



Australian Government
Australian Submarine Agency

Australian Submarine Agency Supplementary Budget Estimates Nov 2024

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Capability - Overview

Official Leading: Director-General, Vice Admiral Jonathan Mead.

Official/s Supporting: Head Nuclear-Powered Submarines, Rear Admiral Matthew Buckley.

Context

The acquisition of conventionally-armed, nuclear-powered submarines is the single biggest leap in our military capability since the Second World War, the largest new program in Defence, and work to acquire this capability is continuing at pace.

Key Messages

- Acquisition of conventionally-armed, nuclear-powered submarines through AUKUS will contribute to Australia’s strategy of denial, and is one of six immediate priorities advanced through Defence’s rebuilt Integrated Investment Program.
- Nuclear-powered submarines will provide an additional tool for government to deter any conflict before it begins, prevent any potential adversary from succeeding in coercing Australia through force, support regional security and prosperity, and uphold a favourable regional strategic balance.
- In the three years since the National leaders announce AUKUS on 16 September 2021, we have:
 - Completed an 18-month period of consultation.
 - Announced a comprehensive pathway to deliver conventionally-armed, nuclear-powered submarines for Australia.
 - Established the Australian Submarine Agency on 1 July 2023 to deliver that capability.
 - Are working at pace to deliver the Optimal Pathway and have achieved a number of key milestones including Submarine Tendered Maintenance Period.
- The trilateral governance framework and engagement includes forums that support Program delivery at different levels, allowing the ASA to work with our United States (US) and United Kingdom (UK) partners on both strategic capability delivery issues as well as manage practical delivery concerns.

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Talking Points

- Australia faces its most challenging environment since the Second World War, our security environment has continued to deteriorate, and we no longer have the benefit of a ten-year warning time for conflict. Consequently, the ability of diesel-powered submarines to meet Australia's capability needs will diminish and underscores the urgency of delivering a conventionally-armed, nuclear-powered submarine capability.
- Given the contemporary assessment of our threat environment, only conventionally-armed, nuclear-powered submarines will meet this aspect of Australia's Defence requirements in the decades ahead.
- No other platform matches the stealth, endurance, mobility and mix of capabilities which a nuclear-powered submarine provides.
- The effects that can be delivered through a conventionally-armed, nuclear-powered submarine capability are a key component of Australia's strategy of denial, as articulated in the National Defence Strategy.
- Further, the investment of \$53-63 billion in conventionally-armed, nuclear-powered submarines over the decade from 2024-25 to 2033-34 adds substance to the government's commitment to this strategy.
- A 17 September 2024 Joint Leaders statement was released to mark the third anniversary of AUKUS, which was announced 16 September 2021. The announcement in 2021 was followed by an 18-month period of consultation between the three nations on the best path forward for delivering nuclear-powered submarines for Australia.
- That period of consultation finished in March 2023 with the announcement of the Optimal Pathway, and the focus shifted to the delivery of nuclear-powered submarines in collaboration with our AUKUS partners.
- Since that time we have achieved the following:
 - Australian Submarine Agency established 1 July 2023. The inaugural ASA Annual Report will be delivered to the tabling office on 18 October 2024.
 - Steady growth of capacity to steward and operate our own fleet of conventionally-armed, nuclear-powered submarines through embedding Australian sustainment personnel in UK Ministry of Defence and US naval shipyards, and Royal Navy and US Navy nuclear power training programs.
 - Training Navy personnel in UK and US. Three Royal Australian Navy officers have become the first RAN officers to graduate from the Royal Navy's Nuclear Reactor Course, following their completion of Officers Nuclear Operators Course and Engineering Administration Course in the UK. As at 04 October 2024, we have 65 Royal Australian Navy personnel in training in the US System. Officers have graduated from the US Nuclear Powered School with five at sea in US nuclear-

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- powered submarines and three in Royal Navy SSNs. This marks a significant milestone from AUKUS and the development of the Australian capability toward nuclear-powered submarines.
- In August-September 2024 Virginia-class submarine USS *Hawaii* conducted a maintenance period at HMAS *Stirling*, supported by the US Navy's submarine tender USS *Emory S. Land*. This marked the first occasion non-US citizens - in the form of Australian Navy personnel specially trained in Guam – had performed maintenance in a US nuclear submarine outside a US port (*refer to SRF-West brief SB24-000867 for more detail*) – a milestone on the path to being ready for SRF-West in 2027.
 - Skilled submarine workers from ASC deployed to Pearl Harbour Naval Shipyard for training alongside US counterparts in June 2024. In total, more than 100 Australian Shipyard Workers from ASC are expected to conduct similar training by Jan 2025.
 - Supported two visits by US nuclear-powered submarines:
 - : Los Angeles Class Submarine USS Annapolis (SSN 760) conducted a scheduled port visit to HMAS *Stirling* in March 2024; and
 - : Virginia Class Submarine USS *Hawaii* (SSN 776) conducted a scheduled port visit and Submarine Tendered Maintenance Period at HMAS *Stirling* in August 2024.
 - HMAS *Stirling* priority works. The \$1.774 billion investment to upgrade HMAS *Stirling* to support the SRF-West initial operating support from 2027 has received all necessary approvals under the *Public Works Committee (PWC) Act 1969*.
 - The PWC completed its public inquiry into the last of these priority works, for significant upgrades to the submarine berths and facilities supporting the radiologically-controlled activities, which Parliament approved on 22 August 2024.
 - AUKUS submarine industrial bases. The UK has made an initial allocation of nearly £4 billion to continue work on SSN-AUKUS, and £3 billion to expand production capabilities across its Defence Nuclear Enterprise. The US announced its investment of USD \$17.5 billion into its submarine industrial base.
 - Australia has committed to invest over AUD \$30 billion in the Australian defence industrial base and make proportionate contributions to the UK and the US to support the production of SSN-AUKUS and to accelerate the delivery of Virginia class submarines respectively.
 - In March 2024, Australia announced the selection of ASC Pty Ltd and BAE Systems to build SSN-AUKUS and ASC Pty Ltd to sustain Australia's SSNs. These respective investments and decisions will deliver thousands of highly skilled jobs across our three nations.

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- In August this year, the AUKUS partners signed a historic international agreement for cooperation relating to naval nuclear propulsion. Once it enters into force, this agreement will enable AUKUS partners to go beyond sharing naval nuclear propulsion information to include allowing the US and the UK to transfer the material and equipment required for the safe and secure construction, operation, and sustainment of Australia's conventionally-armed, nuclear-powered submarines.
- The agreement reaffirms AUKUS partners' existing non-proliferation obligations and Australia's safeguards agreements with the International Atomic Energy Agency (IAEA). The agreement will make our non-proliferation commitments under AUKUS legally-binding between the partners. The AUKUS nations continue to consult with the IAEA to develop a non-proliferation and safeguards approach that sets the highest non-proliferation standard.

Capability Program Governance

- The ASA has a robust capability governance framework that aligns the Optimal Pathway to the National Defence Strategy and the ASA with our trilateral partners, Defence, other Commonwealth agencies, industry and all tiers of government involved in the delivery of the Nuclear-powered Submarine (NPS) Program.
- The ASA governance and assurance mechanisms have been enhanced, and the trilateral governance mechanisms continue to enable the ASA to engage effectively with our trilateral partners on matters of Program delivery and strategy. The ASA operates in the One Defence Capability System to ensure the Optimal Pathway is delivered in the context of the Defence Strategic Review and the National Defence Strategy.

Trilateral Governance

- The trilateral governance framework includes forums that support Program delivery at different levels, allowing the ASA to work with our US and UK partners on both strategic capability delivery issues as well as manage practical delivery concerns.
- At the Program delivery level the ASA collaborates with trilateral counterparts across the broad spectrum of delivery activities, monitoring progress, assessing risks and agreeing steps forward to keep delivery on track.
- Matters of strategy and policy also have a dedicated focus within the framework, allowing the partnership to represent national equities to resolve policy issues between our three nations.

Program Review Board

- The NPS Program Review Board is an important assurance mechanism to optimise the delivery of NPS capabilities and ensure close-alignment with Naval Shipbuilding and Sustainment Group and the Collins Class Submarine Enterprise.

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Supplementary Estimates November 2024

PDR No: SB24-000862

Last updated: 08 October 2024

Capability - Overview

Key witnesses: Director-General, Vice Admiral Jonathan Mead, Head Nuclear-Powered Submarines, Rear Admiral Matthew Buckley

- The NPS Program Review Board is held quarterly.
 - The first meeting was held on 19 August 2024 and the next meeting is scheduled to occur in November 2024.

Timeline of Major Events and Ministerial Announcements

Date	Event
17 September 2024	Joint Leaders Statement to mark the Third Anniversary of AUKUS Joint Leaders Statement to Mark the Third Anniversary of AUKUS Prime Minister of Australia (pm.gov.au)

Key Information Requests

Date	Type	Title	Released
13 June 2024	FOI	An individual sought request to the ASA’s June Budget Estimates briefing pack.	29 July 2024

Division:	Capability
PDR No:	SB24-000862
Prepared by: CDRE Stephen Dalton ASST DG Nuclear Submarine Capability Mob: s47E(c) [redacted] Ph: s47E(c) [redacted] Date: 18 September 2024	Cleared by Division Head: RADM Matthew Buckley Head Nuclear Submarine Capability Mob: s47E(c) [redacted] Ph: s47E(c) [redacted] Date: 25 September 2024
Cleared by Director-General VADM Jonathan Mead Director-General Australian Submarine Agency Date: 14 October 2024	

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Western Australia

Official Leading: Head Nuclear Submarine Capability, Rear Admiral Matthew Buckley.

Key Messages

- The Western Australia Nuclear-Powered Submarine Program Steering Group continues to provide a forum for harmonising the delivery of the optimal pathway, with focus on infrastructure, workforce, safety and security, social licence and housing for Submarine Rotational Force-West (SRF-West) personnel.
- Apart from the engagement with state government via the Steering Group and associated sub-working groups, ASA provided detailed briefings on progress with Phase 1 and likely demands on state resources across education, housing and family support services. ASA will continue to provide updates to and engagement with the state government as work in these areas matures.
- The ASA and Defence recently supported a meeting lead by the Minister for Defence Personnel and the Minister for Resources in Rockingham across the three levels of government, providing an update on SRF-West, summary of senior visits from the United Kingdom (UK) and United States (US) to the region, infrastructure and environmental approvals work, housing and local workforce/supply chain strategies.
- The ASA supported a recent visit by the Perth South West Metropolitan Alliance Local Mayors to the US, via arranging briefs with US Navy personnel at San Diego, California and Norfolk/Newsport News, Virginia with ASA officials in attendance focusing on the San Diego and Norfolk/Newport News areas that host significant US Nuclear-Powered Warship support facilities and related shipbuilding and sustainment activity. The visit was designed to enhance local government leadership understanding of the relationships between the US Navy and the Defence Industry with local authorities and the localised socio-economic impact of large-scale Defence investment.
- 2024 has seen a significant number of high ranking US and UK visits to Western Australia, including the chiefs of the US Navy and Royal Navy, Commander US Pacific Fleet, and the Director Naval Nuclear Propulsion Program in conjunction with the UK's Chief of Defence Nuclear. In addition, the ASA supported the visit of Commander Naval Submarine Forces in September 2024.
- Following the announcement by Government and intent for contingency dock and D-level maintenance, ASA continues to provide support and advice to Defence with ongoing work examining the detailed work required to realise the Henderson Defence Precinct.

Talking Points

Western Australian (WA) Nuclear-Powered Submarine Program Steering Group

- Established August 2023 by the Federal and Western Australian governments and is co-chaired by the Western Australian Government and ASA.

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Supplementary Estimates November 2024

Last updated: 04 November 2024

Key witnesses: Head Nuclear Submarine Capability, Rear Admiral Matthew Buckley

- The Group last met on 23 October 2024 and will meet again early in 2025.
- The Steering Group is focused on infrastructure, local workforce, safety, security, social licence and housing.
- ASA continues to work closely with US and UK authorities to refine the demand signals for housing, local family support and education and provide information to the State Government through the Steering Group and its subordinate working groups.

Other local and state government engagement and consultations/ongoing commitment to engagement

- Since early June 2024, local government authorities in the South West Perth Metropolitan corridor impacted by AUKUS Pillar 1 have been briefed on several occasions by ASA officials, supported on occasion by Senior US Navy personnel on progress against Pillar 1 and provided with opportunities for local government to raise queries and issues of concern with ASA.
- In addition, ASA provided a detailed briefing to WA Government departments, in conjunction with Security & Estate Group on likely US personnel numbers and associated housing demand, Submarine Tendered Maintenance Period planning and an update on Phase 1 Optimal Pathway progress. The Steering Group and associated sub-working groups continue to serve as the main engagement fora.
- Senior WA Government personnel from Defence West, Development WA, Westport and the Department of Premier & Cabinet were engaged by ASA Deputy Director General Program & Policy, in conjunction with Security & Estate Group and Naval Shipbuilding & Sustainment Group (Henderson Consolidation). This level of engagement will be ongoing.

Three tiers of government

- On 30 August 24 the first ‘three tiers of government’ briefing was held in Rockingham, hosted by Minister for Defence Personnel, the Hon Matt Keogh, and the Minister for Resources, the Hon Madeline King, and attended by Federal Cabinet and Members of Federal Parliament, state and local government elected members and officials.
 - The briefing included an update on SRF-West preparations, infrastructure upgrades at HMAS *Stirling* and associated environmental approvals, the housing strategy, workforce development and supply chain entry mechanisms for local industry.
- State and local government representatives were able to ask questions relating to radiological waste handling and storage, transport and housing pressure and potential impact on the Australian Marine Complex at Henderson.
- Further opportunities to engage at this level are under consideration, but it is recognised that more frequent updates, particularly at local government level are required. The ASA and Defence are working with WA Government officials to determine the best approach to ongoing engagement.

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Supplementary Estimates November 2024

Last updated: 04 November 2024

Key witnesses: Head Nuclear Submarine Capability, Rear Admiral Matthew Buckley

Mayors visit to US

- ASA supported the visit by Perth South West Metropolitan Alliance (Rockingham, Cockburn, Kwinana, Fremantle, East Fremantle & Melville) Mayors and CEOs to San Diego and Newport News/Norfolk in early September 2024.
- The Alliance was able to engage with its local government counterparts in both locales to gain an understanding of the socio-economic impact of nuclear powered warship bases and the activities associated with their build and sustainment. Social licence in support of these activities were at the forefront of these discussions.

