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Australian Government
Australian Submarine Agency

Australian Submarine Agency Budget Estimates May 2024

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Capability Overview

Handling Note: Vice Admiral Jonathan Mead to lead on Capability Overview.

Key Messages

- The National Defence Strategy will see a Strategy of Denial become the cornerstone of Defence planning. This approach aims 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.
- Acquisition of conventionally-armed, nuclear-powered submarines through AUKUS will improve our deterrence capabilities, and is one of six immediate priorities advanced through Defence's rebuilt Integrated Investment Program.
- Nuclear-powered submarines will provide a step change in Australia's undersea warfare capability, and will form part of an enhanced maritime, air and land strike capability.

Talking Points

- Since the Defence Strategic Review identified that Australia faced 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 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.
- Australia's conventionally-armed nuclear-powered submarine capability will enable AUKUS partners, in collaboration with like-minded countries, to better contribute to a sovereign and resilient Indo-Pacific and to deter aggression more effectively.

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- For a maritime nation like Australia, just like the United Kingdom and United States, maintaining a submarine capability advantage over potential adversaries is vital.
 - The closing or blocking of sea lanes would have a critical impact on our economy and security, disrupting our ability to receive essential goods such as fuel and medicines and our ability to export to international markets.
 - Blocking sea-lanes would also have a critical impact on the economy and security of our partners in South East Asia, the Pacific, and globally.
 - We rely on international trade for our economic prosperity and on multiple seabed cables to connect us to the global trading system.
 - Australia’s acquisition of a fleet of conventionally-armed, nuclear-powered submarines will enhance our ability to deter aggression and contribute to stability in the Indo-Pacific.
- AUKUS is about ensuring we have capabilities that contribute to a strategy of denial, enhancing Australia’s capacity to deter coercion and increasing the ADF’s capacity for impactful projection.
- Submarines are an essential part of Australia’s naval capability, providing a strategic advantage in terms of surveillance and protection of our extensive maritime approaches.
- Australia’s submarines will be equipped for intelligence, surveillance, undersea warfare and strike missions.
- No other platform matches the stealth, endurance, mobility and mix of capabilities a nuclear-powered submarine provides.
 - They offer virtually unlimited range and increased stealth because they do not need to regularly rise to the surface to recharge the batteries.
- The range and endurance of nuclear-powered submarines will keep maritime threats farther away from Australia’s territory and people.
- Nuclear-powered submarines can deter a potential aggressor by holding their ships and submarines at risk at distance from Australia for extended periods creating uncertainty in the mind of adversaries and creating decision-making space for leaders. As part of an integrated force, nuclear-powered submarines will enhance Defence’s ability to conduct maritime operations and provide the ADF with improved freedom of action.

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Budget Estimates May 2024
Last updated: 29 May 2024
Key witnesses: RADM Matthew Buckley

PDR No: SB24-000422
Capability - Overview

Supporting Information

Questions on Notice

- Nil.

Freedom of Information (FOI) Requests

- Nil.

Recent Ministerial Comments

- Nil.

Relevant Media Reporting

- On 27 April 2024, *The Australian* published an article by Cameron Stewart titled [French spies 'blindsided on subs'](#), discussing the decision made by former Prime Minister Scott Morrison to abandon the French submarine deal.
- On 21 April 2024, *The Daily Telegraph* published an article by Tom Minea titled [US deal a win for Ukraine, AUKUS](#), discussing the historic \$US95bn (AU\$148bn) foreign aid package that arms Ukraine and Israel, bolsters the AUKUS pact and paves the way for a ban on TikTok is set to be signed into law by US President Joe Biden within days.
- On 20 April 2024, *The Standard* published an article titled [AUKUS trade exemptions deadline delayed by 120 days](#), discussing that the US State Department says it fully expects to finalise new trade exemptions for the AUKUS defence project with Australia and the UK over the next 120 days.
- On 18 March 2024, *The Conversation* published an op-ed by John Blaxland titled [Will the AUKUS deal survive in the event of a Trump presidency? All signs point to yes](#), discussing reports of a dip in US production of nuclear submarines and concerns about the future of the agreement under Donald Trump in relation to the viability of AUKUS are misplaced.
- On 17 March 2024, *The Advertiser* published an article by Paul Starick titled [Talks kickstart N-subs](#), discussing a top-level Adelaide meeting headlined by former UK Prime Minister David Cameron set to kickstart nuclear-powered submarine work by announcing the \$368bn AUKUS project's shipbuilder.
- On 11 March 2024, *The West Australian* published an article titled [Navy chiefs set sail for AUKUS show & tell in WA](#), discussing the meeting of three global naval leaders in Perth in July of this year, in a display of WA's importance to the rollout of AUKUS nuclear-powered submarines.

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Budget Estimates May 2024
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PDR No: SB24-000422
Capability - Overview

- On 17 February 2024, *The Australian* published an op-ed by Hugh White titled [Is AUKUS Plan Feasible](#), discussing how defence policy won't get back on track to meet the extraordinary strategic challenges Australia faces today based on the pressures on the Optimal Pathway.

Division: Capability Division	
PDR No: SB24-000422	
Prepared by: CDRE Stephen Dalton, Assistant Director-General Nuclear Submarine Material Requirements, Capability Mob: s47E(d) Ph: s47E(d) Date: 29 April 2024	Cleared by Division Head: RADM Matthew Buckley, Head Nuclear Submarine Capability Mob: s47E(d) Ph: s47E(d) Date: 29 April 2024
Cleared by Deputy Director-General: David Hallinan Deputy Director-General Program and Policy Australian Submarine Agency Date: 30 April 2024	

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Western Australia

Handling Note: Rear Admiral Matthew Buckley to lead on Western Australia.

Key Messages

- Western Australia will be at the forefront of the Optimal Pathway for Australia's acquisition of a conventionally armed nuclear-powered submarine capability, continuing its proud tradition as the home of Australian submarines.
- Beginning in 2023, United States nuclear-powered submarines have increased port visits to Western Australia with Australian sailors joining United States crews for training and development. The United Kingdom will increase visits from 2025/26 providing similar opportunities for our Australian sailors.
- From as early as 2027, United Kingdom and United States nuclear-powered submarines will begin a rotational presence. This initiative, known as 'Submarine Rotational Force-West' (SRF-West), will develop Australia's ability to operate, maintain and safely steward our future SSNs by deploying our Navy personnel on visiting United Kingdom and United States submarines where they will gain at-sea experience with naval nuclear propulsion.
- From the early 2030s HMAS Stirling will be home to Australia's first sovereign SSN capability – the Virginia class submarines.
- The Australian Government will invest up to \$8 billion over the next decade to expand HMAS *Stirling*, supporting around 3,000 direct jobs, and in turn the local economy.
- The Australian Government has established a nuclear powered submarine program steering group with the Government of Western Australia to harmonise delivery of the pathway in Western Australia, including for SRF-West and sovereign Virginia Class submarines.

Talking Points

- The Federal and Western Australian governments established the Nuclear Powered Submarine Program Steering Group on Tuesday 22 August 2023.
 - The Steering Group most recently met on 29 May 2024.
 - The Steering Group priorities are infrastructure, workforce, safety, security, social licence and housing.
 - The Steering Group is undertaking detailed discussions on US family support requirements associated with SRF-West, including housing and broader family support services such as education, childcare and health support.

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Budget Estimates May 2024
Last updated: 3 June 2024
Key witnesses: RADM Matthew Buckley

PDR No: SB24-000423
Western Australia

- : These were determined during a visit to Western Australia by US officials in September 2023. The US Navy forwarded specific US expectations for personnel and family support to the Australian Submarine Agency by formal correspondence in late April. Options to address these expectations are under development.
- The Defence/ WA Government Henderson/Stirling Joint Task Force is the main forum for engagement with the WA Government on the Henderson precinct. This forum last met in May 2024, discussing a range of topics including Defence shipbuilding and sustainment announcements, WA Government budget announcements on investment in the western trade coast, maritime infrastructure plans, and workforce pressures involved in supporting the range of large-scale maritime projects in WA.
- The ASA met with Minister King, the local federal member for Brand, in May, which included an update on SRF-West infrastructure.
- ASA is also working with Western Australian education institutions to develop skilling programs to support workforce growth.

