



July Newsletter

Latest updates on Energy Terrain and Solar Power Purchase Agreements

What is the best size of rooftop solar array for your business?

Today, let's find out how to estimate the rooftop solar system size that best fits your business needs. In this article we will outline a simple guideline to pre-assess your potential benefits.

With Australia being one of the sunniest places on Earth and the price of solar systems continuing to go down, going solar is a simple and cost-effective way to reduce your monthly energy bills. In this article we outline simple guidelines to estimate the solar system size that would best fit your needs, and a few other useful considerations you should have when thinking about switching to solar.

Your Energy Consumption

Businesses in the commercial and industrial sector are a very well-suited solar candidate. This is because they have high energy consumption and operate mainly during daylight hours.

The first thing business owners like you have to be aware of when you start thinking about solar energy is your average daily electricity usage (in kWh). This is how much electricity your businesses consume, on average, during a day. This information can be easily found in your electricity monthly bills. Some retailers will show the average daily usage in a graph across the year and in other cases it can be calculated using your total monthly consumption (kWh). The table supplied can be used as a guide to determine the optimal solar system size.

Daily Usage (kWh/day)	Solar System Size
0-100	0-10kW
100-200	20 kW
200-400	40kW
400-600	80kW
600-1,000	100kW
1,000+	100kW+

Roof Space

After getting an idea of the system size that best suits your needs, it is important to understand what available roof space is required to install it. The space you need to put a kW worth of panels varies due to two factors.



Panel individual size

In this regard, there are a few options. First of all, there is a wide range of panel sizes, the bigger the panel, the less you need to reach a certain solar system size. Moreover, new, bigger panels are released into the market every year.

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Panel Tilt



The second consideration is the inclination of the panels. Solar system's pointing north generate more energy. If your roof has an inclination, then panels can be laid flat. With 300W panels, you need a minimum of 5.5m² of roof space to place 1kW. There is a trade-off between efficiency and solar system size, the best design can be determined in detail by Energy Terrain. Tilted, south facing roofs are not suitable for solar systems.

Your Electricity Savings

Electricity rates vary between different energy retailers and states. This means that your savings potential will depend on where your business is located and who provides your electricity. From a sustainability point of view, you can consider that a 10kW system will produce enough clean energy during one year to offset the carbon emissions produced by 6 cars driving around Australia.

One very important consideration is the limitation for exported energy. The solar system will generate electricity regardless of whether you consume it or not. The energy you do not use can be exported into the national grid and your electricity retailer will pay you for this energy. However, depending on your area, there might be a maximum allowance for the energy you can inject into the grid, so the system will not be able to produce electricity above this value.

The savings you have will also depend on the way you fund the solar system. For more information on the different access routes to solar, you can review our article [Three Ways to Access Solar Power](#). If you do not have the budget to fund a solar power system out of your own pocket, solar energy providers like Energy Terrain can help you gain access to solar power at no upfront cost via a Solar Power Purchase Agreement or Solar PPA.

Conclusion

Solar energy is a sustainable way to lower your energy costs. The guidelines above can be a good indicator to estimate the solar system that fits your roof and your premises. There are different ways to access solar energy and Solar PPAs are a no-investment option.



[Click here](#) to discover the most suited size system for your business, see how much CO₂ you can abate, and learn what your estimated annual savings would be.

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