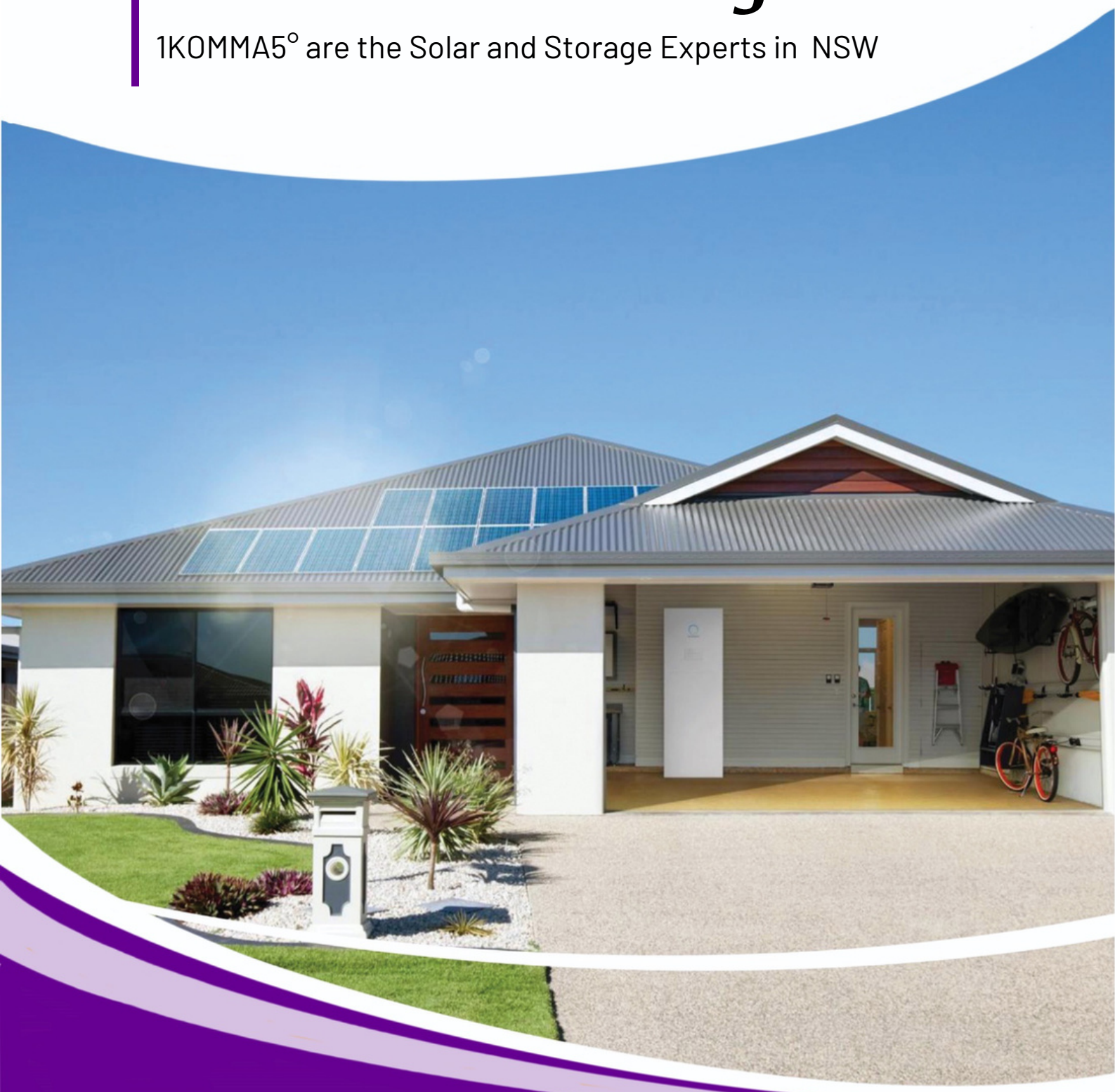
1KOMMA5°

Your Solar Storage Guide

1KOMMA5° are the Solar and Storage Experts in NSW



CLEAN ENERGY COUNCIL MEMBER

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A Clean, Reliable and Affordable Energy Supply for All is Finally Here

"Solar Storage is one of the most exciting developments of recent years and is rapidly changing the way the entire energy market works. Customers are reaping the benefits of this new technology across Australia."

