AEE Solar

Grid-Tie PV Power Systems

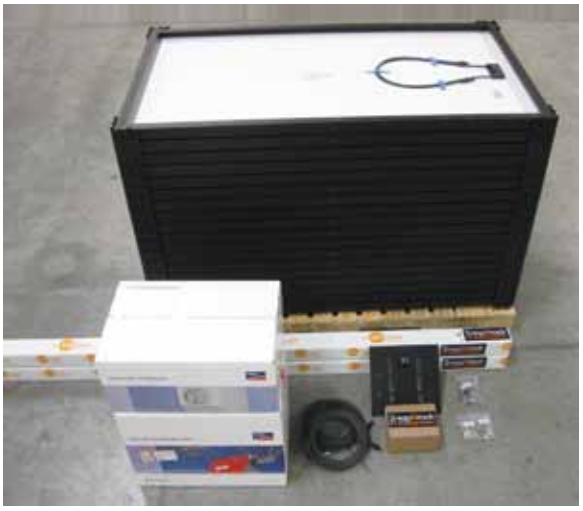
AEE Solar grid-tie PV power systems are designed for use on residential and small commercial buildings. They consist of high quality Evergreen or REC photovoltaic (PV) modules, a Fronius, SMA, PV Powered or KACO inverter, array wiring, DC and AC disconnects, SnapNrack mounting structures to secure modules on the roof, electrical drawings, data sheets, warranties and instructions.

All inverters have integrated DC disconnects. Wiring from the array to the DC disconnect, array ground wiring, and wiring from the AC disconnect to the main panel and all conduit must be supplied by professional installers (your specific installation or utility may require additional AC disconnects). Contact us to obtain these essential resources and expert advice on your system installation.

All components comply with the 2008 National Electrical Code (NEC-2008); IEEE Std 929-2000, Institute of Electrical and Electronics Engineers Recommended Practices for Utility Interface of Photovoltaic (PV) Systems; UL 1741; and the ICBO 2000 International Building Code. The arrays and inverters are matched for maximum efficiency, however, a complete site survey is required to adjust expected system output to actual site conditions.

These modular systems can be combined to form larger systems to meet your requirements. It is economical to put these systems together for use in 30 kilowatt or smaller systems. For larger systems, please ask us for a quote.

Select a pre-packaged system that meets your needs from the accompanying table. California Energy Commission bases rebates on the system CEC rating in column 5 of the table. CEC's calculation takes into account module output in normal operating conditions and inverter efficiency. However, a complete site survey is required to adjust expected system output to the specific site conditions.



Solar module	Nameplate watts	Module qty	# of strings	CEC watts	Inverter model	Item code	Price
Evergreen ES-A-200	1640	8	1	1372	PVP2000	**010-07401**	**$11,611**
	2050	10	1	1715	PVP2000	**010-07403**	**$13,931**
	2460	12	1	2058	PVP2000	**010-07405**	**$16,061**
	2870	14	1	2440	IG3000	**010-07407**	**$18,463**
	3280	16	1	2818	SB3000US	**010-07409**	**$20,870**
	4510	22	1	3895	SB4000US	**010-07411**	**$28,321**
	5330	26	2	4555	IG5100.0	**010-07413**	**$33,414**
	7380	36	2	6407	SB7000US	**010-07415**	**$45,822**
	9840	48	3	8499	IGPlus10.0	**010-07417**	**$61,924**
	12300	60	3	10679	IGPlus11.4	**010-07419**	**$76,504**
REC210 AE-US	1260	6	1	1047	1502xi	**010-07440**	**$9,400**
	1680	8	1	1396	1502xi	**010-07442**	**$11,600**
	2100	10	1	1745	SB3000US	**010-07444**	**$14,391**
	2520	12	1	2105	SB4000US	**010-07446**	**$17,242**
	2940	14	2	2455	PVP2500	**010-07448**	**$18,698**
	3360	16	2	2784	IG4000	**010-07450**	**$21,952**
	4200	20	2	3435	IG4000	**010-07452**	**$26,602**
	5040	24	2	4187	SB5000US	**010-07454**	**$31,837**
	7560	36	3	6314	SB7000US	**010-07456**	**$46,195**
	10080	48	4	8375	IGPlus10.0	**010-07458**	**$62,386**
REC220 AE-US	1320	6	1	1098	1502xi	**010-07480**	**$9,628**
	1760	8	1	1465	1502xi	**010-07482**	**$11,904**
	2200	10	1	1831	SB3000US	**010-07484**	**$14,800**
	2640	12	1	2208	SB4000US	**010-07486**	**$17,698**
	3080	14	2	2509	PVP2500	**010-07488**	**$19,230**
	3520	16	2	2883	IG4000	**010-07490**	**$22,560**
	4400	20	2	3604	IG4000	**010-07492**	**$27,362**
	5280	24	2	4394	SB5000US	**010-07494**	**$32,749**
	7920	36	3	6625	SB7000US	**010-07496**	**$47,563**
	10560	48	4	8788	IGPlus10.0	**010-07498**	**$64,210**

