



Solar Electricity & Hot Water

Solar Energizer Plus

Everything you need to plug and tap into the sun

The Solar Energizer Plus is an all-in-one solar electricity and solar hot water kit, designed and pre-engineered for homes which are connected to the electricity grid and mains pressure water. The kit is modular, flexible, easy to install and includes everything needed to silently convert the sun's energy into clean, green electricity and hot water for use in your home. It is easy to find the right kit to suit your lifestyle.



How it works

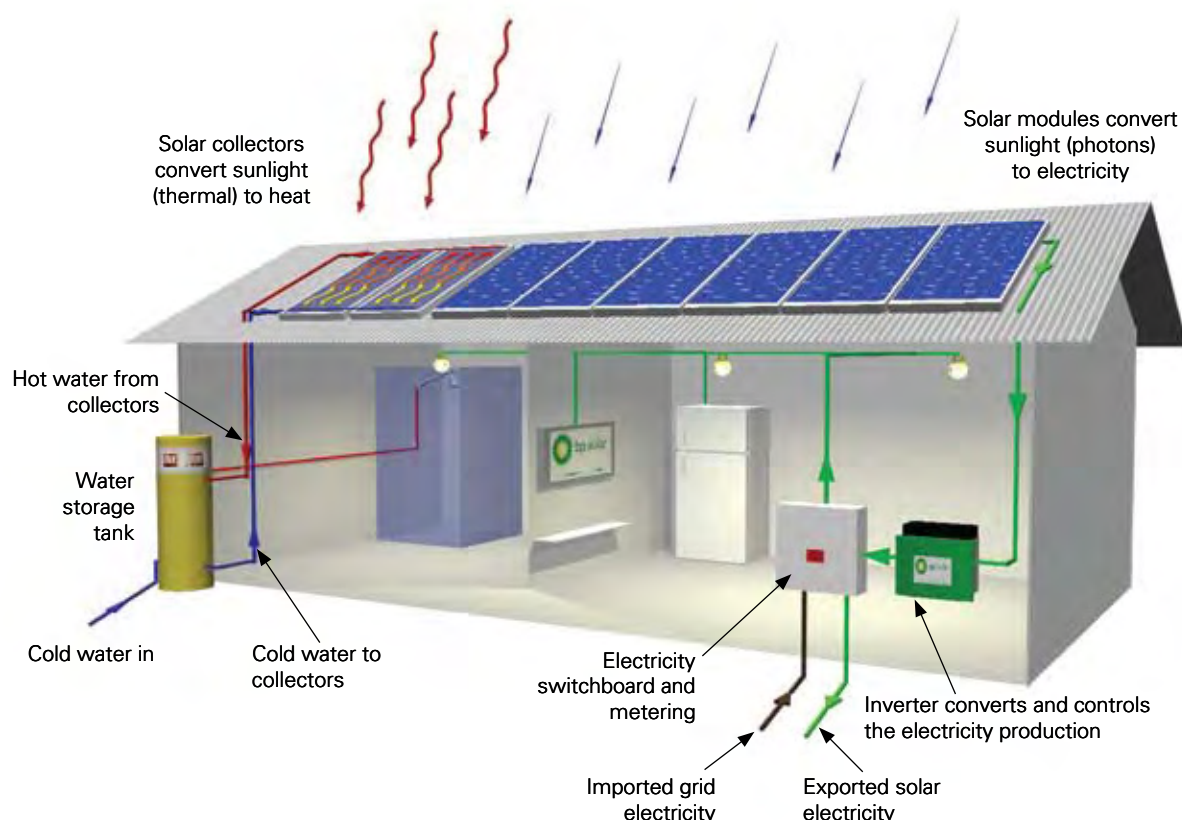
The Solar Energizer Plus cleverly combines two renewable energy technologies together to produce electricity and hot water. Both components are mounted neatly on the roof together, which saves time and money. The electronics is wall-mounted and the hot water storage tank is on the ground to further protect the aesthetics of your home and provide easy service access.

Solar electricity system

Solar electricity modules using photovoltaic (PV) technology and advanced electronics convert the sun's rays (in the form of photons) into electricity. Electricity is silently generated by the solar modules on the roof and fed to the inverter which converts the energy into standard household electricity. When your system generates more electricity than your household uses the excess electricity flows into the grid, effectively spinning your electricity meter backwards and building a credit against your bill.

Solar hot water system

Solar hot water collectors use the sun's rays (in the form of heat) to heat your water. Your solar hot water system uses an efficient pump to circulate water through the solar hot water collectors where it is heated by the sun and then stored in a ground mounted tank. The tank contains heating elements which can boost the water temperature if solar energy is low or if demand is particularly high, providing year round reliable hot water. The tanks can either be electric boosted (two sizes available) or gas boosted (one size available).





