

Peaceful use of uranium and global safeguards



Who is Cauldron Energy?

Cauldron Energy Ltd (Cauldron) is an Australian mineral exploration and resource development company listed on the Australian Securities Exchange (ASX:CXU). The company focuses on exploring uranium, a resource that is critical to the nuclear power renaissance occurring globally.

Cauldron's flagship project is the world-class Yanrey Uranium Project located in northern Western Australia (WA), which encompasses three separate uranium deposits – Bennet Well, Manyingee South and Manyingee North. In addition, Cauldron holds several sand tenements in the Onslow region of WA.

Subject to policy change in WA, Cauldron proposes to mine uranium via the in-situ recovery (ISR) mining method at Yanrey.

For further information, see our factsheet: 'In-situ recovery mining of uranium'.

The Nuclear Non-Proliferation Treaty (NPT)

Uranium is traded internationally under one of the world's strongest security and verification systems. The Nuclear Non-Proliferation Treaty (NPT), adopted by 191 countries, is the foundation of this system. It commits nations to three principles:

- ✓ Non-proliferation
- ✓ Peaceful use
- ✓ Disarmament

Under the NPT, all non-nuclear-weapon states must place their nuclear materials under International Atomic Energy Agency (IAEA) safeguards. This ensures that uranium is used only for peaceful purposes and is accounted for at every stage of its lifecycle.^{1, 2}

NPT

Nuclear Non-Proliferation Treaty

A global agreement with three fundamental principles for a safer and more secure world.



1 NON-PROLIFERATION

Preventing the spread of nuclear weapons.



2 PEACEFUL USE

Allowing nuclear technology only for civilian purposes such as electricity generation and medical isotopes.



3 DISARMAMENT

Working towards reducing nuclear arsenals globally.



The NPT promotes peace, security and cooperation for present and future generations.

Key terms

NPT	Nuclear Non-Proliferation Treaty – a global treaty to stop the spread of nuclear weapons
IAEA	International Atomic Energy Agency – independently verifies that nuclear material stays peaceful
NCA	Nuclear Cooperation Agreement – a bilateral agreement limiting Australian uranium to peaceful use
ASNO	Australian Safeguards and Non-Proliferation Office – oversees Australia's uranium safeguards
AONM	Australian-Obligated Nuclear Material – Australian uranium, tracked through its whole lifecycle

¹. Australian Government Department of Foreign Affairs and Trade, 2026. [Australia's Uranium Export Policy](#). Accessed September 2026. ². International Atomic Energy Agency (IAEA), 2026. [The IAEA and the Non-Proliferation Treaty](#). Accessed September 2026.

International Atomic Energy Agency (IAEA) safeguards system

International Atomic Energy Agency safeguards provide independent verification that nuclear material is not diverted to weapons. The system includes:

- ✓ Comprehensive Safeguards Agreements: requiring states to declare nuclear material and facilities
- ✓ Additional Protocol: granting the IAEA expanded access and information to detect undeclared activities
- ✓ Inspections and surveillance: physical inspections, seals, cameras, audits and sampling
- ✓ Material accountancy: detailed reporting of quantities, movements and use of nuclear material.

These mechanisms create one of the world's most robust verification systems.³



IAEA inspectors (Source: Commonwealth Scientific and Industrial Research Organisation (CSIRO))

Export of uranium from Australia

Australia is recognised internationally as having the strictest uranium export controls of any supplier nation. Australia will only export uranium to countries that:

- ✓ Are signatories to the NPT or are subject to stringent international safeguards and non-proliferation commitments accepted by Australia
- ✓ Have a Comprehensive Safeguards Agreement and Additional Protocol in force with the IAEA
- ✓ Accept IAEA inspections and reporting obligations
- ✓ Have a bilateral Nuclear Cooperation Agreement (NCA) with Australia
- ✓ Commit that Australian uranium cannot be used for weapons or military programs.^{4, 5, 6}

Oversight is provided by the Australian Safeguards and Non-Proliferation Office (ASNO) under the Commonwealth *Nuclear Non-Proliferation (Safeguards) Act 1987*.