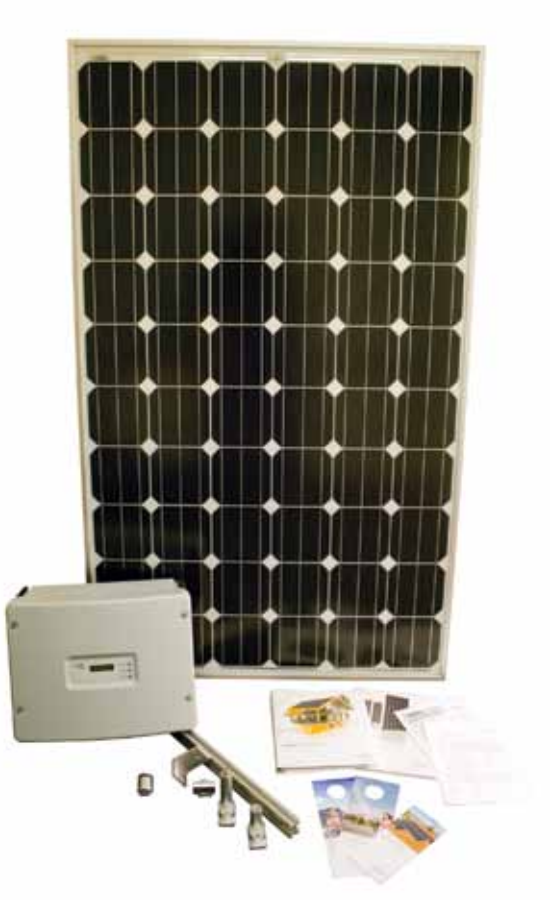
SolarWorld

Sunkit Grid-Tie PV Power Systems

SolarWorld Sunkits provide complete solar electric systems for any sloped roof. The Sunkit consists of high quality SolarWorld monocrystalline Sunmodules, a high quality inverter, and the mounting components. They ensure highly durable systems by using only aluminium and stainless steel components. Each Sunkit is individually assembled to meet the customer's specific requirements. Systems are available in sizes from 2,070 watts and up by increments of 230 watts.

SolarWorld Sunkits include all major PV system components, including solar modules, mounting rails and hardware, inverters, grounding lugs and PV jumper cables as well as mechanical and electrical layout drawings. They do not provide common AC electrical items, such as EMT, breakers, or common building materials such as roof flashings, cement and conduit. Pricing is based on STC DC watts (also called "nameplate watts"). This is intended to simplify the pricing of system installations. Their standard module is a 230W Sunmodule. Changes to inverter capacity, hardware or other components based on installation requirements are included in the $/watt price.

SolarWorld makes Sunmodules entirely in the USA from American-made raw materials and components.



SolarWorld Sunkits - order watts required in multiples of 230			
System description	**Wattage range**	**Item code**	**Price per watt**
Small systems	2,070 to 2,990	**010-08001**	**$4.65**
Medium systems	3,220 to 14,950	**010-08002**	**$4.51**
Large systems	15,180 or more	**010-08003**	**$4.33**

Suggested retail prices are subject to change; check with us for latest pricing.

