

Solar PV Basics

This guide provides an introduction to commonly asked questions when homeowners are just starting their journey with solar energy.



energy efficiency

What is Solar PV?

PV is short for photovoltaics (photo = light ; voltaics = electricity), and this term Solar PV is used to signpost the discussion topic is panels that generate electricity from sunlight.

What is the difference between Solar Hot Water and Solar Panels?

Solar Hot Water has collectors on the roof that contain water, often with a tank, whereas solar panels generate electricity and have no tank on the roof. The electricity from solar panels can be used by any appliance within your house that uses a powerpoint.

Why do solar panels help reduce greenhouse gases and pollution?

Compared with the amount of energy used to produce them, solar PV modules produce more electricity over their useful life (energy surplus). In operation, they rely on sunshine to provide the energy rather than burning fuel. When we use energy from solar panels, it removes the need to burn other fuels (like coal) for that amount of energy, thereby reducing greenhouse gas production.

Can solar panels produce energy from moonlight?

The amount of electricity from moonlight is too small to be useful. In general, to use solar electricity at night or in a blackout, batteries would be needed as well as the solar panels. Batteries will not make financial sense for many people, so discuss your exact energy use pattern with a contractor to confirm batteries are right for you.

What is grid connected Solar PV?

Grid connected PV is the most common type of solar electricity generation system. Energy from the solar panels is injected into your meterbox by an inverter, that matches the electricity to the type in your home. If your appliances or lights are using energy during the daytime, electricity from the solar system will go automatically to your equipment, and if there is surplus energy, it will be sent out to the public grid in the street for use by others (export). When your appliances use solar energy instead of the grid electricity, you save money as your home or office will avoid buying power from the electricity company. Such an arrangement is also called net-metered PV.

This system normally avoids batteries.

Will I have no more electricity bills after installing solar energy?

Normally, solar electricity systems will reduce your bill but not eliminate it entirely. In general, the solar system is effective at covering your daytime energy use but there will still be some nighttime energy use that is bought from the power network. For this reason, there will be some level of electricity bill after installation, but it will be less than if there is no solar. Professional solar contractors will help you to assess the probable savings during the quotation stage.

FAQ's

from the Alternative Technology Association

www.ata.org.au/news/solar-frequently-asked-questions

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