



Grid-connect kit

BP Solar Energizer

All-in-one solar power kit solutions for homes and businesses



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The BP Solar Energizer is an all-in-one solar electricity kit, which has been specifically designed for use in homes and small buildings connected to the electricity grid.

The BP Solar Energizer kit is modular, flexible and easy to install. Each kit contains everything you need to silently convert sunlight into clean, green electricity. A BP Solar kit comes complete with BP Solar panels, a BP Solar inverter (manufactured by SMA), BP Solar designed mounting frames, high quality cables and auxiliary components.

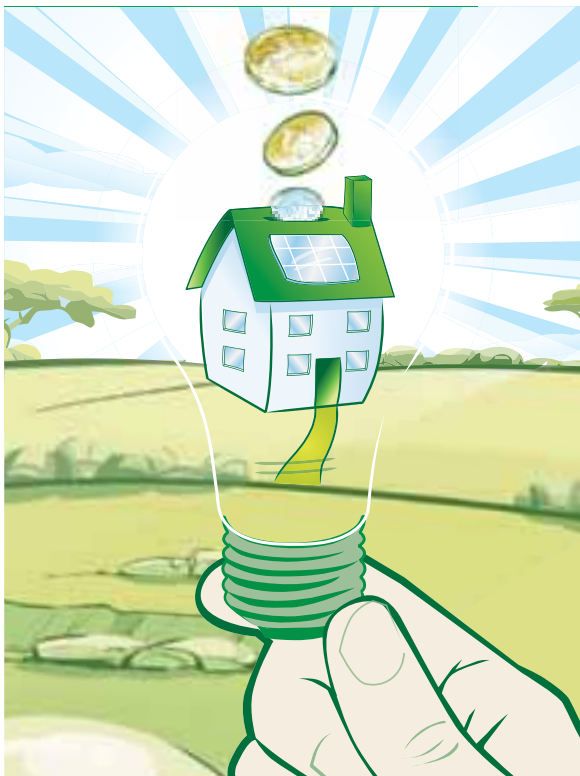
BP Solar Energizer kits are designed to comply with all relevant Australian standards and come in a range of system sizes, making it easy to find a solar electricity system to suit your needs.



How it benefits you

Reducing your carbon footprint

Simple changes in our everyday lives have a positive effect against global warming and climate change. For instance, you can reduce the amount of fossil fuel generated energy you use with energy efficient products and by simply turning off lights and appliances when you are not using them.



At the same time, you can make major changes by generating your own clean electricity with a solar PV power system installed on your home or place of business.

Financial benefits

A BP Solar system not only reduces the amount of electricity you take from the grid but it will also supply surplus energy back to the grid which may give you a credit on your account or a regular cheque from your electricity supplier. By offsetting part of your electricity bill, you are protecting your home against future energy price rises. This means that you can lock in a part of your energy cost for decades and increase the total value of your home. It is therefore essential to choose a reliable, quality system that provides the highest possible energy output for as long as it is in place.

Along with the financial benefits associated with reducing your electricity costs, most states and territories in Australia have attractive subsidies and incentives in place to encourage solar installations. These can reduce your upfront costs and help you generate more value from your system.

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How solar works

BP Solar Energizer kits use advanced, proven technology to collect sunlight and convert it into a lifetime of sustainable energy. Since solar PV panels work on light rather than heat, a solar system will generate power all year long, even during winter.

There are no moving parts and nothing is consumed or emitted once the system has been installed. In areas which have the electricity grid in place, solar power systems can be connected to the electricity grid.

During the day, if your solar system produces more electricity than you are using, the excess electricity is fed back into the grid. No batteries are required and you get credited for the surplus. And at night you draw electricity from the grid to power your home.



Rebates and Incentives

Generating solar energy from systems installed on household roofs brings many benefits to both the environment and the electricity grid. In recognition of this there are a variety of federal and state rebates and incentives available to people who invest in a solar power system.

As a guide, the rebates and incentives available take two forms:

- 1) An up front discount on your system cost. This may be offered to you by your retailer directly or they will tell you how you can apply for this rebate.
- 2) An ongoing incentive that you receive for supplying renewable electricity to the grid.

