



WINDPOWER

~ Energy: What is it ~

Bases for Origin
are set-up in
Sydney &
Brisbane

Origin means:
"Start & beginning"



Presenter:
Ian Purcell

Origin is
listed on
the stock
market

More than 3
million
Australians are
with Origin.

Supplies energy
for Electricity,
Gas, Natural
gas, LP Gas and
Green Energy.
Solutions for
your home or
business.

Energy
company that
makes & sells
electricity



Non-renewable energy :

- Fossil fuels
- Coal
- Oil
- Natural Gas

Renewable energy:

- Wind
- Solar
- Geothermal
- Hydro

RENEWABLE ENERGY

The government is aiming to have 20% renewable energy in Australia by 2020.

This energy is a more practical option as it lasts longer and is more friendly to our environment.

We need renewable energy for a couple of reasons, the first being the cost - renewable energy is a free resource, however, set up costs are high in expense.

Secondly it's much more clean, and thirdly this energy will not run out.

Renewable energy is naturally replenished in a relatively short period of time.

CURRENT USE OF WIND POWER:

5% of Aussie renewable.

NON-RENEWABLE ENERGY

This energy isn't what we want.

It easily runs out, is very expensive and is quickly becoming 1 of the objects damaging our precious environment.

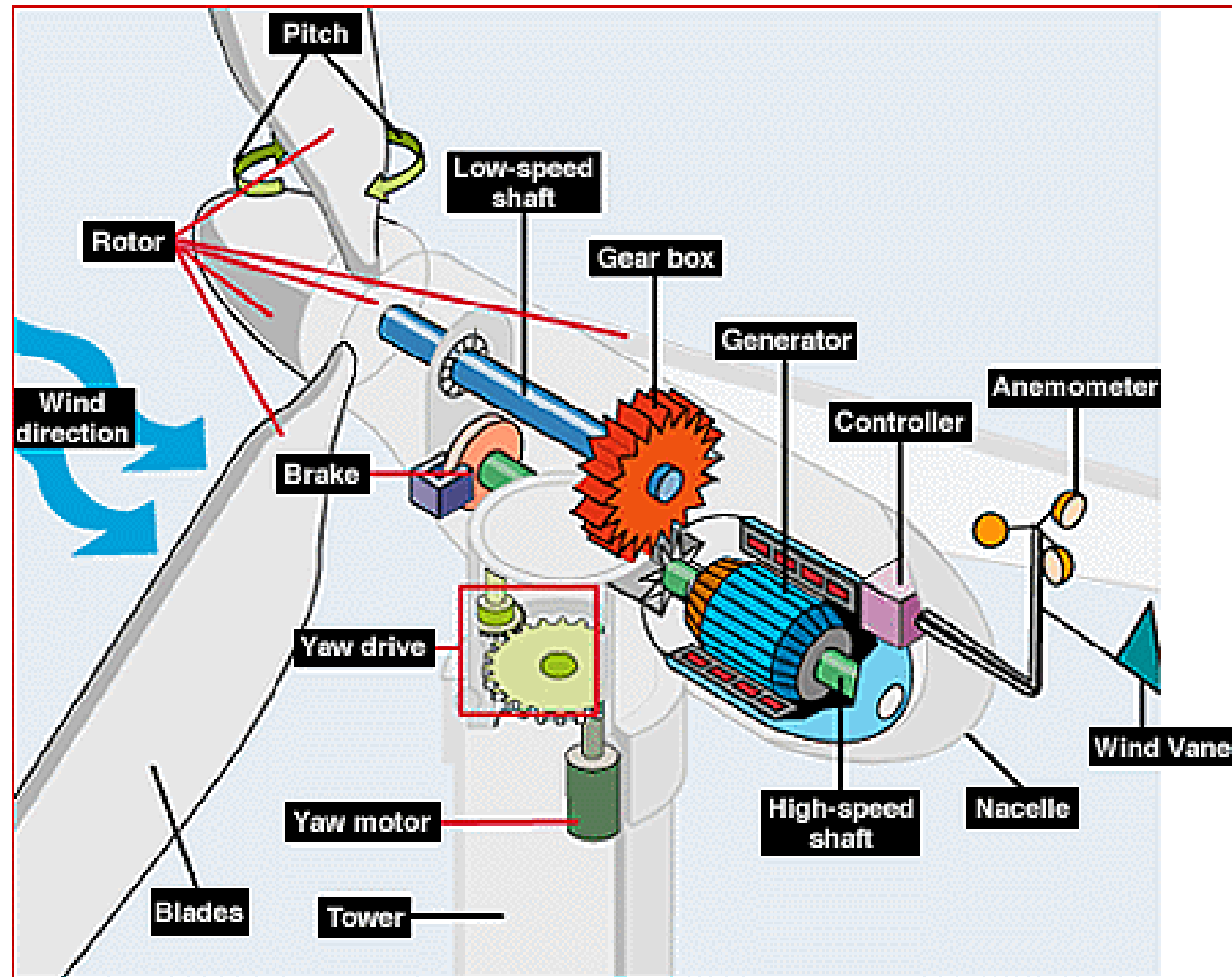
Non-renewable energy sources are those that cannot be replenished (replaced) in a short period of time.

Non-renewable energy is energy produced by burning fossil fuels such as coal. They are non-renewable because there are finite resources of fossil fuels on the planet.

WHAT IS WIND POWER?

- Wind power is an energy source that is conducted by wind turbines.
- The blades spin 3m a second, (3km/h.) Energy is created when the wind turns against the blades.
- Every year, 1 turbine powers 850 homes.
- The blades can go from 11 revs to 20 revs.
- Maximum speed of wind the turbines can take is 90-110km/h.
- You need special equipment and training before you can go up and fix a broken wind turbine.
- The negatives for wind power is that the turbines take up a lot of space on the landscape.

PARTS OF A TURBINE



WIND POWER & TURBINE FACTS

- \$4m for 1 turbine.
- Blades made of fibre glass.
- Blades are hollow which makes them lighter.
- Crane that builds turbines weighs 550t.
- Nacelle weighs 70t.
- Turbines weigh 170t, plus the other parts underground.
- Blades are built on ground.
- Wind power was used to pump water over 100 years ago.
- Some turbines are placed in the ocean overseas in Europe,
-they will rust but a paint job fixes them up.
- Takes 1 day to construct a turbine on site when parts are shipped out.



Close to Crookwell, Cullerin Range is 2km long and spreads at 600m wide.

Cullerin Range holds around 15 wind turbines.