Social licence in Western Australia

- Developing and maintaining a social licence for Australian conventionally-armed nuclear-powered submarines will underpin the success of the program.
- While this is a whole-of-nation undertaking, considered and ongoing engagement with Western Australia and South Australia is critical given the role each of these states play in the Australian nuclear-powered submarine program.
- An Elected Officials Engagement is being planned for Q3 2024 to provide detailed briefings on AUKUS Pillar 1 and SRF-West, Dates for this engagement are being negotiated with WA federal and state officials.
- ASA meets regularly with the Western Australian Minister for Defence Industry (Minister Papalia), other WA Ministers, mayors and State and local government officials to understand their priorities, address any issues, and ensure an aligned and collaborative approach to guarantee the success of this program.
 - The ASA met with the WA government (Minister Papalia’s Assistant Minister Hannah Beazley) twice in March/April 2024. These meetings were to brief the Minister and her team on the nuclear-powered submarine shipbuilding and sustainment partner announcements and more broadly on the Optimal Pathway and Submarine Rotational Force – West.
 - The ASA has met with officials from the cities of Rockingham, Cockburn, Kwinana and Fremantle.
 - ASA has had multiple meetings with the CEO of the Perth Southwest Metropolitan Alliance, an organisation of local councils in the area around HMAS *Stirling*.

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Budget Estimates May 2024
Last updated: 3 June 2024
Key witnesses: RADM Matthew Buckley

PDR No: SB24-000423
Western Australia

- On 29 May, VADM Mead met with Deputy Prime Minister, WA Minister Madeleine King (Member for Brand) and DEPSEC Security and Estate, Ms Celia Perkins, to discuss matters pertaining to housing, roads, and infrastructure in WA and around the HMAS *Stirling* region, with strong relationship established for information exchange and collaborative approach to resolving the challenges.
- Defence plans to undertake a social and economic impact assessment to ensure the local community is equipped to manage any potential impacts of SRF-West.

US Navy visits to Western Australia

- Increased United States SSN port visits to HMAS *Stirling* in Western Australia began in 2023.
 - The visits enable Australia to develop practical experience with nuclear powered submarines at sea and in port.

Most recently, the USS *Annapolis* conducted a short port visit to HMAS *Stirling* in March 2024..In Q3 2024 a Submarine Tender Supported Maintenance period of a US Virginia Class Submarine is scheduled for a period of 3-4 weeks at HMAS *Stirling*. This will be the first time that Australian personnel will participate in the maintenance of a US nuclear-powered submarine in Australia.

UK Navy visits to Western Australia

- The United Kingdom will increase SSN port visits to HMAS *Stirling* from 2025-26 providing similar experience for Australian sailors on United Kingdom submarines.

If pressed: What is happening in Western Australia?

- The Government has announced around \$8 billion will be invested in HMAS *Stirling* over the next decade and a half, with \$1.5 billion in priority works approved over the next four years to support implementation of SRF-West.
- This investment includes wharf upgrades, operational maintenance, and other infrastructure to support increased port visits by United Kingdom and United States submarines for SRF-West and Australia's fleet of SSN-AUKUS.
- Housing support for US and UK personnel as part of Submarine Rotational Force–West (SRF-West) is a priority. The US and UK are expecting approximately 1,100 personnel plus family members to move to Western Australia as part of SRF-West. These personnel are expected to commence arriving from Q4 2025, with numbers expected to peak by Q4 2030.
- The Australian Submarine Agency is working closely with Security and Estate Group on the plan to deliver the required housing from Q4 2025. This is likely to involve a Defence-led, industry- partnered solution that also takes into consideration the accommodation requirements for the workforce delivering Defence infrastructure works in Southwest WA. While this accommodation is required in the first instance to meet the SRF-West

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demand out to the early 2030s, the housing stock will subsequently transition to meet growing Defence housing requirements into the future.

Supporting Information

Questions on Notice

· Nil.

Freedom of Information (FOI) Requests

· Nil.

Recent Ministerial Comments

· Nil.

Relevant Media Reporting

· On 27 April 2024, in *The West Australian* published an article by Katina Curtis titled [Sub-standard wages](#), discussing the potential competition with the mining sector for submarine workers because it can't offer higher wages.

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PDR No: SB24-000423	
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<p>Cleared by Deputy Director-General David Hallinan Deputy Director-General Program and Policy Australian Submarine Agency</p>	
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Costs

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 per year, 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 (MYEFO 2023-24 price basis).
- 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.

Talking Points

If pressed: 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 per year, averaged over the program.
- The \$53 to \$63 billion in the 2024 Integrated Investment Program funding over the 2024-25 to 2033-34 decade is an increase from the previous decade (2023-24 to 2032-33). This difference primarily relates to an increase in the level of planned activities and associated expenditure in 2033-34 financial year (compared to 2023-24).
 - 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.

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If pressed: Why is Australia making financial contributions to the nuclear-powered submarine enterprises of the United Kingdom and the United States?

- All AUKUS partners are investing significantly to ensure success of the Optimal Pathway and are working at pace to transform and integrate our trilateral industrial bases to support nuclear-powered submarine cooperation.
- In March 2023, Australia announced it would make proportionate financial contributions to the submarine industrial bases of the United Kingdom and the United States in order to realise an Australian conventionally-armed nuclear-powered submarine capability in the early 2040s.
 - These targeted contributions will directly support the additional capacity needed to enable delivery of Australia’s conventionally-armed nuclear-powered submarines.
- Australia’s financial contribution to the US submarine industrial base is about lifting United States maintenance and production capacity for Virginia Class submarines to accommodate a critical phase of the pathway.
 - It will enable Australia’s future acquisition of Virginia Class submarines, which is a mature, in service capability with the US Navy.
- Australia’s arrangements with the United Kingdom will cover a broader scope of activities over a longer timeframe to enable Australia to manufacture a new class of conventionally-armed nuclear-powered submarines that are still being designed by the trilateral partners.
 - To meet Australia’s demand for naval nuclear propulsion systems for our SSN-AUKUS program, Australia is making a proportionate contribution to enhance the production output of Rolls-Royce Submarines in Derby.
 - As a trilaterally developed submarine based on the UK’s next generation design, Australia’s proportionate contribution to the United Kingdom also includes elements relating to SSN-AUKUS design costs.

If pressed: How much is Australia investing in the United States and United Kingdom industrial bases?

- As the Government announced in March 2023, Australia will make fair and proportionate contributions to the nuclear submarine enterprises of the United States (USD \$3 billion) and United Kingdom (GBP £2.4 billion).
 - Approximately two-thirds of the contribution to the United States is planned to occur by the end of 2025, with the remainder to be transferred over the decade to 2035-36.
 - The contribution to the United Kingdom is over a ten-year period, with the first half to be completed by 2027-28 and the remainder by 2032-33.

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If pressed: 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 pressed: 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:
 - While the *2024 National Defense Authorisation Act* authorising the transfer of three Virginia Class submarines to Australia has been passed by the US Congress. Further discussion needs to be undertaken between Australian 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 pressed: 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 ANPSSR, Australian Submarine Agency and other Government agencies;
 - upskilling Australian workforce and industry;
 - supporting Submarine Rotational Force–West;
 - 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; and
 - US and UK industrial uplift and the trilateral program offices.

If pressed: How much will Government spend in Australia?**Contact:**

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- This is the biggest investment in Australia’s defence capability, with significant investment into the Australian economy.
- Across the forward estimate investment in Australian industry and workforce, includes:
 - \$2.3 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;
 - Defence Industry Pathways Program, contract with Bisalloy Steel for qualification of Australian steel in the production of SSN-AUKUS ships.
- The Government estimates \$30 billion will be invested into Australia’s industrial base from now until 2055.

If pressed: What 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.
- 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.

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Supporting Information

Questions on Notice

Additional Estimates: 14 February 2024

- **QoN No. 3, Costs**, Senator David Shoebridge (The Greens, New South Wales) requested a cost breakdown of a \$3.9 billion contribution to US uplift.

Freedom of Information (FOI) Requests

- On 27 March 2024, an individual made a request seeking access to the totals of funding provisioned specifically for industrial uplift in the US and UK.

Recent Ministerial Comments

- The Minister for Defence Industry outlined a breakdown of costs associated with the \$4.6 Billion [contribution to UK industry](#) in support of the construction of conventionally-armed nuclear-powered submarines on 22 March 2024.

