Australian Government

ANSTO
Science. Ingenuity. Sustainability.

Annual Report

2023 – 2024

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Section 1:

Introduction

Letter of Transmittal

23rd September 2024

The Hon Ed Husic MP
Minister for Industry and Science
Parliament House
CANBERRA ACT 2601

I am pleased to present the Annual Report of the Australian Nuclear Science and Technology Organisation (ANSTO) for the period 1 July 2023 to 30 June 2024.

This report has been prepared in accordance with the requirements of the Australian Nuclear Science and Technology Organisation Act 1987 (Cth) ('ANSTO Act') and section 46 of the Public Governance, Performance and Accountability Act 2013 (Cth) ('PGPA Act').

This report has been approved for presentation to you by resolution of the ANSTO Board of Directors on 23rd September 2024.

Yours Sincerely

Michael Quigley AM

Chair's opening statement

Throughout the year, ANSTO continued to draw on its scientific capabilities and expertise to provide societal benefits, address government priorities and support industry. By ensuring access to the country's most important infrastructure for nuclear science and technology, ANSTO delivered benefits in many areas, including environmental and climate change science, critical minerals research and development and synthesis of nuclear medicines.

Each major decision to expand ANSTO's infrastructure is directly relevant to the government's national science priorities and acknowledges our unique understanding of the global state of nuclear science and technology. One such decision was the funding approval for a new Nuclear Medicine Manufacturing Facility (NMMF), announced in the Federal Government's 2023-24 Budget. The Facility will serve national interests in completing a sovereign, state-of-the-art supply chain for the development and delivery of nuclear medicines. ANSTO currently produces 80 per cent of Australia's nuclear medicines, which are used for the diagnosis and treatment of diseases such as cancer. With the current 60-year-old medicine manufacturing facility nearing its end of life, ANSTO's new facility will sustain Australia's capability to produce these medicines and offer flexibility for the development of new medicines for decades into the future.

As one of the Australian government's largest scientific agencies, ANSTO continues to advise and support the government on nuclear science and technology matters critical for advancing policy aims. In the area of mining and minerals, ANSTO has been providing expertise in fields such as chemical engineering, metallurgy and radiation safety for over 40 years. During this reporting period, we supported the government's aim of increasing onshore investment and building a downstream industrial base for critical minerals. Aligned with the delivery of the government's Future Made in Australia Plan, ANSTO provides solutions to the Australian minerals industry. We have seen immediate impacts this year, including the piloting of a novel lithium extraction plant at ANSTO's Lucas Heights facility, designed to improve the resource economics of lithium extraction.

The Australian government's continued support and funding enable the ongoing maintenance and development of our nuclear capabilities and activities. This support will allow the upgrades and expansion of our capabilities to ensure our infrastructure can continue to meet Australia's needs. In this reporting cycle, we have seen; regulatory approvals for the NMMF Project; shutdown of the OPAL reactor for planned critical maintenance; progress in the organisation of the 2025 OPAL reactor spent fuel shipment; progress in the installation and commissioning of new beamlines as part of the BRIGHT Beamline Program at the Australian Synchrotron; and initiation of a four-year capability development program for the Centre for Accelerator Science. The Federal Government's support for ANSTO has enabled projects such as these, thereby sustaining the benefits of nuclear science and technology for all Australians.

The ANSTO Board maintains oversight of ANSTO and its operations. In 2024 a new Board Chair and Deputy Chair were appointed. During this transition, governance and support for the organisation has been maintained. Our Board possesses a strong diversity of skills relevant to the operations of ANSTO and is central to the guidance of the organisation as a whole. In addition, the independent members of the Risk and Audit Committee provide advice critical to the governance, audit, accounting and risk management of ANSTO.

ANSTO continues to provide valuable capabilities and expertise to the whole of Australia, and this has especially been seen over this reporting period. We continue in our efforts to deliver the benefits of nuclear science and technology for all Australians.

Michael Quigley AM
Board Chair

Message from the Chief Executive Officer

In 2024, with over 70 years of experience, ANSTO has continued to push forward with nuclear excellence, stewardship and the peaceful application of nuclear science and technology for the benefit of all Australians. ANSTO maintains, operates and makes available a unique range of landmark infrastructure that is supported by a highly skilled and passionate workforce.

ANSTO's objectives are shaped by some of the most complex challenges facing our society, driving us to deliver beneficial outcomes in health, the environment, advanced manufacturing, national security and supporting Australian industry. The research we enable supports the Government and the university sector, and adds value for Australia's largest industries to deliver quality products to customers.

