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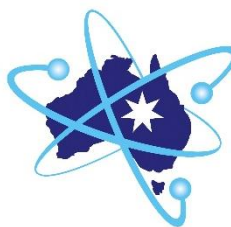
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ANA2026 Conference

The 18th Australian Nuclear Association ANA2026 Conference on Nuclear Science, Technology and Engineering in Australia will be held at the UTS Aerial Function Centre, Level 7, UTS Building 10, 235 Jones Street, Ultimo, NSW 2007 from 9 am to 5 pm AEDT on Friday 9th October 2026.

The ANA2026 Conference will highlight the achievements and future uses of nuclear science, technology and engineering. Presentations will give timely information on



**ANA2026
Conference**

important aspects of the uses of nuclear science, engineering and technology in Australia and overseas. This is a great opportunity to hear from experts and discuss developments on a wide range of nuclear applications and technologies including nuclear facilities in Australia, nuclear energy developments, nuclear powered submarines, new build reactors and applications of nuclear techniques.

Theme: *Nuclear for energy security in an uncertain world.*

Presentations will cover nuclear facilities in Australia, international developments (with speakers from Singapore, Malaysia and India confirmed), AUKUS facilities, developing the nuclear workforce, role of nuclear energy in energy security and the security of nuclear facilities.

Registration is \$300 including morning tea, lunch, afternoon tea and the post conference reception (\$270 before 18 September 2026), with concessions of \$150 for retired ANA members and \$100 for students. There is a discount of 10% when 10 or more registrations are received at one time from one organisation.

To register: <https://www.nuclearaustralia.org.au/ana2026-conference/>.

Sponsoring the ANA2026 Conference provides an opportunity to improve visibility and enhance reputation as well as contribute to the success of the Conference. Visit the ANA website for a list of sponsorship opportunities

Recent Nuclear Energy Developments around the World: April to June 2026

Information sourced from World Nuclear News
<https://www.world-nuclear-news.org/>.

New Builds and Life Extensions

India: First criticality has been achieved at the 500 MWe Prototype Fast Breeder Reactor (PFBR) in India. This is the start of the second stage of India's three stage program that is aimed at India utilising its Thorium reserves. PFBR uses uranium-plutonium mixed oxide fuel that is surrounded by a blanket of U-238. The U-238 is converted to Pu-239, which is fissile. Overall, the reaction generates more fuel than it consumes. The PFBR can also use thorium-232 in the blanket, generating fissile U-233. Stage 3 of the program involves the burning of thorium-plutonium fuels and the breeding of fissile uranium-233, resulting in a thorium-based closed nuclear fuel cycle.

India: Units 1 and 2 at Tarapur power station have completed refurbishment and are now back online. Both units are 160 MWe boiling water reactors. They are the oldest nuclear power reactors in India and commenced operations in 1969.

South Korea: Unit 3 at Saeul has achieved first criticality. Unit 3 is the third of four APR-1400 reactors planned for the site.



Saeul units 3 (right) and 4 (left) in South Korea

South Korea: Unit 2 at Kori, a 685 MWe PWR, has been restarted after a 3-year outage due to its operating permit expiring. It now has a permit to operate until 2033.

South Korea: First concrete has been poured at Unit 4 of Shin Hanul. Unit 4 is an APR-1400 reactor. Shin Hanul has two operational APR-1400, with two now also under construction.

China: First concrete has been poured for Unit 2 at Jingimen nuclear power plant. Unit 2 is the second of six HPR1000 (Hualong One) units planned for the site.

China: First concrete has been poured at Unit 4 of the Taipingling nuclear power plant. Unit 4 is the fourth of six HPR1000 (Hualong One) units planned for the site.

China: Unit 1 at Taipingling has entered commercial operation. Unit 1 is the first of six HPR1000 (Hualong One) reactors planned for the site.

China: Unit 1 at San'ao NPP has entered commercial operation. Unit 1 is the first of six HPR1000 (Hualong One) reactors planned for the site.

US: The two reactors at Diablo Canyon in California have been granted 20 years life extensions to 60 years. These reactors were the 99th and 100th reactors to receive 20-year licence renewals in the US.

US: Five more reactors have had their lives extended to 80 years:

- Robinson nuclear power plant, a PWR
- St Lucie Units 1 and 2, two PWRs
- Hatch Units 1 and 2, two BWRs

US: Construction has commenced at the Natrium plant, Kemmerer Unit 1 in Wyoming. Natrium is a 345 MWe sodium-cooled fast reactor with a molten-salt-based energy storage system.

Japan: Unit 6 of the Kashiwazaki-Kariwa nuclear power plant has resumed commercial operations. Unit 6 had been offline since March 2012. It is the 14th reactor to resume operations since the Fukushima Daiichi accident and the first owned by Tokyo Electric Power.

Bangladesh: An operating licence has been granted for Bangladesh's first nuclear power unit, Rooppur Unit 1. Unit 1 is a 1200 MW VVER-1200 reactor.

Argentina: Atucha II Nuclear Power Plant has been granted a 10-year licence extension to May 2036. Atucha II is a 693 MWe pressurised heavy water reactor.

Russia: The first VVER-TOI unit at the Kursk II nuclear power plant has entered commercial operation. Four VVER-TOI reactors are planned for the site with Units 2 & 3 under construction. VVER-TOI is Russia's most powerful nuclear power unit at 1250 MWe.