Relevant Media Reporting

- On 21 March 2024, *The Guardian* published an article by Daniel Hurst titled [Australia moves to prop up Aukus with \\$4.6bn pledge to help clear Rolls-Royce nuclear reactor bottlenecks in UK](#), discussing the governments investment into UK industrial uplift.

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Workforce - Industry and Skilling

Handling Note:

- Head of Virginia, Workforce and Commercial Division, AVM Philip Tammen, to lead on topic.
- Head of Technical, Dr Todd Mansell to support on higher education.

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 States and United Kingdom shipyards.
- As part of the 2023-24 Budget, the Australian Government provided \$128.5 million over four years to establish the Nuclear-Powered Submarine Student Pathways Program; a targeted national competitive program providing an additional 4,001 Commonwealth Supported Places in STEM related courses.
- To uplift STEM skilling within the ASA, a program for ongoing international placements for ASA technical personnel is in place with the United Kingdom Submarine Delivery Agency and we are establishing similar ongoing arrangements with Naval Reactors in the United States.

Talking Points

- Australia’s Nuclear-Powered Submarine 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.
- 4,000 to 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 late 2030s and early 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.
- An additional 500 direct jobs are expected to support the sustainment of the Submarine Rotational Force-West over the period 2027-2032.

Higher Education

- 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.

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Budget Estimates May 2024

PDR No: SB24-000428

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Workforce - Industry and Skilling

Key witnesses: Head of Virginia, Workforce and Commercial, AVM Philip Tammen

- Since 2022, we have supported several cohorts of Australians to begin their nuclear studies in the United States, in the United Kingdom, and domestically. This has included APS, ADF and industry personnel undertaking nuclear training programs at United States and United Kingdom universities, and within the naval training systems of our AUKUS partners.
 - We currently have APS and industry personnel undertaking 12-month nuclear training programs in the United Kingdom through a Master’s Program pilot initiative, focused on high-priority job functions such as nuclear engineering and science.

Skills and Training Academy

- The Commonwealth and South Australian Governments are co-designing the Skills and Training Academy 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 Skills and Training Academy’s focus is to deliver national workforce interventions and initiatives including:
 - The Shipbuilding Employment Pathways initiative, which will place apprentices across employers within the naval shipbuilding and sustainment industry.
 - Non-Destructive Testing Traineeships to build Australia’s Non-Destructive Testing technician workforce.
 - Development of Australia’s welding and fabrication pipeline, including the Welding Aptitude Testing initiative, and Welding Bridging Programs for new entrants, existing workers and advanced apprentices in adjacent industries
 - International placements under a ‘train the trainer’ pilot to provide opportunities for the existing VET teacher workforce to participate in short-term placements overseas, to build an understanding of AUKUS trilateral training requirements and methods.
 - Expanding the Defence Industry Pathways Program to South Australia and developing pathways for trainees into the Nuclear-Powered Submarine Program.
- The ASA and South Australian Government are continuing to engage with industry partners, unions, and education providers on the Skills and Training Academy. These engagements will continue to inform development and implementation of the Academy’s pilot initiatives.
- The physical facility in South Australia will need to be in place to support the commencement of the build of SSN-AUKUS in Australia before the end of this decade.
- The first trainees and apprentices will commence through the Academy’s early pilot operations in the 2024-25 financial year.

Contact:

Name: Matt McKeon

Position: Assistant Director General

Division: Virginia, Workforce, and Commercial

Phone: s47E(d) | s47E(d)

Cleared By:

Name: AVM Phil Tammen

Position: Head Virginia, Workforce and Commercial

Group/Service: Program and Policy

Phone: s47E(d) | s47E(d)

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

- As part of the 2023-24 Budget, the Albanese Government provided \$128.5 million over four years to establish the Nuclear-Powered Submarine Student Pathways Program (NPS Student Pathways); a targeted national competitive program providing an additional 4001 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
Charles Sturt University	71
The University of Western Australia	56
Murdoch University	50

Source: *Nuclear-Powered Submarine Student Pathways - Department of Education, Australian Government*

If pressed: How is Australia going to grow the required skilled workforce?

- The Nuclear-Powered Submarine Enterprise has already commenced initiatives to build the skilled workforce needed including through the Cooperation Agreement signed between the Commonwealth and the South Australian Government to support the construction of Australia’s nuclear-powered submarines in Adelaide. The agreement includes:
 - The establishment of a Skills and Training Academy campus;
 - An exchange of land to facilitate development of the new Submarine Construction Yard and the Skills and Training Academy.

Contact:

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 Group/Service: Program and Policy
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- An increase of 200 CSPs per year over 4 years dedicated to South Australian Universities focused on STEM disciplines.
 - : This is included in the 1,030 places allocated to South Australian Universities under the Nuclear-Powered Submarine Student Pathways Program.
- Investment in research capability and infrastructure to generate a workforce close to the submarine construction yard.

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

- Australian industry personnel placed in the US and UK shipyards will learn the skills required to build, operate, sustain, and maintain Australia’s nuclear-powered submarines.
 - This will include Australians participating in sustainment activities for US Virginia class submarines and, in the UK, working on the future SSN-AUKUS, as well as relevant activities across the UK conventionally-armed nuclear-powered submarine enterprise.
- Many of these skills take years to develop, so it is important to leverage all appropriate opportunities in the US and UK to enable Australian personnel to learn and gain experience.
- All work by Australian personnel in US or UK shipyards will remain consistent with Australia’s domestic and international legal obligations.

Details of current and previous education placements are below;

Institution	Summary	
	Number Current	Complete
ANU Nuclear Science (ACT)	10	5
UNSW Nuclear Engineering (NSW)	7	19
University of North Carolina, US	2	0
Penn State University, US	2	0
MIT, US	1	0
University of Birmingham, UK	6	1
University of Manchester, UK	5	0
Bettis Reactor Engineering School, US	2	2
Nuclear Propulsion School, US	8	6
Nuclear training o/s prior to undertaking a sea tour on a Virginia Class SSN, US	6	0
HMS Sultan – Nuclear Submarine Training, UK	3	0
Total	52	33

Contact:

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Budget Estimates May 2024

PDR No: SB24-000428

Last updated: 29 May 2024

Workforce - Industry and Skilling

Key witnesses: Head of Virginia, Workforce and Commercial, AVM Philip Tammen

Below is a table of the Australian industry personnel that conducted familiarisation and educational placements within UK and US facilities.

Placement	Dates	Personnel	Location	Duration	Description
Advanced Verification Team	Aug – Oct 23	10	US/UK	6 weeks	Industry Subject Matter Experts deploy to review and advise on workforce requirements to support development of SRF-W international placements.
UK Masters Program	Sep 23 – Aug 24	9	UK	12 months	Junior industry personnel deploy to the UK to undertake Masters qualifications in high-priority job functions such as nuclear engineering and science
Accelerated Training in Defense Manufacturing (ATDM)	Oct 23 – Feb 24	12	US	4 months	Trade and training personnel deploy to the US to participate in fast-tracked training program in critical manufacturing areas
International Placement – Tranche 1	Oct 23 – Dec 23	13	UK	9 weeks	Targeted placements with UK industrial partners to up-skill personnel, stress testing mobilisation process, and inform future support systems required.
International Placement – Planning Team	Nov 23 – Mar 24	20	US	3 months	Industry Subject Matter Experts deploy to the US to develop SRF-W work package requirements, including refinement of workforce capability competencies and demand forecasting

Supporting Information

Questions on Notice

Additional Estimates: 14 February 2024

- **QoN No. 1, Workforce Gaps**, Senator the Hon David Fawcett (Liberal, South Australia) requested if there were any workforce gaps across the ASA
- **QoN No. 2, Agency Workforce**, Senator the Hon David Fawcett (Liberal, South Australia) requested how many APS staff have transferred from Department of Defence to the ASA.

Freedom of Information (FOI) Requests

- Nil.

Recent Ministerial Comments

- Nil.

