Energy Factsheet - Wind Power

Introduction - Our lives are dependent on energy and electricity. Consider the role of energy in reading this: energy was required to create the computer that this article was written on. Energy is needed to keep the lights on and to keep the air warm (if you have the heater on) or cool (if you have the air-conditioner on). The materials and construction building you're in required energy to be built. If you're thinking of eating a snack while you're reading then chances are energy was needed to create, store or transport your snack. The clothes you're wearing needed energy to be made and will need energy later to be cleaned.

Evidence of our dependency on energy is all around us. And because we need it for so much in our lives, it makes sense that we should be using a form of energy that is best for us and best for our planet, both now and in the future. This is what we call 'sustainable energy'.

- **Energy** - Scientists describe energy as the ability of a body or system to do work. Energy is all around us and is constantly changing. When you feel the warmth of the sun on your back you're enjoying the heat energy from the sun. When you cook over a campfire you're using heat energy converted from the stored energy in the wood you're burning. There is energy in the food that we eat. This energy comes from plants who used the energy from the sun. And there is the energy we use for making electricity.
- **Electricity** - Electricity is a form of energy. We use this energy in almost every aspect of our lives: heating and cooling, cooking, lighting, charging phones and computers, watching TV and listening to music, and even for charging (some of) our cars.

About wind power - Wind power is energy that is generated by the wind. It has been used for thousands of years to power sailing ships, pump water, grind wheat to make flour and to create electricity using kinetic (movement) energy.

The wind turbines that we now use for generating electricity work in much the same way as the windmills of the past: when the wind turns the blades of the windmill, it spins a turbine inside a small generator to produce electricity.

Wind is probably the one type of renewable energy that comes under fire for a reason that has nothing to do with energy creation, but everything to do with the look of them. Some people like the look of the wind turbines while others have a problem with them, and this has prevented a number of wind farms being constructed in Australia and other parts of the world.

However, like the sun, the wind is a renewable energy source, meaning that it will never run out (unlike coal or gas). Wind is not constant and doesn't blow in the same place all the time, but it is always blowing somewhere. If the turbines are spread far enough they can capture the wind energy and put it into the grid. Wind alone will not solve our energy needs, but it is an important part of the solution.