

Solar Energy FREE ELECTRICITY FROM THE SUN

Incentives

Australian Federal and State Governments encourage households to invest in renewable energy systems such as Solar PV by offering incentives such as Renewable Energy Certificates (RECs), Solar Credits and Feed in Tariffs.

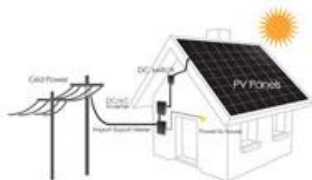
- **RECs** -The Australian Government offers Renewable Energy Certificates to eligible installations. These are often offered by the installer as an upfront discount off the price of the installation. The larger the system, the more RECs it will generate.
- **Solar Credits** - Under the Solar Credits scheme, The Australian Government offers up to 5 (five) times the RECs for the first 1.5kW of an eligible Solar PV system.
- **Feed In Tariffs** - All State Governments now have schemes in place directing energy retailers to pay households for renewable energy fed into the grid. Tariffs are paid at a premium price (up to 4 times the retail rate) and can be offered as either net or gross tariffs depending on the state scheme (net schemes pay for the excess power generated during the day, while gross schemes pay for all power generated regardless of what is used). Emerald Planet recommends you refer to the Feed In Tariff applicable in your state for more details.

Emerald Planet Grid Connect Systems

Emerald Planet offer a range of Solar PV system packages to suit most requirements. All packages include high quality approved solar panels, approved grid connect inverters, mounting rails (for tile, metal & flat roofs) & all necessary electrical safety devices & requisite labelling (e.g. circuit breakers, weatherproof enclosures and engraved labelling).

How Does It Work?

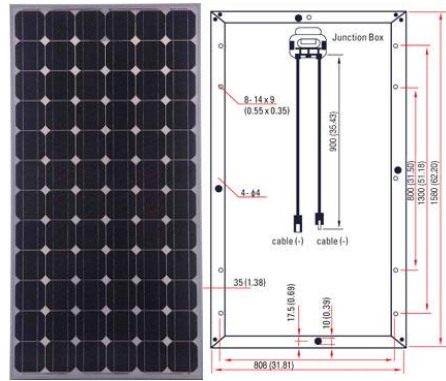
As can be seen in this image, sunlight falling on the solar panels is converted directly into electricity by the photovoltaic cells within the solar panel (module). The generated DC current is supplied to the grid connect inverter which converts the DC current into AC current suitable for use by household appliances and the electricity grid. The AC current is then fed into the grid through an import/export meter which records how many kilowatt-hours of electricity a system feeds into the grid. During the day, households are paid for the electricity supplied to the grid by the electricity supplier*. At night, the electricity used from the grid by the household is charged. If the system generates more than is used, the difference is credited to the household electricity account. If more is used than generated, only the difference needs to be paid.



Warranty

Emerald Planet Solar PV panels are guaranteed to be free from defects in materials and workmanship for a period of 5 (five) years. Output is guaranteed at 90% rated output for 10yrs then 80% rated output over 25yrs. All grid connect inverters are guaranteed for 10yrs & roof mounting systems are guaranteed for 5yrs. Any breakage caused by external influence outside of Emerald Planet's reasonable control is not covered by any warranty.

185 watt Monocrystalline Solar Module



Typical Package Details

Number of Panels*	8	11	13	16
	(10m ²)	(14m ²)	(17m ²)	(20m ²)
Package Size	1.48kW	2.03kW	2.40kW	2.96kW

*Roof space required

Typical Module Specifications

Dimensions	(L) 1580mm x (W) 808mm x (D) 35mm
Weight	15.5kg
Frame	Anodized aluminum alloy (Alcoa-CITIC®)
Solar Cells	72 solar cells (125mm x 125mm) in a 6x12 matrix connected string & bypass diodes
Output Cables	Cable diameter 4.0 mm ² , lengths (-) 900 mm and (+) 900 mm; Genuine Multi-Contact® MC Plug Type III / IV connectors
Cell Type	Monocrystalline
Junction Box	IP65 / IP67 rated (3 bypass diodes)

Typical Module Electrical Specifications

Maximum Power	185W
Maximum Power Voltage (Vmp)	37.8V
Maximum Power Current (Imp)	4.90A
Open-Circuit Voltage	45.0V
Short-Circuit Current	5.40A
Tolerance	±3%

Standards and Certifications

All PV modules are compliant with IEC 61730 (class A) and IEC 61215, and are included on the Clean Energy Council's list of approved products.



Emerald Planet Environmental
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