In addition to our role in research for nuclear science and technology, ANSTO is central to Australia's manufacture and distribution of nuclear medicine. ANSTO's key priority remains the timely delivery of nuclear medicine products and services for hospitals and medical centres across Australia, and for the broader global market. This year, ANSTO has made strides completing the first steps towards the establishment of a new Nuclear Medicine Manufacturing Facility (NMMF), enabled by the announcement of Federal Government funding in the 2023-24 Budget. With this commitment of government funding, the new facility will secure a reliable, sovereign and flexible supply chain of critical diagnostic and therapeutic nuclear medicines.

We continue to be the centre of excellence for Australia's nuclear research, impacting a vast range of sectors. This year, ANSTO authored 615 total publications contributing to impact and benefit for the country. In one such case, coinciding with the 2024 National Reconciliation Week, ANSTO shared a food provenance study on Kakadu plum, produced largely by Indigenous Australians in northern Australia. The study's findings of fraudulent Kakadu plum products in the international market helps to secure the rightful benefits for Indigenous Australian communities.

ANSTO strives to deliver impact through its research and continues to seek new ways to uplift Australian communities and industry. Critical to this research is the upgrading and extension of our research infrastructure and capabilities. ANSTO's OPAL multi-purpose research reactor continues to be central to our infrastructure, enabling sovereign domestic radioisotope production, irradiation services and scientific neutron beam research. In 2024, ANSTO undertook a critical operation in replacing the OPAL reactor's Cold Neutron Source (CNS). The CNS is a special research-enabling technology element of the reactor which requires periodic replacement. This project necessitated an extended shutdown – the longest in OPAL's history. ANSTO's dedicated resources and expert planning ensured that despite the shutdown, OPAL maintained an outstanding supply reliability of 99.6% through imported products. Maintaining and upgrading our research infrastructure will continue to advance prosperity for Australia.

ANSTO provides expert scientific advice and support to all areas of government. We continue to help build Australia's essential nuclear capabilities through the development of a skilled STEM workforce. Our existing expertise in areas such as nuclear security are critical for knowledge transfer to the Department of Defence to ensure the successful implementation of the AUKUS Optimal Pathway for delivering a nuclear-powered submarine capability. We strive to ensure the Government meets its objective of net zero emissions by 2030. To this end, ANSTO plays a critical role as part of the Australian Critical Minerals Research and Development Hub, where we lead contributions to building intellectual property underpinning advancements in green technologies. These include our high purity quartz, rare earth elements, gallium and tungsten programs, each essential for renewable energy systems and other electronic applications which are critical for the progression toward net zero.

We continue to uplift our region through the development of technical capabilities and sharing of knowledge. This has primarily been through our role within the International Atomic Energy Agency's (IAEA) Regional Cooperative Agreement (RCA) for Research, Development and Training Related to Nuclear Science and Technology for Asia and the Pacific. In April and May of this year, we launched two new Australian-led RCA projects in radiation oncology and medical physics, designed to improve outcomes for cancer patients across the region. Sharing our expertise in fields such as nuclear medicines, engineering and isotopic analysis of water, soil and air resources, is critical to helping uplift societal and economic outcomes for our regional partners.

I would like to thank the ANSTO staff, management and Board, who consistently demonstrate the highest levels of professionalism as we deliver nation-wide benefits. We have achieved so much in our lifetime using nuclear science and technology, and we will continue to break new ground in areas that will not only benefit Australians, but the entire world.

Shaun Jenkinson
Chief Executive Officer

Section 2:

About ANSTO

Our Annual Report

This Annual Report provides a summary of our activities, the outcomes and their impact for the financial year ending 30 June 2024 against the performance measures in our 2023–2024 Corporate Plan and Portfolio Budget Statements.

Vision

Nuclear science and technology for the benefit of all Australians.

Mission

To deliver knowledge, value and trust through the application of nuclear science, technology and engineering.

What we do

As Australia's sovereign nuclear organisation, ANSTO is actively working to address some of the most challenging issues facing Australia today. ANSTO produces nuclear medicines to improve the health of the Australian community and plays a vital role as an adviser to the Australian Government, industry and education sectors, as well as the broader community on nuclear technology.

ANSTO activities span manufacturing, research and advisory functions linked to our mandate including:

Nuclear medicine production and human health research:

ANSTO produces approximately 80 per cent of Australia's nuclear medicines used for the diagnosis, staging and treatment of diseases, including cancer.

ANSTO also conducts and supports research into human health, including emerging nuclear medicine diagnostic and therapeutic products. As an Australian Government organisation, ANSTO provides a platform for sovereign, secure supply of these lifesaving medical products.

Advanced manufacturing and support for the resources sector:

ANSTO's unique materials science capability supports advanced manufacturing through groundbreaking research and testing of material to operate in extreme conditions, such as in space and the oceans, as well as providing solutions for power generation and storage.