These rebates and incentives vary from state to state and change frequently. To get the latest on what is available take a look at our website www.bpsolar.com.au



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All-in-one grid-connect solution

A flexible design

The BP Solar Energizer has been designed to suit a wide variety of needs and situations. It is available in a range of sizes and some kits are expandable, allowing you to add more panels as your power demand and budget grows.

The BP Solar designed innovative mounting system includes anti-theft fittings and allows the system to be fitted to corrugated metal or tile roofs and to a variety of roof shapes.

Solar Energizer kits need little maintenance, if any. The panels may require a light clean from time to time. Your sales representative will be able to take you through how to clean your solar panels and how often cleaning will be required.

Everything you need

The BP Solar Energizer kit includes the following:

- BP Solar PV modules.
- Complete accessory kit, including warning labels, DC isolators and quick connect plugs and sockets.
- Corrosion resistant stainless steel fittings.
- BP Solar designed, high quality, certified aluminium mounting structure. Optional cyclonic fixing kits are also available for tin roofs.
- Grid-connect inverter with a 10-year warranty and LCD display to view your solar system's performance.
- Detailed manuals, including an easy to read owner's manual and a technical manual for installers.

Designed by experts

BP Solar Energizer kits are designed by highly qualified engineers. The individual components of each kit are selected for optimum performance and best value for money.

BP Solar is more than just a hardware provider. We are continuously advocating higher levels of industry standards for installation, operation and maintenance through education and training of our installers and our involvement in key solar industry associations.



Why choose a BP Solar Energizer kit

BP Solar kits contain high quality components. Every element of a BP Solar Energizer kit contributes to making sure you get more energy from your system over its entire life span.

Two key components of a BP Solar Energizer kit are the solar panels and the inverter.

BP Solar panels are used in every Energizer kit and are manufactured to strict specifications in factories certified to ISO 9001 and 14001 standards. Panels are certified by VDE (to IEC16125 & IEC61730) and carry the CE mark. BP Solar panels are subjected to testing far in excess of the industry IEC (International Electrotechnical Commission) standards. Some tests returned results 2.5 times in excess of the industry requirements.

In addition to high quality solar panels, all BP Solar Energizer kits use German engineered SMA inverters. We have been working with SMA products for over 10 years and have found these inverters to be extremely reliable and of high quality which is why we are able to offer an extended 10 year warranty at no extra charge. Along with the solar panels, the inverter is the heart of your solar power system.

To maximise the benefits from these high quality solar panels and inverters, we use quality cables and mounting frames designed in Australia and certified to meet all relevant Australian standards

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How much electricity will I generate?

The peak generation of power is on a cool, clear day when the sun is perpendicular to the solar array. Clouds, seasonal changes in the angle of the sun, array soiling, roof orientation and any incidental shading may impact on the performance.

An average Australian home consumes about 6570kWh per year. Based on this figure, a 1kW system would supply approximately 22% of the household's annual energy consumption, while a 1.65kW system would supply approximately 35%. To completely offset the annual household consumption, a 5kW system would need to be installed.

You can find your average consumption figure in kilowatt-hours (kWh) on your electricity bill. For a more detailed assessment of your power needs, please contact your local sales representative or call BP Solar direct on 1800 802 762 and we will connect you with someone in your area.

Support for the future

With over 35 years experience and installations in almost every country in the world, BP Solar is one of the world's leading solar companies with substantial ongoing investment in solar research and development.

In December 2009 BP was named the world's most environmentally sustainable large oil and gas company by the sustainability auditing company Management & Excellence (M&E, Madrid/ Sao Paulo). Since 2005 BP has invested more than US\$4 billion in alternative energy including solar PV. Today the BP group uses BP Solar solutions at its offices, plants and service stations around the world.

From Australia we supply solar PV solutions to a large distribution network covering residential and commercial customers in Australia, New Zealand and South East Asia, ensuring you get the components and service you need.



Warranty Information

BP Solar provides warranties covering power output, materials and workmanship. In 1998, we were the first major solar company to offer a 25 year power warranty. In 2010 we again took the lead by being the first to provide a significant increase to our power output warranty.

