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.

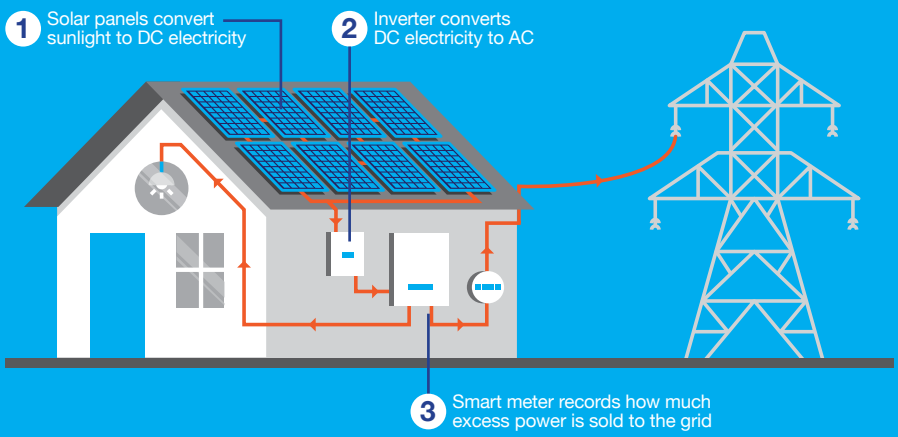
After that you'll be generating your own free electricity.

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 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...

- Any surplus solar energy charges your battery ready to power your house after daylight or when you use more than you generate (to avoid paying peak grid tariffs).
- You can charge your battery using cheap off-peak grid power.
- You can also participate in virtual power plants, selling electricity back to the grid.

Popular batteries and costs

- 13.5kWh Tesla Powerwall 2 (including Gateway) from $13,500
- 9.3kWh LG Chem (including inverter) from $11,500

Making a difference

Here's the impact you could make through CO^2 emissions reduction every year[1].

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

How much solar will I need?

Different homes need different sized solar systems

It's easy to work it out. On your most recent power bill look for your average daily usage in kilowatt hours (kWh). It's usually on the second page. Compare your summer and winter usage to allow for seasonal variation. Then use the table on the right to size your system.

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

How much does it cost?

We've negotiated four great community solar packages for different households. Please note, these prices[2] are indicative only for a standard installation. You will receive a detailed quote following your home visit.

1. Identify the size of system you need	2. Choose an inverter and panels package from the four options below				3. Optional. Choose a consumption monitor	
	Sungrow inverter Suntech panels	Fronius inverter LG Mono X Plus panels	SolarEdge inverter LG Mono X Plus panels	SolarEdge inverter LG NeON 2 panels	SolarEdge	Fronius
5kW System	$4,300	$5,750	$6,100	$7,580	$450	$550
7.5kW System	$5,200	$7,350	$8,150	$10,400	$450	$550
10kW System	$6,200	$9,200	$10,250	$13,450	$570	$840

What are my annual power bill savings?

	Estimated kWh's produced p.a	Savings if 40% of solar used[3]	Savings if 60% of solar used[3]	Savings if 85% of solar used with battery[3]
5kW System	7,300	$1,300	$1,500	$1,800
7.5kW System	10,950	$2,000	$2,300	$2,700
10kW System	14,600	$2,600	$3,100	$3,600

1. 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. 2. Standard installation refers to a single story home with no array splits on a corrugated Colourbond roof. There may be extra costs of up to 15% as every house is different. The prices factor in the STC Federal Government rebate.3. Calculations based on conservative assumptions: 27c/kWh tariff paid for grid electricity; 12c/kWh received as solar feed-in-tariff.

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: zerosydneynorth.org/request-a-solar-quote

2. Choose your solar system

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

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 and has been highly rated since 2009. It is also highest ranked in solar support and offers*.

5. Get your meter solar ready

If you choose to switch to Diamond Energy, they 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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*Distributed Generation (solar) category 2015 Green Electricity Guide – Institute for Sustainable Futures, Nov 2015