ANSTO supplies more than 50 per cent of the world's requirements of irradiated silicon, which is critical in the manufacture of high-voltage and high-powered switching devices. These devices are vital for global progression towards net zero emissions targets as they are essential for efficient power transmission, reliable grids and the ability to connect renewable energy sources. Neutron Transmutation Doped (NTD) silicon is also in high demand to support the move away from fossil fuels and towards electrification, as in high-speed rail, industrial automation and the electric vehicle industry.

Defence and national security:

ANSTO advises the Australian Government on the application of nuclear technology, including the nuclear-powered submarines as part of the AUKUS initiative. ANSTO assists the defence and national security industries by providing access to a unique combination of scientific infrastructure and expertise in materials engineering and advanced manufacturing. ANSTO also supports teams working with radiation, so they are able to operate safely using advanced imaging solutions, and through relevant training programs and nuclear waste consultancy services.

Research infrastructure and scientific support capabilities:

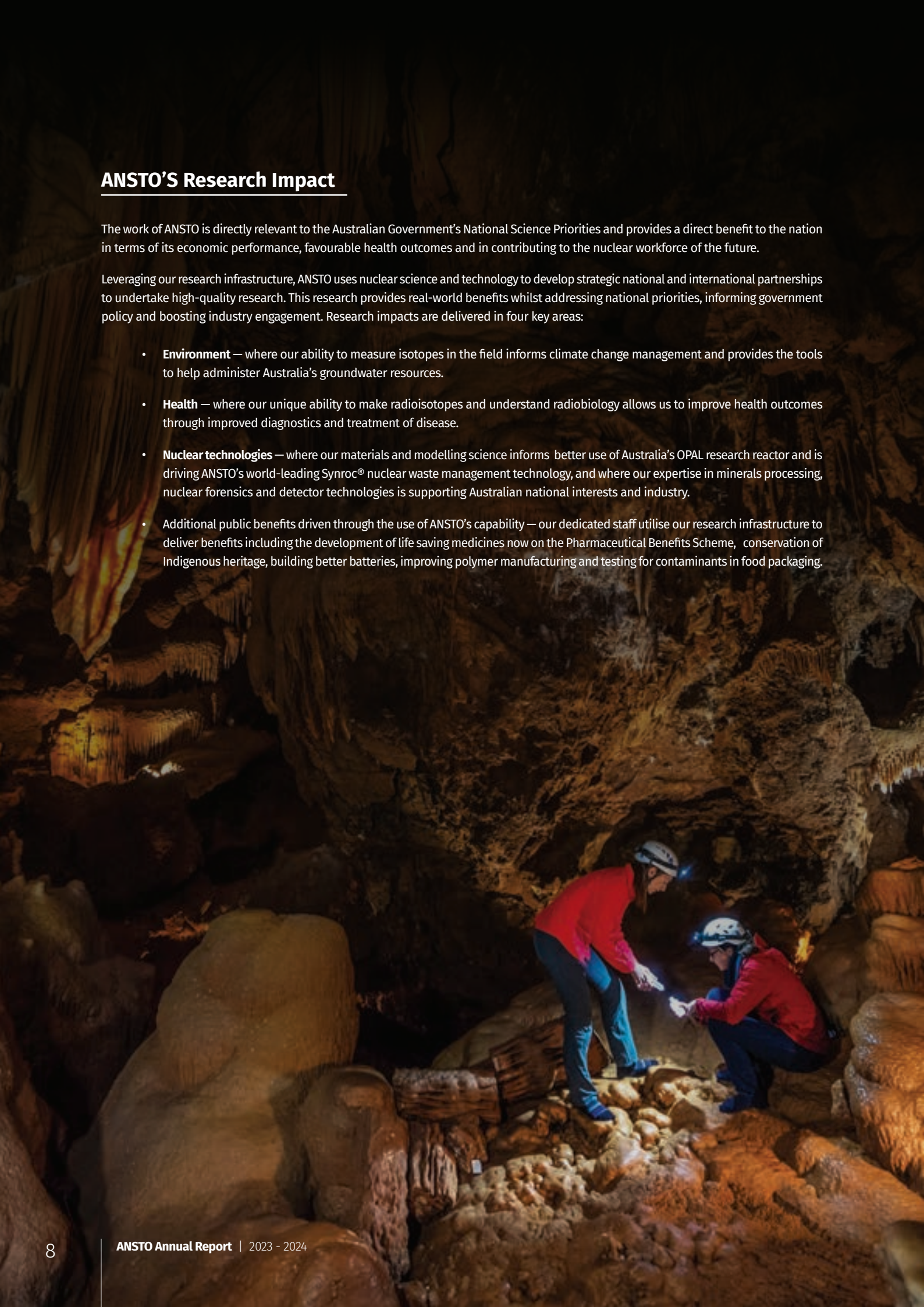
ANSTO is home to some of Australia's leading scientific research infrastructure. This includes OPAL, Australia's only nuclear reactor, the Australian Centre for Neutron Scattering (ACNS), the Centre for Accelerator Science (CAS) and the Australian Synchrotron. Collectively this infrastructure represents a capital investment of more than $1 billion and supports more than 8,000 users from universities, research institutions and industry from around Australia and internationally.

