

Feed-in tariffs in Victoria – Frequently Asked Questions

Questions contained in this FAQ:

- What is a feed-in tariff?
- How will feed-in tariffs work in Victoria?
- When will the premium feed-in tariff start?
- Over what time period will the premium feed-in tariff run?
- What is meant by 'net tariff'?
- Why was a net tariff model chosen in Victoria?
- Who is eligible for the premium rate?
- How is the excess power my system returns to the grid measured?
- What sized solar system do I need to be eligible?
- How much energy does an average system generate? How much will I get back?
- What is the reason for opting to go with a credit system?
- What will the premium feed-in tariff mean for payback periods?
- Why can't systems bigger than 5 kilowatts receive the premium feed-in tariff?
- How is the premium tariff credited to customers?
- How is the Victorian government ensuring support for solar PV, while protecting low income members of our community?
- What else are the State and Federal Governments doing to support the development of small scale solar?
- How much does Victoria invest in renewable energy?
- What other assistance is available for households who want to do their bit to tackle climate change?
- What are the other benefits of going solar?
- How will this system encourage solar technologies and investment in this state?
- Do household solar PV systems reduce the frequency/impact of blackouts?
- Will my small business or community group be able to receive the premium feed-in tariff?
- How can I get solar panels?

What is a feed-in tariff?

A feed-in tariff is a credit to households, community organisations and small businesses from power companies for electricity that is 'fed into' the power grid. Customers that install small-scale renewable energy systems can sometimes produce more energy than they can use. If connected to the power grid, these customers can feed this electricity back into the grid.

How will feed-in tariffs work in Victoria?

Victoria will have both standard and premium feed-in tariffs for Victorians that feed power into the electricity grid. The type of premium that a customer receives will depend on the type of renewable energy that they are generating, the size of the system and their own electricity consumption.

The premium feed-in tariff will be available for households, community organisations and small businesses with energy consumption less than 100 MWh a year, with small-scale solar photovoltaic (PV) systems with a capacity of up to 5 kilowatts. The premium rate is fixed at 60c per kilowatt hour and is paid for the excess power that the customer does not use and instead feeds back into the grid. This premium rate is about three and half times higher than the standard retail rate consumers pay for electricity.

The standard feed-in tariff is already available for people producing power for their homes or small businesses using renewable energy systems with a capacity of up to 100 kilowatts. This includes people generating their own wind, solar, hydro or biomass power. The excess power fed back into the grid is credited at the same retail rate charged for electricity consumed.

When will the premium feed-in tariff start?

The premium feed-in tariff for small-scale solar photovoltaic (PV) systems is expected to start in the second half of 2009. The Government is working with the electricity retailers and the Essential Services Commission to ensure that the necessary system changes to support the premium feed-in tariff are made in a timely manner.

The standard feed-in tariff for solar and other forms of renewable energy is already available.

Over what time period will the premium feed-in tariff run?

The premium feed-in tariff will run for 15 years from when the scheme commences (i.e. from when the Bill is enacted as law).

The standard feed-in tariff does not have a time limit – it is ongoing.

What is meant by ‘net tariff’?

A ‘net’ feed-in tariff provides households, community organisations and small businesses with a credit for the excess generated power that is not used by the customer itself, and is instead, fed back into the power grid.

A net metering model is an equitable and cost effective way to make solar PV more affordable for Victorians; helping households, community organisations and small businesses to make a contribution to tackling climate change.

Why was a net tariff model chosen in Victoria?

A net feed-in tariff is an equitable and cost effective way to achieve the scheme’s objectives because:

- it encourages people to better manage their power use – especially at times of peak load such as hot summer days;
- it does not require national agreement in order to be implemented; and
- it does not place a disproportionate and unfair cost burden on low income earners.

