



Renewable Energy

EcoSmart Business Program – Fact Sheet



Step 2 – Renewable Energy

Your second step to becoming an EcoSmart Business and making the journey towards carbon neutrality is to utilise renewable energy.

Renewable energy is energy that is sourced from the sun, wind, hydro or bioenergy and produces minimal or no greenhouse gases. Rather than energy that is sourced from fossil fuels such as coal or natural gas and produce large amounts of greenhouse gases.

By using renewable energy you will significantly reduce your greenhouse gas emissions, reduce your contribution to climate change and will support the renewable energy sector. Renewable energy generally costs more than standard energy so make sure you have followed Step 1 – Energy Efficiency first to minimise your costs.

There are two approaches a business can take to incorporate renewable energy into their business operations – by purchasing renewable energy or by creating your own renewable energy.

Purchasing renewable energy

There are a number of energy providers that now offer a renewable energy product. When you purchase renewable energy it is important that you buy accredited renewable energy, this way you can be sure that you are buying what you pay for, that is comes from a renewable source and that it meets a certain standard.

GreenPower is the Australian renewable energy accreditation program that provides independent auditing to ensure the renewable energy that you are buying is the best choice for the environment and meets strict environmental standards. Energy providers are also required to sign up to marketing guidelines, which ensure that their renewable energy products are clearly and adequately described.

When you purchase accredited renewable energy it does not mean your electricity will come directly from a renewable source to your business. Rather the same amount of renewable energy that you have purchased will be added into the grid network resulting in an equivalent reduction in greenhouse gases. You can choose whether you want 100%, 50%, 20% or 10% of your energy to come from a renewable source.

In Western Australia there are a number of energy providers that offer an accredited renewable energy product. Visit the Sustainable Energy Development Office's Energy Smart Directory to search for a renewable energy company near you
www.energysmartdirectory.com

Create your own renewable energy

Rather than purchasing renewable energy you can become self sufficient by installing your own renewable energy system. While this may initially be an expensive option it has a number of benefits: self-sufficiency, no ongoing energy bills, reduce your vulnerability to rising electricity costs, and is a great marketing tool. Some of the options for renewable energy that may be applicable to your business are solar and wind.

Solar

Solar energy is radiation emitted by the sun that can be harnessed by technology to create heat and electricity. The most common use of solar energy is solar hot water systems. A solar water heater uses the radiant heat from the sun to heat water, which passes through collectors or pipes located on the roof of a building. Solar energy is able to supply up to 80 per cent of annual hot water energy needs. Solar input is maximised when collectors are installed facing north.

Alternatively solar energy captured by an array of solar panels is converted to electricity through photovoltaic technology. Solar electricity systems can be connected to the electricity supply grid. If your business uses more energy than the solar panels can supply, the grid provides the shortfall so power is always available. If the system is supplying more energy than is needed, the excess is fed back into the grid and your business will receive credit for this.

Wind

Wind energy, currently the cheapest renewable energy source, involves the generation of electricity from the naturally occurring power of the wind. Wind turbines capture wind energy within the area swept by their blades; the blades in turn drive an electrical generator to produce power for export to the grid. Traditionally wind turbines are very large and usually contained in extensive wind farms. However smaller turbines are now available that can be placed on top of a building.

There are now many renewable energy companies that can advise what type of renewable energy system would be most suitable for your business and what the likely costs would be.