ANSTO'S Research Impact

The work of ANSTO is directly relevant to the Australian Government's National Science Priorities and provides a direct benefit to the nation in terms of its economic performance, favourable health outcomes and in contributing to the nuclear workforce of the future.

Leveraging our research infrastructure, ANSTO uses nuclear science and technology to develop strategic national and international partnerships to undertake high-quality research. This research provides real-world benefits whilst addressing national priorities, informing government policy and boosting industry engagement. Research impacts are delivered in four key areas:

- **Environment** — where our ability to measure isotopes in the field informs climate change management and provides the tools to help administer Australia's groundwater resources.
- **Health** — where our unique ability to make radioisotopes and understand radiobiology allows us to improve health outcomes through improved diagnostics and treatment of disease.
- **Nuclear technologies** — where our materials and modelling science informs better use of Australia's OPAL research reactor and is driving ANSTO's world-leading Synroc® nuclear waste management technology, and where our expertise in minerals processing, nuclear forensics and detector technologies is supporting Australian national interests and industry.
- Additional public benefits driven through the use of ANSTO's capability — our dedicated staff utilise our research infrastructure to deliver benefits including the development of life saving medicines now on the Pharmaceutical Benefits Scheme, conservation of Indigenous heritage, building better batteries, improving polymer manufacturing and testing for contaminants in food packaging.



Values

Safe. Secure. Sustainable.

Three key principles that underpin everything we do and every decision we make

Curiosity

Harness our curiosity to explore new opportunities and create an environment where ideas can thrive

Leadership

Ownership, accountability and working with integrity to inspire and motivate others

Excellence

Consistently delivering high value outcomes and looking for ways to improve the quality of our performance

Working Together

Success through collaboration, team work and a sense of collective purpose

Trust + Respect

An inclusive environment that's built on our trust and respect for each other's contributions and capabilities

Celebrating Our People

Expert recognised for technological innovation in critical minerals processing

Dr Karin Soldenhoff, Principal Consultant for Minerals, was honoured with the 2024 NSW Women in Mining – Technological Innovation Award in March 2024 for her work as technical lead on the Australian Strategic Materials (ASM) Dubbo Project and development of a new solvent extraction technology that separates rare earths and other critical elements. This award came after Dr Soldenhoff overcame significant technical challenges associated with the extraction of a number of minerals critical for the project. Dr Soldenhoff's work unlocked meaningful value in a range of critical minerals, including zirconium, niobium and hafnium, exemplifying ANSTO's contribution to the development of sustainable, alternative supply chains.

Physicist recognised for international contributions to space research

Dr Stefania Peracchi, an expert in understanding the impact of radiation in space, received a national award for Italian bilateral scientific cooperation at the 2024 Conference of Scientific Attachés in space and agriculture held in Turin, Italy, in April 2024. The conference presented three awards to Italian scientists and entrepreneurs, who have demonstrated a contribution in the spirit of international scientific collaboration in the fields of space, agriculture and energy. Today, Dr Peracchi works at the leading edge of space radiation research, placing Australia on the frontline of space innovation. Dr Peracchi was awarded a medal in recognition of her achievements in space research throughout her professional career from her first appointment in Europe to working at ANSTO today.

Teams presented with a Certificate of Appreciation for recovery of a missing radioactive capsule in Western Australia

The WA Department of Fire and Emergency Services (DFES) presented a Certificate of Appreciation to ANSTO's Radiation Protection Services, Detecting and Imaging Team, and Work Health and Safety Teams for their critical efforts in the search and recovery of an 8mm-long radioactive capsule in remote Western Australia in 2023. The certificate, presented by DFES' Deputy Commissioner Operations Craig Waters AFSM in March 2024, acknowledged these team's crucial work as part of a Commonwealth multi-agency response, assisting WA state authorities in their search along a 1,400km stretch of the Great Northern Highway.