US and UK visits to date and future proposed

- To date, a significant number of high ranking US and UK visits to Western Australia, including the heads of the US Navy and Royal Navy, Commander US Pacific Fleet, and the Director Naval Nuclear Propulsion Program in conjunction with the UK’s Chief of Defence Nuclear.
- These visits provided ASA and RAN Senior Leadership the opportunity to provide briefs on Phase 1 progress and tours of existing and proposed base facilities, and included visits to the local area to view typical housing, education and recreational/community facilities.

Timeline of Major Events and Ministerial Announcements

Date	Event
22 August – 13 September 2024	Submarine Tendered Maintenance Period HMAS <i>Stirling</i> .
05 August 2024	Trilateral Agreement signed by DPM, UK Ambassador to Washington and US Deputy Secretary of State.
02 August 2024	Parliamentary Standing Committee on Public Works (PWC) inquiry for the Submarine Rotational Force-West Infrastructure Works.
17 July 2024	Announcement of Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) licence approval for siting the Controlled Industrial Facility at HMAS <i>Stirling</i> .

Key Information Requests

Date	Type	Title	Released
13 June 2024	FOI	An individual sought request to the ASA’s June Budget Estimates briefing pack.	29 July 2024
18 June 2024	QoN	No. 117 Workforce and Industry Skilling. Senator Linda Reynolds (Western Australia, Liberal) asked about plans to develop and sustain a	04 October 2024

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Supplementary Estimates November 2024

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Key witnesses: Head Nuclear Submarine Capability, Rear Admiral Matthew Buckley

		skilled workforce in Western Australia to support the AUKUS.	
18 June 2024	QoN	No. 114 Windfarms. Senator Linda Reynolds (Western Australia, Liberal) asked about the impact on security requirements at HMAS <i>Stirling</i> from a windfarm proposal.	04 October 2024
18 June 2024	QoN	No. 113 Operational Readiness. Senator Linda Reynolds (Western Australia, Liberal) asked about plans to develop and sustain a skilled workforce in Western Australia to support the AUKUS.	12 September 2024
18 June 2024	QoN	No. 112 Coordination with WA Government. Senator Linda Reynolds (Western Australia, Liberal) asked about coordination with the WA state government regarding the Henderson review.	17 September 2024
18 June 2024	QoN	No. 109 SRF-West – Collaboration and Engagement. Senator Linda Reynolds (Western Australia, Liberal) asked about engagement between Defence, WA Government, defence industry and local government in the Rockingham region.	04 October 2024
06 June 2024	QoN	No. 5, WA Industrial Bases - Timeframes. Senator Linda Reynolds (Liberal, Western Australia) requested information on industry engagement and opportunities	12 September 2024

Relevant Media Reporting

- Local and national media reported on the approval of the siting licence for the Controlled Industrial Facility at HMAS *Stirling*. [HMAS Stirling nuclear waste management facility approval has Rockingham residents worried - ABC News](#)
- There was some media reporting of the STMP. [Australian sailors carry out maintenance on US nuclear submarine \(9news.com.au\)](#)

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Supplementary Estimates November 2024

Last updated: 04 November 2024

Key witnesses: Head Nuclear Submarine Capability, Rear Admiral Matthew Buckley

Division: Capability	
PDR No: SB24-000863	
Prepared by: s47E(c) Director Nuclear Powered Submarine Program WA Capability Division Mob: s47E(c) Ph: s47E(c) Date: 19 September 2024	Cleared by Division Head: RADM Matt Buckley Head Nuclear Submarine Capability Mob: s47E(c) Ph: s47E(c) Date: 03 October 2024
Cleared by Director-General VADM Jonathan Mead Director-General Australian Submarine Agency Date: 14 October 2024	
<input type="checkbox"/> I confirm that all information in this brief is suitable for public release <input checked="" type="checkbox"/> I confirm this brief follows the template guidance and checklist	

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Supplementary Estimates November 2024

Last updated: 05 November 2024

Costs

Key witnesses: Director-General, Vice Admiral Jonathan Mead; Deputy Director-General Program and Policy, Mr David Hallinan and Chief Financial Officer, Ms Marlena Davis

Costs

Official Leading: Director-General, Vice Admiral Jonathan Mead.

Officials Supporting: Deputy Director-General Program and Policy, Mr David Hallinan and Chief Financial Officer, Ms Marlena Davis.

Handling Note:

- Director-General Australian Submarine Agency, Vice Admiral Jonathan Mead to lead on nuclear-powered submarine funding and cost estimate questions.

Key Messages

- The Nuclear-Powered Submarine Program is a significant investment in Australia's future. The Program will deliver a major boost to Australian industry, jobs, infrastructure and most importantly defence capability to keep our nation safe.
- This will be the single biggest capability acquisition in our history. A complex endeavour that will span decades—a multi-generational undertaking.
- The Australian Government currently estimates spending of around 0.15 per cent of GDP, averaged over the program to 2055.
- There is a total planned investment of \$53 to \$63 billion over the decade from 2024-25 to 2033-34 for conventionally-armed nuclear-powered submarines and infrastructure. In addition to this funding, the Government is resourcing the Australian Submarine Agency, the Australian Naval Nuclear Power Safety Regulator and other government agencies per page 29 of the 2024 Integrated Investment Program.
- A range of complex variables will affect costs over the life of the Program.
- The total costs associated with the Program will not be known until design and production processes are settled and commercial and other arrangements are finalised between governments and delivery partners.
- In 2023-24, the Nuclear Powered Submarine Program Approved Military Equipment Acquisition Programs Inputs to Capability reported actual expenditure of \$361 million, against a programmed estimate of \$356 million, a variation of \$5 million.

Talking Points

If asked: How much will it cost to acquire a nuclear-powered submarine capability?

- This will be the single biggest capability acquisition in Australia's history, at an estimated cost of 0.15 per cent of GDP, averaged over the program.
 - There is a total planned investment of \$53 to \$63 billion over the decade from 2024-25 to 2033-34 for conventionally armed nuclear-powered submarines and infrastructure. In addition to this funding, the Government is resourcing the

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Australian Submarine Agency, the Australian Naval Nuclear Power Safety Regulator and other government agencies.

- The ASA is working in close consultation with Australia's international partners, Defence and industry partners to refine estimates as decisions are made and further information becomes available.

If asked: What does the project actually include?

- . The AUKUS commitment was to deliver a fleet of eight conventionally-armed nuclear-powered submarines for Australia.
 - The cost of the program reflects not just the acquisition of SSN-AUKUS, but also a range of measures to ensure we are ready and capable of building, operating, sustaining and regulating this platform.
 - Investment in the program will support industry, workforce, infrastructure and other critical components, which contribute to the delivery of this capability.

If asked: How much will each Virginia/SSN-AUKUS cost?

- . Currently, US Virginia Class submarines and SSN-AUKUS costs, per boat, are unable to be disclosed due to the following:
 - The *2024 National Defense Authorisation Act* authorising the transfer of three Virginia Class submarines to Australia has been passed by the US Congress. However, further discussion needs to be undertaken between Australia and the United States concerning the details of Virginia Class submarines transfer and purchase price. Specific discussions have not yet commenced with the United States.
 - Submarine specific cost information provided by US and UK partners contains commercially sensitive information that is not for public release.
- . Given this is a complex program, the current cost estimates will continue to be updated and refined as the program continues to mature.

If asked: What is included in the forward estimates for the Nuclear Powered Submarines Program?

- . The estimates outlined in Program 2.16 Nuclear-Powered Submarines across the forward estimates, cover the following activities:
 - workforce and operating costs for the Australian Nuclear-Powered Submarine Safety Regulator and other Government agencies from 2026-27, including the Australian Submarine Agency.
 - upskilling Australian workforce and industry
 - investment to support the nuclear and non-nuclear technical programs
 - supporting Submarine Rotational Force-West

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- establishing a non-proliferation and safeguards program
- procurement of long lead items
- mobilisation for Sovereign Submarine Partners ASC Pty Ltd (ASC) and BAE Systems
- West Coast Base upgrades
- US and UK industrial uplift and the trilateral program offices
- contribution to the design costs incurred by the UK for SSN-AUKUS.

If asked: How much will Government spend in Australia?

- . This is the biggest investment in Australia's defence capability, with significant investment into the Australian economy.
- . Across the forward estimates investment in Australian industry and workforce, includes:
 - \$2.5 billion for the ASA and other Government Agencies, including the allocation of 4,001 Commonwealth Supported Places;
 - At least \$2 billion for the Submarine Construction Yard at Osborne SA by Australian Naval Infrastructure (ANI) (funded via an equity injection to ANI).
 - \$1.5 billion for West Coast Base Infrastructure with up to \$8 billion to be invested over the decade to enable SRF-W from 2027 and to support Australia's own Virginia class conventionally-armed, nuclear-powered submarines from the early 2030s;
 - Defence Industry Pathways Program, contract with Bisalloy Steel for qualification of Australian steel in the production of SSN-AUKUS ships.
 - The Nuclear-Powered Submarine Graduate, Apprenticeship and Traineeship Initiative, as well as a range of workforce and supply chain initiatives to support Australian Industry.
- . The Government estimates \$30 billion will be invested into Australia's industrial base from now until 2055.

If asked: What 2024-25 budget measures are related to the NPS Program?

- . Nuclear-powered submarine program – initiatives delivered through the new Skills and Training Academy
 - This measure provides \$64.8 million from 2024-25 to 2027-28, met from the existing resources of Defence, for scholarships, attracting and recruiting apprentices in critical trades, developing training course and programs relevant to key professions in the nuclear-powered submarine enterprise.

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- Nuclear-powered submarine program – enhance domestic industry and workforce capacity
 - This measure provides \$31.3 million from 2024–25 to 2027–28 for initiatives to enhance domestic industry and workforce capacity, to be met from existing resources of Defence and the Australian Submarine Agency.
- Equity Injection for Australian Naval Infrastructure
 - Funding for this measure is not for publication due to commercial sensitivities. Defence will offset the Public Debt Interest associated with the additional equity injection for Australian Naval Infrastructure.
- National Security Agencies – Additional Funding Measure
 - Funding for this measure is not for publication due to national security considerations. The measure will be met from the existing resources of Defence and will support other National Security Agencies.

If asked: What is included in the actual expenditure in 2023-24?

- During 2023-24, the project entered into an agreement with the UK Government, which included a fair and proportionate contribution from Australia for the uplift of the UK submarine industrial base to support the delivery of Australian nuclear-powered submarines.
- The project entered into procurement arrangements with the US for Virginia-specific training support systems, undertook planning and training placements to develop a qualified and experienced Naval and industrial workforce to undertake maintenance on visiting US Virginia Class Submarines.
- In preparation for the build and sustainment phase of the program, it entered a contract for the qualification of Australian steel and supported two visits of US SSN to HMAS Stirling.
- The \$5 million variation is primarily due to earlier than planned payments for SSN-AUKUS activities.

Timeline of Major Events and Ministerial Announcements

Date	Event
2 September 2024	The Prime Minister, Deputy Prime Minister, and Minister for Defence Industry announced a Further boost to Australia's nuclear powered submarine workforce , including a new 'Jobs for Subs' program to develop 200 workers to support SRF-West.
16 August 2024	The Deputy Prime Minister announced Generational export reforms to boost AUKUS trade and collaboration , stating that Australia, the United Kingdom (UK) and the United States (US) have finalised the

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Key witnesses: Director-General, Vice Admiral Jonathan Mead; Deputy Director-General Program and Policy, Mr David Hallinan and Chief Financial Officer, Ms Marlena Davis

	establishment of an export licence-free environment, unlocking billions of dollars of investment and cutting red tape for Australian industry and our AUKUS partners.
5 August 2024	Australia, the United Kingdom (UK) and the United States (US) signed a treaty-level Agreement for Cooperation Related to Naval Nuclear Propulsion ('the Agreement').
17 April 2024	The Deputy Prime Minister and Minister for Defence Industry announced a \$330 billion allocation for the 2024 Integrated Investment Program over the next decade.

Key Information Requests

Date	Type	Title	Released
18 June 2024	QoN	No. 8 Defence Portfolio Budget Statement – NPS. Senator Jacqui Lambie (Jacqui Lambie Network, Tasmania) asked about details of funding for Nuclear Powered Submarine Sustainment over 5 years outlined in the Defence Portfolio Budget Statement	12 September 2024
13 June 2024	FOI	An individual sought request to the ASA's June Budget Estimates briefing pack.	29 July 2024
6 June 2024	QoN	No. 6, Military Equipment Acquisition - Budget Breakdown. Senator David Shoebridge (Greens, NSW) asked for a breakdown of \$2.23 billion in military equipment acquisition listed for the upcoming budget year,	12 September 2024
6 June 2024	QoN	No. 7, Military Equipment Acquisition - Budget Breakdown. Senator David Shoebridge (Greens, NSW) asked about a breakdown of Australia's contribution to the US and UK industrial base.	12 September 2024

Relevant Media Reporting

- On 28 May 2024, The Australian published an article by Kym Bergmann titled [Nuclear subs' \\$13bn cost tip of the iceberg](#), discussing the Defence budget papers for the 2023-24 Financial Year show for the first time that the approved four-year spend on nuclear-powered attack submarines is \$13.6bn.
- On 21 May 2024, ABC News published an article by Jason Whittaker titled [Treasurer defends budget to own constituents demanding more cost-of-living relief](#), discussing

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Supplementary Estimates November 2024

Last updated: 05 November 2024

Costs

Key witnesses: Director-General, Vice Admiral Jonathan Mead; Deputy Director-General Program and Policy, Mr David Hallinan and Chief Financial Officer, Ms Marlena Davis

Treasurer Jim Chalmers justifying Australia's military support for Ukraine and the purchase of big-ticket nuclear-powered submarines under the AUKUS agreement. He stated that "these investments haven't come at the cost of big investments in housing or a tax cut for every taxpayer or Medicare or all of these sorts of things".

- On 14 May 2024, The Guardian published an article by Daniel Hurst titled [Federal budget ramps up Aukus with \\$2.6bn earmarked for submarine project in 2024-25](#), discussing the federal budget earmarking \$2.59bn for the AUKUS project next financial year.

