



Speech by

## Hon. Lindy Nelson-Carr

MEMBER FOR MUNDINGBURRA

Hansard Tuesday, 20 February 2007

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### NUCLEAR FACILITIES PROHIBITION BILL

**Hon. LH NELSON-CARR** (Mundingburra—ALP) (Minister for Environment and Multiculturalism) (3.08 pm): Nuclear power is not a viable option in Queensland. Any mention of the word makes me and many thousands of Queenslanders extremely nervous. As environment minister, I am aware of the ramifications a nuclear plant could have to our environment and our communities and I implore governments of all persuasions to focus on other renewable sources of energy.

As a state member for an electorate on the ocean I know that my constituents are also very concerned. The Commonwealth government has identified several preferred sites for nuclear power stations, including my own electorate. History and science have revealed that there are a number of serious environmental consequences of establishing a nuclear power industry in Queensland. If we establish a nuclear power station along the north Queensland coastline, it will have serious implications for our unique environmental assets such as the Great Barrier Reef and, of course, it will impact the community and businesses which depend on them.

Queensland has an abundance of potential alternative energy sources such as wind, solar and geothermal, as well as well-established coal and gas industries. The state government embraces smart solutions to our energy challenges. We are investing heavily in research into clean coal technology and supporting a range of renewable energy technologies. Nuclear power is not the right energy choice for us.

A nuclear industry in Queensland could lead to serious social, economic and environmental consequences, particularly in regional Queensland. As nuclear power stations need large amounts of water and access to the power grid, they are likely to be sited on the coast. The health and safety of regional communities surrounding a nuclear facility could be significantly impacted by not only the station itself, but the need to transport nuclear fuel rods and high-level radioactive waste along roads, through ports and other community infrastructure. The day-to-day operation of a nuclear facility could severely impact upon our unique environmental values. For example, thermal pollution from cooling water discharges could affect Queensland's significant World Heritage sites, such as the Great Barrier Reef. Much of our economy, particularly tourism, depends on maintaining our unique natural assets.

In 2005, it was estimated that marine park tourism generated over \$5.1 billion and more than 54,000 jobs for Australians. There are many intractable problems surrounding nuclear power. For example, radioactive waste generated from nuclear related activities is one of the most intractable problems facing the nuclear power industry throughout the world. There is something very important that the federal government fails to mention: that nuclear energy will not solve climate change. Nuclear energy is not carbon neutral. Significant quantities of greenhouse gases are produced in constructing and decommissioning nuclear facilities and managing nuclear waste. A significant reduction in greenhouse gas emissions is needed by 2050 if Australia is to make its contribution to curb climate change. Recent estimates suggest that even aggressive use of nuclear power in Australia would only see a reduction of eight per cent to 18 per cent in national greenhouse gas emissions by 2050.

The Australian Business Roundtable on Climate Change, which includes the CEOs of six major Australian companies, showed that greenhouse gas emissions could be cut by 60 per cent from year 2000 emissions by 2050 while maintaining economic growth, without the use of nuclear power. The

Commonwealth government task force said that it would take at least 10 to 15 years to build just one nuclear power station in Australia. Of course, nuclear power needs huge amounts of water. Just one large nuclear power station would use more water than the total household demands of Queensland.

A study by the Australian Parliamentary Library gave a range of 100 million to 150 million litres per hour for a potential Australian nuclear power station. That is more water per hour than 400 average Queensland houses use in an entire year. With hot summer temperatures and limited freshwater resources, nuclear energy presents too great a pressure on the availability and quality of water.

Energy efficiency improvements deliver seven times more reduction in greenhouse gas emissions per average dollar spent than nuclear power. Reactors cost billions of dollars each to build. Investment in renewable energy programs, clean coal technologies and energy efficiency initiatives would meet our energy needs without producing radioactive waste. Nuclear energy is estimated to be 20 per cent to 50 per cent more expensive to produce than energy sourced from coal or gas under current conditions. The cost of decommissioning large reactors and storing high-level waste for up to 250,000 years has not yet been accurately calculated. Past experience, though, suggests that such projects nearly always cost more than was claimed. There are better alternatives.

Renewable energy including hydro, wind, solar and biofuels already supplies 19 per cent of the world's electricity compared with nuclear's 15 per cent. Renewables do not have the risks and expense of nuclear. Australian companies are leaders in the global renewable energy market and Australia has immense solar resources. The amount of solar energy hitting Australia in just one summer day is about half the total global energy use for an entire year. The Commonwealth government's Department of Resources and Energy estimated 15 years ago that a mix of renewables could provide 30 per cent of our electricity by 2020 at no more than 10 per cent extra cost. The Commonwealth government's Switkowski report warned that nuclear power could cost up to 50 per cent more.

Nuclear reactors have so far produced a global toxic pile of 250,000 tonnes of high-level radioactive waste with no long-term solution for its management. Queensland is free of this high-level radioactive waste and we would like to keep it that way. Radioactive wastes arise across the nuclear fuel cycle. High-level waste including spent nuclear fuel is by far the most hazardous. A typical power reactor produces 25 to 30 tonnes of spent fuel annually.

Despite 50 years of investment in the nuclear industry, no safe, long-term disposal method has been found. There is evidence that waste is contaminating groundwater and surface water. The high-level and long-lived waste will remain a problem for thousands of years after the reactors have been closed down. There are potential health and safety risks associated with the location and operation of nuclear facilities and the transport of nuclear material.

While risks to the health of the public and plant workers from normal operations of modern nuclear facilities might be low and safeguards can be put in place, exposure to nuclear contamination through accidents can result in significant health effects. The Chernobyl death toll is still rising. There have already been more than 50 deaths and several thousand cases of childhood thyroid cancer. In the longer term, several tens of thousands of people around Europe will probably die prematurely because of the fallout. Forty per cent of Europe was contaminated by the Chernobyl accident to varying degrees. The radioactive fallout continues to affect agriculture and food management in several countries. Overall, the Chernobyl-4 reactor generated power for just over two years, but human suffering, health problems and environmental pollution will go on for generations.

Nuclear power facilities have been identified by the International Atomic Energy Agency as a security risk and potential terrorism target. There are no such risks with wind turbines, solar panels or generators using clean coal technology. Establishing nuclear power plants in Queensland's regional centres would significantly impact on our communities, our business and our unique environment. As the minister responsible for protecting our environment, I strongly oppose the Commonwealth push for nuclear power in Queensland.