



Installing Solar Photo Voltaic (PV) and Batteries

Why invest in a solar system?

With rising electricity prices and rebates currently available from the State Government, there has never been a better time to consider installing solar panels on your home. Typical households can install a solar system which results in a payback period of between 3-4 years, with rebates this will be even less! And solar provides a clean renewable electricity source right from your roof so you will be doing your bit for climate change and the environment.

There are a number of things you should consider when deciding to purchase a solar system:

1. Energy efficiency

A great first step is to reduce your households electricity demand through energy efficiency measures. See our *Energy Efficiency at Home* flyer or visit our website for more information.

2. Selecting your installer and system

We recommend you obtain several quotes and use a reputable and well established Local Installer. **Although some of the ‘cold call blow ins’ may offer a lower priced ‘special deal’ they often use poor quality equipment and workmanship and will be non-existent when you try to contact them for warranty work.** Preference should be for high quality panels (sometimes referred to as Tier 1).

You should receive a detailed quote which specifies all materials, prices, installation costs, warranties (products and workmanship) and a timeline for installation. The installer should design the system to maximise the power generation by taking into consideration available roof space, solar panel angle, orientation, shading etc.

3. What size PV system do I need?

Because PV panels have come down so much in price, the current thinking is to install as big an array as possible. Although your Electrical Network Operator may limit the amount of power you can feed back into the mains, modern inverters can manage this. It is even viable to install PV panels on East and West roofs now if you don't have a suitable North face.

4. Inverters

The inverter needs to be sized to suit the PV array. Price will vary depending on quality (and warranty), size, and whether it is 'battery ready'. Micro Grid technology is just starting to be introduced in some rural areas and inverter technology will need to be compatible if this is a consideration.

5. Batteries

Modern battery equipment can provide energy independence (either partially or totally off the grid), maintain power during blackouts and retain more solar energy to be used in the house when the sun is not shining. At the time of publication (June 2019) batteries have not yet come down in price and are still at the 'early adopter' level. Things are moving fast in the battery field, and we hope costs will soon drop and some regulatory problems removed

6. Maximise your savings

Shop around to determine which retailer offers the best rates to suit your energy use, including solar feed-in tariffs. Current feed-in tariffs for solar generated power is less than half of what you pay for imported power. It is therefore best to maximise your use of the solar power as it is being generated. Do your discretionary use during sunshine hours such as putting on the dishwasher, washing machine, doing your cooking/baking (if electric cooking), ironing etc. Use your reverse cycle split system for cooling/heating to take the worst of the heat/chill out of the room during the day. If your hot water service needs replacing, put in a heat pump hot water unit and set the timer for sunshine hours.

7. Rebates and Subsidies

The Victorian Government's Solar Home Package offers rebates for solar panels and batteries (including for rental properties) and no-interest loans for solar panels. Visit www.solar.vic.gov.au for information or talk to your installer about this and other Government subsidies and offers that may be available.

For detailed guides on Solar PV and Battery Storage visit www.cleanenergycouncil.org.au and select the 'consumers' tab.