Division: Chief Operating Officer Division	
PDR No: SB24-000864	
Prepared by: Marlena Davis Chief Financial Officer Chief Operating Officer Division Mob: s47E(c) Ph: s47E(c) Date: 26 September 2024	Cleared by Division Head: Samantha Higgins Chief Operating Officer Mob: s47E(c) Ph: s47E(c) Date: 26 September 2024
Cleared by Director-General VADM Jonathan Mead Director-General Australian Submarine Agency Date: 14 October	
<input type="checkbox"/> I confirm that all information in this brief is suitable for public release <input checked="" type="checkbox"/> I confirm this brief follows the template guidance and checklist	

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Last updated: 08 October 2024

Naval Nuclear Propulsion Cooperation Agreement

Key witnesses: Director-General, Vice Admiral Jonathan Mead, Head Policy, Strategy and Engagement, Ms

Alexandra Kelton

AUKUS Agreement for Cooperation Related to Naval Nuclear Propulsion

Official Leading: Director-General Australian Submarine Agency, Vice Admiral Jonathan Mead

Official Supporting: Head Policy, Strategy and Engagement, Ms Alexandra Kelton.

Context

On 5 August 2024, Australia, the United Kingdom (UK) and the United States (US) signed the trilateral, treaty-level *AUKUS Agreement for Cooperation Related to Naval Nuclear Propulsion* ('the Agreement'). The Agreement was tabled in Parliament on 12 August 2024 and is currently being considered by the Joint Standing Committee on Treaties (JSCOT). Following parliamentary/congressional processes in all three countries, the Agreement is expected to enter into force in early 2025.

Key Messages

- The Agreement provides the legal underpinning to enable the UK and the US to transfer naval nuclear propulsion technology to Australia, under the AUKUS partnership.
- The Agreement will enable the continued exchange of information between AUKUS partners
 - and also enable the transfer of nuclear material and equipment necessary to support Australia's nuclear-powered submarine program.
- By facilitating the transfer of naval nuclear propulsion technology, it will enable the US to transfer Virginia class submarines to Australia from the early 2030s
 - and enable the UK to transfer the naval nuclear propulsion plants for SSN-AUKUS submarines that will be built in Australia.
- The Agreement reflects AUKUS partners' commitment to setting the highest non-proliferation standard in progressing Australia's acquisition of conventionally armed, nuclear-powered submarines.

Talking Points

- On 5 August 2024, Australia, the United Kingdom (UK) and the United States (US) signed a treaty-level *Agreement for Cooperation Related to Naval Nuclear Propulsion* ('the Agreement').
- In March 2023, AUKUS partners committed to working together to deliver Australia's conventionally-armed nuclear-powered submarine capability at the earliest possible date.
- This treaty-level Agreement is a key document that underpins the AUKUS arrangements that were announced by AUKUS leaders in March 2023.

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Last updated: 08 October 2024

Naval Nuclear Propulsion Cooperation Agreement

Key witnesses: Director-General, Vice Admiral Jonathan Mead, Head Policy, Strategy and Engagement, Ms Alexandra Kelton

- This Agreement will enable the continued exchange of information between AUKUS partners, and also enable the transfer of material and equipment necessary to support Australia's conventionally-armed nuclear-powered submarine program.
- By facilitating the transfer of naval nuclear propulsion technology, it will enable the US to transfer Virginia class submarines to Australia from the early 2030s.
 - and enable the UK to transfer the naval nuclear propulsion plants for SSN-AUKUS submarines that will be built in Australia.
- This Agreement reflects AUKUS partners' commitment to setting the highest non-proliferation standard in progressing Australia's acquisition of conventionally armed, nuclear-powered submarines.
- It re-affirms, and is entirely consistent with, Australia's existing international non-proliferation obligations.
 - including under the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), our Comprehensive Safeguards Agreement (CSA) and Additional Protocol (AP) with the International Atomic Energy Agency (IAEA), and the South Pacific Nuclear Free Zone Treaty (Treaty of Rarotonga).
- The Agreement was tabled in Parliament on Monday, 12 August 2024.
- Upon entry into force, the Agreement will be legally binding and will remain in force until 31 December 2075, reflecting the longevity of the nuclear-powered submarine program.

If asked: Does the Agreement guarantee that the UK and the US will provide Australia with a nuclear-powered submarine capability?

- The Agreement is critical to enabling the pathway for Australia's acquisition of a conventionally-armed, nuclear-powered submarine capability.
- It establishes the foundation necessary for the UK and the US to transfer naval nuclear propulsion technology for Australia's conventionally-armed nuclear-powered submarines.
- It builds on the strong progress that has already been achieved, including:
 - the passing of the US 2024 *National Defense Authorization Act*;
 - the establishment of the Australian Submarine Agency;
 - the announcement of BAE Systems and ASC as Australia's sovereign submarine build partners, and ASC as the sustainment partner; and
 - the investments that have been made in integrating and uplifting our respective industrial bases.

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Naval Nuclear Propulsion Cooperation Agreement

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- The UK and the US have publicly and consistently committed to providing Australia with this capability – which will be implemented through future arrangements at the appropriate time
 - this Agreement is a further tangible demonstration of that commitment.
 - the UK and the US have committed to make best efforts to transfer material and equipment to Australia in the accompanying Understanding (a side letter to the Agreement).

If asked: About the termination provisions of the Agreement (and the Understanding)?

- The Agreement will remain in force until 2075
 - this is a significant timeframe that reflects the longevity of AUKUS partners' commitment to this endeavour
 - and will cover the timeframe over which Australia will acquire its naval nuclear propulsion capability.
- Like most international agreements, the Agreement, and the accompanying Understanding, have provisions that enable the Agreement to be terminated
 - in the case of this Agreement (including the Annexes and Understanding), with one year's notice
 - such provisions are part of normal treaty practice.
- The termination provisions provide all Parties, including Australia, the option to terminate the Agreement following consultations.

If asked: About requirements in the Understanding for cooperation not to adversely affect the UK and the US naval nuclear propulsion programs?

- All three countries are committed to AUKUS – we know we have to increase the capacity and capability in all three systems to be able to deliver it
 - this is the logic and strength of AUKUS – working together to collectively uplift the undersea capability and production capacity of all three countries.
- It would not be in Australia's interests for the UK and the US programs to be adversely affected by Australia's naval nuclear propulsion program – this commitment simply reflects that this is a joint partnership.
- Australia is making important, fair and proportionate contributions to the UK and the US to lift the UK and US industrial capacity, to reflect the additional demands placed upon them from Australia's program
 - the UK and the US are also making significant investments to increase capacity in their own systems.
- The UK and the US have also made important commitments to Australia in the Understanding to facilitate cooperation under the Agreement, including:

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Naval Nuclear Propulsion Cooperation Agreement

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- to make best efforts to transfer nuclear material and equipment to Australia as agreed under the Agreement;
- to not unreasonably withhold information, nuclear material, or equipment from Australia; and
- to take all reasonable steps to facilitate in a timely manner transfers and exchanges authorised pursuant to the Agreement.

If asked: About the indemnity?

- Under the Agreement, Australia will indemnify the UK and the US for any liability arising out of or related to nuclear risks connected with nuclear material and equipment transferred or to be transferred to Australia.
- The indemnity provisions of the Agreement are consistent with Australia's commitment to being a sovereign and responsible steward of naval nuclear propulsion technology that will ultimately be owned and operated by Australia.
- The indemnity reflects the activities that the UK and the US will undertake on Australia's behalf under the AUKUS partnership
 - including the US building a new Virginia class submarine and the UK manufacturing naval nuclear propulsion plants for the SSN-AUKUS.
- These activities are critical components of achieving the pathway, including to ensure that Australia has nuclear-powered submarines in the timeframes agreed
 - and in circumstances where Australia does not have the capacity or intent to build naval nuclear propulsion plants for its conventionally-armed nuclear-powered submarines.
- The inclusion of indemnity provisions for activities undertaken on behalf of other parties is not uncommon in such agreements.

If asked: How is the indemnity limited?

- The indemnity is limited by appropriate exclusions:
 - it only applies to 'nuclear risks';
 - it only arises in relation to items transferred or to be transferred to Australia;
 - it does not apply where the UK or the US have received payment for the same liability from a third party; and
 - it does not apply to the two in-service Virginia class submarines that Australia will purchase from the US until the point of transfer.
- The Agreement also provides that AUKUS partners may develop additional arrangements to address the management of nuclear risks associated with nuclear risks or related to non-nuclear risks arising under the Agreement.

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If asked: What is the likelihood of the indemnity being called on?

- . The likelihood of the indemnity being called upon is remote
 - the UK and the US naval nuclear propulsion programs have unmatched safety records
 - including the UK and the US’s 60-year unblemished record of no submarine reactor accident or release of radioactivity that has harmed human health or the quality of the environment.
- . As set out in the Understanding, the UK and the US’ stringent safety standards and quality control processes will equally apply to nuclear material and equipment that is produced on Australia’s behalf and to all nuclear material and equipment Australia receives as part of the program.
- . Australia is committed to upholding these same principles and standards to safely steward our own naval nuclear propulsion technology
 - as set out in the preamble to the Agreement.

If asked: Does this Agreement compromise Australia’s sovereignty? Does it require Australia to join the UK and the US in the event of a future conflict?

- . No. There is nothing in this Agreement that relates to how Australia might use or deploy its nuclear-powered submarines.
- . As with all our military capabilities, Australia will maintain absolute sovereignty of the submarines it acquires.
- . Australia’s national interests and sovereignty are paramount in the Government’s decisions about defence capability acquisitions.
- . Australia’s conventionally-armed nuclear-powered submarines will be owned, operated, maintained and regulated by Australia, under the sovereign command of the Royal Australian Navy and at the direction of the Australian Government.
- . We have demonstrated through our long history of international cooperation that Australia always exercises its sovereign rights in its decision-making and the employment of high-end capabilities.

Timeline of Major Events and Ministerial Announcements

Date	Event
12 August 2024	The Agreement was tabled in Parliament for consideration by the Joint Standing Committee on Treaties.
5 August 2024	Australia, the United Kingdom (UK) and the United States (US) signed a treaty-level Agreement for Cooperation Related to Naval Nuclear Propulsion (‘the Agreement’).

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Naval Nuclear Propulsion Cooperation Agreement

Key witnesses: Director-General, Vice Admiral Jonathan Mead, Head Policy, Strategy and Engagement, Ms Alexandra Kelton

Key Information Requests

Date	Type	Title	Released
13 June 2024	FOI	An individual sought request to the ASA's June Budget Estimates briefing pack.	29 July 2024

Relevant Media Reporting

- On 12 August 2024, [The Australian](#) reported that Australia will shoulder the lion's share of the risks of the AUKUS pact but had been given no guarantees it will ultimately receive nuclear submarines from the US or UK.
- On 12 August 2024, [Sky News](#) reported that an updated 50-year Agreement was tabled in parliament and allows the US, UK and Australia to share information, nuclear material and equipment within Australia's nuclear-powered submarine program.
- On 12 August 2024, [ABC News](#) reported a revamped AUKUS Agreement had been tabled in parliament and noted the submarine project could be cancelled with a year's notice.
- On 12 August 2024, [the Australian Financial Review](#) said that Australia's acquisition of nuclear-powered submarines under AUKUS will play second fiddle to America and Britain's own programs, and said that the navy risks being left without submarines.
- On 12 August 2024, [the Daily Mail](#) reported that the US or the UK can exit with a year's notice under a new Agreement, which requires Australia to legally protect both allies against costs or injuries arising from nuclear risks.
- On 10 August 2024, [ABC News](#) reported on speculations and public uncertainty around the implications of the recently signed AUKUS Agreement.
- On 10 August 2024, [the Canberra Times](#) reported on Prime Minister Anthony Albanese's reassurance that the Agreement will not mean Australia will accept nuclear waste from overseas partners.

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Naval Nuclear Propulsion Cooperation Agreement

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Division: Policy, Strategy and Engagement	
PDR No: SB24-000866	
Prepared by: s47E(c) Director Nuclear Frameworks and Agreements Safeguards and Non-Proliferation Mob: s47E(c) Ph: s47E(c) Date: 17 September 2024	Cleared by Division Head: Alexandra Kelton Head Policy, Strategy and Engagement Mob: s47E(c) Ph: s47E(c) Date: 03 October 2024
Consultation: PMC, DFAT, ASNO, Finance, AGD	
Cleared by Director-General: Vice Admiral Jonathan Mead Director-General Australian Submarine Agency Date: 14 October 2024	

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Program Security

Official Leading: Director-General, Vice Admiral Jonathan Mead

Official/s Supporting: Deputy Director-General Technical, Mr Tim Hodgson, A/Head Stewardship & Security Division, Ms Sophia Blix

Context

The ASA is responsible for the cradle to grave ownership of Australia’s conventionally-armed nuclear-powered submarine capability, including accountability for safe and secure nuclear stewardship across the Nuclear-Powered Submarine Enterprise.

Key Messages

- Australia's threat environment remains complex, challenging and changing.
- Australia's commitment to safely and securely steward nuclear propulsion technology is unwavering.
- Acquiring conventionally-armed nuclear-powered submarines means that Australia will have access to extremely sensitive and classified technologies that foreign powers will work hard to compromise — for commercial or military advantage.
- Australia is investing in the security of systems, technology, processes, people, facilities, information, and platforms to ensure these are tailored for the nuclear-powered submarine enterprise specific requirements.
- Australia continues to work closely with domestic and international security and intelligence partners to develop a threat-informed, risk-led approach to understand the security requirements to protect the naval nuclear propulsion technology made available to us through AUKUS. This includes actions to counter espionage, foreign interference and other security threats to the Program and our people.

Talking Points

The security threat environment

- Acquiring conventionally-armed nuclear-powered submarines means that Australia will have access to extremely sensitive and classified technologies that foreign powers will work hard to compromise — for their own commercial or military advantage.
- We are acutely aware through the Australian Security Intelligence Organisation (ASIO) that foreign intelligence services are targeting Australia’s military capabilities with an insatiable appetite to steal a wide range of advanced technology, as well as gain insight into our operational readiness and our tactics, techniques and procedures.
 - Espionage and foreign interference pose the principal threat to AUKUS capabilities, including conventionally-armed nuclear-powered submarines.