Peter Thorne, Director of 1KOMMA5°

1KOMMA5°

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The Solar & Storage Experts

2024 Solar Battery Storage Guide

A Seismic Shift Has Occurred. What You Need to Know.

The Solar Storage Revolution has arrived in Australia and 1KOMMA5° is at the forefront of this exciting shift towards solar storage and energy management.

Solar storage has taken off over the last few years, with thousands of customers either installing storage with their new solar systems or adding it to their existing solar power.

There are now 3 main solar storage options available in Australia. The most notable brands are currently Tesla, Enphase and sonnen.

The price of storage depends primarily on how much capacity you want, as well as any additional features such as backup for when the grid is down.

Many households are looking to capture excess solar power to use in the evening, whilst other households are looking to run their home almost entirely on solar power with backup functionality. This will typically involve a larger battery such as the Tesla Powerwall 2 or the sonnen batteries.

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Why Install Battery Power?

Solar Battery Storage is about storing excess solar power during the day to use in the evening. Unlike the expenses involved in going off-grid, grid connected solar storage systems are designed to run your home on solar power as much as possible, and then automatically use the grid as a backup when needed

Australian households are well suited to battery storage due to our high cost of electricity, low feed-in tariffs for solar power sold back to the grid, a high penetration of solar power systems and a strong environmental movement away from coal and gas.

Approximately 80% of Enphase solar customers have expressed an interest in buying a power storage solution at some point in the future:

"I didn't expect it (demand) to be as aggressive as it was," Enphase Energy's Asia Pacific head Nathan Dunn said in an interview with RenewEconomy. "I thought the numbers we had targeted would be an aggressive target, but demand is well above expectations."

Primarily, battery storage is about energy independence. It is a move away from a power grid that relies heavily on coal and gas, and it is a hedge against rising power prices. For many households with a digital meter, tariffs between 2 pm and 8 pm are now up over 50 cents a kWh, and average electricity prices have risen more than 100% in Sydney over the last 10 years.

For many people, buying storage is a powerful vote for renewable energy. By leading this revolution, the early adopters of storage technology are growing a movement that is predicted to be a 'multi-billion-dollar industry. It is now evident that the renewable energy revolution will be powered by the people, and this next phase of solar storage uptake will be the most important yet.

Installing Solar Storage – A Case Study

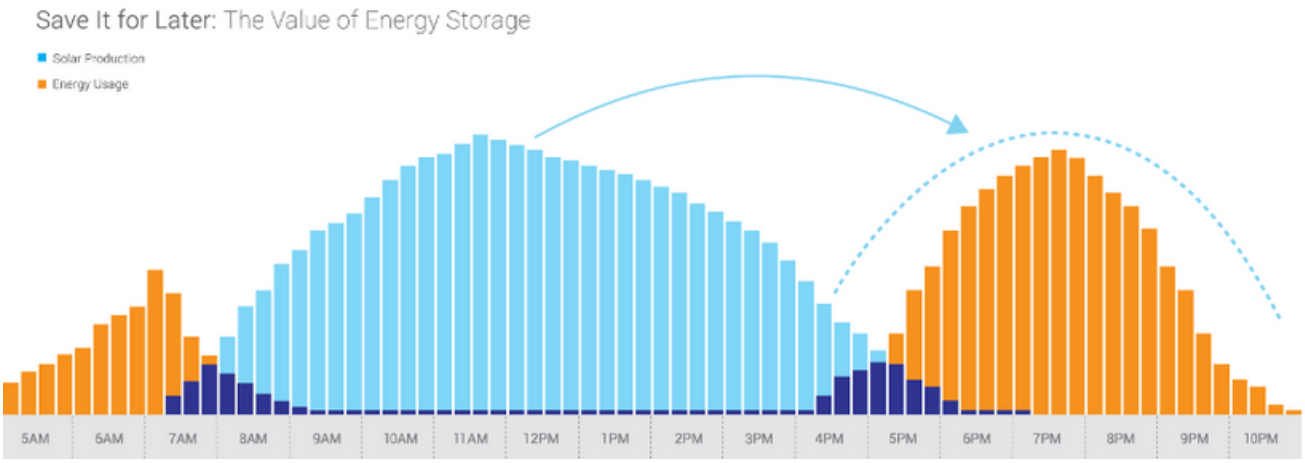
Like so many Australians, Peter struggles to use all his solar power in the home as it is generated during the day. Mr Thorne is an electrical engineer by trade and a director of 1KOMMA5°. Peter's 5kW Solar System, powered by Enphase, generates most of its power when the family is at work, and so excess solar power is currently being fed out to the grid.

