

# CHECK OUT

CCJP

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## *Sixth Myths about Nuclear Power*

### **Myth 1**

*Nuclear power can help resolve climate change*

#### **Reality**

Nuclear power is too slow, and too expensive, and emits too much greenhouse gas (see Myth 2) to be even a part of our response to climate change. Climate change is happening now, and we need to have responses in place in the very short term. In Australia for example, even if a decision were taken immediately for us to adopt nuclear power, it would take approximately a decade, and several billion dollars, to construct even one nuclear power station. The full economic costs of nuclear power, including attempting to clean up after accidents, decommissioning the plants after several decades, and dealing with the waste, are enormous even for relatively wealthy countries such as Australia, let alone poorer nations.

### **Myth 2**

*Nuclear power does not emit greenhouse gases*

#### **Reality**

Greenhouse gases are emitted at every stage of the nuclear fuel chain except during the operation of the reactor. Fossil fuel is used for the mining of the uranium, the milling of the ore, conversion to uranium hexafluoride, enrichment of the fuel, production of fuel elements, several phases of transport, decommissioning of the reactor after its useful life, and dealing with the waste. The Olympic Dam mine in SA is a major contributor to the state's greenhouse gas emissions.

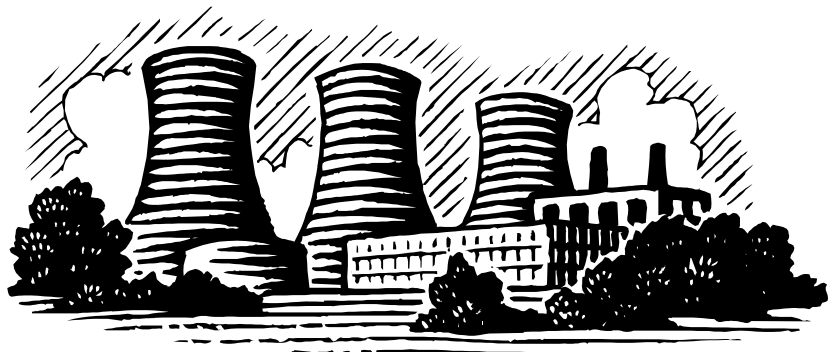
In addition, a particular problem for Australia is water usage. The Olympic Dam mine uses over 30 million litres of water each day from the Great Artesian Basin, and this will increase with the planned expansion of the mine.

### **Myth 3**

*Chernobyl has been the only serious nuclear accident*

#### **Reality**

There have been many serious nuclear accidents quite apart from Chernobyl. After the Three Mile Island disaster in the US in 1979, approximately 2,000 local residents brought a class action against the industry for alleged health effects. Radiation dose levels received by the public were never made public.



In Japan, serious concerns were expressed in 2002 about the failure of several power companies to report faults in their reactors. The earthquake in Kashiwakazi in July 2007 caused radiation leakage from a nuclear power plant. Also in July 2007 there was a fire at a nuclear power reactor near Hamburg in Germany that damaged the reactor. At Forsmark in Sweden in July 2006, there was an accident described by workers as a near melt-down. While human error remains, so will the risk of accidents.

#### **Myth 4**

*Nuclear power does not contribute to nuclear weapons programs*

#### **Reality**

Nuclear power and nuclear weapons cannot be separated. They use virtually the same technology, expertise and raw fuel. Former US Vice-President Al Gore has said, "In the eight years I served in the White House, every weapons proliferation issue we faced was linked with a civilian reactor program."

Safeguards cannot keep Australian uranium out of weapons. A nuclear weapon can be made with as little as 3-4 kgs of plutonium; safeguards could not even detect the diversion of such a small amount, let alone prevent it.

The possibility of terrorists gaining access to uranium or plutonium, and building a nuclear weapon, is very real. In addition, nuclear power plants are ideal targets for terrorist sabotage, as they house vast quantities of radioactivity.

#### **Myth 5**

*The problem of nuclear waste is solved*

#### **Reality**

No nation has in place a satisfactory permanent disposal means for nuclear waste. It must be kept inaccessible to terrorists (who could use it for a "dirty bomb") and isolated from the environment for tens of thousands of years. This is an intractable problem, which is currently accumulating for future generations to deal with, a morally unacceptable situation.

In Australia, federal government legislation to force a nuclear waste dump on the NT has caused the over-riding of native title rights and the 1999 Environment Protection and Biodiversity Conservation Act, and would allow the dumping of not only low level nuclear waste but also high level waste from other countries.

#### **Myth 6**

*Despite the problems of nuclear power, we have no choice if we are to address climate change.*



#### **Reality**

We do have choice. Both energy efficiencies and renewable energies have enormous untapped potential, especially in Australia. While nuclear power is projected to increase in China and India, in the Western world it is in decline. However wind and solar power are growing by 20-30% each year globally. Europe is planning to get 22% of its electricity from renewable sources by 2010, creating nearly a million new jobs.

A 2004 study, *A Clean Energy Future for Australia*, estimated that Australia could reduce carbon dioxide emissions from stationary use (all energy except transport) by 50% by the year 2040, using a mix of energy efficiencies, natural gas, bioelectricity (mostly from crop residues), wind power, coal, hydro and solar. What is lacking is not the technology but the political will.

MITRE, 2004, "Overview report", published by the European Commission, p. 31; cited in "Nuclear power: No solution to climate change", Friends of the Earth and others, Sept 2005, p. 8.  
[http://www.wwf.org.au/publications/clean\\_energy\\_future\\_report/](http://www.wwf.org.au/publications/clean_energy_future_report/)

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