: Assembly 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 11 830 223
Best contact: Zoltan Kiss
Pv Products: Batteries "Cathodic Protection "Inverters & Power Conditioners "Lighting "Pumps & Motors
EUROSOLARE S.R.L.  
Via del Sefico 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  
Mühlengasse 7  
D-5000 Koln I, GERMANY  
Ph: 49-221-24381 1  
Telex: 172214258  
Best contact: Oussama Chehab, Head - Special Glass & PV  
PV Products: Inverters & Power Conditioners, Mic. [Power System], Software, PV: Components (PV-integrated glass facades)  

FLUXINOS ITALIA  
Export Office  
C.P. 77 - Via Campestre 19  
20091 Bresso (MI), ITALY  
Ph: 39-2-6101376  
Fax: 39-2-6101376  
Best contact: Terry Manning  
PV Products: Pumps & Motors  

FNMA-INGENIERIE - BELGIUM  
Rue Aviateur  
1040 Brussels, BELGIUM  
Ph: 32-2-7337542, Fax: 32-2-7337542  
PV Products: Refrigeration  

FUJI ELECTRIC CO., LTD.  
New Yuraku-cho Bldg.  
1-12-1, I-chome  
Yuraku-cho, Chiyoda-ku  
Tokyo 100, JAPAN  
Ph: 81-3-3215-8321  
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  

FUJIZAWA BATTERY COMPANY, LTD.  
Industrial Division  
No. 4-1, 2 Chome  
Hoshikawa Hodogaya-ku  
Yokohama 240, JAPAN  
Ph: 81-45-333-3411  
Best contact: Masayuki Tanaka, Gen. Manager, Tech. Dept.  

GANSU GNRI PV COMPANY  
77 S. Dinxi Road  
Lanzhou, GANSU 73000-0, CHINA  
Ph: 86-931-2521 1  
Fax: 86-931-486243  
Best contact: Peter H. Johnson  
PV Products: PV: Assemble modules [SC-SI, PC-SI]  

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: Egon  fl. Sorensen  
PV Products: Lighting  

GRUNDFOS AS  
Poul Due Jepsens Vej 7  
8850 Bjerringbro, DENMARK  
Ph: 45-86681400  
Fax: 45-8668-4472/4245  
Telex: 60731 GFOS DK  
Best contact: Peter H. Johnson  
PV Products: PV: Assemble modules [SC-SI, PC-SI]  

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  
17672 Kallithea, Athens, GREECE  
Ph: 39-2-6101731/732  
Fax: 39-2-6101376  
Best contact: Terry Manning  
PV Products: Pumps & Motors  

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]  

HELIOLOGY 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 Miciarelli, 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: 39-49-9598255, 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: 81-3-258-1111  
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.
SECTION V: FOREIGN MANUFACTURERS

Hoppecke — Komatsu

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 Gutzzeit, 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: 0252-4470 HOXAN J
Telex: 0845-3066 WINC IN
Best contact: Anthony Derrick
PV Products: *Power System

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]

INVERTECHNOLOGY
Box 12
Moscow 123456, 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]

INVERSIONOMATIC 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
28100 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: 39-6-98502467/78
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: 22-4945 DENCHI J
Best contact: Mr. Obata
PV Products: Batteries
*Electrical/hardware
*Inverters & Power Conditioners
*Meters, Instrumentation & Controls
*Power System
*Pumps & Motors
*Voltage Regulators/Charge Controllers

KANEKA CORPORATION
Asahi Shim bun 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: 499440
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]

KIOOLTRON CORP.
Division of URUS Corp.
27 Catherine Ave.
Brantford, Ontario N3T 1X5, CANADA
Ph: 519-759-1900 Fax: 519-759-1900
PV Products: Refrigeration o 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 666540