ANSTO Awards

Dr Debashish Mazumder

Dr Debashish Mazumder was awarded the ANSTO Leadership in Research Award for his contribution to the reputation of ANSTO as an innovator in the peaceful uses of nuclear, amounting to an excellent example of science diplomacy. Dr Mazumder leads a team that has pioneered food authenticity research in Australia with global reach. He has developed an innovative approach using nuclear and isotopic techniques with machine learning to confirm the origin of food and related products, including handheld technology for the field. He has applied the approach to support Indigenous food products in Australia and is now sharing the science with the Asia Pacific region through the Forum for Nuclear Cooperation in Asia (FNCA). His team has been exceptionally productive and influential.

Dr Danielle Martin

Dr Danielle Martin was recognised for her extensive contributions to the Australian Synchrotron facility and ANSTO more broadly. Dr Martin is currently responsible for the operational management of the Science Team at the Australian Synchrotron, working as part of the ANSTO – Clayton Senior Management Team and with the Senior Principal Scientist, with a view to strategic developments; managing, prioritising and facilitating team interactions, capital and asset management programs, and leading improvement initiatives across the ANSTO Melbourne facility.

A/Prof Dr Jitendra Mata

A/Prof Jitendra Mata has made influential contributions to soft matter science, as demonstrated by multiple award nominations and publications, underscoring his strong leadership and influence in the scientific community. His appointment as an adjunct associate professor at UNSW reflects the quality of his research and his ability to foster collaboration between ANSTO and academia. Notably, his contribution to the colloidal cluster project, selected by the Japan Aerospace Exploration Agency (JAXA) and the National Aeronautics and Space Administration (NASA), which studied self-assembling systems aboard the International Space Station, attracted significant media attention. In addition, his research in battery materials leverages an existing capability at ANSTO and the expertise of Professor Vanessa Peterson. A/Prof Mata has also extended this materials research to several new groups both in Australia and internationally.

KEY HIGHLIGHTS IN 2023 - 2024

Safeguarding Australia's healthcare sector with a new nuclear medicine facility

In 2023, ANSTO welcomed a significant Federal Government funding allocation to further safeguard the production of life-saving nuclear medicines in Australia. This funding followed an announcement by Minister for Industry and Science, the Hon Ed Husic MP, where plans for a new Nuclear Medicine Manufacturing Facility (NMMF) to replace the existing ageing Nuclear Medicine Processing and Distribution Facility were outlined.

ANSTO's Lucas Heights campus is home to a nuclear medicine precinct featuring three key facilities: the OPAL multi-purpose research reactor, the Molybdenum-99 Manufacturing Facility, and the existing Nuclear Medicine Processing and Distribution Facility. This facility, which is nearing the end of its operational life, undertakes the final production stage of nuclear medicines crucial for thousands of procedures at Australian hospitals and medical clinics.

The NMMF will form part of a more sophisticated nuclear medicine precinct to enable a modern manufacturing capability and thereby safeguard Australia's sovereign supply of nuclear medicine.

"This new purpose-built facility will enable ANSTO to meet the increasing demand for nuclear medicines by hospitals and medical clinics while also leveraging ANSTO's radiopharmaceutical research and development and medical industry collaborations. The facility will ensure that ANSTO has the flexibility to adapt to evolving manufacturing technologies and meet the changing needs of the radiopharmaceuticals market, particularly as cancer and other illness diagnosis rates continue to grow."

Pamela Naidoo-Ameglio
ANSTO's Group Executive for
Nuclear Operations and Nuclear Medicine

About Nuclear Medicine

On average, every Australian is likely to benefit from nuclear medicine and will require at least two nuclear medicine procedures during their lifetime. Each week ANSTO produces nuclear medicines enabling between 10,000 – 12,000 procedures at Australian hospitals and clinics. Since the late 1970s, ANSTO has produced a variety of nuclear medicines and now supplies around 80 per cent of the nuclear medicine used in. Australia.

ANSTO welcomes $13.9M critical minerals funding

In January 2024, Minister for Resources and Minister for Northern Australia, the Hon Madeleine King MP, announced a $13.9 million funding allocation to ANSTO under the Australian Critical Minerals Research and Development Hub. The Hub is hosted by CSIRO, and partners with ANSTO and Geoscience Australia. This funding will go towards research that accelerates the discovery, extraction and processing of rare earth elements from clay-hosted and ionic adsorption rare earth deposits.

Established in October 2022, the Hub brings together the expertise of Australia's leading science agencies to work with industry, universities and the research community to solve technical challenges. The Hub drives collaborative research across the critical minerals value chain needed to support the clean energy transformation and Australia's net zero policy in line with Australia's Critical Minerals Strategy 2023–2030.