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How it benefits you

Environmental benefits

In Australia, grid electricity is typically sourced from coal-fired power stations, which are high emitters of greenhouse gases. A Solar Energizer Plus will help the environment by reducing your energy consumption, thereby preventing greenhouse gases from entering the atmosphere. Installing a Solar Energizer Plus is also a perfect way to meet rising building energy efficiency standards by reducing your ecological footprint.

Financial benefits

A Solar Energizer Plus is a sound financial investment which can significantly reduce electricity bills while also protecting against inevitable electricity price increases by providing a fixed generation cost. Furthermore, installing a Solar Energizer Plus kit will add value to your home and is a very attractive asset for prospective buyers.

The best of both worlds

BP Solar has cleverly combined the best of two Australian-made technologies with outstanding service and support options built-in:

- 25 year power warranty on solar electricity modules
- Extended 10 year warranty on inverters, solar collectors and electric hot water storage tanks, 5 year warranty on gas hot water tank
- Fast and neat mounting of solar electricity modules and solar hot water collectors
- Wireless display (SolarSight) shows solar electricity system performance
- Built-in frost protection for solar hot water collectors
- Hot water outlet tempering valve included
- Ground-mounted water tank avoids unnecessary roof loading

All-in-one solutions to suit your home hot water and electricity needs

A flexible design

The Solar Energizer Plus has been designed to suit a wide variety of needs and situations. The solar electricity system is available in six sizes, from 1,000 watts to 5,000 watts, and is expandable as your demand and budget grows. The hot water storage tank is available in 315 litre and 400 litre sizes (electric boosted), or 170 litre (gas boosted) which delivers 305 litres in the first hour, giving you a wide choice depending on your household requirements.

The innovative mounting systems allow each system to be fitted to corrugated metal or tile roofs - and to a variety of roof shapes - quickly and simply. The solar hot water collectors have been designed as part of a split system (with the solar collectors on the roof and tank on the ground) to improve the visual match with the solar electricity modules, so that when installed on your roof, the complete system will have a uniform look.

The advantages of a split solar hot water system with a ground-mounted storage tank, is that it eliminates the need for roof strengthening. With thermally insulated tanks located at ground level, it also provides for safer installation and easy maintenance.

Everything you need

The Solar Energizer Plus kit is designed to comply with all relevant Australian standards and includes the following:

- Complete accessory kit, saving you time and money and ensuring safety and code compliance for both your solar electricity and solar hot water systems,
- High quality, mounting structures, which are fast and easy to install to corrugated metal or tile roofs,
- Efficient and fully approved grid connect inverters with a wireless SolarSight display to view your solar system's performance from inside you home,
- Eligibility for Renewable Energy Certificates (RECs), and
- Detailed manuals, including an easy-to-read owner's manual.



To contact your local BP Solar Dealer, please call 1800 802 762 (Australia) or visit www.bpsolar.com.au



How much electricity will my system produce?

Typically, a Solar Energizer Plus system will generate sufficient electricity to power*:

Solar Energizer Plus	% of average household consumption (18kWh/day)	% of efficient household consumption (7.5kWh/day)
SE+1000	20%	50%
SE+1500	32%	78%
SE+2000	41%	99%
SE+3000	62%	149%
SE+4000	83%	199%
SE+5000	103%	249%

How much hot water will my system produce?

Typically, electric hot water heating can contribute up to 40% of an average electricity bill. With a solar hot water system its possible to reduce this portion by 90%.

The Solar Energizer Plus hot water system will provide sufficient hot water* for:

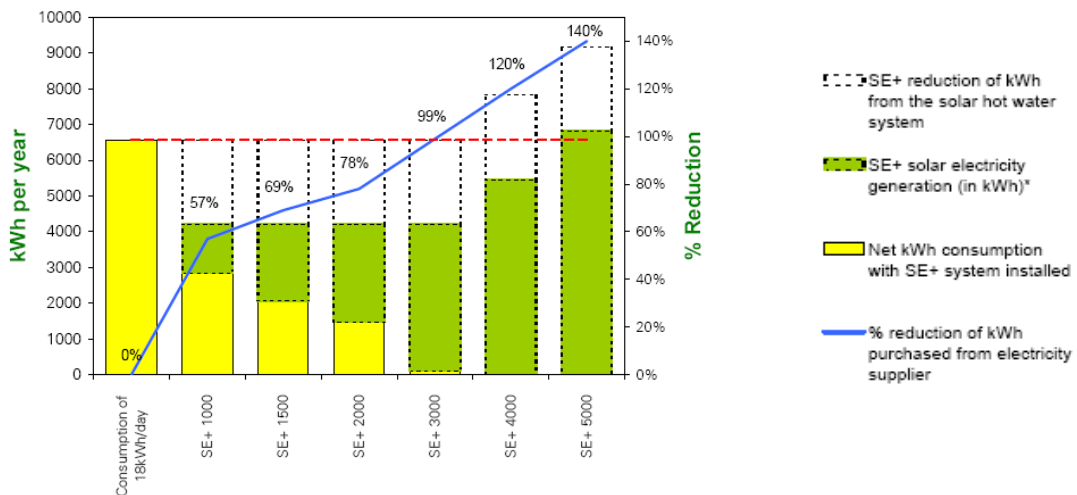
Solar Energizer Plus	Number of people per household
SE+170L (gas)	3 - 4
SE+315L (electric)	3 - 4
SE+400L (electric)	4 - 6