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PDR No: SB24-000868

Last updated: 08 October 2024

Program Security

Key witnesses: Director-General, Vice Admiral Jonathan Mead, Deputy Director-General Technical, Mr Tim Hodgson, A/Head Stewardship & Security Division, Ms Sophia Blix

- In his 2024 Annual Threat Assessment, the Director-General of Security revealed that ASIO had detected a foreign intelligence service team offering Australian defence industry employees money in return for providing reports on AUKUS, submarine technology, missile systems and many other sensitive topics.
- We remain clear-eyed over the growing threat espionage and foreign interference poses to Australian defence technologies, including specifically to AUKUS decision making and capabilities.
- As a matter of good operational security practice, the Australian Submarine Agency (ASA) does not comment on the specific details of the threats our program faces.
 - Specific questions on the nature of current threats should be directed to ASIO.

ASA approach to protective security

- For the past 3 years, the ASA and its precursor, the Nuclear Powered Submarine Taskforce, has worked closely with Australian, United Kingdom (UK) and United States (US) security and intelligence partners—including ASIO and the Australian Signals Directorate (ASD) —to develop a threat-informed, risk-led approach to security. This includes its application to defence industry and the academic sectors.
- Specifically, we have developed with our partners:
 - Threat and risk assessments, including for Australia’s defence industrial base, on the threats from espionage and foreign interference, including active briefings to Nuclear-Powered Submarine Enterprise personnel working in Australia and overseas.
 - Work to understand and align Australia's mature protective security policy frameworks with those of our AUKUS partners, so that any potential gaps and seams are identified and closed, including within the industry supply chain.
 - Effective information and personnel security controls that Australia has implemented to protect naval nuclear propulsion information as well as other sensitive and classified nuclear-powered submarine capability information.
 - Uplift in security culture, including through establishing a ‘nuclear mindset’, and hardening of our personnel security requirements for the Nuclear-Powered Submarine Program and Enterprise.
 - Engagement with defence industry on expected security requirements, including under the existing Australian Defence Industry Security Program.
 - Requirements for uplift of protective security (physical and information, including force protection) at our future sites, including HMAS *Stirling* and the Osborne Submarine Construction Yard to protect this sensitive capability.
- The ASA worked with Defence, the Australian Federal Police (AFP) and other security partners to establish a comprehensive security overlay for the recent Submarine Tender Maintenance Period, as an initial step in developing the security framework that will be in place at HMAS *Stirling* to support the Submarine Rotational Force–West.

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- The security framework will be further developed and tested during future nuclear-powered submarine visits to Australia ahead of 2027.

Defence Industry and Security

- The conventionally-armed, nuclear-powered submarine capability requires the application of and adherence to the very highest security standards across the entire Nuclear-Powered Submarine Program to protect the sensitive capability.
- As part of engagements across Australia since the announcement of the Optimal Pathway, the ASA continues to brief industry representatives on security uplift requirements to participate in the Nuclear-Powered Submarine Program.
- Defence Industry Security Program. Australian businesses participating in the Nuclear-Powered Submarine Program are required to be members of the Australian Defence Industry Security Program, which obligates members to comply with the Defence Security Principles Framework.
 - The Defence Industry Development Strategy outlines how Defence can support industry to uplift their security settings.
- **Contracting.** For businesses seeking to contract to the Nuclear-Powered Submarine Program, in addition to the Australian Defence Industry Security Program membership requirement, there will be assurance activities based on the scope of work being conducted. This assurance approach is flexible and will consider the risk environment and the information accessed under the contract.
- **Access to Naval Nuclear Propulsion Information (NNPI).** Where industry requires access to NNPI, additional security requirements will be applied to ensure the appropriate security settings are achieved, potentially including:
 - Strong information control settings.
 - Increased assurance and audit activities that focus on these additional security requirements.
 - Active membership of Australian Signals Directorate Partnership Program.
 - Eligibility, suitability and security clearance prerequisites for personnel.
 - Governance and policy frameworks aligned with relevant legislation to protect NNPI access and information.
 - A dedicated liaison officer to manage use of naval nuclear propulsion information.
- Harmonising with US and UK. The ASA is working with AUKUS partners to understand defence industry security requirements across the trilateral submarine industrial base with the goal of harmonising industry security practices.
 - Australia's security settings do not duplicate those of the US or UK, but achieve the same security outcomes with due consideration to Australia's unique circumstances, including the local threat environment.

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If asked: What effect will the security requirements have on people working on the Nuclear-Powered Submarine Program who were born overseas or who hold dual citizenships?

- The nuclear propulsion technology used in US and UK nuclear-powered submarines has been protected for over 70 years. Australia must maintain the security of this information.
 - Any compromise of nuclear propulsion information will impact Australia's ability to ensure the uncompromised delivery of a conventionally-armed nuclear-powered submarine capability.
- The majority of Nuclear-Powered Submarine Program roles will require an Australian security clearance to access sensitive and classified information.
 - Australian citizenship is one of the mandatory prerequisites for a security clearance.
 - We expect the majority of security clearances to be at the SECRET level (Negative Vetting 1), which requires a checkable background assessment for a period of 10 years, along with assessments of identity, criminal and police history, finances and an ASIO security assessment.
- There is not one set of broad requirements that will cover every role across the Nuclear-Powered Submarine Program.
 - Some roles will have additional citizenship eligibility requirements based on United States technology transfer laws, as currently occurs for the Collins class submarine program, along with other AUKUS partner security requirements for nuclear information access.
 - The ASA has developed Australian suitability requirements for individuals to be able to access the Nuclear-Powered Submarine Program's sensitive information, building upon the program's 'Nuclear Mindset', which reflects our dedication to excellence and an unwavering commitment to safety, security and safeguards of the nuclear propulsion technology.

If asked: What protections will be in place to ensure Australia will protect the United States' and United Kingdom's nuclear-powered submarines in port?

- Australia has a long history of robustly protecting sensitive military capabilities and information, and the conventionally-armed, nuclear-powered submarine capability is no different.
- Security and safety has always been a key focus during visits of US and UK nuclear-powered submarines to Australia. However, the increasing number and duration of visits to Submarine Rotational Force–West means a more robust security regime will need to be implemented and embedded.
- Security uplift is occurring at pace in a range of areas, including at HMAS *Stirling*, where Submarine Rotational Force–West will operate.

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Supplementary Estimates November 2024

PDR No: SB24-000868

Last updated: 08 October 2024

Program Security

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- Improvements will be implemented in a range of protective security areas, including physical security, cyber resilience, and armed protection by the AFP.
- AUKUS partners are working with their respective national intelligence communities to ensure the appropriate indicators and warnings are also in place.

If asked: Naval Shipbuilding Identity Assurance Program at Osborne Shipyard

- [Handling Note: Refer question on the Identity Assurance Program to Naval Shipbuilding and Sustainment Group in the Department of Defence.]
- [Handling Note: Refer question regarding the *Security of Critical Infrastructure Act 2018* (SOCI Act) to the Department of Home Affairs.]

Relevant Media Reporting

- On 22 February 2024, The Australian published an article by Eleanor Campbell titled [AUKUS: ASIO officials warn Defence Force staff at risk of spying from China](#), discussing the active targeting by hostile foreign actors of current and former Defence officials.
- In late February 2024, multiple Australian and international media outlets reported on Kazakhstan-born ethnic Russian Marina Sologub, who was taken into immigration detention after her Australian distinguished talent visa was cancelled by Australian authorities based on ASIO's assessment that she posed a threat to Australia's national security. ASIO assessed Sologub moved to Australia and sought employment in the Australian space industry with the intent to pass sensitive information to Russian intelligence services. ASIO identified Sologub passing information about her work to Russian officials via WhatsApp. Ms Sologub was also identified as having made friends with an Adelaide submarine industry worker.
- In July 2024, multiple Australian media outlets reported the arrest by AFP of Australian Army private Kira Korolev and her husband – both Russian-born Australian citizens. Ms Korolev had worked for several years as an ADF information systems technician. She and her husband were charged with one count of preparing for an espionage offence. In a statement to the media at the time of the arrests, the AFP Commissioner stated 'no significant [national security] compromise has been identified' and that Australia's "Five Eyes partners and the Australian government can be confident that the robust partnerships within the [Counter Foreign Interference Task Force] means [Australia] will continue to identify and disrupt espionage and foreign interference activity".
- On 23 September 2024, Sky News published an article by Jonathan Lea titled ['No discernible plan': Former Defence Minister Linda Reynolds calls for new AUKUS tsar after ex-British minister accused Australia of 'hubris', delay over the deal](#) quoting Senator Reynolds comments regarding security requirements at HMAS *Stirling*. "The comprehensive safety and security arrangements are not yet in place," she said.

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Supplementary Estimates November 2024

PDR No: SB24-000868

Last updated: 08 October 2024

Program Security

Key witnesses: Director-General, Vice Admiral Jonathan Mead, Deputy Director-General Technical, Mr Tim Hodgson, A/Head Stewardship & Security Division, Ms Sophia Blix

Division: Stewardship & Security	
PDR No: SB24-000868	
Prepared by: Ms Lara Bancroft Assistant Director-General Threats and Workforce Protection Mob: s47E(c) Ph: s47E(c) Date: 26 September 2024	Cleared by Division Head: Ms Sophia Blix A/Head Stewardship & Security Stewardship & Security Division Mob: s47E(c) Ph: s47E(c) Date: 26 September 2024
Cleared by Director-General: Vice Admiral Jonathan Mead Director-General Australian Submarine Agency Date: 14 October 2024	

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Radioactive Waste & Spent Nuclear Fuel

Official Leading: Deputy Director-General Technical, Tim Hodgson and A/Head Security and Stewardship, Ms Sophia Blix.

Official/s Supporting: Head Nuclear Submarine Capability, Rear Admiral Matthew Buckley.

Context

There is significant national and community level interest in the safe management of radioactive waste from nuclear-powered submarines. Radioactive waste management issues have recently been raised in the context of public consultations related to the Nuclear-Powered Submarine Program.

Key Messages

- The government has committed to maintaining the highest levels of nuclear stewardship, including taking responsibility for the disposal of the reactors and spent nuclear fuel from Australia's conventionally-armed, nuclear-powered submarines.
- The government has been clear that Australia will not accept intermediate-level or high-level radioactive waste (spent nuclear fuel) from other countries.
- Low-level radioactive waste from conventionally-armed nuclear-powered submarines operating at HMAS *Stirling* will be stored at Defence sites in Australia.
- A facility to manage low-level radioactive waste from conventionally-armed nuclear-powered submarines is proposed as part of infrastructure works at HMAS *Stirling*.
- Managing low-level radioactive waste from the United Kingdom (UK) and United States (US) submarines that will rotate through HMAS *Stirling* will be an important part of building Australia's stewardship capability to maintain our own submarines.
- No decision has been made on where low-level radioactive waste will be disposed. Intermediate and high-level waste, including spent nuclear fuel, will be stored and disposed on the current or future Defence estate.

Talking Points

Managing low-level radioactive waste

- Developing expertise to manage low-level waste arising from conventionally-armed nuclear-powered submarine operations and sustainment will be an important part of Australia building the necessary stewardship capability to operate and maintain its own submarines.
- This will involve building the infrastructure, as well as the skills of the Australian workforce, to safely and securely manage low-level radioactive waste from routine operations and sustainment of conventionally-armed, nuclear-powered submarines.

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Supplementary Estimates November 2024

Last updated: 04 November 2024

Radioactive Waste & Spent Nuclear Fuel

Key witnesses: Deputy Director-General Technical, Tim Hodgson and A/Head Stewardship & Security Division, Ms Sophia Blix

- The rotation of UK and US submarines at HMAS *Stirling* in Western Australia as part of Submarine Rotational Forces West provides an opportunity for Australia to learn how these vessels operate.
- The proposed Controlled Industrial Facility (CIF) at HMAS *Stirling* is a technical and engineering industrial workshop for servicing and repair of naval nuclear propulsion components and tools.
- The Facility will also manage and temporarily store low-level radioactive waste, very low-level waste and exempted waste, all to be packaged separately and managed in accordance with the regulations set by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA).
 - Low-level radioactive waste will include gloves, personal protective equipment and other items generated through routine operations and sustainment.
 - Items will be packaged appropriately and moved from the submarine to the CIF.
 - Waste will be characterised and sorted, reduced in size, and where possible, the level of radioactivity reduced prior to temporary storage.
- The ASA Site Licence application for the CIF was lodged with ARPANSA on 27 March 2024. The CEO ARPANSA granted the site licence on 17 July 2024.
- The Facility will be a prescribed radiation facility with strict limits for radioactivity that are prescribed under the ARPANSA Regulations.
- No intermediate-level waste or high-level radioactive waste (spent nuclear fuel) will be managed or stored at HMAS *Stirling*.
- Defence has managed similar types of low-level radioactive waste for decades.

Managing high-level radioactive waste, including spent nuclear fuel, when submarines decommission

- Australia will not be receiving intermediate-level or high-level radioactive waste (including spent nuclear fuel) from the UK, the US, or other countries.
- A disposal solution will not be required until Australia's first conventionally-armed, nuclear-powered submarine reach end-of life in the 2050s.
- Determining suitable locations and methods will take time and requires community consultation, including with First Nations people, and detailed consideration of technical requirements.
- As the Deputy Prime Minister has made clear, disposal will occur "on the current or future Defence estate" [19 March 2024, Deputy Prime Minister, House of Representatives].
- Australia has time to get this process right in a way that sets the highest standards for safety, security and nuclear non-proliferation safeguards, while also investing in building the social licence needed for implementation.

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- All radioactive waste will be managed in line with international best practice and in accordance with Australia's international and domestic legal obligations and commitments, including the Treaty on the Non-Proliferation of Nuclear Weapons and the South Pacific Nuclear Free Zone Treaty (Treaty of Rarotonga).
- The AUKUS Agreement makes clear that Australia will be responsible for the management, storage, and disposal of spent nuclear fuel and radioactive waste generated from its nuclear-powered submarines.
- In 2023, the ASA and Defence conducted a review, working with relevant agencies including the Australian Radioactive Waste Agency, to inform the site selection process to identify locations in the current or future Defence estate suitable for the storage and disposal of intermediate and high-level radioactive waste, including spent fuel, from Australia's conventionally-armed nuclear-powered submarines.
 - The review was led by Mr Steven Grzeskowiak, who has extensive experience on issues related to the Defence estate, as the former Deputy Secretary of the then-Estate and Infrastructure Group.
 - The ASA is now working through next steps to inform future advice to the government.
 - As the Deputy Prime Minister has said, "There will be appropriate public consultation, particularly with First Nations communities to respect and protect cultural heritage" [22 March 2023, Ministerial statement to the House of Representatives, Canberra].