Peter said, "After installing the Enphase Storage System, to see my home now running almost entirely on solar power is a great feeling. I now see the power grid as nothing more than a backup, and that's where I think we need to get to as a nation over the coming years."

Peter sees battery storage as the future for solar power system owners. "Because my partner and I are both at work during the day, battery storage allows us to catch any excess power we would otherwise be reluctantly giving away to our energy retailer at 5 cents a kWh. We would much rather see this power stored in batteries so that we can further reduce our power bills by using it when we come home from work," he said. "For me, battery storage is the future. I'm proud to be growing the renewable energy industry and doing my bit to reduce our reliance on fossil fuels – in particular coal and coal-seam gas."

How Home Battery Storage Works

A solar storage system is designed to maximise the amount of solar power used in the home and to use as little grid power as practical. Primarily, a grid tied solar storage system is about storing excess solar power during the day to use in the evening and to use the power grid as a backup when needed, for example on a rainy week in the middle of winter.



For those without solar power, the first step is to install a solar power system that feeds solar power into your home to use as it is generated. There is extensive information on our website about solar power if you are not yet familiar with how a solar system works in NSW.

Without solar storage, excess solar power is fed out to the grid and your energy retailer may pay you a small feed in tariff as a credit on your power bill, typically around 5 to 12 cents per kWh. By installing solar storage, this excess solar power can then be redirected into batteries to use when needed with the goal of using as little power from the grid as practical.

Solar storage systems are managed through a device that is installed in your meter board. As an example, the sonnenBatterie includes energy usage insights and full consumption monitoring. The sonnenBatterie even uses your electricity prices to automatically optimise the system, for example, it will know when to charge the batteries, and when to use the power from the batteries rather than from the grid. It can even take into account the weather forecast!

How Home Battery Storage Works

Solar storage systems are also able to buy power from the grid to charge the batteries. Many houses in NSW now pay time of use billing, where off peak tariffs overnight can be up to 5 times cheaper than power during the peak billing period between 2 pm and 8 pm. This functionality allows households to cycle their batteries twice a day:

- The first cycle is to store solar power during the day to use during the evening.
- The second cycle is to charge the batteries overnight during the off-peak billing period to then use in the morning or early afternoon when power prices are much higher.

The benefit of automated energy management is that households will be able to automatically maximise the benefit of a hybrid solar system without needing to carefully manage their power usage. Of course, the less power you use the smaller your energy bills will be, and now with smart power management, your solar system can self-optimise, allowing you to stop worrying about when to use your power and how much your next power bill is going to be.

What Solar Batteries are Now Available?