Contact:

Name: Matt McKeon
 Position: Assistant Director General
 Division: Virginia, Workforce, and Commercial
 Phone: s47E(d) | s47E(d)

Cleared By:

Name: AVM Phil Tammen
 Position: Head Virginia, Workforce and Commercial
 Group/Service: Program and Policy
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Budget Estimates May 2024

PDR No: SB24-000428

Last updated: 29 May 2024

Workforce - Industry and Skilling

Key witnesses: Head of Virginia, Workforce and Commercial, AVM Philip Tammen

Relevant Media Reporting

- On 19 February 2024 in *The West Australian*, an article titled [Don't try to torpedo this dream](#) reported that West Australian Defence Industry Minister Paul Papalia believes the torpedoes used in AUKUS submarines should be made in Collie and is dedicating hundreds of millions in State Government funding.
- On 17 February 2024 in *The Advertiser*, in an article titled [boosting defences](#) reported, Defence companies need to think more broadly about where they source the workers of the future as Australia faces an unprecedented uplift in naval shipbuilding, with lessons to be learned about how Britain has attacked the problem, Babcock International chief executive David Lockwood says.
- On 15 February 2024 in *The Southern Argus*, in an article titled [Choppy waters ahead for South Australia's defence workforce](#) reported, South Australia has experienced a drastic decline in the number of those starting engineering, ICT and science technician apprenticeships - valuable skills needed for SA's defence sector - with the number of commencements down a huge 69 per cent.

Division: Virginia, Workforce and Commercial	
PDR No: SB24-000428	
Contact Matt McKeon Assistant Director General Enterprise Workforce Mob: s47E(d) Ph: s47E(d) Date: 02 May 2024	Cleared by Division Head: AVM Phil Tammen Head Virginia, Workforce and Commercial Mob: s47E(d) Ph: s47E(d) Date: 02 May 2024
Cleared by Deputy Secretary: David Hallinan Date: 30 April 2024 Deputy Director-General Program and Policy Australian Submarine Agency	

Contact:
 Name: Matt McKeon
 Position: Assistant Director General
 Division: Virginia, Workforce, and Commercial
 Phone: s47E(d) | s47E(d)

Cleared By:
 Name: AVM Phil Tammen
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Legislation & Strategy

Handling Note:

- DG ASA to refer questions relating to nuclear safety legislation to Defence.

Key Messages

- On 16 November 2023, the Government introduced legislation into Parliament that would establish a nuclear safety framework and a new independent regulator for the nuclear-powered submarine enterprise.
- The legislation contains provisions necessary for the Australian Naval Nuclear Power Safety Regulator to discharge its functions, including issuing licences to authorise regulated activities, with an initial focus on supporting the development of facilities associated with the Optimal Pathway.
- The legislation was subject to Inquiry of the Senate Standing Committee on Foreign Affairs, Defence and Trade and the Senate Standing Committee for the Scrutiny of Bills with its report to Parliament published on 13 May 2024.
- Defence is considering the report and recommendations and will provide advice to Government at the appropriate time.
- There is no requirement for Australia to lift the existing moratorium on civil nuclear power in order to acquire conventionally armed nuclear-powered submarines, or to implement the Optimal Pathway more broadly.

Talking Points

If pressed: Legislation to establish the Australian Naval Nuclear Power Safety Regulator

- *[Handling Note: Refer question to Deputy Secretary Governance, Defence]*
- On 16 November 2023, Government introduced legislation to establish a regulatory framework for nuclear safety within the nuclear-powered submarine enterprise (the Australian Naval Nuclear Power Safety Bill 2023 and a Transitional Provisions Bill 2023).
- Deputy Secretary Governance (Defence) is leading on the development of this legislation.
- The Associate Secretary Group (Defence) is leading the establishment of the new independent statutory regulator.

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Division: Governance
Phone: s47E(d), s47E(d)

Cleared By:

Name: Mr Kim Moy
Position: Assistant Secretary AUKUS
Advanced Capabilities (working to DEPSEC
Governance on this matter)
Group/Service: Governance Group
Phone: s47E(d), s47E(d)

Extension of KPMG contract from 25 October 2023 to 26 April 2024

- ASA awarded a further contract with KPMG Australia following a competitive tender process for the period of 25 October 2023 to 26 April 2024.
 - For the current contract, KPMG Australia provides specialist support in the following areas at a reduced full time equivalent of 2 people:
 - : Project management support, and
 - : The coordination of stakeholder engagement planning.

Extension of KPMG contract from 27 April to 31 August 2024

- ASA exercised an option for a further contract extension to KPMG Australia from 27 April to 31 August 2024.
 - The total value of this contract (including the extension) is \$903,585.20 (GST inclusive).
 - The value of the contact extension from 26 April 2024 to 31 August 2024 is \$458,799.10 (GST Inclusive).
 - The Australian Submarine Agency is funding this contract.
 - This extension includes an additional 0.5 full time equivalents totalling 2.5 full time equivalents to support transition of this team to an area within the Commonwealth, yet to be decided, that will have an enduring responsibility for the administration of this legislation, including:
 - : Capturing lessons learned from this activity,
 - : Further consultation with Commonwealth and external stakeholders, briefing and messaging related to the legislation,
 - : Other tasks as appropriate and within the scope of the contract.
 - ***If pressed:*** Why this contract was extended from 27 April 2024 to 31 August 2024?
 - : The FADT Committee Report date was delayed from 26 April to 13 May 2024.
 - : This has impacted when Defence can provide advice to Government related to the Committee's recommendations, including amendments to the legislation that will require specialised support and management ahead of Parliamentary debate.

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 Position: A/Director NPS Legislation
 Division: Governance
 Phone: s47E(d), s47E(d) 19

Cleared By:

Name: Mr Kim Moy
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 Advanced Capabilities (working to DEPSEC
 Governance on this matter)
 Group/Service: Governance Group
 Phone: s47E(d), s47E(d)

Supporting Information

Questions on Notice

Senate Foreign Affairs, Defence and Trade Committee Hearing (into the Australian Naval Nuclear Power Safety legislation) – 13 March 2024

- **QoN No. 1, Nuclear Safety Legislation**, Senator the Hon David Fawcett proposed amendments that aim to provide public confidence that Australia would not be storing or disposing of any US or UK radioactive waste.
- **QoN No. 2, Nuclear Safety Legislation**, Senator the Hon David Fawcett proposed a new provision making it an offence to coerce a member of the Regulator. Defence took on notice whether these changes would result in any unintended consequences.
- **QoN No. 3, Nuclear Safety Legislation**, Senator the Hon David Fawcett proposed measures to ensure transparency of reports and other artefacts developed by the Regulator (based on recent experiences in the capability assurance space). Defence took on notice whether these changes would result in any unintended consequences.
- **QoN No. 4, Nuclear Safety Legislation**, Senator the Hon David Shoebridge queried which international agreements will be prescribed by the regulations, as contemplated under section 136 of the ANNPS Bill.
- **QoN No. 5, Nuclear Safety Legislation**, Senator the Hon David Fawcett raised concerns by witnesses that the concept and meaning of ‘reasonably practicable’ may be a too low of a standard. Defence took on notice the explanation of the standard chosen in terms of the obligations of someone working for the regulator and in terms of their conduct of duties associated with nuclear safety.
- **QoN No. 6, Nuclear Safety Legislation**, Senator the Hon David Fawcett questioned the structural independence and the recommendations from ARPANSA to work with the current structure but increasing the efficacy or assurance around independence. Is it Defence's understanding that membership of those committees would also mean that Defence would then be subject to direction or guidance from those committees in respect to standards?

Freedom of Information (FOI) Requests

- On 31 May 2023, an individual made a request seeking access to the Department’s May Senate Estimates briefing pack. **Documents were released on 7 August 2023.**
- On 17 November 2023, an individual made a request under the FOI Act seeking access to the Australian Submarine Agency’s documents which included one document on the policy behind a regulatory approach to nuclear safety of the NPS enterprise. On 20 December 2023, 1 document was released in full (this was not the regulatory approach document). Access to the remaining documents is currently under litigation

Contact:

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Position: A/Director NPS Legislation

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Cleared By:

Name: Mr Kim Moy

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Advanced Capabilities (working to DEPSEC Governance on this matter)

Group/Service: Governance Group

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with the Administrative Appeals Tribunal. *[To be updated following AAT decision]* As the matter is before the AAT, it would be inappropriate to comment on the proceedings.