LFI/BESTEK GROUP, INC.
19-2485 Lancaster Road
Ottawa, Ontario K1B 5L1, CANADA
Ph: 613-523-521 1 Fax: 613-521-6330
Best contact: Nae Ismail, Director, Solar Tech.
PV Products: Lighting o 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: 265769 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 Nappaz
PV Products: Electrical/Hardware o
*Lighting o Power System o Specialties o
Support Structures o Transportation o
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 o
Communications o Inverters & Power Conditioners o
Support Structures o Lighting o Power System o
Pumps & Motors o Refrigeration o PV:
Mfr cells & modules [SC-SI, PC-SI, CDS/CDTE]

MBB ENERGY & INDUSTRIAL TECHNOLOGY
Postfach 801180
D-8000 Munich 80, GERMANY
Ph: 49-89-607-31500 Fax: 49-89-607-31505
Telex: 5287-0 mbb d
PV Products: Specialties (sun roof) o
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 o
Inverters & Power Conditioners o Power System o
Pumps & Motors o Support Structures o Voltage Regulators/Charge Controllers o PV: Assemble modules

MITSUBISHI ELECTRIC CORPORATION
2-3, Marunouchi
2-ch, Chiyoda-Ku
Tokyo 100, JAPAN
Ph: 81-3-218-3535 Fax: 81-3-218-3535
Best contact: E. Polyzogopoulou
PV Products: PV: Cell R&D [SC-SI]

MITSUI TOATSU CHEM. CHEMICALS LTD.
Kasumigaseki Bldg
2-5, Kasumigaseki
3-ch Chiyoda-ku
Tokyo 100, JAPAN
Ph: 81-3-593-7364 Fax: 81-3-593-7364
Best contact: Mr. Yanagisawa
PV Products: PV: mfr cells & modules

MM TECHNICS LTD.
Ksaver 200
Zagreb, CROATIA
Ph: 38-4-1424010 Fax: 38-4-1424010
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: 44-61-494-5809
Telex: 668762
PV Products: Pumps & Motors

MICROCHEMISTRY LTD
Subsidiary of NESTE
Kellarian 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 [CD/CDTE]

MICROTECH HELLAS S.A.
3, Amfirtiris Str.
P. Falirou
17561 Athens, GREECE
Ph: 30-1-9819425 Fax: 30-1-9819425
Best contact: E. Polyzogopoulou
PV Products: PV: Cell R&D [SC-SI]

*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: 265769 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 Nappaz
PV Products: Electrical/Hardware o
*Lighting o Power System o Specialties o
Support Structures o Transportation o
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 o
Communications o Inverters & Power Conditioners o
Support Structures o Lighting o Power System o
Pumps & Motors o Refrigeration o PV:
Mfr cells & modules [SC-SI, PC-SI, CDS/CDTE]

MBB ENERGY & INDUSTRIAL TECHNOLOGY
Postfach 801180
D-8000 Munich 80, GERMANY
Ph: 49-89-607-31500 Fax: 49-89-607-31505
Telex: 5287-0 mbb d
PV Products: Specialties (sun roof) o
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 o
Inverters & Power Conditioners o Power System o
Pumps & Motors o Support Structures o Voltage Regulators/Charge Controllers o PV: Assemble modules

MITSUBISHI ELECTRIC CORPORATION
2-3, Marunouchi
2-ch, Chiyoda-Ku
Tokyo 100, JAPAN
Ph: 81-3-218-3535 Fax: 81-3-218-3535
Best contact: E. Polyzogopoulou
PV Products: PV: Cell R&D [SC-SI]

MITSUI TOATSU CHEM. CHEMICALS LTD.
Kasumigaseki Bldg
2-5, Kasumigaseki
3-ch Chiyoda-ku
Tokyo 100, JAPAN
Ph: 81-3-593-7364 Fax: 81-3-593-7364
PV Products: PV [SC-SI, A-SI]

MM TECHNICS LTD.
Ksaver 200
Zagreb, CROATIA
Ph: 38-4-1424010 Fax: 38-4-1424010
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: 44-61-494-5809
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.
SECTION V: FOREIGN MANUFACTURERS

Moscow General — Pentafour Solec Technology

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 Nizo-Minami
Toda, Saitama 335, JAPAN
Ph: 81-484-42-7571
Fax: 81-484-82-1920
PV Products: Mfr cells/raw materials [SC-SI, PC-SI, A-SI (R&D on MIS junction)]

