

**What is a RAPS /off-grid solar system?** A RAPS (Remote Area Power System) refers to any system that provides electricity in off grid locations, although we use the term to describe a system that will supply electricity via renewable energy means. A Remote Area Power System (RAPS) usually consists of a solar array, a wind turbine, or both, which produce electricity, charge controllers, which allow batteries to be effectively charged, a battery bank, which allows the electricity to be stored, and an inverter which converts the energy from the battery banks into normal mains electricity.

**How does a remote power system work?** The electricity produced by the solar panel array or wind turbine is routed through wiring to a solar regulator or charge controller, which controls the charging of a battery bank. An inverter then converts the energy to supply standard household appliances with 240 volt electricity.

**How many solar panels will I need?** This will vary greatly, and it is dependent on your geographical location, climate, and electricity requirements. For an accurate estimation, please contact us for a free RAPS assessment that will take into account your energy requirements and also produce a recommendation of suitable products such as solar panels, deep cycle batteries, charge controllers and inverters for use in remote power applications.

**Should I choose monocrystalline, thin film or polycrystalline solar modules?** There isn't a lot of difference between monocrystalline and polycrystalline except that a polycrystalline panel is slightly larger than the equivalent wattage in monocrystalline module. Thin film modules are larger again and there are other issues to consider such as system complexity, output degradation, and framing and wiring requirements. We generally recommend monocrystalline for most situations.

**Should I consider wind?** If you are keen to use wind power, we recommend contacting our friendly assessors who can recommend the best products to suit your needs. We don't highly recommend wind in all areas, as it is not always considered a reliable resource, especially for a RAPS system.

**How long will my grid connect solar power system last?** Solar modules have been tested in the field showing small reductions in power output after 20 years, mostly because the glass surface becomes a bit dull and reflects more light. All our solar panels carry an output warranty of 25 years. There are solar panels delivering power in Australia today that were installed more than 30 years ago. The electronic components such as inverters, being the most sensitive, will typically last 10 -15 years.

**What type of warranty is supplied with the system?**

- Solar Panels: 25-year warranty to produce 85% of rated output (manufacturer)
- Inverter: 5 year warranty. Can be extended to 10 years for an additional charge (manufacturer)
- Mounting System: 10-year product warranty (manufacturer)
- Workmanship: 12-month warranty on workmanship (installer)

**How is a RAPS system designed and costed?** The design of a RAPS system is critical. The decisions that are made before the system is installed affect the life and the quality of operation of the system for years to come. The design process starts with you – Before any design is undertaken, auditing, or an assessment of your electrical loads is undertaken by Renewablelogic in conjunction with each customer. From this assessment we find the ways to reduce your electrical loads which make your system more efficient and of course less expensive.

**Who will install your RAPS system?** Installation of your Remote Area Power System is performed by one of our installation teams from Perth or Karratha.

**What is the warranty and system lifetime expectancy?** All Renewablelogic solar power systems come with a 1 year workmanship warranty, our inverters have a 5 year manufacturer warranty, and the solar modules have a 25 year manufacturer performance guarantee and a 10 year manufacturer warranty. Some inverters come with a straight swap replacement in the case of a fault so that your system does is running again in no time at all.

**What rebates are available?** Rebates for RAPS are available from the WA government that pay up to 50% of the inclusive GST cost of the system for private installations and 50% of the exclusive GST cost for business systems, up to \$500,000.00 to system cost for systems installed in WA. Renewablelogic is also an agent for Renewable Energy Certificates and so an additional point of sale discount is available from us directly. Contact us to learn more about current rebates.

### Why is Renewablelogic best to install your system?

#### Experience

Renewablelogic has installed over 400 grid connect systems and our staff have extensive design and installation experience in remote area power systems, and management of large remote projects.

#### BCSE Accreditation

Renewablelogic has a team of accredited Business Council for Sustainable Energy (BCSE) designers and installers so that you can be sure that your system is designed to the highest possible standards and that it will be eligible for both the government and RECs rebates.

#### Ongoing training

Renewablelogic staff all undergoes regular professional development and training to perform at the highest possible standards.

#### Occupational health and safety

Renewablelogic aims for the highest level of occupational health and safety, so that the safety of our workers is maintained, and our customers are protected.

#### Quality Assurance

Renewablelogic is a quality assured company under AS/NZS ISO 2001:2000, and we are working towards certification in Environmental management ISO 14001: 2004.

#### Coverage

Renewablelogic has branches in Perth, Karratha, and more coming throughout regional WA.

### What are the benefits of RAPS?

- Set the cost of your electricity for the life of the system – with a Renewablelogic remote area power system the cost of electricity over the life of the systems is known. Never be surprised by increases in diesel prices again. A Renewablelogic Remote Area Power System comes with a full life cycle costing so you know the costs in advance.
- Reduced electricity costs – electricity costs from a Renewablelogic Remote Area Power System are less than those for diesel generation over their lifetime.
- Diesel costs are rising, and because they will keep rising, anyone reliant on diesel should consider the benefits of a renewable energy power system from Renewablelogic
- Quiet time – A Renewablelogic Remote Area Power System runs quiet all night. Never listen to a diesel generator again.
- Reduced maintenance – Spend less time on maintenance and more time on business. Renewablelogic Remote Area Power Systems require very little ongoing maintenance.
- Reduced pollution – A Remote Area Power System runs clean, with no pollution or mess.
- Reliability – Modern, well designed and maintained Remote Area Power Systems should function well for many years.

For more information, visit the RAPs page of our website or call Renewablelogic on 1300 39 10 77 or email your enquiries to [info@renewablelogic.com.au](mailto:info@renewablelogic.com.au) .