Payments to Mr Steven Grzeskowiak for services provided under the contract

- Mr Steven Grzeskowiak has received \$148,455 for services provided under the contract to date (from 27 February 2023 to 24 September 2024).
- The contract was extended by one year and will end on 31 December 2024.
- The total value of the contract will not exceed \$396,000 (including GST).

About engagement with Tellus Holdings Ltd

- ASA officials have undertaken briefings with the Australian Radioactive Waste Agency officials and Tellus Holdings Ltd to understand the Tellus proposal.

Background

- Once operational, Australia's conventionally-armed nuclear-powered submarines will produce small amounts of low-level radioactive waste every year, annually much less than the annual amount from Australia's nuclear science and research at Australian Nuclear Science and Technology Organisation's (ANSTO) Lucas Heights reactor.
 - This amounts to roughly two cubic metres of processed waste each year per submarine, consisting of items such as disposable gloves, wipes, reactor coolant and used Personal Protective Equipment.

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Supplementary Estimates November 2024

Last updated: 04 November 2024

Radioactive Waste & Spent Nuclear Fuel

Key witnesses: Deputy Director-General Technical, Tim Hodgson and A/Head Stewardship & Security Division, Ms Sophia Blix

- Through scientific, medical and industrial pathways, Australia has around 5000 cubic metres of legacy low-level waste and expects to generate another 5000 cubic metres by 2070 (excluding nuclear-powered submarine waste).

Timeline of Major Events and Ministerial Announcements

Date	Event
09 August 2024	The Deputy Prime Minister stated the AUKUS Agreement for cooperation on naval nuclear propulsion does not allow the transfer of foreign radioactive waste.

Key Information Requests

Date	Type	Title	Released
12 July 2024	FOI	An individual sought information relating to the Waste Review report.	Before the AAT
14 June 2024	QoN	No. 102, Low-Level Nuclear Waste - Definition. Senator David Shoebridge (Greens, NSW) asked a question requesting the definition of what ASA considers low-level nuclear waste.	11 September 2024
06 June 2024	QoN	No. 106 , Radioactive Waste Facility. Senator Linda Reynolds (Liberal, WA) asked a variety of questions regarding the management of radioactive waste generated from the nuclear-powered submarine program.	04 October 2024

06 June 2024	QoN	No. 3, Consultation Process – Community Consent. Senator Lidia Thorpe asked if free prior informed consent would be obtained through a site selection process for the disposal of radioactive waste.	11 September 2024
20 May 2024	FOI	An individual sought document on operational waste and disposal of spent nuclear fuel.	Undergoing OAIC review
31 May 2024	FOI	An individual sought access to the draft of the Waste Review report.	Undergoing OAIC review
29 May 2024	FOI	An individual sought any correspondence and information sent between ANSTO and the ASA on the Defence Waste Review. Courtesy consultation – led by ANSTO	Partially released

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Supplementary Estimates November 2024

Last updated: 04 November 2024

Radioactive Waste & Spent Nuclear Fuel

Key witnesses: Deputy Director-General Technical, Tim Hodgson and A/Head Stewardship & Security Division, Ms Sophia Blix

10 May 2024	FOI	An individual requested for access to documents relating to the decision to dispose of nuclear-powered submarine waste on defence land.	The decision is pending
07 May 2024	FOI	An individual sought any correspondence between ASA and Geoscience Australia on the Defence Waste Review	Partially released
03 May 2024	FOI	An individual sought information regarding Steven Grzesowiak's contract to work on the Defence Waste Review	Partially released
11 December 2023	FOI	An individual sought access to any document on the disposal of operational waste	Partially released
06 December 2023	FOI	The media requested access to reports and briefings related to a fact sheet published by the ASA on Nuclear Stewardship and Waste in 2023.	Partially released

Relevant Media Reporting

- Australian media has reported on radioactive waste. Some key topics are outlined below.
- On 10 September 2024, [the Guardian](#) wrote an article titled "Labor claims AUKUS nuclear waste dumping campaign" following resumption of debate of the ANNPS Bill with new amendments on waste.
- On 28 August, [ABC](#) reported on the storage of low-level waste at the proposed Controlled Industrial Facility at HMAS *Stirling*. Comparison between medical and military low-level waste sparked controversy with the Medical Associate for Prevention of War.
- On 26 August, [ASPI](#) questioned how ASA will build social licence for the disposal of radioactive waste from nuclear-powered submarines
- On 8 August, [ABC](#) reported on the "AUKUS deal on transfer of naval nuclear technology" and concerns on transfer of foreign radioactive waste as part of the agreement.
- On 6 August, [ABC](#) reported on Tellus Holdings, private operator for low-level waste disposal, including reference to the management of AUKUS waste.

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Supplementary Estimates November 2024

PDR No: SB24-000869

Last updated: 04 November 2024

Radioactive Waste & Spent Nuclear Fuel

Key witnesses: Deputy Director-General Technical, Tim Hodgson and A/Head Stewardship & Security Division, Ms Sophia Blix

Division: Stewardship and Security	
PDR No: SB24-000869	
Prepared by: CDRE Mark Sander Assistant Director General Nuclear Stewardship Mob: s47E(c) [redacted] Ph: s47E(c) [redacted] Date: 27 September 2024	Cleared by Division Head: Sophia Blix A/Head Stewardship and Security Mob: s47E(c) [redacted] Ph: s47E(c) [redacted] Date: 01 November 2024
Cleared by Director-General VADM Jonathan Mead Director-General Australian Submarine Agency Date: 14 October 2024	

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Industry

Official Leading: Director-General, Vice Admiral Jonathan Mead

Official/s Supporting: Head SSN Construction, Ms Kate van Hilst.

Key Messages

- Australia continues to work closely with AUKUS partners to progress industrial uplift in support of trilateral nuclear-powered submarine programs.
- With our AUKUS partners, we are developing vendor and product qualification processes to enable Australian industry participation in United States (US) and United Kingdom (UK) industrial bases.
- In collaboration with the Office of Defence Industry Support, the ASA has held a number of industry engagement activities and briefings across the country, since announcement of the Optimal Pathway in March 2023.
- Participants at industry engagement forums have been encouraged to register their interest in the program through the ASA's Industry Portal.

Talking Points

Industrial Uplift – Supply Chain

- We are working closely with the UK and US to identify specific opportunities and vendor qualification pathways for Australian companies to participate in their supply chains.
- In support of these aims, the ASA is developing an Industrial Uplift Strategy to ensure our industry uplift initiatives support sovereign submarine capability, trilateral submarine capability, broader Australian military priorities, and economic opportunity.
- The Industrial Uplift Strategy will have a dual track focus:
 - To build and sustain a sovereign Nuclear-Powered Submarine (NPS) capability while maintaining current Australian submarine capability (i.e. Collins class submarine maintenance and Life of Type Extension programs).
 - To meaningfully contribute to UK and US NPS programs to expand Trilateral Submarine Industrial Base capacity.

Defence Industry Vendor Qualification Program

- In January 2024, ASA commenced the Defence Industry Vendor Qualification Program with around 50 Australian suppliers invited to participate in a qualification process to alleviate barriers for entry into the Virginia-class submarine supply chain.
- The Defence Industry Vendor Qualification Program is being progressively rolled out in 'Waves' grouped by product category. The product categories for Wave 1 are Valves and Pipe Fittings. Wave 2 product categories are Anti Vibration Mounts and Additive Manufacturing (e.g. 3D printing).

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- As at 19 September 2024, 15 companies are progressing towards qualification for the four product types across Waves 1 and 2.
- The third wave of US qualification under the Defence Industry Vendor Qualification Program will commence late 2024, with the arrival of a team of Electric Boat and Huntington Ingalls representatives in Australia. The team will be targeting machined parts, electrical components and medium valves, with a further three waves planned for other major product families over the following 18 months.
- Planning for a similar qualification activity focused on the UK conventionally-armed, nuclear-powered submarine supply chain is also underway, with a view to aligning with the anticipated needs of SSN-AUKUS.

If asked: How is the ASA assisting Australian Industry to enter mature global supply chains?

- The Defence Industry Vendor Qualification Program is designed to accelerate the qualification of Australian Products for entry into the US and UK supply chain. The program will support the development of a trilateral supply chain in support of joint NPS program objectives and see Australian entities qualified into both US and UK markets.
- It will also provide a demand signal for Australian industry to both develop and sustain many of the core manufacturing capabilities we will need for Australia's SSN-AUKUS program in future (i.e. Phase 3).

If asked: When will the ASA finalise its Industrial Uplift Strategy?

- The ASA anticipates progressing the Industrial Uplift Strategy for Government consideration next year, following targeted consultation with industry, trilateral and government stakeholders.
- Any decision on whether to endorse or publish the Industrial Uplift Strategy will be a matter for Government.

If asked: How is the ASA engaging industry beyond the immediate nuclear-powered submarine supply chain requirements?

- The ASA regularly participates in defence industry forums, and will continue engaging with Australian industry on all facets of the NPS Program.
- Most recently, an Industry Seminar was held on 26 August 2024 in Perth, Western Australia, as part of the Submarine Tendered Maintenance Period engagement program. Similar activities will be conducted in each State and Territory, including a seminar in South Australia in December 2024. The ASA will continue to engage through a range of existing defence industry forums throughout 2025.
- The Perth Industry Seminar's key areas of focus were:
 - The roles of the ASA and Sovereign Submarine Partners, and the channels and timelines for industry pathways in the Program.

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- Initial thinking on the ASA Industrial Uplift Strategy, as it is being developed for Government approval.
- The roles of States and Territories, and their industry perspective.
- ASA updates on industry participation in the Program: Supply Chain; Industry Security (including Nuclear Mindset Training); and Industrial Workforce and Skills Training.
- ASA stakeholder networking booths to hear from companies and engage with industry on local issues.

If asked: Has the list of companies participating in the DIVQ been made publically available?

- The list of entities has not been publically released at this time given potential commercial and security sensitives.
 - Publically identifying the entities involved may increase their risk profile. For example, they could become increasingly targeted in the cyber domain. Entities in the DIVQ may need support to contend with such threats, including early warning of any intent to publicise their involvement.

If asked: How will industry be protected against the rising threats of espionage and sabotage that ASIO has talked about with regard to AUKUS?'

- The ASA and Defence are working with ASIO and the Australian Cyber Security Centre, as well as our US and UK partners, to protect Australia's defence industry.
- The Defence Industry Security Program includes guidance and requirements for mandatory physical, information, personnel and governance to protect Defence technologies.

[Handling Note: Refer questions regarding espionage risks to ASIO, and questions regarding the Defence Industry Security Program to the Department of Defence]

Australian Steel for Australian SSN-AUKUS

- The ASA has entered into a \$15 million contract with Australian steel manufacturer, Bisalloy Steels, for the qualification of Australian steel for Australia's future SSN-AUKUS submarines.
- The qualification process, involving more than 4,500 tests, is expected to be completed in the first half of 2025.
- Bisalloy Steel will perform advanced heat treatment on the raw plate steel to produce high-grade submarine steel that meets or exceeds both the UK and US standards. The raw plate steel will be supplied by another Australian company, BlueScope.
- Quality assurance testing of steel has commenced as has third party verification testing.
- We are committed to supporting Australian industry's participation in the AUKUS trilateral supply chain.

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- In addition to the Australian steel qualification program, Bisalloy Steel has also been contracted by Newport News Shipbuilding, a division of Huntington Ingalls Industries, the largest military shipbuilder in the US, to provide Australian steel for training and testing purposes. This order represents a critical step in strengthening the AUKUS industrial supply base.

Timeline of Major Events and Ministerial Announcements

Date	Event
26 August 2024	An Industry Engagement Seminar was held in Perth, Western Australia, as part of the Submarine Tendered Maintenance Period engagement program. (Nil media reporting)
12 April 2024	The Minister for Defence Industry announced a purchase order of Australian steel in a contract made between Australian steel manufacturer Bisalloy Steel, and U.S. military shipbuilder Newport News Shipbuilding, in collaboration of the AUKUS partnership.
22 March 2024	The Deputy Prime Minister and Minister for Defence Industry announced the AUKUS build and sustainment partners .
9 December 2023	The Minister for Defence Industry announced the engagement of Bisalloy Steel to qualify Australian-made steel for use on Australia’s future SSN-AUKUS submarines .

Key Information Requests

Date	Type	Title	Released
13 June 2024	FOI	An individual sought request to the ASA’s June Budget Estimates briefing pack.	29 July 2024
6 June 2024	QoN	No. 5, WA Industrial Bases - Timeframes. Senator Linda Reynolds (Liberal, Western Australia) requested information on industry engagement and opportunities	12 September 2024
6 June 2024	QoN	No. 115, Collaboration Agreement. Senator Senator Linda Reynolds (Liberal, Western Australia) requested information on an agreement or a collaboration deed with SRF-West, ASA, BAE, and ASC Pty Ltd.	12 September 2024

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Supplementary Estimates November 2024

PDR No: SB24-000870

Last updated: 31 October 2024

Industry

Key witnesses: Director-General, Vice Admiral Jonathan Mead, and Head SSN Construction, Ms Kate van Hilst

Relevant Media Reporting

- On 27 May 2024, The Advertiser published an article titled [Defence boom is flowing down to small business](#), discussing small and medium sized enterprises are capitalising on the mammoth opportunity created by the AUKUS deal and South Australia's emergence as the nation's defence industry state.
- On 27 March 2024, the [Daily Telegraph](#) reported the Deputy Prime Minister's announcement that the Osborne Naval Shipyard would employ between 4,000 and 5,000 people to build Australia's future submarines.

Division: SSN Construction	
PDR No: SB24-000870	
Prepared by: Jeremy Coghlan Assistant Director-General Industry Uplift Mob: s47E(c) Ph: s47E(c) Date: 23 September 2024	Cleared by Division Head: Kate van Hilst Head SSN Construction Division Mob: s47E(c) Ph: s47E(c) Date: 31 October 2024
Cleared by Director-General VADM Jonathan Mead Director-General Australian Submarine Agency Date: 14 October 2024	
<input checked="" type="checkbox"/> I confirm that all information in this brief is suitable for public release <input checked="" type="checkbox"/> I confirm this brief follows the template guidance and checklist	

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South Australia

Official Leading: Head SSN Construction, Ms Kate van Hilst.

