

Solar My Business

Getting started. A step-by-step guide.

Step 1: Increase energy efficiency

Start with an energy efficiency audit to see where you could make energy savings. Australian Business offer free on-site or over-the-phone energy audits for businesses with six to 20 employees. Businesses with fewer than six employees can also receive a free audit if they or their suppliers are drought impacted.

Business Energy Advice Program

W: businessenergyadvice.com.au

P: 1300 415 224

Step 2: Manage demand peaks

Demand charges are often a significant portion of your power bill. Reduce your demand charges by:

- avoiding concurrent use of energy-hungry equipment
- shifting high loads away from periods when demand charges are determined
- comparing load ratings when purchasing equipment
- load shedding - installing equipment that switches off non-essential equipment during peak periods

If your demand peaks occur during the day, a solar system can significantly lower demand charges. If peak demand occurs during the evening, consider a combination of solar and batteries.

Step 3: Find trusted partners

Check out the solar companies our case study participants are happy to recommend.

Solar provider	Recommended by
Australian Solar Design	Colormaker Industries
Autonomous Energy	McCreath Prestige Panel & Paint
Solapro	Three Beans Café Group

Solarchoice in Manly solarchoice.net.au has helped over 3,000 businesses go solar and can assist with solar company and financing recommendations. Choose a partner who helps you liaise with building authorities, Ausgrid and your electricity retailer. Every solar system connected to the grid must be approved by Ausgrid. For larger systems, many approvals are issued with conditions. Make sure you understand these conditions as it may involve cost and equipment to meet them.

1. 350W 22kg commercial panels; 20% roof space allowance. 2. National Electricity Market emissions intensity: 737kg CO₂e per megawatt of grid generated electricity

Step 4: Analyse consumption profile and tariff structure

Having reduced your electricity usage, engage a solar engineer to design a system based on your consumption profile, current and future tariffs and future energy needs. Maximising your use of free solar power increases your return on investment. That said, solar is such good value, don't be afraid to oversize your system.

This table shows how solar systems increase the more electricity consumed during daylight hours.

Average business day usage	Daytime consumption		
	55%	70%	85%
150 kWh	21 kW	26 kW	32 kW
300 kWh	41 kW	53 kW	64 kW
450 kWh	62 kW	79 kW	96 kW
600 kWh	83 kW	105 kW	128 kW

Step 5: Know your building

Roof mounted solar PV systems over 10kW are "complying developments" if sited on non-heritage buildings without requiring structural alterations. You must obtain consent from a private certifier before installation. Your solar engineer will complete a building survey to ensure the panels will not compromise building integrity.

This table shows roof space, weight and emissions saved of various solar systems.

Solar system size	Number of panels ¹	Weight	Required roof space	CO ₂ emissions saved ²
25 kW	71	1.6t	177m ²	27t p.a.
50 kW	143	3.1t	353m ²	54t p.a.
75 kW	214	4.7t	530m ²	81t p.a.
100 kW	286	6.3t	706m ²	215t p.a.

Weight concerns?

It is estimated a third of commercial/industrial roofs can't take the weight of conventional aluminium and glass solar panels. If this is the case, the Energen eArche panel is 75% lighter than regular panels, is flexible and does not require roof penetration when mounting. They have been installed at The National Maritime Museum and John Holland energen.com.au/type/earche