Relevant Media Reporting

- 12 May 2024, *The Canberra Times*, Fears the legislation will be ‘quietly pushed through Parliament’ without addressing ‘major flaws’ around plans for managing nuclear waste, acceptance of foreign nuclear waste, and independence issues associated with the Regulator. [Fix these issues or sink the nuclear submarine safety bill.](#)
- 13 May 2024, *The Greens Media Release*, Outlines the Green’s concerns raised in its dissenting report into the legislation, including Australia becoming a ‘nuclear waste dumping ground’ and conflicts of interest associated with the Regulator’s reporting lines. ALP and Coalition Green Light AUKUS Nuclear Waste Dumps Without Public Consultation. [ALP and Coalition Green Light AUKUS Nuclear Waste Dumps Without Public Consultation.](#)
- 13 May 2024, *The Canberra Times*, Reiterates the Green’s dissenting reporting into the legislation including Australia’s acceptance of US and UK spent nuclear fuel, and oversight of the new Regulator. [Nuclear waste from AUKUS nations could be on cards | The Canberra Times | Canberra, ACT.](#)

Division: NPS Legislation Team	
PDR No: SB23-000430	
<p>Prepared by: s47E(d) A/Director NPS Legislation Team, Australian Submarine Agency (Seconded to Defence) Mob: s47E(d) Ph: s47E(d) Date: 08 May 2024</p>	<p>Cleared by Division Head: Mr John Reid PSM Deputy Secretary Governance Group Mob: s47E(d) Ph: s47E(d) Date: 08 May 2024</p>
Consultation: Mr Peter Edwards	A/Head Nuclear-Powered Submarine Regulatory Design
Cleared by Deputy Secretary (or equivalent Band 3/3*):	
Mr John Reid PSM Deputy Secretary Governance	Date: 08 May 2024

Contact:
Name: s47E(d)
Position: A/Director NPS Legislation
Division: Governance
Phone: s47E(d), s47E(d)

Cleared By:
Name: Mr Kim Moy
Position: Assistant Secretary AUKUS
Advanced Capabilities (working to DEPSEC Governance on this matter)
Group/Service: Governance Group
Phone: s47E(d), s47E(d)

Program Security

Handling Note:

- Head Stewardship & Security Division, Ms Michele Miller to lead on topic.

Key Messages

- 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's threat environment is complex, challenging and changing.
- 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 is working 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 and foreign interference 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 commercial or military advantage.
- We are acutely aware through 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.
 - In his 2024 Annual Threat Assessment, the Director-General of Security (ASIO) cited the example of a foreign intelligence service team which Australian Security and Intelligence Organisation (ASIO) had detected offering Australian defence industry employees money in return for reports on AUKUS, submarine technology, missile systems and many other sensitive topics.

Contact:

Name: Lara Bancroft

Position: ADG Threats and Workforce Protection

Division: Technical

Phone: s47E(d) | s47E(d)

Cleared By:

Name: Ms Michele Miller

Position: Head of Stewardship & Security

Division

Group/Service: Technical

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- 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, we do not comment on the specific details of the threat our program faces, and specific questions on the nature of current threats should be directed to ASIO.

ASA approach to protective security

- For the past two and a half years, the Australian Submarine Agency, and its precursor, the Nuclear Powered Submarine Taskforce, have worked closely with Australian, United Kingdom and United States security and intelligence partners—including the Australian Security and Intelligence Organisation (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 sector.
- Specifically, we have developed with our partners:
 - Threat and risk assessments, including for the defence industrial base, on the threats from espionage and foreign interference, including active briefings to our people working in Australia and overseas.
 - Work to understand and align Australia's mature protective security policy frameworks with our partners so gaps and seams are closed, including in the industry supply chain.
 - Information and personnel security controls that Australia will need to use unique to naval nuclear propulsion information, and sensitive and classified nuclear-powered submarine capability information.
 - Uplift of our 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 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 meet our nuclear safeguard obligations and to protect this sensitive capability.

Defence industry and security

- The sensitivity of the nuclear-powered submarine capability needs the application of and adherence to the very highest security standards across all aspects of the Nuclear-Powered Submarine Program.

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Cleared By:

Name: Ms Michele Miller

Position: Head of Stewardship & Security

Division

Group/Service: Technical

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- . As part of engagements held across Australia following announcement of the Optimal Pathway, ASA has conducted multiple briefings to 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 Defence Industry Security Program, which obligates members comply with the *Defence Security Principles Framework*.
 - The *Defence Industry Development Strategy* outlines how Defence can support industry to uplift their security settings.
- . **Harmonising with United Kingdom and United States.** Australia's security settings aim to not duplicate those of the United States or United Kingdom, but will achieve the same security outcome, with due consideration to Australia's circumstances, including our particular threat environment.
- . **Contracting.** There will be enhanced security requirements for those businesses seeking to contract to the Nuclear-Powered Submarine Program, potentially including:
 - strong information control measures;
 - enhanced audit and assurance activities with the requirement to demonstrate compliance, including a maturity rating of at least 'Managing' across Defence Industry Security Program membership requirements; and
 - active membership of Australian Signal Directorate's (ASD) Partnership program.
- . **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:
 - increased assurance and audit activities that focus on the additional security requirements;
 - tailored integration of ASD's cyber security services;
 - eligibility, suitability and security clearance prerequisites;
 - robust governance and policy frameworks aligned with the relevant legislation to assist in protecting NNPI information and access; and
 - a dedicated liaison officer to manage use of naval nuclear propulsion information.

Contact:

Name: Lara Bancroft

Position: ADG Threats and Workforce Protection

Division: Technical

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Name: Ms Michele Miller

Position: Head of Stewardship & Security

Division

Group/Service: Technical

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If pressed: 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 United States and United Kingdom 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 our 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.
 - 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 policy history, finances and an Australian Security Intelligence Organisation security assessment.
 - Australian citizenship is one of the mandatory prerequisites for a security clearance.
- 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, and United States Department of Energy requirements for nuclear information access.
 - The ASA is also developing 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 pressed: 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 United States and United Kingdom nuclear-powered submarines. 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.

Contact:

Name: Lara Bancroft

Position: ADG Threats and Workforce Protection

Division: Technical

Phone: s47E(d) | s47E(d)

Cleared By:

Name: Ms Michele Miller

Position: Head of Stewardship & Security

Division

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- Security uplift is occurring in a range of areas, including at HMAS *Stirling*, where Submarine Rotational Force—West will operate.
 - Improvements will be implemented in a range of protective security areas, including physical security, cyber resilience, and armed protection by the Australian Federal Police.
- 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.]

Supporting Information

Questions on Notice

Additional Estimates: 14 February 2024

- **QoN No. 79, Security Clearances** – Senator the Hon Jane Hume (Liberal Party of Australia, Victoria) asked: How many staff of the Department/Agency have undertaken security clearance process, or renewed security clearances, since 1 July 2023?
- **QoN No. 80, Security clearances**, Senator the Hon Jane Hume (Liberal Party of Australia, Victoria) asked: How many staff of the Department/Agency who have undertaken security clearance processes, or renewed security clearances, who are yet to receive their clearance? Of these staff, how many have been waiting for clearances for over six months? Of these staff, how many have been waiting for clearances for over 12 months?

Freedom of Information (FOI) Requests

- Nil.

Recent Ministerial Comments

- Nil.

Relevant Media Reporting

Contact:

Name: Lara Bancroft
Position: ADG Threats and Workforce Protection
Division: Technical
Phone: s47E(d) | s47E(d)

Cleared By:

Name: Ms Michele Miller
Position: Head of Stewardship & Security
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- 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.
- On 01 May 2024, The Guardian published an article by Daniel Hurst, Josh Butler and Ben Doherty titled [Australia expelled two Indian intelligence operatives in 2020 as part of 'nest of spies', reports claim](#) referencing [The Washington Post](#) reporting on Tuesday 30 April 2024 concerning two officers from India's foreign intelligence service were expelled as part of the 'nest of spies' revelation by Director-General Security in 2023. The Australian government has not confirmed the nation involved.