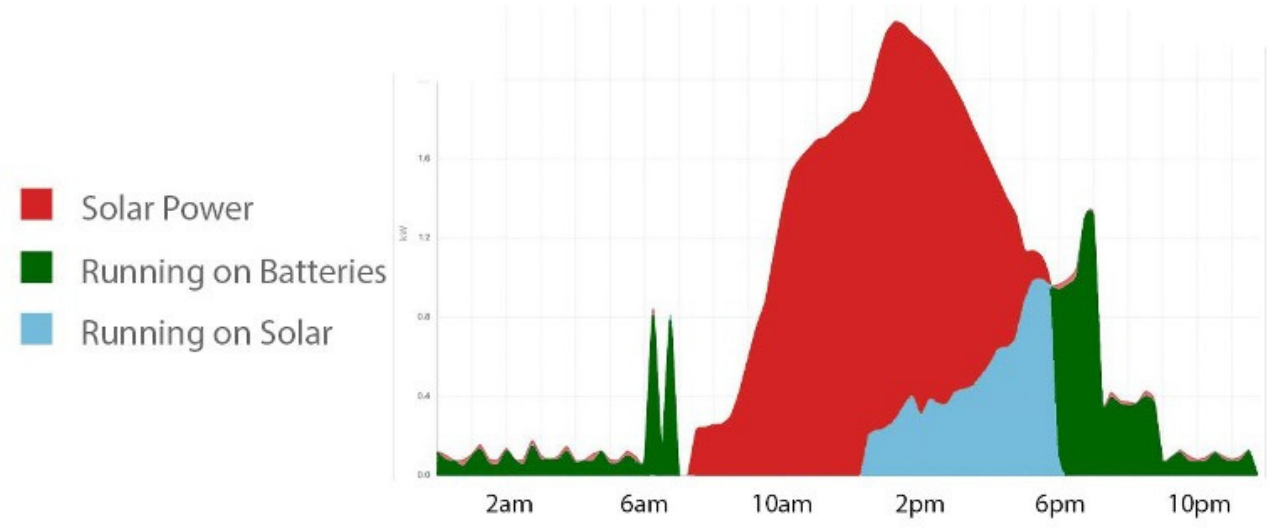
Tesla Powerwall 2

Automated, compact and stylish, Tesla Powerwall 2 enables solar households to further reduce their power bill and maximise self-consumption of solar power. With a capacity of 13.5 kWh, by installing Tesla Powerwall 2 you will now be able to run your home almost entirely on solar power.

The Tesla Powerwall 2 is a beautifully functional storage solution that inherits Tesla's proven automotive battery technology to power your home safely and economically. Completely automated, it requires little to no maintenance and is specifically designed for residential installations.

After adding a Tesla Powerwall 1 Home Battery to a 3kW solar system from 1KOMMA5°, this family in Pitt Town are now running their home entirely on solar power, with an average daily energy usage of around 15 kWh. During the day, a 3kW Solaray solar power system powers the house (blue) and excess solar power is used to charge the Powerwall battery (red). Once the sun goes down, the household runs entirely on battery power all night (green), it even has enough capacity to work the next morning. Other than a small supply charge, this solar household won't have to worry about their power bill anytime soon. More Information About Tesla Powerwall 2

Price Guide: $14,000 fully installed including the Tesla Energy Management App.



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What Solar Batteries are Now Available?

Enphase Energy Management & Solar Batteries

The innovative Enphase Energy Management System combines energy generation from your solar system with battery storage, control, and management into one complete solution. It's smarter and more connected than ever before.

The response to the new Enphase Power Storage System has been incredible! We knew that an interest in battery storage was going to explode this year, but we have seen an even greater demand than what we expected. In fact, Enphase has just announced that they will be doubling production in Australia.

The Enphase Energy Management System is unlike anything else currently available because of its compatibility. Enphase Batteries are connected directly to the meter board, where we install a control hub that manages power consumption and storage in the home. This allows the Enphase power storage system to be compatible with any existing solar system. This is in stark contrast to other battery systems that typically connect directly to an expensive hybrid solar inverter and have limited compatibility.

The system itself has been designed to be modular, expandable, easily installed and can be tailored to each customer's usage profile. A household or business will be able to monitor their usage, solar generation and peak times, and install more battery capacity knowing that it will pay for itself in the quickest possible time. We are very excited about the possibilities that the Enphase Energy Management System will provide for households and businesses and believe the Enphase product will be a market leader.

Price Guide: $16,000 for 2 x Enphase Batteries, fully installed with consumption monitoring.