Improving groundwater sustainability and renewability using isotope hydrochemistry in NSW

Working with world-class experts in groundwater and making major contributions in this area over two decades, ANSTO completed a major project report on improving groundwater sustainability and renewability using isotope hydrochemistry in NSW for the Department of Planning and Environment (NSW) and National Water Grid in 2023.

A large team of environmental scientists at ANSTO led by Dr Dioni I. Cendón undertook the comprehensive analysis that ultimately produced the first 3D spatial maps of NSW, showing links between groundwater, recharge processes and sources of groundwater. The aim of this project was to apply water-stable isotopes and natural radioisotopes to improve understanding of groundwater sources, recharge processes and groundwater movement, which can inform groundwater management decisions related to sustainability and renewability of aquifers within NSW.

The report concluded that there was some isolated seawater intrusion into aquifers in some coastal sites. More evaporated groundwater was being pushed down into some aquifers due to regional pumping. The research revealed the importance of rivers and natural flooding events in aquifer recharge and confirmed the contribution of Great Artesian Basin groundwater upwelling into some regions.

Study confirms fraudulent Kakadu plum product is in the international marketplace

To coincide with 2024 National Reconciliation Week, ANSTO shared research published recently in the journal Food Control that confirms fraudulent Kakadu plum extracts are in circulation online and in the international marketplace. Kakadu plum is an endemic Australian fruit and current production is largely via wild harvest, from northern Australia, a large proportion of which is produced by Indigenous Australians.

ANSTO has been generating distinct signatures, known as iso-elemental fingerprints, for individual growers in the Northern Australian Aboriginal Kakadu Plum Alliance (NAAKPA). A fingerprint, based on the isotopic and elemental profile, is unique to a specific location and varies even between adjacent harvest areas. The data is being added to a reference database to help identify where fruit comes from in the future and protect the Kakadu plum industry, to ensure commercial benefits are seen by Indigenous Australian communities.

Section 3:

Our purpose and strategic objectives

Our purpose

ANSTO's purpose is derived from section 5 of the Australian Nuclear Science and Technology Organisation Act 1987 (Cth) (the ANSTO Act), which directs the core functions we undertake for the benefit of Australia:

- Conduct research and development in relation to nuclear science, technology, and engineering;
- Collaborate with universities, industry, professional bodies and other education and research institutions;
- Produce and use radioisotopes, isotopic techniques and nuclear radiation for medicine, science, industry, commerce, and agriculture;
- Encourage and facilitate the application and use of results gained from research and development;
- Manage radioactive materials and waste arising from various prescribed activities;
- Provide goods and services related to core activities;
- Provide advice to government and liaise with other countries on behalf of Australia in nuclear-related matters;
- Make available to other persons – whether or not on a commercial basis – the knowledge, expertise, equipment, facilities, resources, and property of the organisation for the purposes of scientific research, innovation, and training;
- Publish scientific and technical reports, periodicals, and papers, and provide public information and advice; and
- Facilitate education and training in nuclear science and technology, including through granting scientific research studentships and fellowships, in cooperation with universities, professional bodies and other education and research institutions.

Our strategic objectives

OUR **VISION**

Nuclear science and technology for the benefit of all Australians

OUR **MISSION**

To deliver knowledge, value and trust through the application of nuclear science, technology and engineering

OUR **STRATEGIC OBJECTIVES**

1. **Deliver on Australia's priorities for the benefit of people, industry and the environment** through nuclear excellence in research and the use of national infrastructure
2. **Improve the health of Australians by supporting access to current and future nuclear technologies** for diagnostic, therapeutic and innovative treatments for current and emerging diseases
3. **Australia's source of nuclear expertise, advice and services** to governments, academia, industry, and community
4. **Lead the development of a nuclear capable workforce** aligned with government policy objectives

OUR **VALUES**

Curiosity | **Leadership** | **Excellence** | **Working together** | **Trust + Respect**

Safe. Secure. Sustainable.

Section 4:

Annual Performance Statements

Introductory Statement

We, the ANSTO Board, as the accountable authority of ANSTO, present the 2023–2024 Annual Performance Statements of ANSTO, as required under paragraph 39(1)(a) of the Public Governance, Performance and Accountability Act 2013 (Cth) (PGPA Act). These Annual Performance Statements are based on properly maintained records. They accurately reflect the performance of ANSTO and comply with subsection 39(2) of the PGPA Act.