Division: Stewardship & Security	
PDR No: SB24-000432	
Contact: Lara Bancroft ADG Threats and Workforce Protection Technical Mob: s47E(d) Ph: s47E(d) Date: 18 April 2024	Cleared by Division Head: Ms Michele Miller Head Stewardship & Security Division Mob: s47E(d) Ph: s47E(d) Date: 02 May 2024
Cleared by Deputy Director-General: Tim Hodgson Deputy Director-General Technical Australian Submarine Agency Date: 02 May 2024	

Contact:
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Radioactive Waste & Spent Nuclear Fuel

Handling Note:

- Head Security and Stewardship, Michele Miller, to lead on topic.
- Refer questions on Defence's current radioactive waste inventory to Chief Joint Capabilities, Lieutenant General John Frewen.
- Refer questions related to the Australian Naval Nuclear Power Safety Bill and Nuclear-Powered Submarines Regulator to Associate Secretary, Matt Yannopoulos.
- Refer questions on the Commonwealth's approach to radioactive waste management to the Australia Radioactive Waste Agency CEO (Industry Portfolio), Mr Sam Usher.

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 high-level radioactive waste and 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 and United States submarines that are rotating at 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

Management of operational radioactive waste at HMAS *Stirling*

- Expertise to manage low-level operational 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.

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Division: Stewardship and Security

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Group/Service: Technical

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- This involves building the infrastructure as well as the skills of the Australian workforce to safely and securely collect and manage operational low-level radioactive waste from routine conventionally-armed nuclear-powered submarine operations and sustainment.
- The presence of United Kingdom and United States 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.
- An operational waste management facility for low-level radioactive waste is being planned as part of the infrastructure works proposed for 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 retire

- Australia will not be disposing of spent nuclear fuel or other high-level radioactive waste from the United Kingdom, the United States, or other countries.
- Australia will not have to dispose of the first reactor from Australia's conventionally-armed nuclear-powered submarines until the 2050s. As the Deputy Prime Minister has said, "we have got time to get it right" [22 March 2023, statement to the House of Representatives].
- Determining suitable locations and methods will take time and requires community consultation and detailed consideration of technical requirements.
- In 2023 the ASA and Defence conducted a review, working with relevant agencies including the Australian Radioactive Waste Agency, to inform the decision-making process to manage and dispose of high-level waste in the current or future Defence estate.
 - 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].
- 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).
- As the Deputy Prime Minister has made clear, the Government "won't rule out any state or territory" and that disposal will happen "on the current or future Defence estate" [19 March 2024, Deputy Prime Minister, House of Representatives].

If pressed: Payments to Mr Steven Grzeskowiak for services provided under the contract

Contact:

Name: Mark Sander

Position: ADG Nuclear Stewardship

Division: Stewardship and Security

Phone: s47E(d) | s47E(d)

Cleared By:

Name: Ms Michele Miller

Position: Head Stewardship and Security

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Budget Estimates May 2024

PDR No: SB24-000434

Last updated: 29 May 2024

Radioactive Waste & Spent Nuclear Fuel

Key witnesses: Head Stewardship & Security Division, Ms Michele Miller

- Mr Steven Grzeskowiak has received \$95,883 for services provided under the contract to date (from 27 February 2023 to 30 April 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).

If pressed: The Australian Naval Nuclear Power Safety Bill which allows for 'managing, storing or disposing of radioactive waste from an AUKUS submarine'

- The Government has been clear that Australia will not accept high-level radioactive waste and spent nuclear fuel from other countries.
- The rotational presence of United Kingdom and United States nuclear-powered submarines in Western Australia as part of Submarine Rotational Force – West will provide an opportunity to learn how these vessels operate, including the management of low-level radioactive waste from routine sustainment.

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.
- 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).

Contact:

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Budget Estimates May 2024

Last updated: 29 May 2024

Key witnesses: Head Stewardship & Security Division, Ms Michele Miller

PDR No: SB24-000434

Radioactive Waste & Spent Nuclear Fuel

Supporting Information

Questions on Notice

Additional Estimates: 14 February 2024

- **QoN 4**, Senator David Shoebridge (Australian Greens, New South Wales) asked about whether intermediate and high-level radioactive waste from US and UK submarines will be stored in Australia.
- **QoN 8**, Senator Jordon Steele-John (Australian Greens, Western Australia) asked a list of questions about the types of nuclear waste planned for storage at HMAS *Stirling*.
- **QoN 88**, Senator the Hon Simon Birmingham (Liberal, South Australia) asked a list of questions about the details of the proposed nuclear waste facility at HMAS *Stirling*.

Australian Naval Nuclear Power Safety Bill Public Hearing: 13 March 2024

- **QoN 1**, Senator the Hon David Fawcett (Liberal Party of Australia, South Australia) asked the Department of Defence what impact would be had if the wording were changed from 'AUKUS Submarine' to 'Australian Submarine' regarding the management, storage or disposal of radioactive waste from maintenance and sustainment activities from Submarine Rotational Force – West.

Freedom of Information (FOI) Requests

- On 12 December 2023, an individual sought access to documentation from DISR relating to the disposal of AUKUS submarine operational nuclear waste or spent fuel. **Documents were partially released on 1 February 2024.**
- On 7 March 2024, an individual sought access to documentation relating to a contract on waste review. **Documents due for release on 6 May 2024.**
- On 27 March 2024, a media organisation sought access to documentation relating to the UK & UK Industrial Uplift funding. **Documents due for release on 26 April 2024.**
- On 15 April 2024, an individual sought access to documentation relating to disposal of nuclear reactor on Defence land. **Documents due for release on 15 May 2024.**

Recent Ministerial Comments

- The Deputy Prime Minister [responded to the Opposition's comparison](#) between a civil nuclear power industry and the acquisition of conventionally-armed nuclear-powered submarines on the 26 March 2024. He referenced the disposal of the first submarines will occur in the 2050s.

Relevant Media Reporting

Contact:

Name: Mark Sander

Position: ADG Nuclear Stewardship

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Name: Ms Michele Miller

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- On 2 April 2024, *The Guardian* published an article by Tory Shepard titled [‘Posion portal’: US and UK could send nuclear waste to Australia Under Aukus, inquiry told](#). It refers to wording in the Australian Naval Nuclear Power Safety Bill that allows for the storage or disposal of waste from ‘AUKUS Submarines’.
- On 2 April 2024, *ABC News* published an article by Jane Norman titled [The debate around nuclear power in Australia isn’t just political. There’s also a generational divide](#). It references the political debate on a civil nuclear power industry, the acquisition of conventionally-armed nuclear-powered submarines, and shifting perceptions on nuclear generally, including managing radioactive waste.
- On 1 February 2024, *Crikey* published an article by Anton Nilson titled [Expect weapons-grade NIMBYism as leaders fight over where to store AUKUS nuclear waste](#). It questions the site selection process for the storage and disposal of radioactive waste from the nuclear-powered submarine program and references previous approaches by the Australian Government to site disposal and storage facilities for radioactive waste.

Division: Stewardship & Security Division

PDR No: SB24-000434

Contact:
CDRE Mark Sander
Assistant Director-General Nuclear
Stewardship

Mob: s47E(d) Ph: s47E(d)

Date: 29 May 2024

Cleared by Division Head:
Ms Michele Miller
Head Stewardship & Security Division

Mob: s47E(d) Ph: s47E(d)

Date: 29 May 2024

Cleared by Deputy Director-General:

Tim Hodgson
Deputy Director-General Technical
Australian Submarine Agency

Date: 29 May 2024

Contact:
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Phone: s47E(d) | s47E(d)

Cleared By:
Name: Ms Michele Miller
Position: Head Stewardship and Security
Group/Service: Technical
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Industry

Handling Note:

- First Assistant Director-General SSN Construction, Kate van Hilst to lead on Industry (excluding Industry Workforce).

Key Messages

- Australia is working 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 and United Kingdom 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 Australian Submarine Agency's Industry Portal.

Industrial Uplift – Supply Chain

- We are mapping our current Australian vendor base capability to known SSN supply chain demand in order to prioritise vendor qualification activities.
 - As a first step, we are validating and testing analysis that has identified early supply chain opportunities for components that are both useful for our partners and already being produced by Australian companies.
 - We are working closely with the United Kingdom and United States to identify specific opportunities and vendor qualification pathways, for participation in their supply chains.

Defence Industry Vendor Qualification Program

- In January 2024, ASA commenced the Defence Industry Vendor Qualification Program (DIVQ) with around 50 Australian suppliers invited to participate in a qualification process to remove barriers for entry into the Virginia class submarine supply chain.
 - As at 17 April 2024, 17 companies are progressing towards qualification for 19 product types (*two companies have two products*).
- The second wave of US qualification under DIVQ will commence mid-year, targeting machined parts, electrical components and medium valves, with a further three waves planned for other major product families over the following 18 months.

