



A BREATH OF GREEN AIR

Verve Energy's wind farm in Albany, Western Australia, is one of the largest wind farms in the southern hemisphere.

Its twelve 1800 kilowatt wind turbines produce on average 65,000 megawatt hours of GreenPower electricity per annum, which is enough to power over 10,000 homes and provide over 50 per cent of the city of Albany's electricity needs.*

The renewable energy supplied by the Albany wind farm cuts Australia's greenhouse gas emissions by 65,000 tonnes per annum, equivalent to taking nearly 15,000 cars from our roads for one year.

✓ Location, Location, Location

According to Verve's Manager for Sustainable Energy Business Development, Adrian Chegwiddden, the wind farm site, 12km from Albany's centre, provides an ideal location to generate wind power.

"Its elevated position about 80 metres above the Southern Ocean coupled with its proximity to the coastline and short distance to the main electricity transmission system makes it an exceptional wind farm site," he said.

✓ Local hero

The location of the farm and the type of turbine and generating technology it uses means that the power produced is fed directly into Albany's power supply and sold through the retailer Synergy.

As Albany is connected to the main electricity grid, the wind farm can also export a small amount of surplus power further north along the transmission network.



An ariel view of Verve Energy's wind farm

✓ How it works

01

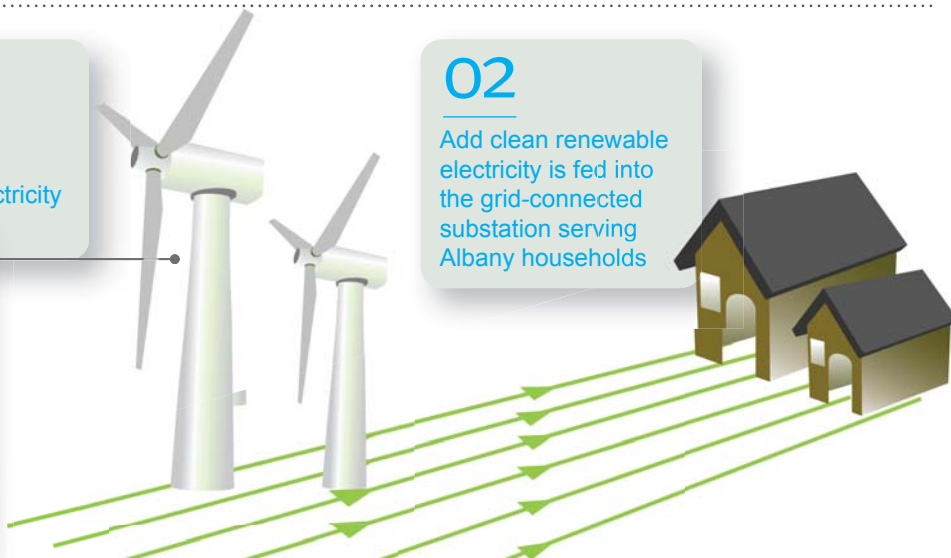
Wind powers the turbines which is converted to electricity

Wind turbine specifications:

Three bladed turbine tower height 65m, turbine rotor diameter, 70m (blade length 35m). Turbines are designed to withstand the strongest winds and have lightning protection. Turbine blades are adjusted to maximise power output from any wind direction or strength.

02

Add clean renewable electricity is fed into the grid-connected substation serving Albany households



Local generation, with direct connection, means more power is available to the local township avoiding power from long distance transmission.

The clean, renewable GreenPower from the Albany wind farm replaces electricity that would have had to be produced and transmitted by Verve Energy's coal fired power station 350 kilometres away at Collie.

GreenPower is driving renewable energy

Verve Energy's Albany wind farm is an accredited energy supplier for the GreenPower program.

GreenPower approved generators comply with stringent environmental standards and the GreenPower accredited component of electricity products must be 100 per cent 'new' renewable energy ('new' renewable energy is sourced from generators which have been built after 1 January 1997).

GreenPower accreditation provides assurance that the renewable energy a customer purchases is reducing greenhouse gas pollution and helping to develop a robust renewable energy industry in Australia.

Major power player in the west

Verve generates about 65 per cent of Western Australia's electric power, mainly from coal, gas and liquid sources. So why GreenPower?

"It is a result of Verve's focus on the environment and a means of gaining additional revenue from renewable energy projects.

"These projects need a revenue base to make them viable. You won't have renewable energy without being commercially responsible, particularly in Australia, where fossil fuels are relatively cheap. It's tough to compete so you need to source every bit of revenue available," said Mr Chegwiddden.

At a Glance

Energy fuel:

Wind power

Owner/Operator:

Verve Energy

Location:

Albany Wind Farm, Albany,
Western Australia

Energy Output:

65,000 megawatt hours of electricity per year, equivalent to powering over 10,000 homes

Greenhouse Gas Abatement:

65,000 tonnes per year, equivalent to removing about 15,000 cars from our roads for a year

Support a greener future for all

Wind farms are just one of the ways to generate accredited GreenPower. Australia is leading the way in developing the technology needed to produce clean, green energy.

But if we are to reduce greenhouse pollution from electricity then more Australian households and businesses need to purchase accredited GreenPower to help fund the long-term development of clean, renewable energy. The result will be a better, brighter future for all Australians.

*Calculations: One megawatt hour is equal to one tonne of greenhouse gas emissions. Each car generates 4.33 tonnes of greenhouse gas each year. Household figures based on an average household's use of 6.47 megawatt hours per year with 2.6 people.