Official/s Supporting: Head Virginia, Workforce and Commercial, AVM Phil Tammen to lead on Skills and Training Academy.

Context

South Australia is the principal location for Phase 3 of the Optimal Pathway, namely the build of SSN-AUKUS. Engagement with key stakeholders including Sovereign Submarine Partners, Australian Naval Infrastructure, and the State Government continues to underpin progress toward delivery of the Nuclear-Powered Submarine Construction Yard and Skills and Training Academy Campus.

Key Messages

- We are working with the South Australian Government to support the construction of Australia’s conventionally-armed nuclear-powered submarines, the development of our industrial workforce and the delivery of the Nuclear-Powered Submarine Construction Yard.
- Australia’s SSN-AUKUS submarines will be built in Osborne, South Australia, with the build of Australia’s first SSN-AUKUS to begin by the end of this decade.
- The Australian Government has a cooperation agreement with the South Australian Government to support the construction of Australia’s conventionally-armed nuclear-powered submarines.
- Enabling works and design effort is progressing at the site of the Submarine Construction Yard in Osborne, South Australia.
- We are working with the Department of Climate Change, Energy, the Environment and Water (DCCEEW) to progress a Strategic Assessment for the construction and operation of the Nuclear-Powered Submarine Construction Yard under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Talking Points

South Australian Government Engagement

- The ASA is working closely with the South Australian Government to progress the delivery of the Nuclear-Powered Submarine Construction Yard (NPSCY) and Skills and Training Academy (STA).
- The Commonwealth and South Australian Governments executed a Project Agreement on 10 November 2023 that has enabled the transfer of land for the NPSCY and STA Campus at Osborne.
 - In exchange for the land at Osborne, the South Australian Government has taken ownership of Defence-owned land at Keswick and Smithfield to support future

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urban renewal projects and parts of Cultana Training Area to facilitate future renewable energy initiatives.

- Following the *AUKUS (Land Acquisition) Act 2024 (SA)* passed by the South Australian Government on 10 April 2024, the transfer of land to Australian Naval Infrastructure (ANI), the Government’s appointed design and delivery partner for the NPSCY and STA, is complete.
 - : The first package of land, comprising area north of the existing Attack-class yard, was completed on 14 March 2024.
 - : The second package of land, comprising the waterfront area of the NPSCY and STA Campus site, was completed on 25 June 2024.
- The ASA is working with the South Australian Government and Port Adelaide Enfield Council to progress master-planning activities for the Lefevre Peninsula. This will consider the NPSCY, STA Campus and other future infrastructure holistically with the broader Lefevre Peninsula.
 - The South Australian Government has engaged COX Architecture Pty Ltd to deliver an updated Lefevre Peninsula Master-Plan, which will consider:
 - : Structural city shaping infrastructure including road networks, public transport, housing, social and emergency services.
 - : Urban structure including land use, local road and pedestrian networks and community interfaces.
 - : Environmental and heritage values.
- The STA is being co-designed by the Commonwealth and South Australian Government.
 - The Commonwealth is working with the South Australian Government on the construction, establishment and operation of a STA Campus in South Australia.
 - The STA will support the delivery of the workforce for Australia’s SSN-AUKUS.

If asked: What does the cooperation arrangement with South Australia involve? Are you pursuing similar arrangements with other states?

- The Cooperative Agreement, co-signed by the Premier for South Australia and Deputy Prime Minister on 15 March 2023, seeks to guide the negotiation and realisation of South Australian based activities related to Australia’s acquisition of conventionally-armed nuclear-powered submarines.
- Under this agreement, the Commonwealth and the South Australian Government have delivered an exchange of land to facilitate the development of the NPSCY and STA Campus.
- This agreement will see increasing Commonwealth supported places to South Australia Universities focused on Science, Technology, Engineering and Maths (STEM) disciplines and investment in research capability and infrastructure to generate a workforce close to the NPSCY.

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Supplementary Estimates November 2024

Last updated: 31 October 2024

Key witnesses: Head SSN Construction, Ms Kate van Hilst and Head Virginia, Workforce and Commercial, AVM
Phil Tammen

Nuclear-Powered Submarine Construction Yard (NPSCY)

- The ASA is working closely with ANI, the Government's appointed NPSCY design and delivery partner, to progress design for the NPSCY at Osborne.
- Enabling works at the preferred site for the NPSCY commenced on 19 December 2023 with site mobilisation and early works for the new carpark, following environmental approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).
 - Other enabling works are being progressed through 2024, with the development of a pedestrian bridge and grade-separated road, and above and in-ground utility relocation.
 - The carpark will initially be used to support the mobilisation of the construction workforce and laydown area for other enabling works and the overall NPSCY.
- At the program's peak, up to 4,000 workers will be employed to design and build the infrastructure for the NPSCY in Osborne.
- The ASA and ANI are currently progressing the necessary federal environmental and regulatory approvals, environmental assessments and South Australian planning approvals for the delivery of the NPSCY.
 - An EPBC Act Strategic Assessment for the construction and operation of the NPSCY is expected to shortly commence a public consultation period.
 - The Strategic Assessment is being updated to incorporate public comments ahead of assessment by the Minister for the Environment and Water in late 2024.
- ASA, ASC, BAE Systems and ANI have entered into a Collaboration Deed to define the requirements for the NPSCY through an Integrated Management Team. This will bring together BAE Systems' experience from the United Kingdom's nuclear-powered submarine program being delivered at Barrow-In-Furness, ASC's experience in the Australian submarine enterprise, and ANI's expertise in shipyard development in Australia.

If asked: How much will the future Nuclear-Powered Submarine Construction Yard cost?

- The Government is investing at least \$2 billion in South Australian infrastructure over the Forward Estimates period.
- The Government has provided ANI with an initial equity injection over five years from 2023–24 to commence early design and construction works for the NPSCY and STA.
- Any additional queries about equity to be provided to ANI may be addressed to the Department of Finance.

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Submarine Program Delivery

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If asked: What environmental approvals are required for the Nuclear-Powered Submarine Construction Yard?

- ASA and ANI are working closely with the Department of Climate Change, Energy, the Environment and Water (DCCEEW) to progress environmental approval and compliance for the NPSCY under the EPBC Act.
 - The Minister for the Environment and Water considered a standard referral under the EPBC Act for preliminary enabling works, specifically the carpark, pedestrian bridge and grade-separated road, in late 2023.
 - : A decision was issued stating that provided the work is undertaken in a “particular manner” (i.e. in accordance with the requirements contained in the referral decision), it does not require further assessment or approval under the EPBC Act before it can proceed. This has now been published on the DCCEEW EPBC portal.
 - An EPBC Act Strategic Assessment for the broader construction and operation of the NPSCY is progressing.
 - : On 25 March 2024, the Terms of Reference for the Strategic Assessment were formally approved by DCCEEW following a period of public comment which spanned 04 December 2023 through to 28 January 2024.
 - : A draft Strategic Impact Assessment Report will shortly be released for public comment following a validation process by DCCEEW. The Report is undergoing update to incorporate public comment and will be provided to DCCEEW and the Minister for Environment and Water for assessment.
 - : A consultation framework has been developed to facilitate proactive engagement with key stakeholders, interest groups and the local community as work on the Strategic Assessment progresses. The ASA has undertaken engagement with key stakeholders including First Nations and local residents.
- ANI is progressing the South Australian development approval for the NPSCY. The Minister for Planning, the Honourable Nick Champion, declared on the 15 February 2024 that an impact assessed process under s.108(1)(c) of the *Planning, Development and Infrastructure Act 2016 (SA)* will apply, requiring the preparation of an Environmental Impact Statement.

If asked: what is the status of the environmental approvals

- The EPBC Act Strategic Assessment is in final stages of review with DCCEEW. The ASA is awaiting approval to enter the Public Consultation Period. We expect this advice shortly.
- We cannot comment on the regulatory timeframe for the assessment as that is a matter for DCCEEW, however our teams are working closely together to ensure that a

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robust assessment has been completed and consulted through the Public Consultation Period.

If asked: what consultation has been undertaken with traditional land owners?

- ASA is continuing to establish a relationship with the Kurna First Nations people of the broader Adelaide region, including the proposed site for the Submarine Construction Yard, and Skills and Training Academy Campus.
- ASA has completed desktop and site surveys to understand the cultural and historical values of the land and completed a heritage impact assessment to support the environmental approvals being sought under the EPBC Act.
 - The site survey was supported by selected representatives of the Kurna Yerta Aboriginal Corporation (KYAC) and the findings were presented to their board of directors for endorsement, which was received in September 2023.
- Engagement has continued through 2024 with three key engagements throughout the year, including a visit to the preferred Submarine Construction Yard and Skills and Training Academy Campus sites in August 2024.
- The ASA is committed to a sustained relationship with Australia's First Nations people.

Skills and Training Academy (STA)

- The Commonwealth and South Australian Governments are co-designing the STA to deliver tailored education, training and skilling for the submarine and naval shipbuilding workforce in South Australia.
- Prior to the design and construction of the physical infrastructure, the STA's focus is to deliver national workforce interventions and initiatives including:
 - Career training programs to bring new people into the workforce, such as apprentices and trainees.
 - Lifting the skills of the existing naval shipbuilding workforce.
 - Transition programs to integrate new workers with foundational skills and qualifications from adjacent industries.
- The STA Campus will be built in close proximity to the NPSCY and Osborne Naval Shipyard and provide a link between the training facility and shipbuilding yards.
- Construction of the STA Campus is due to commence in late 2024, beginning with ground improvement works at the site.

If asked: What approvals are required for the Skills and Training Academy Campus?

- ANI has undertaken an EPBC Act Self-Assessment of the STA Campus and determined it does not require further assessment under the EPBC Act. This assessment has been discussed with DCCEEW.
- ANI is progressing the South Australian development approval for the STA Campus.

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Supplementary Estimates November 2024

Last updated: 31 October 2024

Key witnesses: Head SSN Construction, Ms Kate van Hilst and Head Virginia, Workforce and Commercial, AVM Phil Tammen

Timeline of Major Events and Ministerial Announcements

Date	Event
1 August 2024	The Minister for Defence Industry, the Minister for Education, the South Australian Minister for Education, and the West Australian Minister for Education announced a Schools pathways program in South Australia and Western Australia , focusing educating and developing the skilled workforce necessary for future defence industry projects, notably including the delivery of conventionally armed, nuclear-powered submarines through AUKUS.
22 March 2024	The Deputy Prime Minister and Minister for Defence Industry announced the AUKUS build and sustainment partners .

Key Information Requests

Date	Type	Title	Released
13 June 2024	FOI	An individual sought request access to the ASA’s June Budget Estimates briefing pack.	29 July 2024
6 June 2024	QoN	No. 4, Joint Venture Announcement. Senator Simon Birmingham (Liberal, South Australia) asked about the Heads of Agreement between ASA, ASC Pty Ltd and BAE Systems.	12 September 2024

Relevant Media Reporting

- On 22 June 2024, The Advertiser published an article by Paul Starick titled [Pearl of Wisdom](#), discussing 129 Adelaide-based ASC workers leaving for work on US nuclear-powered submarines in the first AUKUS training program of its type.
- On 27 May 2024, The Advertiser published an article titled [Defence boom is flowing down to small business](#), discussing small and medium sized enterprises are capitalising on the mammoth opportunity created by the AUKUS deal and South Australia's emergence as the nation's defence industry state.
- On 30 April 2024, The Advertiser published an article by Paul Starick titled [Mali sub mission to States](#), discussing the announcement of Premier Peter Malinauskas’ visit to two US nuclear submarine shipyards and his focus on understanding skills, training and workforce development requirements for construction of SSN-AUKUS.
- On 27 March 2024, the [Daily Telegraph](#) reported the Deputy Prime Minister’s announcement that the Osborne Naval Shipyard would employ between 4,000 and 5,000 people building Australia’s future submarines.

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Supplementary Estimates November 2024

PDR No: SB24-000871

Last updated: 31 October 2024

South Australia

Key witnesses: Head SSN Construction, Ms Kate van Hilst and Head Virginia, Workforce and Commercial, AVM
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Division: SSN Construction	
PDR No: SB24-000871	
Prepared by: Mr Gavin Boyd Assistant Director-General, Sovereign Submarine Program Delivery Mob: s47E(c) Ph: s47E(c) Date: 20 September 2024	Cleared by Division Head: Ms Kate van Hilst Head SSN Construction Program and Policy Mob: s47E(c) Ph: s47E(c) Date: 31 October 2024
Cleared by Director-General VADM Jonathan Mead Director-General Australian Submarine Agency Date: 14 October 2024	
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SSN-AUKUS

Official Leading: Director-General, Vice Admiral Jonathan Mead.

Official/s Supporting: Head SSN Construction, Ms Kate van Hilst.

Context

Phase 3 of the Optimal Pathway will see Australia build nuclear-powered submarines, referred to as SSN-AUKUS, in Osborne, South Australia.

Key Messages

- Australia's SSN-AUKUS submarines will be built in Osborne, South Australia, by ASC Pty Ltd and BAE Systems.
- SSN-AUKUS will be a trilaterally developed submarine based on the United Kingdom's (UK's) next generation design.
- Since 22 March 2024, ASC Pty Ltd and BAE Systems have been working together collaboratively to mobilise the SSN-AUKUS build program as the Australian Shipbuilder.
- The Joint Venture between ASC Pty Ltd and BAE Systems will establish a substantive, sovereign Australian entity to deliver the build of Australia's SSN-AUKUS fleet.

Talking Points

SSN-AUKUS Build Program

- The SSN-AUKUS submarines will be based on the UK's next generation design that incorporates technology from all three nations, including cutting-edge United States (US) submarine technologies.
- The work to deliver Australia's SSN-AUKUS submarines is already well underway. The ASA has been working with AUKUS partners and the Australian Shipbuilder in preparation to start constructing Australia's first SSN-AUKUS in Osborne, South Australia, by the end of this decade.
- The first Australian-built SSN-AUKUS is planned to be delivered in the early 2040s.
- 4,000-5,500 direct jobs are expected to be created to build the nuclear-powered submarines in South Australia when the program reaches its peak in 20-30 years' time.

If asked: How confident are you that Australia will have its first SSN-AUKUS submarine ready by the early 2040s?