The premium feed-in tariff is an important part of a suite of actions the Victorian Government is taking to ensure that solar energy is a key part of Victoria’s energy future. The Government is:

- encouraging small-scale applications of solar in households, small business and the community (premium feed-in tariff, standard feed-in tariff, solar hot water rebates, Solar in Schools Initiative);
- encouraging the domestic PV industry to meet the challenge of reducing their costs to make PV systems more affordable and their use more widespread;
- investing in new solar technologies to bring down their costs and make them commercial (a \$6 million grant to develop and increase the efficiency of organic solar cells as an alternative to silicon based cells in the generation of solar power);
- investing in world-first large-scale solar generation which is cementing Victoria’s reputation for innovation in sustainable energy (\$50 million grant to Solar Systems 154 MW plant and \$100 million for a large-scale solar generator capable of delivering approximately 330 GWh of zero emission electricity to the grid per year);
- providing \$72 million to support large-scale demonstrations of leading sustainable energy technologies in Victoria;
- creating three Victorian solar industry fellowships worth up to \$30,000 each, which will help increase solar expertise in Victoria;

- collaborating with the Queensland state government to develop a solar atlas which will provide an important tool to help promote Victoria's solar generation potential both here and overseas; and
- creating a market for large-scale solar generation (Victorian Renewable Energy Target, support for a national emissions trading scheme and national renewable energy target).

Who is eligible for the premium rate?

Residential homes, community organisations and small businesses with energy consumption less than 100 MWh a year, across Victoria with solar PV systems of up to a 5 kilowatt capacity, connected to the power grid and with the required metering, will be eligible for the premium tariff.

The scheme will be limited to 100 MW, which could potentially see 100,000 households with 1 kW systems benefit from the scheme.

As of April 2009 there were around 6200 grid connected solar panel systems installed in Victoria.

How is the excess power my system returns to the grid measured?

Customers who put in solar panels will require a new meter which will record the electricity used and exported for each half hour interval during the day. This means that if, during any part of any half hour period, your PV system is generating more power than you are using then you will get the premium feed-in tariff for the electricity exported.

Overall a household would generally use more electricity than it produces from solar PV cells. However a household is likely to export some electricity into the grid at some stage and hence be paid the premium feed-in tariff for this.

The amount of electricity exported from solar panels for community groups and small business depends on the electricity usage pattern at those premises.

What sized solar system do I need to be eligible?

Solar PV systems of up to 5 kilowatt capacity connected to the power grid will be eligible for the premium feed-in tariff. While the average sized residential system in Victoria is 1.5 kilowatt, a 5 kilowatt system could be installed on a house, community group and small business with a very large roof.

How much energy does an average system generate? How much will I get back?

In Victoria, an average residential solar electricity system (1.5 kilowatts in size) produces over 2,000 kilowatt hours of energy per year. Even if only 500 kilowatt hours were returned to the grid per year, the owner would be eligible to receive feed-in credits of \$300 per annum. The system would also be reducing the amount of electricity consumed in the owner's household by 1,500 kilowatt hours per year, saving about \$300. So in total, these solar households would be about \$600 better off per year.

The amount a household returns to the grid will depend on how much energy is consumed and when the solar panels are generating power. Owners will be able to maximise the credit from their solar system by improving their energy efficiency and returning more power to the grid.

For example, people can switch off appliances which aren't needed, shift some tasks to the evening, shade windows to minimise the need for air-conditioning and so on. For more advice on ways to save energy go to www.saveenergy.vic.gov.au

The amount of electricity exported, and thus the amount of feed-in tariff received from solar panels for community groups and small business depends on the electricity usage pattern at

those premises.

What is the reason for opting to go with a credit system?

The Victorian premium feed-in tariff scheme will reimburse the customer in the form of a credit. This is in order to ensure that the feed-in tariff is not an excise and hence contrary to the Commonwealth Constitution.

The feed-in tariff schemes in Queensland and South Australia allow for cash payments for outstanding credits in certain circumstances. The differences between the Victorian scheme and the Queensland and South Australian schemes may reflect underlying differences in each State in the contractual arrangements between distributors, retailers and customers.

The average household electricity bill is around \$1,200 per year and the average benefit to households from a solar PV system will be around \$600 per year - so in practice the credits will be used by almost all households within a 12 month period.

In any event, a number of retailers are offering solar customers that are in credit the ability to choose a roll over credits or request a refund.

What will the premium feed-in tariff mean for payback periods?

Currently, the payback period (15+ years) on solar panels is one of the main obstacles to increasing take up. The Victorian premium feed-in tariff will reduce the payback period, making installing solar panels more affordable for households, community groups and small businesses.

