

# AUSTRALIA

## 1. LOCATION AND CAPABILITY OF NUCLEAR FACILITIES

While Australia does not use uranium as an energy source, it does provide 28% of the world's uranium supply for nuclear energy. Fossil fuels are Australia's major energy sources: oil, black coal, natural gas and brown coal. Renewable sources currently supply 5%, which could grow significantly together with natural gas, wind and solar energy, with government support.

[http://www.dpmc.gov.au/publications/energy\\_future/chapter1/2\\_sector.htm](http://www.dpmc.gov.au/publications/energy_future/chapter1/2_sector.htm); <http://www.energybulletin.net/1964.html>

### Research Reactors

Operational: 1 (to be closed by 2006)

Shut down: 1

Decommissioned: 1

Under construction: 1 (to be opened in 2006)

<http://www.iaea.or.at/worldatom/rddb/>; [http://www.arpana.gov.au/is\\_waste.htm](http://www.arpana.gov.au/is_waste.htm); <http://www.uic.com.au/nip55.htm>

### Power Reactors- 0

### Uranium Mines

Mine	Location	Status
Beverley mines	South Australia	operating
Honeymoon	South Australia	license pending
Jabiluka	Northern Territories	halted
Mary Kathleen	Queensland	closed
Moline	Northern Territories	closed
Nabarlek	Queensland	closed
Olympic Dam	South Australia	operating
Radium Hill	South Australia	closed
Ranger mine	Northern Territories	operating
Rockhole	Northern Territories	closed
Rum Jungle	Northern Territories	closed

Uranium ores have been known in Australia since the 1890s; following requests from the British and US governments, systematic exploration for uranium began in 1944. During that time, uranium was sold primarily for weapons programs.

The development of civil nuclear power stimulated a second wave of exploration activity in the late 1960s, and most of Australia's major ore bodies were discovered as a result. This phase was marked by the involvement of major companies with large budgets and using advanced exploration techniques and equipment. <http://www.uic.com.au/explor.htm>

Australia's uranium is sold only for electrical power generation purposes. It exports uranium to 11 countries including the US, Japan, South Korea, and several European states.

Australia's uranium reserves are the world's largest, with 28% of the world's total. Production and exports have recently averaged 9500 tons of uranium oxide per year. With 19% of the world production, Australia is the second largest producer of uranium from mines though only three mines are currently operating. <http://www.world-nuclear.org/info/inf48.htm>; <http://www.uic.com.au/pmindex.htm>  
<http://www.uic.com.au/nip01.htm>

## 2. FISSILE MATERIAL HOLDINGS

### Radioactive waste disposal

Each state and territory is responsible for the management of radioactive waste generated by govern-

ment agencies, individuals and organizations within their jurisdiction. The government has made clear that they reject any proposal to import high-level radioactive waste from overseas for storage in Australia. The Woomera Prohibited Area in the north region of South Australia was selected as the preferred location for the low level waste repository, though it was rejected by the South Australian government in 2004.

[http://www.arpansa.gov.au/is\\_waste.htm](http://www.arpansa.gov.au/is_waste.htm); <http://www.world-nuclear.org/waste/report2002/chapter2.htm#lowwaste>

### 3. NUCLEAR ACTIVITIES

#### Research Centers

ANSTO - Australian Nuclear Science & Technology Organization

Australian Radiation Protection and Nuclear Safety Agency

Australian Synchrotron

CSIRO - Commonwealth Scientific & Industrial Research Organization.

<http://www.radwaste.org/research.htm>

#### Nuclear Cooperation

Australia has 18 bilateral safeguards Agreements covering 35 countries and exports uranium to the USA, Japan, South Korea, and the European Union (Spain, France, UK, Sweden, Germany, Belgium and Finland). [http://www.dfat.gov.au/security/nuclear\\_safeguards.html](http://www.dfat.gov.au/security/nuclear_safeguards.html)

*China:* Australia is a major arms supplier to China, and is negotiating to become a primary source of uranium for the growing Chinese network of nuclear power plants. The deal is expected to be signed before April 2006. <http://www.washtimes.com/world/20050401-112015-4196r.htm>

*IAEA:* ANSTO signed an agreement in May 2002 with the IAEA to accredit the Australian organization with IAEA's Network of Analytical Laboratories.

[http://www.foreignminister.gov.au/releases/2002/fa065j\\_02.html](http://www.foreignminister.gov.au/releases/2002/fa065j_02.html)

*Argentina:* A Nuclear Cooperation and Safeguards Agreement was signed in 2001 covering cooperation on research reactors, nuclear medicine, fuel and radioactive wastes, nuclear safety and regulation, and technology for safeguards and physical protection.