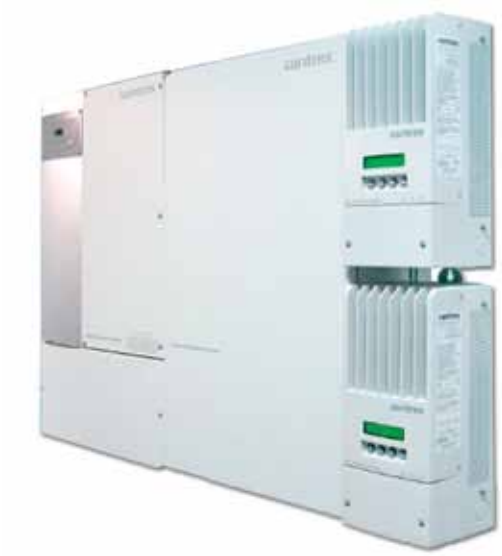
AEE Solar

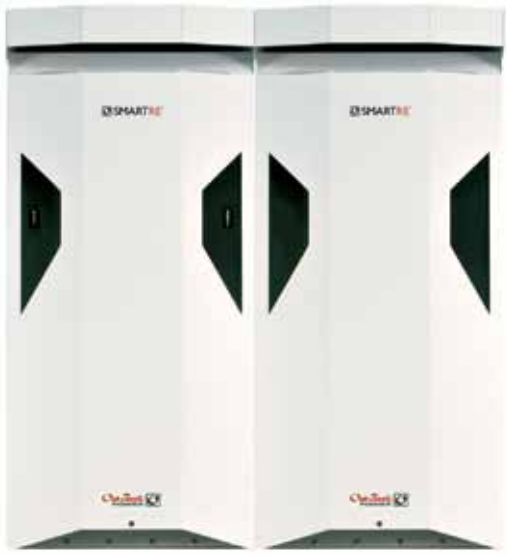
Grid-Tie PV Systems with Battery Backup

These full-service renewable energy systems give you all the benefits of utility interconnection and net metering plus energy independence. With these grid-tie systems, backup AC power is made available in the event of a utility outage, providing reliable power and peace of mind. An average conversion efficiency of 89% to 91% using the California Energy Commission (CEC) test protocol provides greater savings and a shorter time period for system payback than previous designs.

Battery-backup grid-tie systems come with modules, array wiring, combiner boxes, roof mounting structures, and inverters/control systems with all required over-current protection and disconnects (Your specific installation or utility may require additional AC disconnects, which we can supply as needed). They require a 48-volt battery bank to operate. The size of the battery bank determines the amount of backup power available during a power failure. Use the worksheet on page 10 to determine battery bank size. Battery backup systems qualify for the California Energy Commission incentives and the federal tax credit.

The OutBack SmartRE systems come with a SmartRE battery enclosure and batteries. Order a battery pack below for the Schneider/ Xantrex systems. Schneider Xantrex systems are for indoor mounting only. OutBack SmartRE systems can be mounting indoor or or outdoor. See Inverter section, page 69 for more information about these inverters.





Grid-Tie Systems with Battery Backup (see table at bottom for batteries)							
PV watts	Module quantity	Module brand & watts	System Description	Backup watts	Output VAC	Item code	Price
1000	5	Evergreen 200 watt	OutBack SmartRE 3000 with 4 Type 31 sealed batteries	3600	120	**010-06725**	**$14,346**
3000	15	Evergreen 200 watt	OutBack SmartRE 3000 with 4 Type 31 sealed batteries	3600	120	**010-06729**	**$25,548**
2850	15	Evergreen 200 watt	Xantrex XW4548 with 1 XW-MPPT60 charge controller	4500	120/240	**010-07016**	**$23,502**
4560	24	Evergreen 200 watt	Xantrex XW4548 with 2 XW-MPPT60 charge controller	4500	120/240	**010-07023**	**$34,183**
5700	30	Evergreen 200 watt	Xantrex XW6048 with 2 XW-MPPT60 charge controller	6000	120/240	**010-07028**	**$40.954**
660	3	REC 220 watt	OutBack SmartRE 3000 with 4 Type 31 sealed batteries	3600	120	**010-07033**	**$12,184**
2640	12	REC 220 watt	OutBack SmartRE 3000 with 4 Type 31 sealed batteries	3600	120	**010-07039**	**$22,785**
5280	24	REC 220 watt	OutBack FLEXware system with two GVFX3648	7200	120/240	**010-07046**	**$38,064**
3960	18	REC 220 watt	Xantrex XW4548 with 2 XW-MPPT60 charge controllers	4500	120/240	**010-07052**	**$28,485**
5280	24	REC 220 watt	Xantrex XW6048 with 2 XW-MPPT60 charge controllers	6000	120/240	**010-07057**	**$36,003**

Battery Packs for Xantrex/ Schneider Systems above						
Watt-hours storage to 80% discharge	Battery quantity	System amp-hours	Battery model	Battery rack	Item code	Price
3750	4	98	MK S31-SLD-G	MidNite MNBE-B	**010-07085**	**$2,253**
7500	8	196	MK S31-SLD-G	MidNite MNBE-B	**010-07088**	**$3,782**
11250	12	294	MK S31-SLD-G	MidNite MNBE-C	**010-07092**	**$5,656**

Please call us with any questions! Our contact information is on the cover.