Prepared By:

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Phone: s47E(d) ; s47E(d)

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Name: Kate van Hilst
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- A similar wave focussed on the United Kingdom conventionally armed nuclear-powered submarine supply chain will commence in late June 2024, aligning with the anticipated needs of SSN-AUKUS.

If pressed: How will industry be protected against the rising threats of espionage and sabotage that ASIO is talking about?

- The ASA and Defence are working with ASIO and the Australian Cyber Security Centre (ACSC), as well as our United States and United Kingdom partners, to protect Australia's defence industry.
- The Defence Industry Security Program (DISP) includes guidance and requirements for mandatory physical, information, personnel and governance to protect Defence technologies.
 - For further information on program security, refer Estimates brief 6. Program Security.
 - Refer questions regarding espionage risks to Defence technologies to ASIO, including recent reports regarding Indian intelligence activities against Defence interests in Australia.

Supporting Information

Questions on Notice

- **QoN No 90**, Senator Matt O'Sullivan (Liberal. Western Australia) requested an update on the progress of the AUKUS workforce and industry strategy.

Freedom of Information (FOI) Requests

- Nil

Recent Ministerial Comments

- Nil

Relevant Media Reporting

- Nil

Prepared By:

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Position: ADG Industry Uplift and Supply Chain
Division: SSN Construction
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Budget Estimates May 2024
Last updated: 3 June 2024
Key witnesses: Head SSN Construction Kate van Hilst

PDR No: SB24-000436
Industry

Division: SSN Construction	
PDR No: SB23-000436	
Contact: Jeremy Coghlan Assistant Director-General Industrial Uplift and Supply Chain Branch Mob: s47E(d) Ph: s47E(d) Date: 29 May 2024	Cleared by Division Head: Kate van Hilst First Assistant Director-General SSN Construction Division Mob: s47E(d) Ph: s47E(d) Date: 29 May 2024
Cleared by Deputy Director-General: David Hallinan Deputy Director-General Program and Policy Australian Submarine Agency Date:	

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South Australia

Handling Note:

- Head SSN Construction, Kate van Hilst to lead on South Australia.
- Head Virginia, Workforce and Commercial, AVM Phil Tammen to lead on Skills and Training Academy.

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 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* (Cth), with assessment expected to occur in late 2024.

Talking Points

South Australian Government Engagement

- The ASA is working closely with the South Australian Government to progress key priorities for 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 at Osborne to progress:
 - In exchange for the land at Osborne, the South Australian Government will progressively take ownership of Defence-owned land at Keswick and Smithfield to support future urban renewal projects and parts of Cultana Training Area to facilitate future renewable energy initiatives.

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Budget Estimates May 2024

Last updated: 3 June 2024

Key witnesses: Head SSN Construction, Ms Kate van Hilst and HVWC, AVM Phil Tammen

PDR No: SB24-000437
South Australia

- The first package of land, which includes some of the land for the NPSCY, was transferred to Australian Naval Infrastructure (ANI), the Government's appointed design and delivery partner, on 14 March 2024.
 - Stage 2 land transfers comprising council owned land parcels, the waterfront area (Area 3) and STA site have been delayed due to issues with meeting settlement conditions on the Defence land parcels to be exchanged, specifically Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) environmental assessments associated with the Commonwealth disposal of Cultana.
 - As such, Stage 2 has been separated into two packages, with Stage 2a intended to enable transfer of all remaining land parcels to ANI by end June 2024 and Stage 2b comprising Cultana allotments, to be resolved thereafter.
 - Stage 2a is on track following the AUKUS (Land Acquisition) Act 2024 bill passed by the South Australian Government on 10 April 2024. This enables the transfer of four allotments currently owned by the City of Port Adelaide Enfield to Renewal SA and ensures that the council is compensated for the current market value of the land to be invested with Renewal SA. Inclusion of this council land in the land transfers to the Commonwealth enables ANI to better secure the perimeter of the new SCY and provide the opportunity for the development of a new access point to their facilities.
- The ASA is working with the South Australian Government and Port Adelaide Enfield Council to progress master-planning activities for the Lefevre Peninsula.
 - The Skills and Training Academy 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 Skills and Training Academy Campus in South Australia.

If pressed: 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 South Australian Government are progressing an exchange of land to facilitate the development of a new STA and the NPSCY.
- This agreement will see increasing Commonwealth supported places to South Australia Universities focused on STEM disciplines and investment in research capability and infrastructure to generate a workforce close to the NPSCY.

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Budget Estimates May 2024

Last updated: 3 June 2024

Key witnesses: Head SSN Construction, Ms Kate van Hilst and HVWC, AVM Phil Tammen

PDR No: SB24-000437
South Australia

Nuclear-Powered Submarine Construction Yard

- . The ASA is working closely with ANI, the Government's appointed NPSCY design and delivery partner, to progress early design activities 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 EPBC Act.
 - Other enabling works to be progressed include construction of a pedestrian bridge and grade-separated road followed by 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.
- . As enabling works continue, ANI is also progressing the concept design of the 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 approvals, environmental assessments and South Australian planning approvals for the delivery of the NPSCY.
- . The ASA, ASC, BAE Systems and ANI have entered into a Collaboration Deed to define the requirements for the NPSCY through an Integrated Management Team which brings 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 pressed: 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 construction and design works for the NPSCY and Skills and Training Academy.
- . Any additional queries about equity to be provided to ANI may be addressed to the Department of Finance.

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

- . The ASA is 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.

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Budget Estimates May 2024

Last updated: 3 June 2024

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PDR No: SB24-000437
South Australia

- 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. A decision was issued stating that provided the work is taken 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.
- A separate referral under the EPBC Act for utility relocation works will progress throughout 2024.
- Work is also progressing on a strategic assessment for the broader construction and operation of the NPSCY under the EPBC Act.
 - 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.
 - Work is ongoing to assess the environmental impact of the development against the Terms of Reference, with a draft Strategic Impact Assessment Report to be released for public comment in the coming months.
 - 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 commenced engagement with key stakeholders including Traditional Owners, with additional virtual and in-person engagements for broader audiences planned over the coming months.
- 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.

Skills and Training Academy

- . 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; and

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PDR No: SB24-000437
South Australia

- Transition programs to integrate new workers with foundational skills and qualifications from adjacent industries.

Supporting Information

Questions on Notice

Additional Estimates 14 February 2024

- **QoN No.6**, Senator Jordon Steele-John (Greens, Western Australia), asked about the environment and heritage survey undertaken by GHD at Osborne.
- **QoN No. 90**, Senator Matt O’Sullivan (Liberal, Western Australia) asked about the progress made on the AUKUS Submarine Workforce and Industry Strategy.
- **QoN No. 91**, Senator Matt O’Sullivan (Liberal, Western Australia), asked about progress on the delivery for the Skills and Training Academy.

Freedom of Information (FOI) Requests

- Nil.

Recent Ministerial Comments

- On 22 March 2024, the Deputy Prime Minister and Minister for Defence Industry [announced the AUKUS build and sustainment partners](#).

Relevant Media Reporting

- On 15 March 2024, *The Daily Telegraph* published an article titled [Building Bigger, Better SA: Prime Minister Anthony Albanese and Premier Peter Malinauskas talk bright SA future and retaining tomorrow's homegrown talent](#), discussing Prime Minister Anthony Albanese’s insistence that “it’s time” the state prospered from its people through nuclear-powered submarine construction.
- On 20 February 2024, *The Advertiser* published an article by Paul Starick titled [Saved by a destroyer](#), discussing how the Hunter-class \$20bn blowout cuts Navy’s fleet to six new air warfare destroyer, ensuring ship-building AUKUS subs to be built in Adelaide by BAE Systems.
- On 16 February 2024, *The Advertiser* published an article titled [Time to grow for sub plan](#), discussing the expansion of Osborne Naval Shipyard by three times along the Lefevre Peninsula, east of Outer Harbor, as revealed in plans for joint environmental, social and economic assessments.