The now phased out Commonwealth Solar Homes and Communities rebate will be replaced with the 'Solar Credits' scheme later in 2009. The Solar Credits will act as an upfront capital cost subsidy of around \$7500 for purchases of solar PV systems. The Solar Credits will be available from 2009-2012 and will then decrease in the following years. For further information on this scheme, please refer to:

<http://www.environment.gov.au/settlements/renewable/pv/index.html>

Why can't systems bigger than 5 kilowatts receive the premium feed-in tariff?

The purpose of the Victorian premium feed-in tariff scheme is to increase the uptake of PV systems through a scheme design that is within the requirements of the Commonwealth Constitution.

Data available from the Commonwealth Solar Homes and Communities Plan indicates that the average size of residential PV systems is 1.5 kilowatts and over 99% of currently installed PV systems are at or below 5 kilowatts. For this reason the 5 kilowatt capacity threshold was deemed appropriate for the premium feed in tariff scheme. The current cost of a 5 kilowatt system is around \$50,000. This cost is significant and the challenge for the PV industry is to make systems more affordable.

Solar PV systems that exceed the 5 kilowatts threshold are already eligible for the standard feed-in tariff, which is equivalent to the retail rate charged to consumers. These systems can also create valuable renewable energy certificates under the Victorian Renewable Energy Target scheme (see www.esc.vic.gov.au).

How is the premium tariff credited to customers?

The premium feed-in tariff will be credited against a customer's electricity bill, by their electricity retailer, with credit accruing for a maximum of 12 months.

That is, a customer will in effect be getting a reduction in their electricity bills due to the premium feed-in tariff credit received. If the total credit from the premium feed-in tariff

scheme exceeds the customers total electricity bill, then this credit will be carried forward for 12 months.

A household installing an average sized system (1.5 kilowatt) is expected to receive credits of around \$300 per year as well as reduce their own energy consumption by another \$300. This will effectively halve an average annual power bill which is currently around \$1200.

How is the Victorian government ensuring support for solar PV, while protecting low income members of our community?

Feed-in tariff schemes are paid for by all Victorian residential, community and small business customers. The higher the level of the premium feed-in tariff, the higher the cost is for other small electricity users without Solar PV systems. Given that many low-income households will not be able to afford the up front costs of installing solar PV even with government rebates, this burden will fall disproportionately on the disadvantaged in our community.

In order to avoid these equity concerns, the Victorian Government's premium feed-in tariff model was designed to minimise the impact on electricity prices. It's the only scheme in Australia that has built in safeguards to ensure the scheme's cost to Victorians electricity consumers will not exceed \$10 per year.

Victoria's premium feed-in tariff will ensure support for the solar PV industry while imposing a very small energy cost on all electricity residential customers including the poor and disadvantaged members of the community.

What else are the State and Federal Governments doing to support the development of small scale solar?

The premium feed-in tariff is an important part of a suite of actions the Victorian Government is taking to ensure that solar energy is a key part of Victoria's energy future. The Government is:

- encouraging small-scale applications of solar in households, small business and the community (premium feed-in tariff, standard feed-in tariff, solar hot water rebates, Solar in Schools Initiative);
- investing in new solar technologies to bring down their costs and make them commercial (a \$6 million grant to develop and increase the efficiency of organic solar cells as an alternative to silicon based cells in the generation of solar power);
- investing in world-first large-scale solar generation which is cementing Victoria's reputation for innovation in sustainable energy (\$50 million grant to Solar Systems 154 MW plant, and \$100 million for a large-scale solar generator capable of delivering approximately 330 GWh of zero emission electricity to the grid per year);
- providing \$72 million to support large-scale demonstrations of leading sustainable energy technologies in Victoria;
- creating three Victorian solar industry fellowships worth up to \$30,000 each, which will help increase solar expertise in Victoria;
- collaborating with the Queensland state government to develop a solar atlas which will provide an important tool to help promote Victoria's solar generation potential both here and overseas; and
- creating a market for large-scale solar generation (Victorian Renewable Energy Target, support for a national emissions trading scheme and national renewable energy target).

