

Solar Grid-Tie Systems with Battery Backup



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Solar Electrics Grid-Tie Systems with Battery Backup are quiet and operate automatically using solar electric technology. During the day, the solar panels deliver utility grade electricity to a dedicated loads sub panel. Extra power not consumed will feed back into the grid and lower your electric bill. At night, utility power supplies electricity to the dedicated loads sub panel.

During power outages, the solar panels supply power to the dedicated loads sub panel and charge the batteries for night time power. Grid-Tie Systems with Battery Backup provide security and safety for your family or business during periods of extended power emergencies. Installation can be completed within a day or two.

All electrical components are listed for safety to UL specifications and is ETL listed to UL508A and CAN/CSA 22.2 for high-quality, reliable and safe operation compliant to the NEC. The UL listing is useful for permitting and the inspections of installed systems.

All components are housed in a lockable, vented, indoor enclosure with thermally activated cooling fan.



200 watt solar panel

Grid-Tie Systems with Battery Backup include:

- ✓ Solar panels
- ✓ Roof, ground or pole support structure for solar panels
- ✓ Indoor enclosure comes with:
 - 1 OutBack GTFX Inverter
 - 1 OutBack FlexMax Controller
 - 1 OutBack MATE Digital System monitor
 - AC and DC circuit breakers, bypass breakers
 - Concorde Sun-Xtender® Sealed Maintenance-Free Batteries
- ✓ Copper Grounding System and Wire Management System for the solar array
- ✓ Complete Documentation including drawings and owner's manual



Solar Electrics YOUR WIRELESS POWER AND LIGHT COMPANY

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Grid-Tie Systems with Battery Backup



System components are housed in a grey powder-coated steel, key-lockable enclosure 32"W x 58"H x 15"D

These Grid-Tie Systems offer high-quality solar modules and system components to provide reliable power. All major electrical components (AC/DC disconnects, PV charge controller, PV ground fault protection, inverter) are tested and pre-assembled in a lockable, indoor enclosure. For 240 volt applications, you may choose the larger 120/240 volt systems or an optional 120v to 240v transformer can be added.

All systems include complete documentation, and owner's manual. Solar modules carry a 20-year warranty on power output.

The Concorde batteries have a 18-month warranty. The OutBack inverters carry a 5-year warranty and the FlexMax controller has a 5-year warranty.



MATE digital system control and display

Sample systems

Solar watts	Battery capacity	Inverter
1,600	13kwh	3.6KW, 120 volt
3,200	13kwh	3.6KW, 120 volt
3600, or 7,200	26kwh	7.2KW, 120/240 volt

Specifications subject to change

Solar watts: This is the "fuel" for the backup system. This tells you how fast the battery will recharge when the sun is shining

Battery capacity: This is the "fuel tank". The amount of energy that can be stored and available for use

Inverter: This is the output of the backup system

EXAMPLE

On a sunny day, with 3,200 solar watts and a battery capacity of 13kwh, it would take about 4-5 hours of full sun to recharge a depleted battery.

An average home in the U.S uses on average 1-1.5 kw per hour. Thus, assuming no solar input, a 13 Kwh system can power an entire home (excluding energy hogs such as heat pumps, A/C or electric cooking or water heating) for 12-18 hours, much longer (24-36 hours) if only selected circuits are powered and residents use energy sensibly.



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