Summary of Performance

Strategic Objective	Performance criterion	Measure and target	Result (2023–2024)	
1. Deliver on Australia's priorities for the benefit of people, industry and the environment through nuclear excellence in research and the use of national infrastructure	*Collaborate, deliver and translate research that has scientific and industrial impact for Australia and the world*	**580-650 total publications**	**ACHIEVED** **615**	✔
		$5.5M external revenue from research and research services (excluding National Collaborative Research Infrastructure Strategy Grants).	**ACHIEVED** **$10M**	✔
		95% or more publications undertaken with national and international collaborators.	**ACHIEVED** **97%**	✔
	Operate world-class research infrastructure and leverage capabilities to deliver outcomes for Australia	**220 OPAL days at power**	**ACHIEVED** **224** days	✔
		95% Utilisation Australian Synchrotron	**ACHIEVED** **95%**	✔
		85% Utilisation Australian Centre for Neutron Scattering (ACNS)	**ACHIEVED** **89%**	✔
		65% Utilisation Centre for Accelerator Science (CAS)	**ACHIEVED** **65%**	✔
		90% Utilisation National Deuteration Facility (NDF)	**NOT ACHIEVED** **89%**	✖
		90% User Satisfaction (NPS)* across all infrastructure excluding OPAL	**NOT ACHIEVED** **79%**	✖
	Ensure the reliable and sustainable supply of commercial products and services for the benefit of Australia and the world	**≥95% NTD Silicon DIFOT**	**ACHIEVED** **98%**	✔
2. Improve the health of Australia by supporting access to current and future nuclear technologies for diagnostic, therapeutic and innovative treatments for current and emerging diseases	*Ensure the reliable and sustainable supply of nuclear medicines, products and services*	**≥95% ANM (Mo-99) DIFOT**	**ACHIEVED** **100%**	✔
		≥95% ANSTO Nuclear Medicine Production Facility DIFOT	**ACHIEVED** **96%**	✔

Strategic Objective	Performance criterion	Measure and target	Result (2023–2024)	
3. Australia's source of nuclear expertise, advice and services to governments, academia, industry and community	*Deliver expert advice to local, state and federal governments, and other stakeholders to support the national interest*	**75% Australian Government stakeholder satisfaction** — federal, state and local government	**ACHIEVED** **100%**	✔
	Participate in global and regional nuclear discussions and forums to ensure that Australia remains a leader in the application of nuclear science and technology	**RCA —** Participation in **80% of active projects,** Leading **≥1 project**	**ACHIEVED** Lead in **two projects** and participation in **83%** of active projects**	✔
		IAEA CRP — Participation in **≥10 projects relevant to nuclear applications**	**ACHIEVED** Exceeded - participation in Over **10 projects**	✔
	Grow a more informed generation of Australians who understand the benefits of nuclear science and technology	**Deliver ≥6 national programs per annum**	**ACHIEVED** **7** national programs	✔
		Increased accessibility of STEM teacher training programs through the **delivery of teacher professional development days for all states and territories**	**ACHIEVED** **300** teachers attended online professional development	✔
		≥15,000 visitors to ANSTO's campuses per annum	**ACHIEVED** **16,026** visitors to Lucas Heights **2,864** visitors to Australian Synchrotron	✔
4. Lead the development of a nuclear capable workforce aligned with government policy objectives	*Provide an inclusive environment that empowers our people and supports a culture of collaboration and engagement*	**Leadership team —** Male **40%** | Female **40%** | Discretionary **20%**	**ACHIEVED** Male **56.8**% Female **43.2**%	✔
		ANSTO-wide — Male **40%** | Female **40%** | Discretionary **20%**	**NOT ACHIEVED** Male **65.5**% Female **34.3**% Indeterminate **0.2**%	✖
	Develop a workforce plan for the next generation of specialised nuclear professionals	**150 postgraduates supervised**	**ACHIEVED** **176** postgraduates	✔
5. Safety, Security, and Community	*Ensure a highly reliable, safe and secure environment*	**Increased opportunities for improvement (OFI) to actual incidents recorded**	**ACHIEVED** **73%*** **	✔
		Zero Class 1 incidents **Year-on-year decrease in Class 2 & 3 incidents**	**ACHIEVED** **0** Class 1 or 2 incidents **3** Class 3 incidents****	✔

* Net Promoter Score (NPS) is a rating of user promotion of research infrastructure. Achieving a score of 90 requires nearly all users to be promoters (scoring 9 or 10) and almost none to be detractors (scoring 0 to 6). This is considered to be an unrealistic target for industry standards and leaves almost no room for improvement. Future reporting metrics have been adjusted to reflect current industry performance standards.

** Australia is engaged in 14 of the 17 RCA projects.

*** In 2023–2024, 73% of operational and safety incidents reported were opportunities for improvement, up from 70% in 2022-2023.