- The work to deliver Australia's conventionally-armed, nuclear-powered submarines is already well underway with the Australian Shipbuilder being identified and commencing mobilisation; land being acquired for the future Submarine Construction Yard in Adelaide; infrastructure enabling works underway; and supply chain qualification activities underway, including the qualification of Australian steel.

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Current Commercial Arrangements

- Leading up to the announcement of the Australian Shipbuilder on 22 March 2024, the ASA entered into a Heads of Agreement with ASC and BAE Systems which set out their commitment to enter into a Joint Venture for the build of Australia's SSN-AUKUS in Osborne, South Australia.
 - The Joint Venture between ASC Pty Ltd and BAE Systems will establish a substantive, sovereign Australian entity to deliver the build of Australia's SSN-AUKUS fleet.
 - The Heads of Agreement is a nil cost agreement.
- Since the announcement, ASC and BAE Systems have been working together collaboratively to mobilise the SSN-AUKUS build program as the Australian Shipbuilder.
- While the parties work through these complex commercial matters, interim services arrangements have been established to enable ASC and BAE Systems to commence work.
- The parties are on track to enter into a more fulsome shipbuilder mobilisation contract before the end of 2024.
- Under this arrangement, the ASA, ASC, and BAE Systems will collaborate on critical scopes of work which are required to mobilise the program, including:
 - Developing the Australian shipbuilding workforce and supply chain.
 - Continuing the development of the requirements for the future Submarine Construction Yard in Osborne, South Australia.
 - Building out the schedule developed by AUKUS partners during the consultation period.
 - Identifying the detailed steps the Australian Shipbuilder will perform to commence the build of SSN-AUKUS before the end of this decade.
- The terms of the mobilisation contract are commercial-in-confidence.

The ASC/BAE Systems Joint Venture

- The Joint Venture between ASC Pty Ltd and BAE Systems will establish a substantive, sovereign Australian entity to deliver the build of Australia's SSN-AUKUS fleet.
- The ASA is working with ASC and BAE Systems to establish the joint venture to meet SSN-AUKUS program milestones.
 - There are a number of complex program, legal, commercial and structural steps to be undertaken.
 - Establishing these arrangements cannot be done in haste; we must approach this work methodically.

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If asked: What is the status on the establishment of the Joint Venture?

- Work to establish the Joint Venture is ongoing. While the necessary corporate and commercial processes are undertaken, ASC and BAE Systems will continue to collaborate to mobilise the build program as separate entities working in partnership.

If asked: What will be the shareholding arrangements for the Joint Venture?

- The details of the ownership and management structure of the Joint Venture entity are being worked through.

Shipbuilder Liability, Indemnity and Insurance

If asked: How will liabilities be managed?

- The management of nuclear shipbuilding risks is new for Australia.
- The ASA, in consultation with other Government agencies, will consider the appropriate liability regime for the Nuclear-Powered Submarine Program for Government consideration.
 - This includes consideration of the US and UK regimes.
 - The UK Government accepts a contingent liability on behalf of its nuclear-powered submarine shipbuilder and sustainer.
 - The UK government would pay costs in the event of a nuclear incident and the licence holder is not required to maintain insurances.

Timeline of Major Events and Ministerial Announcements

Date	Event
16 August 2024	The Deputy Prime Minister announced Generational export reforms to boost AUKUS trade and collaboration , stating that Australia, the United Kingdom (UK) and the United States (US) have finalised the establishment of an export licence-free environment, unlocking billions of dollars of investment and cutting red tape for Australian industry and our AUKUS partners.
12 July 2024	The Deputy Prime minister announced a Visit to the United Kingdom , where he will meet with the newly appointed UK Secretary of State for Defence, the Rt Hon John Healey MP, and additionally visit Sheffield Forgemasters, a key industry site for the UK’s SSN-AUKUS.
12 April 2024	The Minister for Defence Industry announced a purchase order of Australian steel in a contract made between Australian steel manufacturer Bisalloy Steel, and U.S. military shipbuilder Newport News Shipbuilding, in collaboration of the AUKUS partnership.
22 March 2024	The Deputy Prime Minister and Minister for Defence Industry announced the AUKUS build and sustainment partners .
9 December 2023	The Minister for Defence Industry announced the engagement of Bisalloy Steel to qualify Australian-made steel for use on Australia’s future SSN-AUKUS submarines .

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Supplementary Estimates November 2024

Last updated: 31 October 2024

Key witnesses: Director-General, Vice Admiral Jonathan Mead, and Head SSN Construction, Ms Kate van Hilst

Key Information Requests

Date	Type	Title	Released
13 June 2024	FOI	An individual sought request to the ASA’s June Budget Estimates briefing pack.	29 July 2024
6 June 2024	QoN	No. 4, Joint Venture Announcement. Senator Simon Birmingham (Liberal, South Australia) asked about the Heads of Agreement between ASA, ASC Pty Ltd and BAE Systems.	12 September 2024

Relevant Media Reporting

- On 27 May 2024, The Australian published an article by Brendan Nicholson titled [AUKUS submarines ‘bigger, better, faster, bolder’ than existing US versions](#), discussing general Jonathan Mead telling The Australian’s defence special report that at 10,000 tonnes, the conventionally armed SSN-AUKUS will be a “bigger, better, faster and bolder” evolution of Britain’s Astute-class submarines.
- From 21 March 2024, Australian media has reported extensively on the Australian Governments’ decision to select ASC Pty Ltd and BAE Systems as the Build and Sustainment Partners.
- On 21 March 2024, the Australian Financial Review published an article by Andrew Tillett titled [Australia to spend \\$5b on UK subs in AUKUS pact](#), commenting on the announcement and its involvement in the most significant industrial venture whilst creating highly skilled jobs to support engineering, maintenance and the supply chain between all three governments.
- From 6 December 2023, various Australian and international media outlets reported on the engagement of Bisalloy Steel to qualify Australian steel for use on future Australian-built SSN-AUKUS submarines.

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Supplementary Estimates November 2024

PDR No: SB24-000872

Last updated: 31 October 2024

SSN-AUKUS

Key witnesses: Director-General, Vice Admiral Jonathan Mead, and Head SSN Construction, Ms Kate van Hilst

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PDR No: SB24-000872	
Prepared by: Gavin Boyd Assistant Director-General Sovereign Submarine Program Delivery Mob: s47E(c) Ph: s47E(c) Date: 24 September 2024	Cleared by Division Head: Kate van Hilst Head SSN Construction Division Mob: s47E(c) Ph: s47E(c) Date: 31 October 2024
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Workforce – Industry, Education and Skilling

Official Leading: Director-General, Vice Admiral Jonathan Mead.

Official/s Supporting: Head Virginia Workforce Commercial Division, AVM Philip Tammen.

Context

The Nuclear Powered Submarine Program will create around 20,000 jobs over the next 30 years across industry, the ADF and the APS. We have already started building the workforce required to deliver Australia’s nuclear-powered submarine capability.

Key Messages

- We are committed to developing Australia’s workforce to build, operate and maintain Australian conventionally-armed nuclear-powered submarines, including by placing Australian industry personnel in United Kingdom (UK) and United States (US) shipyards and facilities.
- As part of the 2024-25 Budget, the Australian Government provided:
 - \$68.4 million over seven years from 2024–25 for initiatives delivered through the new Skills and Training Academy; and
 - \$16.3 million over 6 years to establish the NPS Student Support Scholarships Program, delivering 3,000 scholarships for students studying undergraduate STEM courses relevant to the NPS enterprise.
- In September 2024, the Prime Minister announced the Jobs for Subs program to grow the workforce required to deliver Submarine Rotational Force – West (SRF-West) by 200 graduates, apprentices and trainees.
- Since July 2024 Pearl Harbor Naval Shipyard in the US has welcomed international placements for over 40 ASC Pty Ltd personnel, with the expectation of reaching over 100 personnel in country by January 2025.

Talking Points

- Australia’s Nuclear-Powered Submarine (NPS) Program presents an unparalleled opportunity for our nation, creating around 20,000 direct jobs over the next 30 years across industry, the ADF and the APS.
- A workforce of up to 4,000 – 5,500 direct jobs are expected to support the build of the conventionally-armed, nuclear-powered submarines in South Australia when the program reaches its peak in the 2040s.
- At its peak, up to 4,000 workers will be employed to design and build the infrastructure for the submarine construction yard in Osborne.
- In Western Australia, the expansion of HMAS *Stirling* is expected to support approximately 3,000 direct jobs over the decade.

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- An additional 500 direct jobs are expected to support the sustainment of the Submarine Rotational Force-West (SRF-West) over the period 2027-2032.

If asked: What are the current Workforce Development Initiatives?

- Education and skilling offerings are being developed and implemented to build Australia's future NPS workforce through a range of initiatives, including:
 - NPS Student Pathways Program (4,001 Commonwealth Supported Places (CSPs));
 - NPS Student Support Scholarships (3,000 Scholarships);
 - Expanding the Defence Industry Pathways Program from Western Australia to South Australia;
 - Defence STEM Cadetship Program;
 - Defence Graduate Programs;
 - ASA Nuclear Graduate Program;
 - ASA Postgraduate Nuclear Education Program;
 - NPS Industry Master's Pilot Program; and
 - Australian Submarine Corporation (ASC) Early Careers Program in South Australia and Western Australia, employing more apprentices, graduates and undergraduates to give them hands-on experience in designing, building and maintaining the nation's submarines
- In addition to the work under way domestically, Australia is also working with our AUKUS partners on initiatives to build the nuclear skills of our enterprise workforce across industry, the ADF and the APS to support SRF-West and can start the build of our SSN-AUKUS this decade including through:
 - Industrial workforce exchanges to UK and US shipyards;
 - World-class training opportunities for industry, Navy and public service personnel at UK and US naval nuclear schools; and
 - Personnel exchanges that enable Australian submariners to train on UK and US nuclear-powered submarines.
- In the 2024-25 Budget, the Australian Government announced \$68.4 million over seven years from 2024–25 for initiatives delivered through the new Skills and Training Academy:
 - \$34.7 million over six years from 2024–25 for the Shipbuilding Employment Pathways initiative to deliver a pilot apprenticeship program in trades required to support the nuclear-powered submarine enterprise;
 - \$24.4 million over seven years from 2024–25 to deliver a training program on material testing;

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- \$4.7 million over four years from 2024–25 for customised bridging and aptitude testing programs for welders, to support the transition of new and existing workers into the nuclear-powered submarine enterprise;
- \$3.9 million over four years from 2024–25 to train TAFE teachers to deliver courses relevant to key professions within the nuclear-powered submarine enterprise; and
- \$0.7 million over four years from 2024–25 to co-design training programs with industry relevant to the nuclear-powered submarine enterprise.

If asked: What are the International placements for Australian Industry personnel doing?

- Australian industry personnel placed in UK and US shipyards and facilities will learn the skills required to build, operate, sustain, and maintain Australia’s conventionally-armed, nuclear-powered submarines.
- This includes Australians participating in sustainment activities for US Virginia class submarines and working on the future SSN-AUKUS in the UK, as well as relevant activities across the UK nuclear-powered submarine enterprise.
- Many of these skills take years to develop, so it is important to leverage all appropriate opportunities in the UK and US to enable Australian personnel to learn and gain experience.
- All work by Australian personnel in UK or US shipyards and facilities will remain consistent with Australia’s domestic and international legal obligations.
- Longer term international placements to support the sustain program have begun.
 - Since July 2024, Pearl Harbor Naval Shipyard in the US has welcomed over 40 ASC Pty Ltd personnel, with the expectation of having over 100 personnel in country by January 2025.
- ASA is working alongside the Australian Shipbuilder to identify future key industrial international placements to occur over the next two years in support of the build program.
- The first cohort of industry personnel from the UK Master’s Program returned to Australia in September 2024, with five expected to graduate from the University of Birmingham (Physics and Technology of Nuclear Masters/MSc) and four to graduate from the University of Manchester (MSc Nuclear Science and Technology).

If asked: About the recent Jobs for Subs Announcement

- On 2 September 2024, the Prime Minister announced a new Jobs for Subs program to grow the workforce required to deliver SRF-West.
- This program will allow ASC Pty Ltd to recruit around 200 additional entry-level personnel over the next two years across high priority disciplines and trades essential

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to the NPS enterprise, building the workforce we need in the west to sustain and maintain Australia's future nuclear-powered submarines.

- The Jobs for Subs initiative is a Government-funded recruitment and upskilling program for graduates, apprentices and trainees within Australia's Sovereign Submarine Sustainment Partner, ASC. These roles, predominantly in Western Australia, span fabrication and machining, engineering and project management, and supply chain and operations qualifications.

If asked: About Degree Apprenticeships in South Australia

- The Degree Apprenticeship Pilots Program is an initiative of the South Australian Defence Industry Workforce and Skills Report and Action Plan 2024-2027, co-funded by the South Australian Government and Commonwealth.
- It is designed to address critical STEM skills shortages in the state's defence industry targeted at entry level talent and mid-career transitions.
- The first pilot program (Australia's first degree apprenticeship initiative) is the Bachelor of Software Engineering (Honours) pilot that had its first intake of 13 software engineering apprentices commence in 2024. Employer partners include BAE Systems, ASC and Consunet.
- The second pilot program is the Bachelor of Mechanical Engineering (Honours) pilot launched in September 2025.
- The Program seeks to achieve a total of 375 Degree Apprenticeship commencements over 4 years to December 2028 across all pilot initiatives and their successors.

If asked: Higher Education and Technical Skilling

- Education and skilling pathways underpin a strong, inclusive and sustainable labour market and Australia's world-class education system will be strengthened as we create more education opportunities across our nation.
- Since 2022, a range of programs have supported more than 70 Australians to undertake undergraduate and postgraduate nuclear studies at universities in the UK, US, and in Australia.
- Another important AUKUS milestone has also recently been achieved, with the Royal Navy delivering professional and nuclear training for more than 250 Australian personnel in Canberra, with the support of the Australian Submarine Agency in September 2024.
 - The delivery of the Royal Navy's Nuclear Introductory Course (NIC) and other courses in Australia is a clear demonstration of the commitment of our AUKUS partners to help Australia develop its knowledge and implement a best-practice safety culture that protects our people, the public and the environment.

