



What are the features of the NSW Solar Bonus Scheme?

The key features of NSW Solar Bonus Scheme include:

- It will credit customers with a 'gross' feed-in tariff rate of 60 cents per kilowatt hour for all the electricity that their eligible solar photovoltaic (PV) system or wind turbine generates subject to the [transitional arrangements](#).
- Small electricity customers (those with an annual electricity consumption of up to 160 megawatt hours) are eligible to participate in the Scheme.
- Solar PV systems and wind turbines up to 10 kilowatts in size will be eligible for the Scheme.
- The tariff rate of 60 cents per kilowatt hour will be fixed for the life of the Scheme, meaning it will not vary with the time of the day or during the life of the Scheme.
- The Scheme will commence on 1 January 2010 (please see Question and Answer on [transitional arrangements](#)) and will operate for 7 years.
- The Scheme will be reviewed in 2012, or when the installed capacity of renewable energy generators participating in the Scheme reaches 50 megawatts, whichever occurs first.

What is the difference between a 'net' and a 'gross' feed-in tariff?

Gross feed-in tariffs are where the consumer is paid/credited for all the electricity their renewable energy generator (e.g. solar photovoltaic system or wind turbine) generates. In order to receive a gross feed-in tariff the consumer needs to have gross metering that can measure the gross or total amount of electricity generated by their renewable energy generator.

Net feed-in tariffs are where the consumer is only paid/credited for the generated electricity they export to the national electricity grid from their renewable energy generator (not for the proportion of generated electricity they use themselves). Under the Solar Bonus Scheme, net tariffs will only be offered during the six month transitional period for eligible customers.

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What are the factors to consider before installing a solar photovoltaic (PV) system or wind turbine?

Make sure the installation work is done by someone who knows what they are doing. All services provided to consumers must be carried out with due skill and care. This means that the services you receive should be of a standard and quality that could be reasonably expected from a competent person in that particular trade or industry.

For general consumer protection information and enquiries see the Fair Trading website www.fairtrading.nsw.gov.au or call 13 32 20.

The Renewable Energy (RE) Industry Accreditation, an initiative of the Clean Energy Council, ensures that industry participants (such as PV installers) have a minimum level of competence in the design and installation of RE systems. To find an accredited installer visit www.bcse.org.au/cec/accreditation/findaninstaller.html.

The Clean Energy Council also has information on Approved Grid Connect Inverters and solar photovoltaic (PV) modules suitable for installation under the Commonwealth Government rebate programs and Renewable Energy Certificate (REC) schemes.

Once the solar PV system or wind turbine is installed, ensure that only a suitably qualified person connects the installation to the electrical wiring on your property, e.g. to your switchboard. A list of level 2 accredited service providers who may provide this service is on the Fair Trading web site: http://www.fairtrading.nsw.gov.au/Consumers/Buying_services/Electricity_network_connections.html or call 9895 0009.

When does the Solar Bonus Scheme start and what do the transitional arrangements mean?

The Solar Bonus Scheme's regulatory framework is set out in the *Electricity Supply Amendment (Solar Bonus Scheme) Act 2009* and the *Electricity Supply (General) Amendment (Solar Bonus Scheme) Regulation 2009* available at <http://www.legislation.nsw.gov.au/maintop/search/sessional>.

To receive the Scheme's gross tariff, consumers need to have metering that can measure the gross or total amount of electricity generated by their renewable energy generator, often referred to as 'gross metering'.



Currently consumers in NSW's three electricity network areas - CountryEnergy, EnergyAustralia and Integral Energy - have different arrangements for electricity metering. Generally consumers with small-scale renewable energy generators in Integral Energy's area have gross metering whereas consumers in Country Energy and EnergyAustralia network areas have 'net metering'.

In acknowledgement that the existing arrangements for metering are different in each network area, the Solar Bonus Scheme's transitional arrangements allow for certain customers who have net metering connected to their solar photovoltaic (PV) system or wind turbine to receive the Scheme's tariff as a 'net' tariff until the transitional day which is currently set at 1 July 2010.

This means that from 1 January 2010 to 30 June 2010 certain customers with net metering will receive the Scheme's credit on the net electricity they export to the national electricity grid. To continue to receive the credit from 1 July 2010, these customers will need to transition to gross metering.