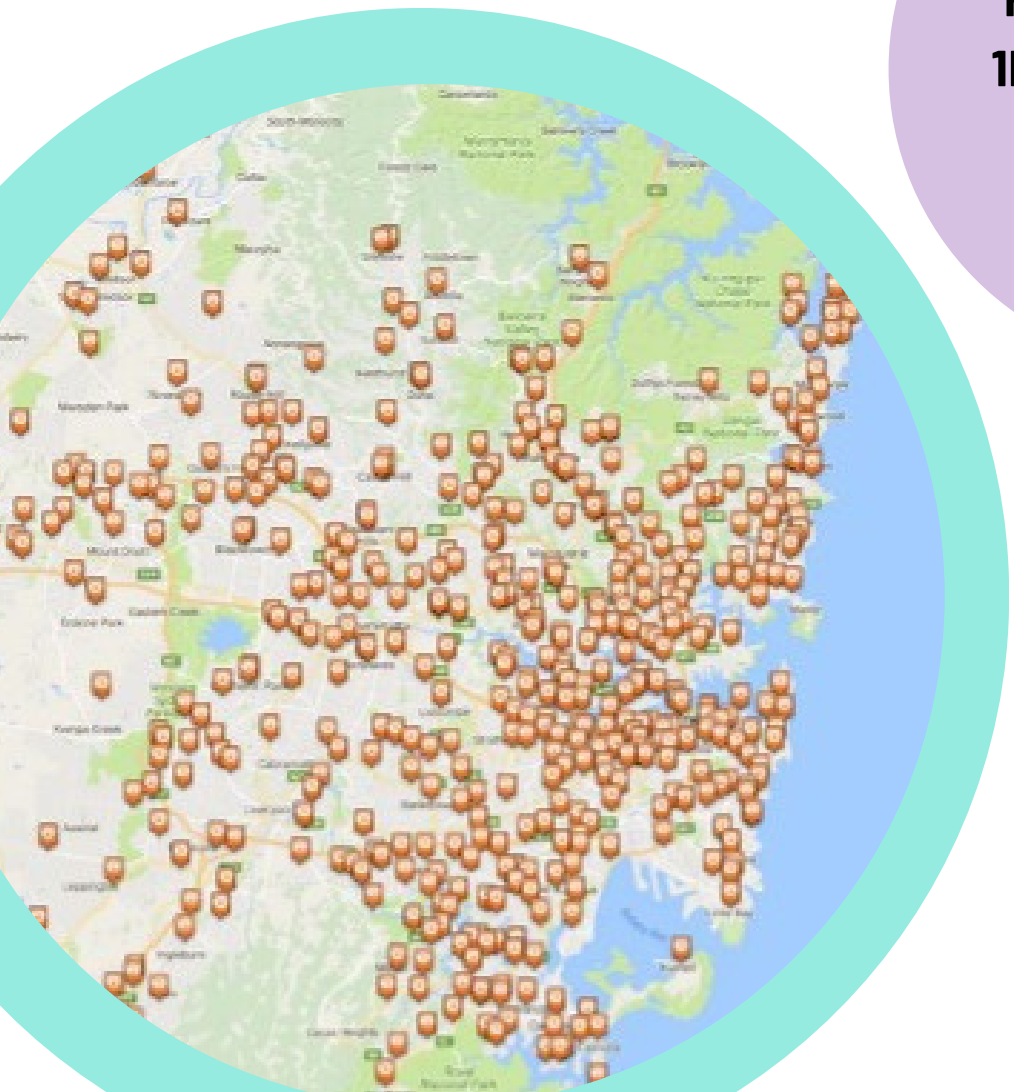
Let's Get Your Quote Started

As the largest and most experienced installer of solar & storage systems in NSW, 1KOMMA5° is the best choice to ensure a smooth and expertly configured installation. All 1KOMMA5° Installations come with the following features as standard:

- Free for life internet-connected system monitoring
- Full service warranties and 12 months free technical support
- 1KOMMA5° organise all the paperwork
- 1KOMMA5° has a 10-year workmanship guarantee
- System design and installation by the Number 1 Installer of Solar & Storage in NSW

Contact us today for a free consultation. We can provide personalised advice and a quotation for a fully installed solar system:

Enphase Systems installed in Sydney and shared for public access:



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