

Factsheet



Purchasing a Solar Electricity system for your Home



You can generate solar electricity for your home from your own roof by installing a solar photovoltaic (PV) system. This system works by converting sunlight to electricity for use in your own home and for exporting back to the grid when not used.

Using a PV system will generate energy for your home without polluting the environment: no emissions, no noise and no waste. The amount of energy produced from a solar system will depend on the amount of sunlight available and size of your system, but here in Perth is a great option for producing long term, reliable electricity.

The great thing about PV systems is they produce electricity based on light, not heat so will also work in the colder months. Solar cells work by converting light into electricity. To convert sunlight into electricity light must be absorbed in the solar cell, and with PV technology this is the most harmless method of power generation.

What to consider before purchasing a system and asking for a quote:

- Do you have an unshaded north facing roof on your home? An unshaded east or west roof will also do, but will slightly decrease the amount of power you can generate.

- Do you have enough roof space? This space requirement depends on the size of the system and type of solar panels used, so make sure you do your research on what system is best for your needs.
- Is your roof readily accessible or will scaffolding be needed? As this will need to be factored in to your quote.

Types of systems:

There are several different options when it comes to cell panels, and below is a summary of the advantages and disadvantages of the different types you may come across.

- Thin Film – this was first used in pocket calculators. It has a lower efficiency than the other solar panel options so more roof area is needed. It is less affected by temperature and shade than other cell types and less energy is required to manufacture it.
- Single Crystal Silicon (or monocrystalline) – widely used for decades. It has higher efficiency than the other solar panel options, however does require more energy to manufacture it.

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- Polycrystalline – uses more roof / space area than single crystal silicon, although is slightly less efficient. It is, however, a cheaper alternative to single crystal silicon.

Finding a supplier:

If you look under 'solar energy equipment' in the Yellow Pages, you will find a number of suppliers for your local area. It is important to ask whether the solar modules on offer by the suppliers you speak to comply with the appropriate standards. In Australia, the International Electrotechnical Commissions Standards (IEC) is the authority for solar module certification. Also make sure you consider the length of warranty on offer for the system you choose.

Solar Credits:

Solar Credits is a mechanism within the Australian Government's RET (Renewable Energy Target) scheme that provides additional support to households, businesses and community groups that install smallscale renewable energy panels. The level of support available under this scheme is dependent on the amount of renewable energy generated and the location where it is installed. For more information visit www.climatechange.gov.au/reducing-carbon/renewable-energy/renewable-energy-target/small-scale-renewable-energy-systems/solar-credits-small-generation-units

Not enough appropriate space on your roof for your own PV system? As an alternative, you can also sign up for green energy electricity from Synergy or another accredited supplier.

