

Together we will create our...



BOLD FUTURE – Trends and issues

“We have no long-term energy policy. We don’t even seem to recognize the existence of a long-term problem. Rather, we simply vacillate from panic to complacency in response to short-term shortages and surpluses.”

Dr. Craig Bond Hatfield, Geology Professor Emeritus, University of Toledo

Our energy future

Gold Coast City, like all cities, depends on energy to function. Energy drives our cars, trucks, buses, trains and planes, brings water to our houses and removes and treats our wastes. Energy is stored in food, is used to produce food and to get food to us. Energy is an unseen fundamental part of our city and our lifestyle.

Most of the energy used today is derived from fossil fuels. However, there are growing concerns over how the use of fossil fuels is affecting the climate and concerns over how much longer oil will be available as a fuel.

There is no debate about the warming of the planet, nor that carbon dioxide levels in the atmosphere contribute to warming.

The only question (for some) is whether human activity is the major cause of climate change. In any case reducing our carbon dioxide emissions will help to prevent further climate change and improve our resilience to an uncertain future.

The choices we make about how we get energy for our cities and how we use energy in our cities, businesses, homes and lives has a significant effect on our future.

“I’d put my money on the sun and solar energy. What a source of power! I hope we don’t have to wait ‘til oil and coal run out before we tackle that.”

Thomas Edison (1847–1931)

Trends and issues

- Energy use per person in Australia has been steadily rising, measuring 265 Giga-Joules per person in 2003–04.
- 85% of this energy comes from fossil fuels contributing about 70% of Australia’s Greenhouse emissions.
- Each person in Australia is now responsible for 27 tonnes of carbon dioxide emissions each year, or enough to fill 27 family homes. This is 27% higher than the US and double that of other industrialised Countries.
- On average, each resident of the Gold Coast consumes a little more energy and is responsible for a little more carbon dioxide each year (29 tonnes) than the average Australian.



- The time at which all known oil reserves will be half-depleted (peak oil) is expected to occur between 2000 and 2030.
- Hydrogen as a fuel relies on other forms of energy to create it and its general use in vehicles still requires considerable development.
- Renewable energy currently provides only around 11% of Australia’s electrical energy needs.
- Australia will have a carbon trading market by 2012. Costs associated with carbon trading are likely to affect prices of goods and services.

“Globally, emissions may have to be reduced, the scientists are telling us, by as much as 60% or 70%.”
Michael Meacher, UK Environment Minister, November 2000

“Reducing global carbon emissions by 60% by 2050 will only delay the growth of the global economy by 6 months.”
Sir Nicholas Stern, UK Climate Change economist

“In the year 2065, on current trends, damage from climate change will exceed global GDP.”
Andrew Dlugolecki, General Insurance Development



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Energy choices and climate change are environmental, economic, security, health, agricultural, trade and employment issues for the Gold Coast – now Australia's sixth largest city.

Scientists have been warning, in ever louder voices, that Australia and its cities must take action to plan for climate change and its impacts.

As a growing coastal city we are particularly vulnerable to high car dependence, congestion, high emissions and potentially lowered air quality in the future.

Gold Coast City Council has already put in place a range of policies relating to environmental management. Council is also a member of the Cities for Climate Protection® Program and has been working with the State Government to assist residents in becoming more energy efficient and greenhouse responsive, reducing emissions per capita by around 2-3%.

However, as the Gold Coast grows, total emissions continue to grow.

Renewable energy through sun, wind, wave and off-shore water-current flows may be options to provide a significant proportion of electrical energy to the city and reduce greenhouse emissions.



"We must move ahead boldly with clean energy technologies, and we should start preparing ourselves for the rising sea levels, changing rain patterns, and other impacts of global warming."

Klaus Topfer, United Nations Environment Programme

"Australia has abundant reserves of coal and natural gas, large potential supplies of biomass and geothermal energy, and virtually unlimited sunlight, wind, wave and tidal power. Using the resources wisely is our challenge."

John Wright, Director Energy Flagship CSIRO

"By skimping on design, the owner gets costlier equipment, higher energy costs, and a less competitive and comfortable building; the tenants get lower productivity and higher rent and operating costs."

Paul Hawken, Natural Capitalism

"The future of BP is in the sun and hydrogen."

Peter Knoedel, Deutschen BP

"We need a radical shake-up of the way we use energy, and we need to generate energy in new, sustainable ways. We can't go on damaging the environment as we produce goods. We have to develop new technologies. We all have to 'do our bit' to tackle climate change."

John Prescott, UK Deputy Prime Minister