ANSTO and the Argentine company INVAP signed a contract in 2000 for the construction of a replacement research reactor at Lucas Heights in Sydney.

[http://www.dfat.gov.au/security/ncs\\_agreement\\_au\\_arg.html](http://www.dfat.gov.au/security/ncs_agreement_au_arg.html)

*Pacific:* Australia cooperates closely with the Pacific Nuclear Association, and will host the 15th Pacific Basin Nuclear Conference in Sydney 2006. <http://www.nuclearaustralia.org.au>

*US:* In January 2001, Australia signed a 10-year deal with the US to allow Australia to send spent nuclear fuel rods from Sydney's Lucas Heights reactor to the US to be stored by US authorities.

A private company, Silex Systems Ltd., is developing methods for enriching uranium using lasers. The project operates under an Australian / US bilateral agreement which facilitated technology and equipment transfers between the two countries. In February 2005 Silex Systems Ltd. stated that it plans to construct a laser enrichment pilot plant in the United States.

[http://www.greenpeace.org.au/frontpage/pdf/silex\\_report.pdf](http://www.greenpeace.org.au/frontpage/pdf/silex_report.pdf)

### 4. INTERNATIONAL NON-PROLIFERATION EFFORTS

Treaties Signed and Ratified, date of deposit

APM Convention, 14 January 1999

Biological Weapons Convention, 5 October 1977

Certain Conventional Weapons Convention, 29 September 1983  
Comprehensive Nuclear Test Ban Treaty, 9 July 1998  
Chemical Weapons Convention, 6 May 1994  
Nuclear Non-Proliferation Treaty, 23 January 1973  
Outer Space Treaty, 10 October 1967  
Sea Bed Treaty, 23 January 1973  
Treaty of Rarotonga, 11 December 1986

Australia ratified the IAEA Additional Protocol 12 December 1997.

### **Multilateral Groups**

Conference on Disarmament  
Hague Code of Conduct against Ballistic Missile Proliferation  
Missile Technology Control Regime  
Nuclear Suppliers Group  
Proliferation Security Initiative  
Wassenaar Arrangement  
Zangger Committee

## **5. POSITIONS TAKEN IN INTERNATIONAL FORA ON VARIOUS ISSUES OF NUCLEAR DISARMAMENT**

*Fissile Material Cut-Off Treaty*: "Australia's position is that to be credible and effective the FMCT should include appropriate verification arrangements. But as with any verification system it will be essential that the FMCT verification provides confidence that the Treaty commitments are being complied with... The form of FMCT verification would be among the matters to be negotiated but Australia has advanced the 'focused approach' for FMCT verification which we consider could be both effective and cost-efficient. Under the 'focused approach,' verification measures would apply to fissile material-i.e. highly enriched uranium and separated plutonium- produced after the Treaty's entry-into-force, and to the facilities that produce fissile material, i.e. enrichment and reprocessing plants." - **Statement by Ambassador Mr. Michael Smith to the Conference on Disarmament, 12 August 2004.**  
<http://www.reachingcriticalwill.org/political/cd/speeches04/12AugustAustralia.pdf>

*Additional Protocol*: "We are committed to working with others to address serious challenges faced by the Treaty. (Recent e)vents...have confirmed that existing NPT verification is insufficient to stop determined proliferators. There should be no doubt that the Additional Protocol together with a comprehensive safeguards agreement is the NPT safeguards verification standard required for NPT non-nuclear weapon states. NPT parties should at next year's Review Conference take a decision to this effect." - **Statement by Ambassador Mr. Michael Smith to the 59th session of the General Assembly First Committee on Disarmament and International Security, 18 October 2004.**  
<http://www.reachingcriticalwill.org/political/1com/1com04/thematic/Australia.PDF>

*Practical steps*: "...steady progress on nuclear disarmament is central to preserving the political strength and vitality of the Treaty, and remains a key Australian policy objective. While acknowledging the progress made on nuclear disarmament Australia renews its expectation on further nuclear disarmament steps by the nuclear weapon states. We remain firmly committed to practical progress on nuclear disarmament, this being the objective of the 13 disarmament steps from the 2000 Review Conference." - **Statement by Dr. Geoffrey Shawn to the Third Preparatory Committee of the 2005 Review Conference, 29 April 2004.** <http://www.reachingcriticalwill.org/legal/npt/prepcom04/australiaCL1.pdf>