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Budget Estimates May 2024

Last updated: 3 June 2024

Key witnesses: Head SSN Construction, Ms Kate van Hilst and HVWC, AVM Phil Tammen

PDR No: SB24-000437
South Australia

Division: SSN Construction	
PDR No: SB24-000437	
Contact: Mr Gavin Boyd Assistant Director-General, Sovereign Submarine Program Delivery Mob: s47E(d) Ph: s47E(d) Date: 29 May 2024	Cleared by Division Head: Ms Kate van Hilst Head SSN Construction Mob: s47E(d) Ph: s47E(d) Date: 29 May 2024
Cleared by Deputy Director-General Mr David Hallinan Deputy Director-General Program and Policy Australian Submarine Agency Date:	

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SSN-AUKUS

Handling Note:

- Head SSN Construction, Kate van Hilst to lead on SSN-AUKUS.

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 UK's next-generation design.
- The Australian Government has selected the ASC Pty Ltd and BAE Systems to build Australia's SSN-AUKUS submarines, initially under a collaborative arrangement, before establishing an incorporated Joint Venture.
- The ASA has entered into a contract with Australian steel manufacturer, Bisalloy Steels, for the qualification of Australian steel for the use on Australia's future SSN-AUKUS submarines.

Talking Points**SSN-AUKUS Build Program**

- On 22 March 2024 the Government announced ASC Pty Ltd and BAE Systems will build Australia's SSN-AUKUS submarines as the Australian shipbuilder.
- Interim services arrangements have been established to enable ASC Pty Ltd and BAE to commence work now.
- The parties will enter into a more fulsome shipbuilder mobilisation contract before the end of 2024.

If pressed: Why a Joint Venture, and when?

- ASC Pty Ltd and BAE Systems will form a Joint Venture to build Australia's SSN-AUKUS submarines at Osborne, South Australia.
 - The Joint Venture will establish a sovereign Australian entity.
 - It will facilitate an Australian industrial base and supply chain for long-term submarine construction in Osborne, South Australia.
 - It is important that we take the time to set the Joint Venture up for success. We will not commit to a hard date for incorporation at this stage, but will ensure the arrangements are best for the Program.

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If pressed: Why ASC and BAE Systems?

- ASC Pty Ltd has been at the centre of Australia's sovereign submarine program for decades as our submarine sustainment partner, and builder of Collins class submarines.
- BAE Systems is the UK's long-term submarine build partner and brings over 60 years of nuclear-powered submarine building experience, world-class industrial capability and intellectual property to this partnership.

If pressed: What conditions will be imposed to ensure ASC/BAE Systems delivers on budget and on time?

- The ASA will enter into contracts with BAE Systems, ASC Pty Ltd and the joint venture for the delivery of Australia's SSN-AUKUS submarines that will include performance and delivery milestones underpinned by robust governance arrangements.

If pressed: 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, and key land acquisition and infrastructure upgrades have already commenced.

Shipbuilder Liability, Indemnity and Insurance

If pressed: 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.

s33(a)(iii)



Australian Steel for Australian SSN-AUKUS

- The ASA has 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.
- We are committed to supporting Australian industry in the AUKUS trilateral supply chain.

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Budget Estimates May 2024
 Last updated: 29 May 2024
 Key witnesses: Head SSN Construction, Ms Kate van Hilst

PDR No: SB24-000439
 SSN-AUKUS

Supporting Information

Questions on Notice

Additional Estimates 14 February 2024

- **QoN 90**, Senator Matt O'Sullivan (Liberal, Western Australia) asked about the progress made on the AUKUS Submarine Workforce and Industry Strategy.

Foreign Affairs, Defence and Trade Legislation Committee 4 April 2024

- [Senator Steele-John questioned ASC Pty Ltd about liability and insurances to cover additional risk associated with nuclear power.](#)

Freedom of Information (FOI) Requests

- Nil.

Recent Ministerial Comments

- On 22 March 2024, the Deputy Prime Minister and Minister for Defence Industry [announced the AUKUS build and sustainment partners.](#)

Relevant Media Reporting

Australian Steel Qualification

- Australian media has reported extensively on the announcement of the AUKUS build and sustainment partners.
- On 17 March 2024, *The Advertiser* published an article by Paul Starick titled [Talks kickstart N subs](#), discussing a top-level Adelaide meeting headlined by former UK Prime Minister David Cameron set to kickstart nuclear-powered submarine work by announcing the \$368bn AUKUS project's shipbuilder.
- On 16 February 2024, *The Advertiser* published an article titled [Time to grow for sub plan](#), discussing the expansion of Osborne Naval Shipyard by three times along the Lefevre Peninsula, east of Outer Harbor, as revealed in plans for joint environmental, social and economic assessments.

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Budget Estimates May 2024

Last updated: 29 May 2024

Key witnesses: Head SSN Construction, Ms Kate van Hilst

PDR No: SB24-000439

SSN-AUKUS

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Virginia Class Submarines - Sustainment

Handling Note:

- First Assistant Secretary Submarines, Mr John Chandler, to lead on Virginia sustainment delivery aspects.
- Head Virginia, Workforce and Commercial, Air Vice-Marshal Philip Tammen, to support on acquisition and delivery aspects of Virginia class submarine materiel.

Key Messages

- Australia will acquire three Virginia Class submarines (VCS) from the United States (US), with the option of two more if required.
- The first VCS is expected to be delivered to Australia in the early 2030s.
- A pre-condition for Australia to receive its first VCS is that it be “sovereign ready” to operate and sustain the vessel.
- On 22 March 2024, the Government announced that ASC Pty Ltd (ASC) had been selected as Australia’s sovereign submarine partner for NPS sustainment, commencing with VCS 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 NPS 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 VCS.
- Defence entered into commercial arrangements with ASC to commence initial VCS sustainment planning, workforce growth, and related activities on 20 March 2024.

Talking Points

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

- On 22 March 2024, the Government announced ASC as Australia’s SSP for NPS sustainment.
- Government has approved initial investment to grow ASC’s NPS workforce capacity, and commence initial VCS sustainment planning.
 - Further Government decisions on VCS 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 VCS sustainment planning, workforce growth, and related activities.
- Prior to 22 March 2024, ASC had been resourced to support the Collins Class submarine program only.

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Virginia Class Submarines - Sustainment

- ASC's VCS sustainment workforce growth will initially be targeted for Western Australia as the selected intermediate maintenance location for Australia's NPS.
- NPS visits to Western Australia will provide opportunities for ASC's workforce to exercise their developing NPS sustainment capacity and competence.
- Selected ASC Subject Matter Experts have already been part of initial, ASA sponsored, industry placement activities at the US Navy's Pearl Harbour Naval Shipyard, Hawaii.
 - This has allowed for a deeper understanding of US sustainment capabilities and the establishment of relationships.
- 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.
- Formal training secondments of ASC employees at Pearl Harbour Naval Shipyard are planned to commence later this year with plans for further embedments under development.

How is the Government managing risk to the Collins program of ASC's growth?

- Defence and ASC are closely managing early VCS 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.

Where will Australia conduct depot-level sustainment?

- The location of Depot Level Maintenance for Australia's Sovereign VCS is subject to future Government decision.

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 NPS supply chain work
- ASC will be required to facilitate Australia's industry involvement in NPS supply chains.
- ASC's early supply chain facilitation work is likely to be focussed on VCS supply chain opportunities, subject to ongoing legislative and policy work, and is expected to leverage the ASA's supply chain pilot initiatives.

Will Australia modernise its Virginia Class Submarines in step with US Navy configuration?

- The details of Australia's sovereign approach to implementing VCS upkeep, update and upgrade all remains future work.
- Australia is working closely with the relevant US agencies in the development of its VCS sustainment strategies and plans.

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Virginia Class Submarines - Sustainment

- Australia intends that its sovereign VCS remains as close to a recognised US configuration as possible.
- The ASA intends to draw lessons from successful sustainment programs currently delivered in partnership with the US Navy, such as the EA-18G Growler and the P-8A Poseidon sustainment programs, where the Australian assets achieve appropriate sovereignty in sustainment while also leveraging the opportunities that come from participating in a larger fleet and support system.

Supporting Information

Questions on Notice

- Nil.

Freedom of Information (FOI) Requests

- Nil.

Recent Ministerial Comments

- On 22 March 2024, the Deputy Prime Minister, the Hon Richard Marles MP and Minister for Defence Industry, the Hon Pat Conroy MP [announced ASC as the Sovereign Submarine Sustainment Partner for the Virginia Class and SSN-AUKUS](#).

Relevant Media Reporting

- 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 Ikononou 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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Virginia Class Submarines - Sustainment

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