The Government appreciates that customers are keen to participate in the Solar Bonus Scheme. Electricity network businesses are working hard to provide meters for customers wishing to transition from net to gross metering, however, it may take some time for all customers to be connected.

Consumers in the EnergyAustralia and Country Energy network areas who are thinking of installing solar PV systems during the transitional period (up until 1 July 2010) should be aware that the network businesses will pay the credit to customers with net metering during this period. However, after 1 July 2010 and for the remainder of the Scheme's duration, the credit will only be paid to eligible customers with gross metering. After 1 January 2010, consumers who wish to participate in the Solar Bonus Scheme and have not yet installed a renewable energy generator and electricity meter should consider their options carefully, and should be aware that changing metering will incur expenses.

The Government will continue to work with all electricity network businesses and retailers to enable the smooth transition of participating customers to the Solar Bonus Scheme and gross metering.

How is the Solar Bonus Scheme tariff rate received? What happens to participating customers' regular electricity bills?

All electricity retailers are required to provide eligible customers with either a Solar Bonus Scheme credit on their electricity bill or a cash payment representing this amount. How a customer receives their Solar Bonus

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Scheme benefit is at the discretion of the retailer.

From 1 July 2010 onwards a bill issued to an eligible small retail customer is required to include the amount of electricity supplied to the network during the billing period and the amount to be credited for that electricity. This allows electricity retailers time to ready their billing systems.

Customers should be aware that they may not receive the Solar Bonus Scheme credit and relevant details on their electricity bill until 1 July 2010. Over the first six months of the Scheme, the amount a customer receives on their bill will depend on the applicable transitional arrangements.

Who is eligible for the Solar Bonus Scheme?

Customers with an annual electricity consumption of up to 160 megawatt hours (MWh) will be eligible to participate in the Solar Bonus Scheme.

This category includes households (which consume approximately 7.6 MWh per annum on average), as well as some small businesses, schools and community organisations.

What renewable energy generators are eligible to participate in the Solar Bonus Scheme?

Solar photovoltaic (PV) panels and wind turbines (up to 10 kilowatts in capacity) that connect to the electricity network through an inverter (up to 10 kilowatts in capacity) will be eligible for the Solar Bonus Scheme.

What does the Solar Bonus Scheme's 10 kilowatt capacity limit for renewable energy generators mean?

Only customers with solar photovoltaic (PV) panels and wind turbines (up to 10 kilowatts in capacity) that connect to the electricity network through an inverter (up to 10 kilowatts in capacity) will be eligible for the Solar Bonus Scheme.

This capacity limit applies regardless of how many phases of power supply a customer has. For instance, even if a customer has three phase power supply the capacity of their solar panels or wind turbine can be no greater than 10 kilowatts (kW) and the inverter via which they supply electricity to the grid can be no greater than 10 kW in capacity.

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The Government is very concerned to get the balance right for the Solar Bonus Scheme so that consumers are not burdened with excessive costs. This keeps costs down for all energy customers.

The NSW Feed-in Tariff Taskforce examined issues around system size and eligible customers. In considering the issue of system size, the Taskforce assessed costs against the likely effectiveness of the Scheme in meeting its objectives. The Taskforce acknowledged that the larger the eligible system, the greater the likely penetration of the Scheme and therefore the increased support that it would provide for the solar PV industry. However, this was considered against the increasing total cost of the Scheme that larger systems would impose and the associated social equity issues.

The Taskforce considered the Government's preference for a scheme that stimulates a large number of customers participating rather than a small number of large facilities.

The Taskforce noted that whereas a 5kW system limit would likely be sufficient for the residential sector, a 10kW system limit would allow the community and small business sectors to make use of larger roof space for solar PV systems.

In balancing these considerations, the Taskforce recommended a 10kW system limit.

Am I able to install more than one eligible renewable generator and receive the Solar Bonus Scheme credit?

No, only one eligible renewable energy generator (solar photovoltaic system or wind turbine) including one inverter per customer will be eligible for the Solar Bonus Scheme credit.

What is renewable energy?

Renewable energy is energy derived from sources that cannot be depleted including solar photovoltaic (PV), solar thermal, wind, wave, hydro, geothermal and some forms of biomass.

Why is the NSW Solar Bonus Scheme a seven year 'gross' feed-in tariff model?

