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Submission to

Senate Foreign Affairs, Defence and Trade Legislation Committee

**Inquiry into Defence Legislation Amendment (Naval Nuclear Propulsion)
Bill 2023 [Provisions]**

The ANA supports the use of nuclear energy for submarine propulsion.

However, the Explorative Memorandum incorrectly argues that nuclear reactors used in submarines are somehow safer than reactors used on land for energy generation.

The ANA supports the removal of the legislative bans on nuclear energy for civilian and naval propulsion purposes from both Acts.

The Defence Legislation Amendment (Naval Nuclear Propulsion) Bill 2023 [Provisions] exempts the acquisition and use of small modular nuclear reactors used for conventionally-armed, nuclear-powered submarine propulsion from the existing federal legislative prohibitions against nuclear power reactors.

The Australian Nuclear Association Inc (ANA) supports legislation to allow the acquisition and use of nuclear power for the Australia's submarine fleet. The use of nuclear propulsion for submarines is based on the merits of nuclear power for submarine propulsion.

The AUKUS submarines will be powered by pressurised water reactors (PWRs). It is clearly illogical to claim in the Explorative Memorandum "The Bill does not change the existing protections regarding the health and safety of people and the environment that are currently contained in the ARPANS Act and the EPBC Act" by allowing PWRs in submarines but somehow considering PWRs in engineered facilities on land more of a risk to the health and safety of people and the environment.

The risk to health, safety and environment of a nuclear power reactor is clearly similar whether the reactor is in a submarine on the high seas or in port, or a nuclear power plant in a purpose-built facility on land.

The issues of siting, cost and waste are very similar for nuclear reactors used for propulsion in submarines and for nuclear reactors used for electricity and heat on land. It is disingenuous for the Government in the Memorandum to claim that nuclear power plants are safe in submarines but not on land.

Nuclear power reactors are widely used in many countries, where nuclear energy provides large-scale economically competitive electricity and heat and security of supply with very low carbon emissions and other air pollution. The US and UK, the other AUKUS partners, use nuclear energy for both propulsion in submarines and for generating electricity.

The Australian Nuclear Association strongly recommends that the clauses in the *Australian Radiation Protection and Nuclear Safety Act 1998* and *Environment Protection and Biodiversity Conservation Act 1999* which prohibit the use of nuclear power reactors in Australia be deleted.

24 May 2023