NIPPON SHEET GLASS
Shimabashi Sumitomo
Bldg, 11-3, 5-chome
Shimabashi, Minato-ku
Tokyo 105, JAPAN
Ph: 81-3-436-8841
Fax: 81-3-436-5791
PV Products: Misc. & PV: Components

NISIN ELECTRIC COMPANY
47, Umezou Takase-cho,
Ukyo-ku
Kyoto 615, JAPAN
Ph: 81-75-864-8438
Fax: 81-75-882-4120
Telex: 5429-106 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: 49-6023-91 1720/12
Fax: 49-6023-91 1700
Telex: 4188233 nukad
Best contact: Reinhard Goethe
PV Products: Mfr cells & modules [SC-SI, PC-SI, A-SI (R&D on MIS junction)]
PHOTEC S.A.  
58 rue de la Verrerie  
29200, FRANCE  
Ph: 33-50-200082  Fax:  
**PV Products:** Misc.  Mfrg equipment [SC-SI]

PHOTO TECHNOLOGY  
Heidefeld 1  
B-1511 Hulzenberg, BELGIUM  
Ph: 32-2-3567321  Fax:  
**Best contact:** Louis Prisson  
**PV Products:** PV:  Modular modules [SC-SI]

PHOTOTRONICS SOLARTECHNIK  
Hermann-Oberth-Strasse 9  
D-8011 Putzbrunn, GERMANY  
Ph: 49-89-45660-310  Fax:  
**Commercial Director:** Robert de Franclieu, Communications  
**Best contact:** Wolfram Einais, Managing Director  
**PV Products:** *Lighting  Road/Street illumination [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: 52871 17 mbb d  
**Best contact:** Robert de Franclieu, Commercial Director  
**PV Products:** *Specialties (car vent, sun roof)  PV:  Mfr cells & modules [A-SI]

PIRELLI Conker S.A.  
Av. Nacionees Unidas 1003  
Lima, PERU  
Ph: 51-14-722342/715553  Fax:  
**Best contact:** C.P. Birch  
**PV Products:** Concentrators  Hybrid Systems/Generators  *Power System

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  Charge Controllers  *Transportation  PV:  Mfr cells & 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  
**Best contact:** Murdjadi R. de Lange  
**PV Products:** *Lighting  *Power System  Misc.  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  *Support Structures  *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  
**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:** Jayanthy 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

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*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

Sairam Solar Systems — Solar Energie Technik

Sairam Solar Systems Pvt. Ltd.
97 Nehru Enclave East
New Delhi 10019, INDIA
Ph: 91-11-6440141
Fax: 91-11-6435807
Best contact: Dan L. Warmack, Director of Marketing

PV Products: Communications

Hybrid Systems/Generators

Best contact: Dan L. Warmack, Director of Marketing

PV Products: Batteries

Sanyo Electric Co., Ltd.
Battery Business HQ
Sumoto-city
Hyogo, JAPAN
Ph: 81-6-6905-4727 Fax:

PV Products: Batteries

Sanyo Electric Co., Ltd.
Soft Energy Business Headquarters
222-1 Kaminazumi
Sumoto-City
Hyogo 656, JAPAN
Ph: 81-799-24-1111 Fax: 81-799-24-4128
Best contact: Yasuo Kishi, Division Manager

PV Products: Inverters & Power Conditioners

Pumps & Motors

Refrigeration Support Structures PV: Mfr cells & modules [SC-SI, PC-SI]

Serylo (See Ecosolaire)

Shapeing Systems
Ch. Nuyerat
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: 81-74-56-5-1116 Fax: 81-74-56-5-8253
Best contact: Akio Suzuki, Division General Manager

PV Products: Electrical/Hardware


Showa Arc Solar KK
Tokyo Bldg
7-3 Marunouchi 2-cho
Chiyoda-Ku, Tokyo 100, JAPAN
Ph: 81-3-215-9661 Fax:

