zero emissions
SYDNEY NORTH

Solar made simple

Two great reasons to go solar

Save the planet

The burning of fossil fuels to produce electricity is the largest single source of greenhouse gas emissions in Australia.[1]

In Sydney North roughly 48% of residential emissions come from electricity use.[2]

Switching to solar power in our homes is one of the most important things we can do for the planet and future generations.

We're one of the sunniest countries in the world, but less than 10% of Sydney North residents have solar – let's make that 50%!

Save money

Now that costs are coming down, solar can pay back your investment in as little as 4 years.

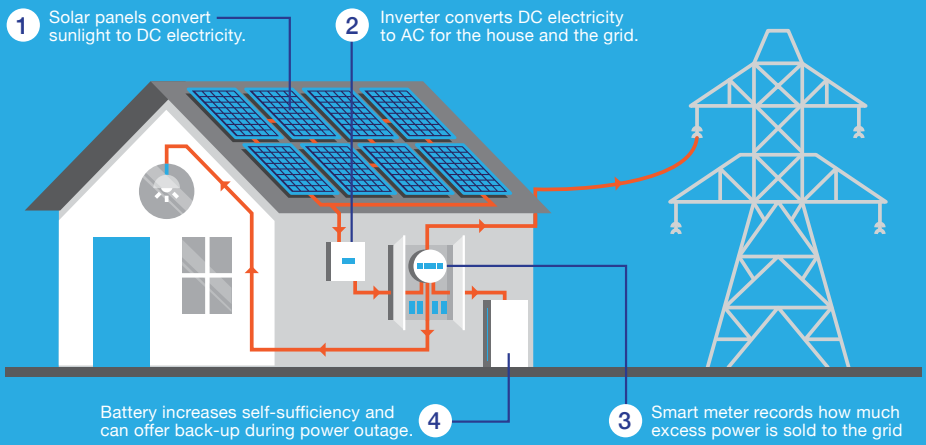
After that you'll be generating your own free electricity.

Good quality panels are designed to last for 25 years and inverters up to 15 years.

With interest rates at an all-time low, you could add your solar installation cost to the mortgage or take out a low interest green loan. Plus, you can take advantage of Federal Government rebates if you act now.

1. Source Dept of Energy & Environment. 2. Northern Beaches Kinesis Report, June 2018

How does rooftop solar work?



Residential solar

- When sunlight hits the solar panels they convert the sun's energy into Direct Current (DC) electricity which is sent to your inverter.
- Your inverter converts the DC into Alternating Current (AC) electricity ready for your home.
- When your solar energy system produces more electricity than you need, excess electricity flows to the power company. You will be credited for this - the price varies according to the power company's Feed in Tariff (FiT).
- If you need more energy than your solar system produces, it's automatically drawn from the power grid - day or night.

If you add a battery...

- Surplus solar energy charges your battery, ready to power your house after dark or when there is insufficient sunshine and your house is using more than you are generating.
- If your battery has a back-up function your lights stay on during a blackout.
- You can save money by consuming more of your own solar-generated electricity instead of buying from the grid.
- You can sell electricity back to the grid at premium prices during peak demand as part of a 'virtual power plant'.
- Batteries stabilise the grid by managing the peaks and troughs of renewable power supply.

How much solar should I install?

Different homes need different sized solar systems

The system size you choose depends on your usage, your roof and your reasons for installing solar. A good installer will take all of this into account and find the right system for you.

Your daily usage in kilowatt hours (kWh) is shown on your electricity bill. If your main aim is to reduce your bill, use this table to find the right size for you.

If you want to reduce your emissions as much as possible, consider installing as much solar as you can fit on your roof. Solar offers an annual ROI of at least 15%, so it's a great investment.

Average household use per day in kWh's	Recommended solar system size in kW
15-25	**5**
25-40	**7.5**
40-55	**10**
55-80	**12.5**

What are my annual power bill savings?

	Estimated kWh's produced p.a	Savings if 60% of solar used[1]
5kW System	7,300	**$1,500**
7.5kW System	10,950	**$2,300**
10kW System	14,600	**$3,100**

Making a difference

Here's the impact you could make through CO^2 emissions reduction every year[2].

Solar system size	CO^2 emissions saved	Trees planted	Car Kms saved
5kW System	5.4 tonnes	80	31,400
7.5kW System	8.1 tonnes	120	47,100
10kW System	10.8 tonnes	160	62,800

1. Calculations based on conservative assumptions: 27c/kWh tariff paid for grid electricity; 12c/kWh received as solar feed-in-tariff. 2. National Transport Commission Australia: Australia's average emissions intensity for passenger vehicles was 171.5g/km in 2017. www.ntc.gov.au/sites/default/files/assets/files/CO2-report-2017.pdf. Carbon Neutral: 15 trees per tonne CO2 as conservative estimate. carbonneutral.com.au/faqs.

Next steps

1. Organise a home visit

This is essential. Solarpro needs to check your roof and figure out where to install the panels and the inverter for the best performance. Following the visit you'll receive a detailed quote. Go to zerosydeynorth.org/request-a-solar-quote

2. Choose your solar system

The home visit is an excellent opportunity to chat through which inverter and solar panels are best for you. Solarpro offers three panel options depending on your budget, the top one has a 25-year product warranty.

3. Pay the deposit and schedule installation

Once you have accepted the quote and paid the deposit the lead time to installation is several weeks in summer, less at other times. Systems are usually installed in one day unless they are complex or large.

4. Switch to a solar friendly electricity retailer

Choose a retailer that supports new renewable energy in Australia. Diamond Energy, our retailer of choice, has been awarded 5 stars by Greenpeace.

5. Get your meter solar ready

Your electricity retailer will install or upgrade your meter to be solar ready.

6. Pat yourself on the back for helping our community

As a thank you Solarpro and Diamond Energy contribute to Zero Emissions Sydney North. This helps scale our impact as a not-for-profit run by volunteers and it funds solar installations for community charities.

Why Solarpro?

Zero Emissions Sydney North chose to work with Solarpro, a local company, based on the following criteria.

- A high level accreditation from the Clean Energy Council (Approved Solar Retailer not just Installer).
- An outstanding track record having successfully delivered over 4,000 residential solar installations in our area for over a decade.
- Use of durable, high quality products, proven to work on the 'salty' northern beaches.
- A high standard of pre and post sales support.

solarpro

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