Commonwealth Government, support programs include:

- The Commonwealth's Mandatory Renewable Energy Target, under which the PV system earns Renewable Energy Certificates;
- The National Solar Schools Plan which allows any school in Australia to apply for grants of up to \$50,000 to install 2 kilowatt solar panels;

- Support of Solar Cities trials around Australia, which includes support for installation of solar PV systems; and
- Green Loans, which will provide low interest loans of up to \$10,000 for households to undertake energy measures, including installation of PV panels.

How much does Victoria invest in renewable energy?

Over the past six years the Victorian Government has committed more than \$160 million to drive advances in pre-commercial sustainable energy technologies, such as solar, energy storage, biomass conversion, geothermal, wave and clean distributed energy, as part of its Energy Technology Innovation Strategy.

Recently the Victorian Government announced it would contribute a further \$100 million to the development of a large-scale solar generator capable of delivering approximately 330 GWh of zero emission electricity to the grid per year.

The Victorian Renewable Energy Target Scheme is expected to stimulate over \$2 billion in new renewable energy investment and create around 2,200 new jobs, mostly in rural and regional Victoria.

In Victoria today, investment in renewable energy already outstrips investment in coal, and this is due largely to the Government policies that have stimulated significant renewable energy investment.

What other assistance is available for households who want to do their bit to tackle climate change?

- Victoria's standard feed-in tariff is available for all micro-renewables up to 100 kilowatts at a rate that is equivalent to the retail rate for electricity,
- The Victorian Energy Saver Incentive Scheme (ESI) will help families reduce greenhouse gas emissions and cut their power bills. ESI sets a target for energy savings, initially in the residential sector, and requires energy retailers to meet their own targets through energy efficiency activities, such as providing households with energy saving products and services at little or no cost. The first phase of ESI will save 8.1 million tonnes of greenhouse gas – the equivalent of making around 675,000 households carbon neutral for a year. For further information go to www.saveenergy.vic.gov.au
- A Victorian Government rebate is available to assist households in Melbourne and regional Victoria to install solar hot water systems. For more information go to www.resourcesmart.vic.gov.au
- GreenPower is a national government accreditation program for renewable energy. It is bought by the energy provider on the customer's behalf. Renewable energy is generated from sources like mini hydro, wind power and biomass which produce no net greenhouse gas emissions. When customers choose to buy a GreenPower product, the few cents extra paid in addition to electricity costs are invested in the renewable energy sector. On a per capita basis, Victoria has the most number of GreenPower customers (almost 35,000) in Australia, accounting for some 28% of national sales in 2008. For further information see www.greenpower.gov.au

What are the other benefits of going solar?

Adopting 100% GreenPower is the cheapest way to ensure houses, community buildings and small business premises are powered by renewable energy. Solar PV electricity is another good way to sustainably meet energy needs. By sourcing green energy and reducing energy consumption in homes, community buildings and small business premises, we can help tackle climate change.

How will this system encourage solar technologies and investment in this state?

The system will encourage more households, community groups and small businesses to install solar photovoltaic (PV) systems. This will help build the residential solar PV industry providing more green investment and more green jobs in Victoria.

Do household solar PV systems reduce the frequency/impact of blackouts?

Although small-scale solar PV systems are an important part of the Victoria's renewable energy strategy, the amount of electricity generated by solar PV panels under this premium feed-in tariff will not be sufficient to prevent blackouts on days when demand for electricity outstrips supply.

Blackouts occur due to other factors such as technical faults and storm or fire damage. Grid connected solar PV systems cannot be used during a blackout for safety reasons - unless the PV system is connected to a battery.

Will my small business or community group be able to receive the premium feed-in tariff?

Yes. The Victorian premium feed-in tariff applies to households, community groups and small businesses that use less than 100 MWh of electricity per year. Any customers above the 100 MWh per year usage threshold will receive the standard feed-in tariff which is equivalent to the retail rate charged to consumers.

How can I get solar panels?

Your accredited solar installer will be able to step you through the process of installing your solar panels, getting the appropriate meter and arranging the premium feed-in contract between you and your retailer.

The details of accredited solar PV installers can be found on the Sustainability Victoria website – www.sustainability.vic.gov.au