Best contact: Yoichi Yamazaki


Siemens Solar Gmbh
Frankfurter Ring 152
8000 Munchen 40, GERMANY
Ph: 49-89-3500-2411/2375 Fax: 49-89-3500-2411/2676 Telex: 52297 sissg d
Best contact: Fritz Cammerer

PV Products: Voltage Regulators/Charge Controllers PV: Mfr cells & modules [SC-SI, CIS (R&D)]

Solarin
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

Sittix
(Formerly Osaka Titanium)
New Materials Sales Dept.
One Higashihamacho
Amagasaki
Hyogo 660, JAPAN
Ph: 81-6-411-1111 Fax: 81-6-412-1009 Telex: J64510/Osakati

PV Products: Misc. * PV: Services, components [SI MATERIAL]

Solarhart
Division of Hardie Energy Products
Melbourne, AUSTRALIA
Ph: Fax:

Best contact: Roger Meads, Marketing Manager

PV Products: Power System

Solarpak Limited
Intersolar Group
Factory 3, Cock Lane
High Wycombe
Bucks HP13 7DE, ENGLAND
Ph: 44-1494-459241 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
Wellspool 6106, Western Australia, AUSTRALIA
Ph: 61-9-3622111 Fax: 61-9-3623231
Best contact: John Hall


Solar Electric International
77 Luqa Ind. Estate
Luqa, 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, NETHERLANDS
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 Allsheim, GERMANY
Ph: 49-6205-3525 Fax: 49-6205-3528 Telex: 496 849 solar d
Best contact: Helmut Engelhorn

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 LTD
15, 'Amrut'
Hansoti Rd, Cama La
Ghatkopar, Bombay 400 086, INDIA
Ph: 91-22-511 4768
Fax: Mississauga, Ontario LST 1M9,
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: 263-643-412 Fax: 263-692111/2/3
Best contact: Mike Molatt
PV Products: PV: Assemble modules

SOLARTEC/NORTH AMERICA
Societé Anonyme
Ituzaingo 648
Buenos Aires 1141, ARGENTINA
Ph: 54-1-23-0229/1858
Fax: 54-1-23-6680
Best contact: Jose Emilio Salgado, Presidente
PV Products: *Cathodic Protection □

SOLARTECH
Kapeldreef 60
3001 Leuven (Heverlee), BELGIUM
Ph: 32-16-270442
Fax: 32-16-270319
Telex: 26151 Imec
Best contact: Juris de Vos, Sales Mgr
PV Products: *Power System □
*Lighting □ Power System □ Transportation □ Voltage Regulators/Charge Controllers □ PV: Assemble modules

SOLTECH
14 Grenfell Crescent, Unit 102
Nepean, Ontario K2G 0G2, CANADA
Ph: 613-723-8656
Fax: 613-723-2113
Best contact: Paul Carlson
PV Products: *Power System □

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: *Power System □

SOLARTECH 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 Riaud
PV Products: *Power System □ PV: Cell R&D, assembly modules [A-SI]

SOLID STATE ELECTRIC
PO Box 7432
Bombay 400 059, INDIA
PV Products: Concentrators □ PV: Mfr cells & modules

SOLOGARDI MANUFACTURING
5-7 Chatham Court
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

SOLITEC
1 rue Le Potier, 3 rue Sainte Catherine
Harare, ZIMBABWE
Ph: 263-643-1811
Fax: 263-692111
Telex: 4238217
Best contact: Paul Carlson
PV Products: *Power System □
*Lighting □ Power System □ Transportation □ Voltage Regulators/Charge Controllers □ PV: Assemble modules

SOLTECH
Kapeldreef 60
3001 Leuven (Heverlee), BELGIUM
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Fax: 32-16-270319
Telex: 26151 Imec
Best contact: Juris de Vos, Sales Mgr
PV Products: *Power System □
*Lighting □ Power System □ Transportation □ Voltage Regulators/Charge Controllers □ PV: Assemble modules

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*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: 26151 Imec
Best contact: Juris de Vos, Sales Mgr
PV Products: *Power System □
*Lighting □ Power System □ Transportation □ Voltage Regulators/Charge Controllers □ PV: Assemble modules

