



HUME CITY COUNCIL

SOLAR POWER AND YOU

Benefits of solar power

With more and more Australian households 'going solar' and rebates available through the Victorian Government's Solar Homes Program, now is a great time to consider installing solar. Australia is one of the sunniest countries on earth so it makes a lot of sense to harness the sun's energy and put it to use.

Solar PV systems are affordable and reliable. As well as significantly reducing your household's environmental impact, they allow you to save money on your energy bills. Generating your own electricity can also be very rewarding.

Some things to consider when thinking about solar PV systems:

■ Energy efficiency

Taking energy efficiency actions around your home will also reduce your energy bills and may reduce the size of the solar PV system that you select. Council provides information on energy efficiency actions that you can do at www.hume.vic.gov.au/energytakeaction.

■ Grid connection and Batteries

Grid-connected solar PV systems are currently the most practical and affordable option. Off-grid battery systems usually only occur in remote areas due to the higher cost, regular maintenance requirements and environmental issues of disposing of the batteries. A grid-connected system means that if your solar PV system is producing more electricity than you need it will be exported to the grid, if you produce less electricity than you need electricity will be imported. If there is a power outage in your street, your home will also be without power. Some households are now installing batteries and remaining grid connected. Battery systems are expected to reduce in price over the next five years.

■ Trees and shading

If there is significant shading on your east, north and west facing roof aspects, installing a solar PV system may not be feasible for your property. Council encourages you to get advice from reputable solar installers and to carefully consider removal of your own trees for improved solar access. Trees provide many environmental benefits and shade from trees can reduce indoor temperatures by 6–12°C in summer¹ helping to reduce the amount of energy required to cool your home. Please note that Council will not prune or remove existing trees in public areas for the purpose of solar panels. Further, it is illegal to remove, prune or damage trees in public areas including nature strips, and penalties do apply.

■ Government support

The Victorian Solar Homes Program is offering generous rebates for solar systems, solar hot water and batteries for eligible households. See www.solar.vic.gov.au

An upfront discount is available for solar PV and solar hot water systems under an Australian Government scheme by generating Small-scale Technology Certificates (STCs). Installers factor this upfront discount into their quotes.

Feed-in tariffs refer to the amount you receive for solar electricity exported to the grid. They differ by state/territory. In Victoria, the minimum 'single rate' feed-in tariff from July 2019 is 12c/kWh.

¹ Sustainable Energy Authority Victoria, Landscape Design Info Fact Sheet.



■ **Your patterns of electricity use**

Installing solar PV systems provide most financial benefit to households that use electricity during the day. This is because the solar feed-in tariff offered in Victoria from July 2019 (12c/kWh single rate) is less than the cost of purchasing electricity from your retailer (around 25c/kWh) – so financially it is better to create solar electricity when you need to use it the most and reduce exported power to the grid. Similarly, once solar panels are installed it is best to shift as much electricity usage as possible (e.g. washing machines, dish washers, battery charging, air-conditioning if required) to during the day.

■ **Solar PV system orientation**

Solar PV systems orientated north will maximise the amount of solar electricity that your panels generate. Solar PV systems should ideally be in full sun for most of the day. Solar PV systems orientated west can be beneficial (particularly for those not at home during the middle of the day) to allow solar electricity to be generated and used in the afternoon/early evening. South facing roofs are usually not suitable for solar as they don't get enough sun.

■ **Solar PV system size**

Solar companies can help you to determine what size solar PV system you need. Ideally, your solar PV system should be sized to match the solar electricity generated by the panels to your average household electricity use during the day. In general terms, a 1kW system in Melbourne averages over the year around 4kWh production per day. Solar systems of 4 - 6kW capacity are popular sizes.

■ **Your electricity retailer and distributor**

It's important to contact your electricity retailer and distributor before commencing your solar PV system installation. The Clean Energy Council's *Guide to Installing Solar for Households* contains a comprehensive list of questions to ask your electricity retailer and distributor (see page 9), including querying any changes to your peak/off peak electricity rates, any required smart meter upgrades and obtaining approval for grid connection. You will need a smart meter for energy exported from the grid to be accredited to your electricity account. The electricity distributor in the Hume area is Jemena.

■ **Shop around**

As with any major purchase, it is important to get a few quotes before selecting a solar provider as there is a range in quality of solar PV systems, inverters and installers. Your provider must be accredited with the Clean Energy Council to access government discounts and support. The Clean Energy Council's *Guide to Installing Solar for Households* contains a comprehensive list of questions to ask your solar provider/installer (see page 12).

Helpful resources and further information

Solar Victoria, Solar Homes Program: www.solar.vic.gov.au

Clean Energy Council's *Guide to Installing Solar for Households* available at:
www.cleanenergycouncil.org.au/consumers/buying-solar

Find accredited solar retailers and installers near you:
www.cleanenergycouncil.org.au/approved-solar-retailer-guide

www.cleanenergycouncil.org.au/find-an-installer

For further information contact Sustainable Environment on 9205 2200.

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