

Harness the sun's rays with solar energy

Aurora's guide to installing solar energy in your home or business



Why go solar?

Sunlight is a free, clean source of energy. Installing a solar energy photovoltaic (PV) system will enable you to generate your own electricity and reduce your energy bill. You will also be doing your bit to reduce greenhouse gases.

How it works

The energy from the sun is captured through photovoltaic cells (solar panels) that are typically mounted on the side of your roof that has the most exposure to the sun (north or west).

These cells convert sunlight directly into DC power. A component called an inverter then converts this DC power into AC power that can be used in your home.

You will still be connected to the main electricity grid. Any surplus energy that your system generates is exported back into the grid. When you require additional energy – more than what you are able to generate – it will be imported from the grid automatically.

Your electricity bill is calculated as the difference between the amount of electricity you export from your solar energy system and the amount you import from the grid. You only pay for the electricity you use that is over and above what your solar energy system produces.

Solar energy systems are available in a range of sizes, a typical system is 3kW. An accredited installer can help you choose a rebate system that best suits your household or business needs.

If you are planning to install a PV solar energy system larger than 3kW, please contact Aurora for advice on the rate you will receive for any exported energy.

Commonwealth Government Photovoltaic Rebate Program

Under the Photovoltaic Rebate Program (PVRP), cash rebates are available to householders (and for community buildings) to install grid-connected or stand-alone photovoltaic systems.

Residential rebates are available at the rate of \$8 per Watt peak of photovoltaic capacity with a maximum rebate of \$8,000 (minimum size capacity is 450 Watts)*.

Please note that if you intend to apply for Photovoltaic Rebate Program assistance, it is essential that you gain PVRP approval **BEFORE** your system is installed. Retrospective applications will not be considered.

For more information on the Photovoltaic Rebate Program check out the Australian Greenhouse Office web-site at www.greenhouse.gov.au/renewable/pv or contact the Photovoltaic Rebate Program national information line on 1300 13 8122.

10 Steps to a fully installed solar energy system

Harnessing the sun's rays is easier than you think. The steps below outline the process for getting your PV solar energy system up and running – from obtaining your government rebate, through to installation and connection to the grid.

- 1 Call Aurora
Residential customers 1300 13 2003
Business customers 1300 13 2045
- 2 We'll supply you with a list of accredited solar energy system suppliers, who will discuss your requirements and arrange a time to come and see you.
- 3 The solar energy system supplier will visit your premises and provide you with a system design and written quote for the solar PV system that is right for your home or business, as well as all the necessary paperwork – including the forms for applying for Commonwealth Government Photovoltaic Rebate.



- 4 Sign and return the Government forms to your solar energy system supplier so they can obtain rebate approval on your behalf. This will take approximately 6 weeks.
- 5 The Government will send the rebate approval letter directly to you with an 'Installation Report Form'. This form will be completed on the installation day.
- 6 Your solar energy system supplier will apply to Aurora Network for permission to connect to the grid. Aurora Network will assess the capability of this connection and providing all the appropriate technical standards and requirements for connecting the grid are met, you will be sent a contract to sign. Your electricity metering will require changing and this will be organised after the signed contract has been received by Aurora Network. Any costs associated with this will be detailed in your quotation.
- 7 Your solar energy system supplier will contact you to arrange a convenient date for the installation of your solar system.
- 8 Once your system is installed you must arrange for an electrical contractor to visit your premises and complete the wiring for your solar system.
- 9 Your electrical contractor will facilitate the appropriate inspections to ensure your unit is certified and has been installed in accordance with the appropriate standards.
- 10 After your installation is complete and has passed all necessary inspections, you will receive the Government rebate within 6 weeks for which you have already gained approval.

* Information current at time of printing April 2008



FAQs

How much will it cost to have a solar PV system installed?

Typically between \$6,000 and \$14,000 (can be higher for large systems) if approved for the Australian Government Rebate – depending on size. Powercom 1kW systems start at \$3990 – Includes PVRP*

Does Aurora Retail offer special package systems? (solar panels, inverters, meters, etc)

Not currently. There are a number of suppliers and installers of this equipment with appropriate accreditation and a listing can be found at www.bsce.org.au.

Are there different system sizes?

Solar energy systems are available in a range of sizes, but to be eligible for the Commonwealth Government Rebate they must be sized from 450 watts upwards. The array size you need depends on your average electrical usage, climate, roof angle, shading problems and many other factors. An accredited solar energy system supplier can help you choose a system that best suits the needs of your home or business.

What are the costs (e.g. meter, connection, etc) associated with connection to the grid?

You are responsible for the installation costs and also the costs involved in meeting Aurora's technical and safety requirements. You would also normally be required to meet any additional metering costs (above the cost of a standard meter) as assessed on a case-by-case basis for the proposed installation. However, at present in the majority of these types of installations, Aurora waives any additional metering costs.

A smart meter will be installed that measures the imports and exports from your premises separately.

Will my system work at night?

No. Sunlight must be present for your solar modules to produce power. At night, you will most likely draw power from the grid.

Will I be credited for the electricity generated, and if so, at what rate will I be credited?

Energy is credited at the same energy rate as the applicable tariff. For example, if you import 2,000 kWh and export 1,000 kWh, the 2,000 kWh is calculated at the tariff energy rate and the 1,000 kWh is calculated at the same tariff energy rate, you then pay the difference. If you export more than you import, you receive a credit on your account for the difference.

Will my system work on cloudy days?

Yes, though it will produce less electricity. Under a light overcast sky, panels might produce about half as much as under full sun.

What happens during a power outage?

The safety, contractual and Australian Standards requirements are such that the system is to be disconnected and is not permitted to generate electricity when there is a fault, or power outage, on the grid to which your system is connected.

How do I know if a residential solar energy system will work on my home?

Solar electric power works for most homes. A north-facing roof area is optimal, but solar electric panels can be mounted on west or east facing roofs and still produce better than 90 per cent of the power of a true north roof mounting.

Call us if you want more information

Residential
1300 13 2003
Business
1300 13 2045

or find out more about solar energy by visiting
www.auroreaenergy.com.au

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