



**Business
Chamber**
QUEENSLAND



GUIDE

TO RENEWABLES

The Queensland Government are powering towards a 70% renewable energy target by 2032 with the Queensland Energy and Jobs Plan

www.epw.qld.gov.au/energyandjobsplan

The plan states “As the ‘Sunshine State’, Queensland has world-class solar and wind, the ideal geography for large-scale pumped hydro, and the critical minerals below the ground to make the renewable energy technologies needed to decarbonise.”¹

Is your business set to take up renewable energy opportunities and position yourself as prime selection for procurement opportunities?

GREEN POWER

Purchase GreenPower as low-cost alternative to solar. GreenPower is 100% renewable energy available through most energy retailers in Australia.

www.greenpower.gov.au/get-greenpower

GreenPower provides a low cost no infrastructure cost which is ideal for leased premises and provides an immediate reduction in emissions. When purchasing GreenPower, you pay an extra amount on your bills per kwh (usually between 5 to 10 cents extra per KWH) which enables providers to purchase more renewable energy certificates from renewable energy generators.

Business accounts can select which percentage of their total bill they want to purchase as GreenPower. Options from retailers may range from 10% to 100% of GreenPower.

Contact your provider for more information.

SOLAR PV POWER

Smart businesses have long had their eye on solar as a way of saving costs. The big question, though, has always been about storage: What's the point of solar if you can't bank away the energy you save? But with better and cheaper energy storage starting to hit the market from solar innovators, it won't be long before batteries are cost-effective enough to make them worthwhile for all businesses. Until then, here's the latest. According to a survey of Australian businesses in September 2016, one-quarter of businesses have now made the leap to solar power. That means investing in enough photovoltaic (PV) cells and an inverter to convert solar energy into electricity to power at least part of your business.

Even without storage, solar offers the following business benefits:

- Power even when the sun doesn't shine: A 1kW system in Brisbane and Cairns will produce around 4.2 kWh per day, and just a bit less on cloudy and rainy days.
- Use the space you have: A 1kW solar array will require around 8–10m² of roof space, and a 1.5kW solar panel system requires around 12m².
- Power even during blackouts: If keeping on going is important to your business, installing PV and battery storage systems that are off-grid (disconnected from mainstream electricity) could be your answer. On-grid systems can't be used during blackouts because they generate electricity back to the system, making downed wires dangerous.
- Cut your costs: Battery storage can feed electricity into your business when you reach a certain electricity usage level to reduce peak demand.

But there's always a but. Here's what you should know before you make the leap.

- Not all solar panels are made equal, and Australia has been the dumping ground for poor performing solar panels in the past. Do your research before you buy, and check out the Australian Solar Council's top tips for installing solar.

<https://www.cleanenergycouncil.org.au/consumers/buying-solar/solar-guides>

- Choose the panel direction that best benefits your business. Panels on north facing roof, away from overshadowing foliage, awnings or buildings, will generate on average more energy than those facing other directions. They also will help to reduce peak demand in the middle of the day but are less effective than those facing east (in the mornings) or west (in the afternoons).
- Do your homework to be eligible for the best rebates. You might be eligible for small-scale technology certificates (www.cleanenergyregulator.gov.au), reduced rate loans and tax deductions.

Quotes and system specifications with any government subsidy available should be investigated and business grant assistance could be explored.

Clean Energy Council Guidance Clean Energy Council
www.solaraccreditation.com.au/consumers/purchasing-your-solar-pv-system-solar-pv-guide-forbusinesses.html

Having quotes and specification ready enable investigation of suitable Grant funding opportunities.

SOLAR HOT WATER

Hot water can be a significant source of energy usage for a business. If that is the case, a solar hot water system can help keep your energy bills low as well as improve your energy efficiency and emissions profile. Solar hot water systems come in a wide range of sizes adapted to small or large commercial applications.

OTHER RENEWABLE ENERGY SOURCES

There are other small-scale renewable systems that may help your business reduce energy usage. those include small-scale wind turbines, air source heat pumps.

Small-scale wind turbines are compact turbines that harness wind power to generate electricity on-site. They are more suited for areas with consistent wind patterns.

Air source heat pumps are systems that provide heating and cooling. These can be used for residential, commercial, or industrial buildings. They operate by extracting heat from the outdoor air, even in cold weather, and transferring it indoors for heating purposes. They also operate in reverse by extracting heat from indoors and transferring it outdoors for cooling. They are highly efficient and rely on extracting heat from air and produce more heating energy (or cooling energy) than the electrical energy they consume.

REFERENCES



1) Queensland Energy and Jobs Plan

www.epw.qld.gov.au/energyandjobsplan