Continued Page 3

Recent Nuclear Energy Developments – Continued from Page 2

Uzbekistan: First concrete has been poured for the first SMR in Uzbekistan, a Russian-made 55 MWe RITM-200N.

Canada: Bruce 3 has been reconnected to the grid following refurbishment. Refurbishment has extended the life of the Candu reactor by 30-35 years.

Policy

Estonia: A new nuclear energy law has passed parliament. The new Act includes rules for selecting a site, construction, testing, operation, decommissioning, and final disposal of nuclear waste. BWRX-300 is the

likely technology contender, with a construction application proposed for 2029, and construction targeted for 2031.

Canada: Ontario Power Generation has submitted an operating licence application for the first BWRX-300 reactor at Darlington. It is likely this reactor will be the first SMR in a G7 country.

Canada: The Canadian Government has released a Nuclear Energy Strategy. Key objectives include a modernised CANDU design by 2030 and up to 10 new large scale CANDU within Canada.

Jo Lackenby ANA

Notice of ANA AGM and Call for Nominations

The Annual General Meeting of the Australian Nuclear Association Inc. will be held at 12 pm on Wednesday 12 August 2026. It will be an online Zoom webinar, and a link will be provided to all ANA members closer to the date.

Nominations are called for all Committee positions: President, Vice-President, Secretary, Treasurer and Committee members. Nominations close for all positions on 15 July 2026.

Please contact John Harries (ANA Secretary) by email ANA@nuclearaustralia.org.au or phone 0427 952 075 if you wish to nominate or have any questions.

The ANA Financial Report for 2025-26 will be presented at the AGM and the office bearers and Committee for 2026-27 will be elected or approved. All ANA members are strongly encouraged to participate in the AGM. It is an opportunity to hear the achievements of the past year and to give input to the program for next year.

MOU between ANA and the UK Nuclear Institute

The ANA has signed a Memorandum of Understanding (MOU) with the Nuclear Institute (NI) of the UK to establish a framework for cooperation.

The ANA and NI agreed to provide reciprocal membership and associated benefits, whereby members in good standing of ANA and NI shall be eligible to register for each other's conferences and events at discounted member rates and have access to other member benefits.

Free reciprocal membership is based on a person's primary place of residence.

- Members in good standing of ANA who are ordinarily resident in Australia may join NI as reciprocal members at no cost.
- Members in good standing of NI who are ordinarily resident in the United Kingdom may join ANA as reciprocal members at no cost.

Please contact the ANA Secretary if you as an ANA Member ordinarily resident in Australia wish to take advantage of free reciprocal membership of the Nuclear Institute.

MOU between ANA and the Indian Nuclear Society

The ANA has signed a Memorandum of Cooperation with the Indian Nuclear Society (INS) to strengthen friendly exchanges and advance cooperation between the Parties, contributing to the development of nuclear science and technology for peaceful purposes.

Under the MOU, the ANA and the INS will inform each other of conferences, provide some free registrations to conferences and seek opportunities to cooperate.

Dr Vijay Manchanda, INS President, will be speaking at the ANA2026 Conference on 9 October 2026

ANSTO's OPAL Reactor celebrates 20 years of operation

ANSTO's Open Pool Lightwater Reactor (OPAL) first reached criticality on 12 August 2006 and is celebrating 20 years of operation.

OPAL is a multipurpose reactor producing radioisotopes for nuclear medicine, irradiating silicon, producing neutrons for scientific and industrial research and operating with low enriched uranium as fuel.

The Argentine company INVAP developed an original design for OPAL based on the 22MW ETRR-2 reactor in Egypt. Both designs included a reactor and service pool, same size control rods but ETRR-2 did not have a heavy water reflector, nor did it have neutron sources.

The heavy water reflector in OPAL increases the neutron flux and thermal and cold neutron sources provide neutrons to a suite of scientific instruments.

In the early stages, there was extensive contact between INVAP, ANSTO and ARPANSA and a close review of the global standards.

The reactor core consists of 16 low-enriched plate-type fuel assemblies located under 13 metres of purified water in the open reactor pool.

ARPANSA issued a construction licence for OPAL in April 2002.

“It was a remarkable achievement. The contract for construction signed in 2000; commissioning completed in 2006. In total just 6 years to design, construct, undertake an independent regulatory assessment, and commission the reactor,” said David Vittorio, OPAL Reactor Manager.

OPAL was opened on 20 April 2007 by then Prime Minister John Howard



Installation of the OPAL Reactor Pool in 2004

ANSTO 20 March 2026

Australian Submarine Agency marks 3 years of operation

The Australian Submarine Agency (ASA) was established on 1 July 2023 to deliver Australia's nuclear-powered submarine capability under the AUKUS partnership.

ASA is preparing for the first major phase of AUKUS Pillar 1 in 2027: the commencement of Submarine Rotational Force – West (SRF-West).

In preparation for SRF-West, 2025-26 saw two Submarine Maintenance Periods (SMPs) at HMAS *Stirling* in Western Australia. Both SMPs were historic in their own right, marking the first time a US nuclear-powered submarine has undergone a maintenance period in Australia

without a US support ship, and the first-ever maintenance activity on a United Kingdom nuclear-powered submarine in Australia.

Director-General of the Australian Submarine Agency, Vice Admiral Jonathan Mead, said momentum is accelerating across operations, industry and international partnerships.

‘The ASA's third year of operations has reflected a clear shift from establishing the foundations to delivering capability at scale across one of the most complex national endeavours Australia has ever undertaken,’ said Vice Admiral Mead.

ASA 1 July 2026