How much energy will I save overall?

Now you can choose which Solar Energizer Plus system will best help to reduce your 'ecological footprint' and significantly reduce your electricity bill, saving you money year after year.

The graph below demonstrates the annual electricity reduction and generation of the different Solar Energizer Plus kits. It allows you to match a system to reduce your electricity bill depending on your budget. In this example, an average house consuming 18kWh a day (6570kWh per annum) is shown to compare the effects of the different kit sizes. The key points to look at are the reduction in the net kilowatt-hours (kWh) consumed and the percentage reduction in kilowatt-hours purchased from your electricity supplier over a year. Of course, the less electricity you consume, the better the savings will be.

An average house with a Solar Energizer Plus system



*The power calculations are based on meteorological data from Sydney, Australia, at an optimum tilt angle, facing due north under average annual solar conditions. For other areas these values may vary. Clouds, seasonal changes in the angle of the sun, module or collector soiling, roof orientation, and any incidental shading may also impact on the performance.

*Solar hot water kWh reduction figures are base on an average household consumption, where 40% of electrical consumption is used for hot water heating.



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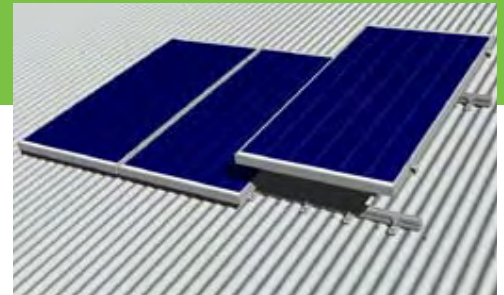
Mechanical and electrical characteristics

Solar Energizer Plus solar electricity system

Solar Energizer Plus solar electricity system	SE+ 1000	SE+ 1500	SE+ 2000	SE+ 3000	SE+ 4000	SE+ 5000
Nominal solar array output (Wp)	990	1,550	1,980	2,970	3,960	4,950
Quantity of solar modules	6	10	12	18	24	30
Approximate total solar module area (m ²)	7.8	13.0	23.4	31.4	31.2	39.0
Approximate weight on roof (kg)	150	250	300	450	600	750

Solar Energizer Plus solar hot water system

Solar Energizer Plus solar hot water system	SE+ 170L	SE+ 315L	SE+ 400L
Boost type	Natural gas	Electric	Electric
Storage tank capacity (L)	170	324	416
Hot water delivery rating (L)	305	315	400
Tank height (mm)	1,895	1,754	1,703
Tank dimensions (mm)	420(W)x500(D)	Ø617	Ø705
Net tank weight when empty (kg)	90	103	114
System type	Open with frost protection		
Relief valve pressure (kPa)	1,400	1,000	1,000
Consumption	32.5Mj/hr	3.6kW	3.6kW
Number of collectors	2	2	2
Solar collector size (mm)	2,000 x 1,000	2,000 x 1,000	2,000 x 1,000
Approximate total solar collector area (m ²)	4	4	4
Approximate total collector weight when full (kg)	82	82	82
Transfer pump flow rate (L/h)	85	85	85



Other

Solar module warranty	25 years power output, 5 year workmanship*
Inverter warranty	10 years*
Solar collector warranty	10 years*
Electric hot water tank warranty	10 years*
Gas hot water tank warranty	5 years*

(*Refer to individual warranties for full detailed terms and conditions)

Sales and service network

Via our extensive Distributor and Sales and Service network that spans Australia, BP Solar can supply you with individual products or complete, professionally designed systems. Behind these networks you have the backing of BP Solar and Dux Hot Water.

BP Solar has a more than 25 years experience manufacturing and supplying solar systems in Australia, while Dux has been making water heaters in Australia since 1915. With this partnership and support, we can give you the peace of mind you need when investing in solar technology.



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 should not be used as the definitive source of information for the final system design.