



This brochure outlines NRG's strategies to minimise its environmental footprint and gives handy tips on what people can do at work and at home to lessen theirs.

AIR power water

NRG is open and transparent about air emissions and has contributed to the establishment and ongoing operational costs of monitoring stations to measure and satisfy our environmental obligations.

As a major employer in the Gladstone region, NRG has a vested interest in ensuring that the region where our people work and live is a healthy one, now and into the future.

NRG has installed 46,000 fabric filter bags across the six boiler gas outlets to reduce particulate emissions. These emissions are continuously monitored to ensure we meet our environmental obligations.

NRG has produced an Air Emissions brochure to provide the community with a factual overview of particulate matter released from our operations and outlining our strategies to reduce these.

Planned revegetation of the site, including a 60 hectare buffer zone NRG purchased in 2007, will not only create wind breaks and reduce dust levels from stockpiles areas, but also offset some of our CO2 emissions.

Gladstone Power Station is Queensland's largest, with a generating capacity of 1,680 megawatts. The station was sited to take advantage of seawater for cooling and to be near Central Queensland's vast coal reserves.

The station's six, 280 megawatt turbogenerators each output 16,200 volts to transformers that convert the power to a level suitable for transmission at 132,000 or 275,000 volts.

NRG aims to conserve and promote efficient energy use through a yearly Greenhouse Gas Abatement Plan.

Major savings in energy usage have been made through resleeving air heaters, relagging of steam pipes and installing variable speed drives on conveyors.

NRG further reduced energy consumption by turning off fluorescent lights. This equates to a saving of 43 tonne of CO2 per year.

NRG acknowledges the importance and need for conserving water and maintaining water quality in the local waterways. Monitoring and controlling water usage is an important part of NRG's water conservation strategy.

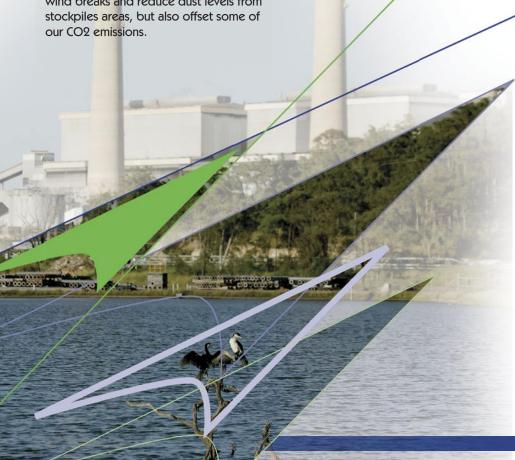
Regular monitoring of plant, water consumption and equipment walkthroughs help ensure that all major leaks are identified and repaired. The operation of the station's six boilers requires highly purified demineralised water for turbine operation and to prevent unnecessary wastage of water during this process, the station's control system and operating practices ensures only the minimum of water replacement occurs.

Because Gladstone Power Station uses saltwater from Auckland Creek for cooling, the station uses a much smaller percentage of freshwater than other water-cooled power stations in Queensland. The dust suppression system has been converted to recycled sewerage water thereby reducing the stations use of fresh water further.

Secondary treated sewage water is currently being used for the disposal of the ash, thereby reducing treated town water use by up to 500,000 litres per day. NRG is developing further strategies to reduce the volume of town water used on site by increasing the usage of effluent water, recycling or minimising process water and improving water monitoring.

NRG is proud to be a member of the Port Curtis Integrated Monitoring Program that monitors the health of the Gladstone Harbour. The waterways surrounding our site were given an "A" from the health report following the release of the Port Curtis Ecosystem Report card in March 2008.

Our comprehensive waste management strategies ensure our waterways are kept clean and healthy for future generations to enjoy.



Everyday tips to reduce your CO2 emissions

Some decisions have long-lasting effects. When buying a home, car or major appliance, that one decision will influence greenhouse gas emissions for many years. For example, buying a car that uses two litres per hundred kilometres less fuel will save around 14 tonnes of greenhouse gas over its life.

Switch to low greenhouse impact transport options like cycling or public transport.

Reduce, re-use and recycle as much as you can and when shopping, buy bulk products to minimise packaging and materials.

Cut consumption of other products and services that generates greenhouse gases in its manufacturing, e.g. water, paper, metals, glass and plastics.

Tips on reducing energy usage at work and at home

When you cut your greenhouse gas emissions by saving energy, you'll also save money on energy bills.

When buying a new fridge, freezer or dishwasher, select one with the best energy star rating you can afford and that meets your needs.

Front loading washing machines are the most energy and water efficient.

Defrost the freezer when there is a 6mm frost build up.

Turn off lights, appliances and equipment when they're not in use - items on standby still use power.

Change old light bulbs over to energy-efficient compact fluorescent lamps.

Install dimmers or two way light switches.

Keep the summer heat and winter chill at bay through proper insulation.

Be aircon smart by setting thermostats appropriately - a couple of degrees up in summer and a couple of degrees down in winter.

Consider using ceiling fans for cooling instead of air conditioning as they are cheaper to run.

Hot water systems use a lot of power. If possible, switch to solar hot water. Alternatively, install a three star or higher rated showerhead, take shorter showers and use cold water to wash clothes.

Solar power is free and plentiful in our region. Dry your clothes on the clothes line outside, not in a dryer.

Simple ways to save water and keep our waterways clean and healthy

Check for leaks in taps, pipes and dishwasher hoses to reduce water wastage. One leaking tap can waste more than 2,000 litres a

Installing water efficient taps or tap aerators is a great, inexpensive way to cut your water usage without you even noticing.

Automatic dishwashers can use up to 40 litres of water per load. Using a dishwasher with a 3 star/AAA rating, reduces water usage from 40 litres to 18 litres per load.

Wait until you have a full load in your dishwasher or washing machine before using it. This also reduces the amount of detergent entering the sewerage system.

Try to use phosphate-free, ecofriendly detergents and cleaning products. There's a great range to choose from these days and they're much better for our environment.

Installing one of the latest 3 star/ AAA rating showerheads can give you a great shower and save you around 10 litres of water a minute.

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CapReef Supporting Clean and Healthy Waterways

NRG supports CapReef, a community based monitoring program to improve knowledge of local recreational fishing. NRG and CapReef understand the need to manage our fisheries as many in our community enjoy the benefits of productive and healthy waterways.

Many NRG employees enjoy fishing and have contributed to CapReef by providing details of their fishing trips.

CapReef estimated that there were over 16,000 offshore fishing trips from the Auckland Creek boat ramp from June 2005 - May 2007 with 207,000 fish caught and 78,000 fish kept.

The Barramundi spawning season for 2007-08 (October - January) has been the best since 2001 followed by a good wet season. This will provide a significant boost to legal sized Barramundi numbers in two to three years time.

Barramundi stocked into Lake Callemondah have been tagged by local Gladstone Sportfishing Club members. These fish leave the lake during flooding and have been caught in all the local rivers and the harbour improving local fishing. NRG is a sponsor of the tagging program.

CapReef has demonstrated that local fishing club's catch rates for coastal and offshore fishing are best in years of above average wet season flows from the local river systems. With the local flooding in 2008 it is expected that catch rates will rise this year.

NRG is a sponsor of the Boyne Tannum Hookup, the largest fishing competition in the Port Curtis area. In 2007 the Hookup received a 3.5 star rating (maximum 5 stars) under the national NEATFish system for evaluating fishing tournaments.

NRG Gladstone Operating Services Pty Ltd PO Box 5046 Gladstone, Q. 4680 Ph: (07) 4976 5211