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- Over 50 Australians from across the NPS Enterprise have completed Nuclear Executive courses in the US, the UK and domestically, to develop an understanding of nuclear principles in decision-making, along with an enhanced understanding of the technical and policy challenges of being the stewards of nuclear-powered submarines and nuclear technologies.
- Over 50 personnel from ASA have been supported to undertake submarine design and foundational nuclear-submarine courses, to assist in the development of whole-of-platform Suitably Qualified and Experienced Personnel (SQEP), as well as supporting the transition of personnel into the nuclear-powered submarine enterprise from adjacent fields.

If asked: What is being done to grow the STEM skills needed to support the ASA?

- As part of the 2024-25 Budget, the Australian Government provided \$16.3 million over 6 years to establish the NPS Student Support Scholarships Program, delivering 3,000 scholarships for students studying undergraduate STEM courses relevant to the NPS enterprise.
- The NPS Student Scholarships Program will support the steady increase of qualified graduates across key STEM fields, to increase attraction and awareness of opportunities in the NPS enterprise workforce, and be an enabler for building the entry-level NPS technical workforce.
- As part of the 2023-24 Budget, the Australian Government provided \$128.5 million over 4 years to establish the Nuclear-Powered Submarine Student Pathways Program (NPS Student Pathways); a targeted national competitive program providing an additional 4,001 Commonwealth Supported Places (CSPs) in STEM related courses. 4,001 CSPs have been allocated over 2024 to 2027 across 16 universities nationally.

Provider	Places allocated commencing over 2024-2027
The University of Adelaide	700
RMIT University	426
University of Wollongong	425
University of New South Wales	340
Flinders University	330
Curtin University	320
The University of Queensland	315
The University of Melbourne	300
Macquarie University	190
The University of Newcastle	140
Western Sydney University	120
Charles Darwin University	110
The Australian National University	108

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Charles Sturt University	71
The University of Western Australia	56
Murdoch University	50

- ASA are working with the Department of Education, who have advised that final data for the uptake of these CSPs for the 2024 academic year will be available next year. ASA will work with Department of Education and universities to get interim numbers that may change as student movements are tracked throughout the year by universities.

Specific queries should be referred to the Department of Education.

If asked: When are students expected to commence at universities in the NPS Student Pathways Program?

- The first students for this program commenced studies in 2024.
- The Department of Education is currently working with the 16 successful universities to track the uptake of the NPS Student Pathways places.

Specific queries should be referred to the Department of Education.

If asked: About the Skills and Training Academy

- On 15 March 2023, the Commonwealth and South Australian Government signed a submarine Cooperation Agreement, outlining the respective Governments’ commitment to supporting the nuclear-powered submarine program in South Australia. This Cooperation Agreement included a mutual commitment to realise the construction, establishment and operation of a Skills and Training Academy campus in South Australia, to be co-designed by the Commonwealth and the State, and developed in consultation with industry and unions.
- The Skills and Training Academy will be the centre for Australia’s submarine and shipbuilding industry workforce growth and development. It will enable Australian industry to build and maintain the nuclear-powered submarine fleet and sustain the significant size and skill requirements of the broader national Naval Shipbuilding and Sustainment Enterprise.
- The Skills and Training Academy campus is anticipated to be operational in 2028 and support 800-1,000 learners per year, across all skill levels.

Timeline of Major Events and Ministerial Announcements

Date	Event
2 September 2024	The Prime Minister, Deputy Prime Minister, and Minister for Defence Industry announced a Further boost to Australia's nuclear powered submarine workforce , including a new ‘Jobs for Subs’ program to develop 200 workers to support SRF-West.

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1 August 2024	The Minister for Defence Industry, the Minister for Education, the South Australian Minister for Education, and the West Australian Minister for Education announced a Schools pathways program in South Australia and Western Australia , focusing educating and developing the skilled workforce necessary for future defence industry projects, notably including the delivery of conventionally armed, nuclear-powered submarines through AUKUS.
14 May 2024	In a joint media release , the Deputy Prime Minister announced \$81.9 million towards defence industry for critical jobs, including for scholarships, attracting and recruiting apprentices under the Shipbuilding Employment Pathways Initiative, supply chain support and uplifting the defence industrial workforce.

Key Information Requests

Date	Type	Title	Released
27 Jun 2024	QoN	No. 103, AUKUS related educational assistance - 2024-25 Budget Estimates. Senator Steph Hodgins-May (Greens Victoria) asked about further details for the NPS Technical Scholarships, (3,000 scholarships for students studying relevant undergraduate STEM courses).	12 Sep 2024
19 Jun 2024	QoN	No. 117, Workforce and Infrastructure Skilling - 2024-25 Budget Estimates. Senator Linda Reynolds (Liberal WA) asked about plans to develop and sustained a skilled workforce in Western Australia to support the AUKUS initiative, and addressing potential shortfalls in training and education.	04 Oct 2024
18 Jun 2024	QoN	No. 108, Workforce Recruitment and Retention - 2024-25 Budget Estimates. Senator Jacquie Lambie (Lambie Network TAS) asked about plans to recruit and sustain a skilled workforce in Australia to support the AUKUS initiative.	12 Sep 2024
13 June 2024	FOI	An individual sought request to the ASA’s June Budget Estimates briefing pack.	29 July 2024

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Supplementary Estimates November 2024

PDR No: SB24-000874

Last updated: 1 November 2024

Workforce – Industry, Education and Skilling

Key witnesses: Director-General, Vice Admiral Jonathan Mead, and Head Virginia, Workforce and Commercial, AVM Philip Tammen

Relevant Media Reporting

- On 27 March 2024, the [Daily Telegraph](#) reported the Deputy Prime Minister’s announcement that the Osborne Naval Shipyard would employ between 4,000 and 5,000 people building Australia’s future submarines.

Division: Virginia Workforce and Commercial	
PDR No: SB24-000875	
Prepared by: s47E(c) Director Workforce Planning Enterprise Workforce Mob: s47E(c) Ph: s47E(c) Date: 20 September 2024	Cleared by Division Head: AVM Phil Tammen Head Virginia Acquisition, Workforce and Commercial Mob: s47E(c) Ph: s47E(c) Date: 25 September 2024
Consultation: CDRE Fiona McNaught – Capability Support Jasmin Craufurd-Hill - Technology Enterprise	
Cleared by Director-General VADM Jonathan Mead Director-General Australian Submarine Agency Date: 14 October 2024	

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Virginia Class Submarines - Sustainment

Official Leading: Head Virginia, Workforce and Commercial, AVM Phil Tammen, to lead on acquisition and delivery aspects of Virginia class submarine materiel.

Handling Note:

- The Submarine Tendered Maintenance Period (STMP) is covered in the Submarine Rotational Force–West (SRF–West) brief.

Key Messages

- Australia will acquire three Virginia class submarines from the United States (US), with the option of two more if required.
- The first Virginia class submarine is expected to be delivered to Australia in the early 2030s.
- A pre-condition for Australia to receive its first Virginia class submarine is that it be “sovereign ready” to operate and sustain the vessel.
- In March 2024, ASC Pty Ltd (ASC) was announced as Australia’s selected sovereign submarine partner for nuclear-powered submarine sustainment, commencing with Virginia class submarines and to be followed by the SSN-AUKUS class once the sustainment requirements for that platform are better understood.
- As Australia’s selected sovereign partner for nuclear-powered submarine sustainment, ASC has a central role in attaining the sustainment aspects of “sovereign ready”, and beyond that, in delivering full sustainment support for Australia’s Virginia class submarines.

Talking Points

If asked: What is Defence and ASC doing to grow the sustainment workforce?

- The government has approved initial investments to grow ASC’s nuclear-powered submarine workforce capacity, and commence initial Virginia class submarine sustainment planning.
 - Further government decisions on Virginia class submarine sustainment planning, workforce growth and skills development will be sought in line with program needs and maturity.
- On 20 March 2024, Defence entered commercial arrangements with ASC to commence initial Virginia class submarines sustainment planning, workforce growth, and related activities.
- ASC’s Virginia class submarine sustainment workforce growth will initially be targeted for work in Western Australia as the selected intermediate maintenance location for Australia’s conventionally, armed nuclear-powered submarines.

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- Periodic nuclear-powered submarine visits to Western Australia across the period 2024-2026 will provide opportunities for ASC's workforce to exercise their developing nuclear-powered submarine sustainment capacity and competence.
- Developing the industrial workforce and upskilling ASC as the sustainment sovereign submarine partner is an important aspect of preparing to support the United States (US) and United Kingdom (UK) submarines at Submarine Rotational Force–West (SRF-West (SRF-West) from 2027.

If asked: What are the embedment's in US Navy's Pearl Harbour Naval Shipyard?

- Pearl Harbour Naval Shipyard has been selected by the US Navy to assist in the development of an intermediate maintenance capability in HMAS *Stirling*, Western Australia.
- ASC personnel are now embedded in Pearl Harbour Naval Shipyard, undertaking training and gaining experience needed for the future sustainment of Virginia class Submarines in Australia.
- Since July 2024, Pearl Harbor Naval Shipyard has welcomed over 40 ASC personnel, with the expectation of having over 100 personnel in the country by mid-January 2025 as part of the training initiative.

If asked: How is the government managing risk to the Collins program of ASC's growth?

- Defence, the ASA and ASC are closely managing early Virginia class submarines sustainment workforce growth and skills development to manage risk to the Collins class submarine capability, and ensure synergies between Collins and Virginia sustainment needs are optimised.

If asked: Where will Australia conduct depot-level sustainment?

- On 16 October 2024, the Australian Government announced that it will establish a consolidated Defence precinct at Western Australia's Henderson shipyard, and that this will be the home of depot-level maintenance and contingency docking for Australia's future conventionally-armed, nuclear powered submarines.
- Depot-level sustainment is an intrusive period of maintenance, typically conducted in a graving dock, that ensures all submarine systems are serviced and that critical safety and watertight integrity boundaries are intact. A depot-level sustainment period can run for approximately two years.
- Depot-level sustainment is expected to occur on Australia's conventionally-armed, nuclear powered submarines from the late 2030s.

If asked: What is a contingency dock?

- A contingency dock is a dry-dock capability to conduct short notice repair and maintenance on submarines where those tasks aren't able to be achieved with the submarine in the water. A floating dry dock is an example of a contingency dock.

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- It is not anticipated that full depot-level sustainment will occur in a contingency dock. The intrusive nature of depot-level sustainment, and the need for strict nuclear safety requirements, make contingency dock options unsuited for full depot-level sustainment.
- A contingency dock capability is required to support the operation of Australia's first Virginia Class submarines in the early 2030s.
- A contingency dock capability will be a licensed facility and subject to strict build, nuclear safety and emergency preparedness requirements.

If asked: How will Australian SMEs be involved in the sustainment of nuclear-powered submarines?

- Building on ongoing work to establish the relevant legislative and policy frameworks, the ASA is implementing various pilot initiatives to test the ability for Australian industry to qualify for nuclear-powered submarine supply chain work.
- ASC is required to facilitate Australia's industry involvement in nuclear-powered submarine supply chains.

If asked: Will Australia modernise its Virginia class submarines in step with US Navy configuration?

- The details of Australia's sovereign approach to implementing Virginia class submarines upkeep, update and upgrade all remains future work.
- Australia is working closely with the relevant US agencies in the development of its Virginia class submarine sustainment strategies and plans.
- Australia intends that its sovereign Virginia class submarines remains as close to a recognised US configuration as possible.

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Key Information Requests

Date	Type	Title	Released
18 June 2024	QoN	No. 107, Sustainment and Maintenance of Virginia-class submarines. Senator Linda Reynolds (Liberal, WA) asked about work to operate and maintain conventionally-armed nuclear-powered submarines.	12 September 2024

Timeline of Major Events and Ministerial Announcements

Date	Event
23 August 2024	The Deputy Prime Minister and Minister for Defence, Australia, the Hon Richard Marles MP; Secretary of State for Defence, UK; the Right Hon John Healey MP, and the Secretary of Defense, US, the Hon Lloyd J. Austin III, <u>published a joint statement on the Submarine Tendered Maintenance Period.</u>
22 March 2024	The Deputy Prime Minister, the Hon Richard Marles MP and Minister for Defence Industry, the Hon Pat Conroy MP <u>announced ASC as the Sovereign Submarine Sustainment Partner for the Virginia-class and SSN-AUKUS.</u>

Relevant Media Reporting

- On 23 August 2024, The Canberra Times published an article titled Australia conducts maintenance of US nuclear submarine which reported on the STMP for the visiting USS *Hawaii* VCS at HMAS *Stirling*.
- On 22 June 2024, The West Australian published an article titled First AUKUS nuclear-powered submarine workers headed to Hawaii for training on US subs at Pearl Harbor, which reported around 30 skilled ASC workers had arrived in Pearl Harbour, Hawaii, to participate in training on the maintenance of US Virginia class nuclear-powered submarines alongside their US counterparts.
- On 23 March 2024, the Herald Sun published an article by Courtney Gould and Ellen Ransley titled Australia to send billions to UK to build nuclear reactors to power AUKUS submarines, which discusses the selection of ASC as the Sovereign Submarine Sustainment Partner.
- On 23 March 2024, Yahoo published an article by Jacob Shteyman titled work begins on subs program after historic AUKUS deal, discussing the selection of Sovereign Submarine Sustainment Partner for the Virginia class and SSN-AUKUS.
- On 22 March 2024, PerthNow published an article by Tess Ikonomou titled AUKUS clears next hurdle for nuclear submarines, which discusses the selection of Sovereign Submarine Sustainment Partner for the Virginia class and SSN-AUKUS.

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Division/s: Virginia, Workforce and Commercial Division	
PDR No: SB24-000881	
Prepared by: Commodore Daniel LeRaye Director General - Submarine Sustainment Submarines Division Mob: s47E(c) Ph: s47E(c) Date: 24 September 2024	Cleared by Division Head: Mr John Chandler First Assistant Secretary Submarines Naval Shipbuilding and Sustainment Mob: s47E(c) Ph: s47E(c) Date: 24 September 2024
Prepared by: Commodore Carl Holmes Assistant Director General Virginia Acquisition Virginia, Workforce and Commercial Mob: s47E(c) Ph: s47E(c) Date: 24 September 2024	Cleared by Division Head: AVM Phil Tammen Head Virginia and Commercial Australian Submarine Agency Mob: s47E(c) Ph: s47E(c) Date: 04 October 2024
Consultation: FAS Submarines	
Cleared by Director-General VADM Jonathan Mead Director-General Australian Submarine Agency Date: 14 October 2024	

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