Following careful consideration of the Solar Bonus Scheme design, the NSW Government has concentrated the Scheme to seven years and provided for a 'gross' feed-in tariff model. This means that customers will be credited for all the electricity that they generate.

A seven year gross design also provides greater certainty to customers in a rapidly changing environment and takes account of the fact that the price of renewable energy technology is widely anticipated to fall over time.

Over the last two decades, the cost of manufacturing and installing a photovoltaic solar power system has decreased by about 20% with every doubling of installed capacity.

Solar photovoltaic (PV) costs are expected to continue to decrease. PV cost reductions in excess of 50% from 2007 levels have been predicted and that within three to seven years, solar energy's unsubsidised cost to consumers could approach the cost of conventional electricity in a number of markets.

During the life of the Solar Bonus Scheme, there is the potential for technological breakthroughs that could significantly reduce the cost of producing solar power such as non-scale thin file technology now on the horizon.

The Scheme applies the most generous tariff rate out of any of the schemes currently on offer across Australia to all electricity generated by eligible systems. This demonstrates the NSW Government's commitment to supporting the growth of the renewable energy industry.

How is the Solar Bonus Scheme design different to the design previously proposed in June 2009?

The design of the Solar Bonus Scheme will now:

- run for 7 years instead of the 20 years originally proposed;
- provide a credit for all electricity generated from eligible renewable generators, not just the electricity fed into the national electricity grid (in excess of what is used by the customer) subject to the [transitional arrangements](#); and
- include wind turbines up to 10 kilowatts (in addition to solar photovoltaic (PV) systems up to 10 kilowatts).

Why doesn't the Solar Bonus Scheme guarantee seven year contracts to scheme participants regardless of when they join the Scheme?

Individualising the length of Solar Bonus Scheme payments poses serious administrative, compliance, and enforcement issues that are likely to increase overall Scheme costs for customers. For example, such a

design would mean that businesses administering the Scheme would be responsible for monitoring the entry of participants in the Scheme and ensuring that credits cease to be recorded seven years from the date of each customer's participation in the Scheme.

All states in Australia apart from the Australian Capital Territory have proposed defined feed-in tariff scheme durations rather than individualising length of Scheme payments for each customer.

The Government is very concerned to get the balance right for the Solar Bonus Scheme so that consumers are not burdened with excessive costs. This keeps costs down for all energy customers.

What consultation has taken place in the development of the Solar Bonus Scheme?

To ensure that the introduction of the Solar Bonus Scheme is as streamlined as possible for both consumers and businesses, the design of the Solar Bonus Scheme was developed following a rigorous consultation process. That process included a dialogue with the community and industry, including the appointment of a taskforce that considered public submissions, investigated a range of options and their impact on consumers and prepared a detailed public report.

This was also followed by a detailed eligibility review and public submission process that has led to the inclusion of small-scale wind turbines in the Solar Bonus Scheme.

Why are large customers not eligible to participate in the Solar Bonus Scheme?

The Government has focused the Solar Bonus Scheme on small customers to maximise incentives for these customers to invest in small-scale renewable energy generators. Restricting the Scheme to small customers helps keep the costs of the Scheme down for all energy customers.

How does the Solar Bonus Scheme's tariff rate compare to the average price of electricity?

The Solar Bonus Scheme's tariff of 60 cents per kilowatt hour (c/kWh) is around three to four times the average price of electricity in New South Wales. The Scheme's tariff rate will be fixed at 60 c/kWh, meaning it will not vary with the time of the day or during the life of the Scheme. This reduces complexity for retailers and distributors administering the Scheme and keeps the costs down for all energy consumers.

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Will the Solar Bonus Scheme tariff include a GST component?

Customers should seek independent tax advice concerning GST and any other tax matters.

Can I be backdated for electricity generated by eligible renewable energy generators under the Solar Bonus Scheme?

No. Only electricity generated and supplied by an eligible solar photovoltaic (PV) system or wind turbine, from the Scheme's commencement onwards, will be eligible for credit under the Solar Bonus Scheme, subject to the transitional arrangements.

Can community-owned solar farms participate in the Solar Bonus Scheme?

Yes, community-owned solar farms or community organisations are eligible to participate in the Solar Bonus Scheme as long as they meet the eligibility criteria for the Scheme, such as their solar photovoltaic (PV) system is no larger than 10 kilowatts (kW) and their average electricity consumption is no greater than 160 megawatt hours (MWh) per annum.