Solar panel warranty

- 5-year limited warranty on materials and workmanship
- 12-year limited warranty of 93% minimum power output
- 25-year limited warranty of 85% minimum power output

Inverter warranty

- 10-year limited warranty on materials and workmanship

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Popular Solar Energizer kit sizes

| | SE1000 | SE1400 | SE1650 | SE2000 | SE4000 | SE5000 |
|---|--------------------------|---------------------------|-----------------------------|---------------------------|---------------------------|-----------------------------|
| Nominal solar power output ⁽¹⁾ | 1020W | 1400W | 1650W | 2040W | 4080W | 4950W |
| Number of solar panels | 6 | 8 | 10 | 12 | 24 | 30 |
| Quantity of rail kits | 2 x 3 panel units | 2 x 4 panel units | 2 x 3 and 1 x 4 panel units | 4 x 3 panel units | 6 x 4 panel units | 2 x 3 and 6 x 4 panel units |
| Approximate area/weight on roof | 7.8m ² /150kg | 10.4m ² /200kg | 13.0m ² /250kg | 15.6m ² /300kg | 31.2m ² /600kg | 39.0m ² /750kg |
| Inverter model* | SB1100 | SB1700 | SB1700 | SB1700 | SB3800 | SMC6000 |

* Inverter models are based on non-expandable kits. An expandable kit would require an inverter model with a larger capacity than specified.

For further information on the kits outlined above or to find out details of other BP Solar Energizer kits that are available, please contact your local BP Solar representative or call 1800 802 762.

Technical characteristics of kit components

Inverter

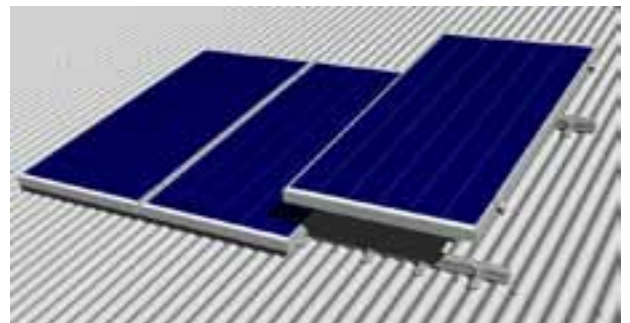
Inverter output voltage (nominal) 240V AC, 50Hz
 Operating temperature -25°C to 70°C

Mounting Frame

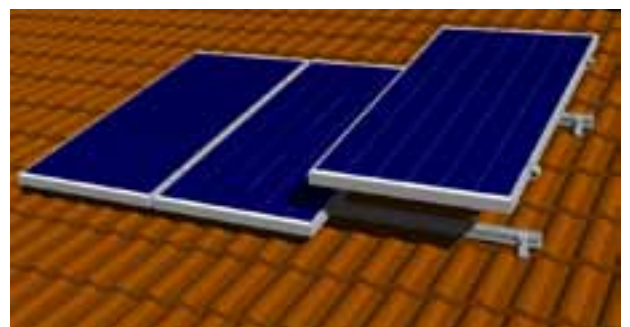
Mounting angle design range 10° to 45°
 Maximum wind speed regions ⁽²⁾
 corrugated metal Region C (cyclonic) ⁽³⁾
 tile Region B (intermediate)

Solar Panel

Front cover High transmission 3.2mm
 ARC glass
 Encapsulant EVA
 Back cover White polyester
 Frame Silver anodized aluminium
 Diodes IntegraBus™ with 3
 Schottky diodes



Corrugated metal roof mounting system.



Tile roof mounting system.

1. Nominal solar power output is specified as the total nominal DC solar panel output, under standard test conditions, in accordance with IEC61215 (Illumination of 1kW/m², AM density 1.5 and cell temperature of 25°C).

2. Regions based on AS1170. Conditions apply in relation to the effects of terrain categories and topographic multipliers. These can affect suitability for fixing with in the various regions. Each site must be assessed prior to any installation to confirm suitability.

3. Additional brackets are required for mounting to corrugated metal roofs in Region C (Cyclonic) Terrain Category.

Disclaimer: BP Solar has a policy of continuing product improvement and enhancement. BP Solar therefore reserves the right to change these specifications at any time and without notice and this brochure should not be used as the definitive source of information for the final system design.

Additional warranty and technical information may be found on our website or obtained from your local BP Solar representative or by calling 1800 802 762 in Australia.