Layers of safeguards

- 1 Non-Proliferation Treaty**
Adopted by 191 countries
- 2 IAEA safeguards**
Independent verification that nuclear material is not diverted to weapons
- 3 Australian export conditions**
NPT or stringent safeguards, IAEA agreements, a bilateral NCA and ASNO oversight
- 4 AONM tracking**
Australian uranium is 'flagged' and traceable throughout its entire lifecycle

Australian uranium can only be used for peaceful civilian purposes.

³ International Atomic Energy Agency (IAEA), 2026. [More on safeguards agreements](#). Accessed September 2026. ⁴ International Atomic Energy Agency (IAEA), 2026. [Safeguards legal framework](#). Accessed September 2026. ⁵ Australian Government Department of Foreign Affairs and Trade, 2026. [Australia's Uranium Export Policy](#). Accessed September 2026. ⁶ Australian Government Department of Foreign Affairs and Trade, 2026. [Australia's network of nuclear cooperation agreements](#). Accessed September 2026.

Australian-Obligated Nuclear Material (AONM)

Australia applies safeguards additional to global IAEA requirements through the Australian-Obligated Nuclear Material (AONM) system. Once exported, Australian uranium is 'flagged' and remains traceable throughout its entire lifecycle, even when blended with uranium from other suppliers.^{7, 8}

This system ensures Australian uranium contributes only to peaceful applications such as electricity generation, medical isotopes and research.^{9, 10}

Australia's combination of NPT obligations, IAEA safeguards and AONM controls make it one of the world's most trusted and responsible uranium suppliers.

Once exported, Australian uranium is 'flagged' and remains traceable throughout its entire lifecycle.

Every shipment of Australian uranium is tracked from mine site to reactor through:



Material accounting: detailed records of quantity, grade and destination



Facility-level reporting: nuclear facilities must report how much uranium they receive, store and use



IAEA inspections: verification through audits, seals, camera and physical checks



Bilateral reporting: importing countries must regularly confirm how Australian uranium is used



End use restrictions: AONM cannot be used for weapons, enrichment beyond civilian levels, military programs or unsafeguarded facilities

Can Australian uranium be used for nuclear weapons?

No. Australia only exports uranium to countries that meet strict international non-proliferation requirements. These include membership of the NPT or stringent international safeguards and non-proliferation commitments accepted by Australia, the application of IAEA safeguards, an Additional Protocol with the IAEA, a bilateral NCA with Australia, and ongoing oversight by the ASNO.

Australian-Obligated Nuclear Material (AONM) is tracked and accounted for throughout the nuclear fuel cycle. Australian uranium can only be used for peaceful civilian purposes and is subject to strict international safeguards, verification measures, and export controls. These arrangements prevent its use in the development or production of nuclear weapons.

Contact us

Cauldron Energy Ltd (Cauldron) is an Australian mineral exploration and resource development company listed on the Australian Securities Exchange (ASX:CXU).

Email: jonathan.fisher@cauldronenergy.com.au

Phone: +61 407 981 867

Website: <https://www.cauldronenergy.com.au/>

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⁷. Australian Government Department of Foreign Affairs and Trade, 2026. [Australia's Uranium Export Policy](#). Accessed September 2026. ⁸. Australian Government Department of Foreign Affairs and Trade, 2026. [Australia's network of nuclear cooperation agreements](#). Accessed September 2026. ⁹. Australian Government Department of Foreign Affairs and Trade, 2026. [Australia's Uranium Export Policy](#). Accessed September 2026. ¹⁰. Australian Government Department of Foreign Affairs and Trade, 2026. [Australia's network of nuclear cooperation agreements](#). Accessed September 2026.