Are wind turbines eligible to participate in the Solar Bonus Scheme?

Wind turbines up to 10 kilowatts in size are eligible for the Solar Bonus Scheme.

Are businesses and community organisations eligible to participate in the Solar Bonus Scheme?

Yes, businesses and community organisations are eligible to participate in the Solar Bonus Scheme as long as they meet the eligibility criteria for the Scheme, such as their solar photovoltaic (PV) system or wind turbine is no larger than 10 kilowatts (kW) and their average electricity consumption is no greater than 160 megawatt hours (MWh) per annum.

Can owner's corporations participate in the Solar Bonus Scheme?

Owner's corporations may have an account for common power services distinct from individual lots.

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Owner's corporations are eligible for Solar Bonus Scheme payments, provided they meet the Scheme's criteria, for example, they consume no more than 160 megawatt hours of electricity per year, have an eligible renewable energy generator [solar photovoltaic (PV) systems or wind turbine up to 10 kilowatts] installed and connected to the national electricity grid on premises that they own or occupy in NSW.

Can I install a solar photovoltaic (PV) system or wind turbine up to 10 kilowatts on a neighbour's roof and receive a credit under the Solar Bonus Scheme?

In order to receive benefits from the Solar Bonus Scheme, eligible customers must install and connect to the national electricity grid eligible solar photovoltaic (PV) systems or wind turbine up to 10 kilowatts at premises that they own or occupy in NSW.

How long will the Solar Bonus Scheme run for?

The Solar Bonus Scheme will run for 7 years. Eligible customers will only be entitled to receive benefits from the Scheme during this time irrespective of when the customer joins the Scheme, subject to transitional arrangements.

Do all electricity retailers have to participate in the Solar Bonus Scheme?

Yes, all electricity retailers who supply small retail customers are required to participate in the Solar Bonus Scheme.

How much does a solar photovoltaic (PV) system cost?

As a guide the average cost per kilowatt (KW) of a solar PV system is \$12,500. The actual price paid by customers is significantly less when Government rebates and subsidies are taken into account. However, you should seek independent advice on the actual costs of a system.

New technologies are more expensive than traditional technologies during early development. Over time, more efficient production and economies of scale mean that new technologies become cheaper and prices converge with traditional technology prices.

Over the last two decades, the cost of manufacturing and installing a solar PV system has decreased by about 20% with every doubling of installed capacity.

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Solar PV costs are expected to continue to decrease. Solar PV cost reductions in excess of 50% from 2007 levels have been predicted and that within three to seven years, solar energy's unsubsidised cost to consumers could approach the cost of conventional electricity in a number of markets.

During the life of the Solar Bonus Scheme, there is the potential for technological breakthroughs that could significantly reduce the cost of producing solar power such as non-scale thin file technology now on the horizon.

How much does a solar photovoltaic (PV) system generate and how much could I expect to receive under the Solar Bonus Scheme?

Solar PV electricity generation will vary between any two individual installations depending on various factors including:

- Cell and panel efficiency
- Inverter efficiency
- System size
- Angle and facing of installation.

In addition, electricity generated by two otherwise identical solar PV installations may vary from one place to another due to variation in factors such as daylight hours, cloud cover, altitude and the seasonal angle of sunlight incidence.

A typical small-scale solar PV system has a capacity of around 1.5 kilowatts. The amount a household or business receives under the Scheme will depend on a number of factors including the capacity (or size) of their solar PV system and the amount of sunlight. A solar PV system with a capacity of 1.5 kW generates approximately 2500 kilowatt hours (kWh) in a typical year. A customer with this size system is likely to receive a credit of around \$1500 each year through the Solar Bonus Scheme.

It is recommended that you seek advice from your system installer about the generation rates for your solar PV system.



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Will the Solar Bonus Scheme be reviewed?

In 2012 or at 50 megawatts capacity, whichever occurs first, the Minister for Energy will review the Solar Bonus Scheme against its objectives and assess whether the levers of the Scheme require adjustment.

The Government's goal for the Solar Bonus Scheme is to accelerate the deployment of at least 50 megawatts of capacity in distributed micro-renewable energy generation in New South Wales. This would more than triple the existing capacity of small-scale solar photovoltaic (PV) systems in NSW.

The Auditor-General will also review the Solar Bonus Scheme and report to Parliament in 2011.

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