SONNENSCHNE BMBH
Head Office
Thiengarten
D-6470 Badingen, GERMANY
Ph: 49-60-281538
Fax: 49-60-4281538
Telex: 4189933 sup0 d
Best contact: Iutta Warke, Prokuristin
PV Products: Inverters & Power Conditioners □ Meters, Instrumentation & Controls □ Voltage Regulators/Charge Controllers

SUNTECH
Kapeldreef 60
3001 Leuven (Heverlee), BELGIUM
Ph: 32-16-270442
Fax: 32-16-270319
Telex: 26151 Imec
Best contact: Juris de Vos, Sales Mgr
PV Products: *Power System □
*Lighting □ Power System □ Transportation □ Voltage Regulators/Charge Controllers □ PV: Assemble modules

SUPERTECH
Kapeldreef 60
3001 Leuven (Heverlee), BELGIUM
Ph: 32-16-270442
Fax: 32-16-270319
Telex: 26151 Imec
Best contact: Juris de Vos, Sales Mgr
PV Products: *Power System □
*Lighting □ Power System □ Transportation □ Voltage Regulators/Charge Controllers □ PV: Assemble modules

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

*Complete PV system package available; may also supply system components.
SECTION V: FOREIGN MANUFACTURERS

SUN POWER SYSTEMS LTD.
5-7 Chatham Court 4/F
Kowloon, Hong Kong
Ph: 852-3691811 Fax: 852-7240730
Best contact: Harold E. Voelkner

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 Sprajce, 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
Scherfegger Strasse 26
2400 Luebeck, Germany
Ph: 49-451-896907/2074
Fax: 49-451-895929
Tel: 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
Tel: 0425-6560 IDS IN
Best contact: M Varadarajan, Chairman

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 Floehnich
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: 81-273-11151 Fax:
PV Products: PV: Mfr cells & modules [A-SI]

TDK CORPORATION
R&D Center
2-13-7, Higashi-Ohwada
Ichikawa, Chiba 272, Japan
Ph: 81-473-78-8097
Fax: 81-473-78-9178
Best contact: Osamu Hasegawa
PV Products: PV: Mfr cells/raw materials [A-SI]

TEIJIN LTD.
Advanced Film Labs
4-3-2 Asahi-Ga-Oka
Hino, Tokyo 191, Japan
PV Products: *Specialties (novelties)
PV: Assemble modules [A-SI]

TEKNIKFRAFT
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-74425 Neulingen 1, Germany
Ph: 49-7474-629-0
Fax: 49-7474-629-150 Telex: 767414
PV Products: Meters, Instrumentation & Controls

TENON CORPORATION
Palace Side Bldg.
1-1-1 Hiiitsuibashi
Chiyoda-ku
Tokyo 100, Japan
Ph: 81-3-3285-6249
Fax: 81-3-3285-6074
Best contact: Hideyo Yamamoto

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 CHMIC
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.l. le Tronchon
69570 Lyon-Dardilly, France
Ph: 33-78-474555 Fax: 33-78-4749100
Telex: 3061 15 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
Contra da Macchia Lampone
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: 887369 tuv d
Best contact: W. Wiesner
PV Products: PV: Services
SECTION V: FOREIGN MANUFACTURERS

Udhaia Semiconductor — Zontecnhology 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: 49-511-79070 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) in 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 in Hybrid Systems/Generators in Inverters & Power Conditioners in Lighting in Power System in 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: 0010 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


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).


ADDITIONAL SOURCES OF INFORMATION

Photovoltaic Guides / Photovoltaic Publications...

PHOTOVOLTAIC GUIDES


PHOTOVOLTAIC PUBLICATIONS


ADDITIONAL SOURCES OF INFORMATION

Photovoltaic Publications / Sources for Documents


SOURCES FOR DOCUMENTS,
TECHNICAL & INDUSTRY INFORMATION


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.


Danish Renewable Energy Organization (OVE), Willernoegade 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.

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.


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.


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://www.apc.org/sei/


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.


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/m²), but also expressed on a daily basis as watts per square meter per day (W/m²/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 $0.06 to $0.15 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°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.