**** In 2022-2023 there were 0 Class 1 or 2 incidents and 8 Class 3 incidents.

STRATEGIC OBJECTIVE 1:

Deliver on Australia's priorities for the benefit of people, industry and the environment through nuclear excellence in research and the use of national infrastructure

Collaborate, deliver, and translate research that has scientific and industrial impact for Australia and the world

Performance criterion	Measure	Result (2023 - 2024)
Total publications*	580 - 650 total publications	ACHIEVED **615** ✔
External revenue from research and research services**	$5.5M external revenue	ACHIEVED **$10M** ✔
Publications undertaken with national and international collaborators	≥95%	ACHIEVED **97%** ✔

* ANSTO only. ANSTO with national co-authors, ANSTO with international co-authors, ANSTO with both national and international co-authors.
** Excluding National Collaborative Research Infrastructure Strategy (NCRIS) Grants.

Analysis of performance

Total publications

In 2023–2024, a total of 615 publications with ANSTO authors were recorded. ANSTO's active research cohort of around 300 people is highly productive and, with publications in leading journals, represents research excellence in multiple fields. When publications acknowledging the use of ANSTO research infrastructure are included, there were over 850 publications contributing to impact and public benefit for the country.

External revenue from research and research services

The external revenue figure includes consulting services, collaborative and other research income, and other research-related products and services. These impressive results are attributed to strong stakeholder engagement, which provides ANSTO with the ability to build relationships and deliver successful outcomes.

Publications undertaken with national and international collaborators

Translational research outcomes are central to our purpose and showcase the value we create. In 2023–2024, ANSTO authors delivered publications with authors from over 60 countries as well as from most significant research organisations around Australia. This high level of collaboration highlights ANSTO's exceptional levels of engagement and the esteem in which our researchers are held.

Key activities for 2023-2024

How we deliver on our strategy and purpose.

Updated ANSTO research and development strategy and implementation

Corporate Plan 2023-2024 planned progress: Implementation

ANSTO's research and development strategy is based on our unique infrastructure and capabilities in nuclear science and technology and delivers public benefits aligned with national priorities. Our performance against our research and development plan is measured through productivity and excellence indicators, such as publications and collaborations, as well as through demonstration of impacts. Examples of outcomes include:

- Better seafood provenance (Environment) — Recognising ANSTO's world-leading ability to quantify isotopic abundance in the environment and to validate in-field measurements, the Department of Agriculture, Fisheries and Forestry has provided funding to ANSTO to further develop robust traceability solutions. The work, in collaboration with Sydney Fish Market, University of New South Wales (UNSW), Macquarie University, National Measurement Institute and the NSW Department of Primary Industries — Fisheries will improve provenance in Australian seafood harvesting locations.

- Access to therapeutic radiopharmaceuticals (Health) — ANSTO staff member, Dr Lidia Matesic, was appointed a Facility Fellow at the National Collaborative Research Infrastructure Strategy's (NCRIS) National Imaging Facility (NIF). This funded appointment, and ANSTO's participation as a node of NIF, recognises ANSTO's national leadership role in the development and clinical translation of novel therapeutic radiopharmaceuticals, using OPAL-produced radioisotopes and alpha-emitting radioisotopes. Participation in the NIF network provides further opportunities to advise on and set research directions through nationally coordinated programs and collaborative projects.

- Optimising manufacturing of large ship panels for the Hunter class frigate (Nuclear technologies) — ANSTO collaborated with BAE Systems and the University of Wollongong under the auspices of DMTC Limited to optimise the manufacturing of large ship panels. Leveraging its expertise in computational materials engineering, ANSTO, in partnership with industry and academia, has developed a high-fidelity thermo-mechanical numerical simulation capable of accurately predicting post-welding microstructure evolution, residual stress distribution and distortion patterns of welded ship panels. The numerical methodology has been experimentally validated using ANSTO's state-of-the-art neutron diffraction technique for residual stress measurements. The project's success has resulted in further funding aimed at enhancing these simulations to achieve real-time prediction capabilities. These high efficiency numerical simulations will be integrated into the manufacturing processes at the BAE Systems' shipyard in South Australia, aiming to increase production efficiency.

- Detection and imaging (Nuclear technologies) — The detection of ionising radiation is important for activities relating to the national interest as well as many industries (nuclear, health, defence and national security). The Australian Safeguards and Non-proliferation Office (ASNO) is currently funding research and development into advanced radiation imaging solutions for reactor-related safeguards applications. Other development activities include developing drone-based radiation detection payloads for wide area survey applications, as well as thermal neutron imaging as a new additional capability for ANSTO's CORIS360® gamma-ray imaging technology.

- Novel lithium extraction process demonstrated (Nuclear technologies) — The LieNa® technology developed by ANSTO Minerals unit and Lithium Australia Limited was successfully demonstrated, with four campaigns and over 18 days of continuous piloting at our Lucas Heights facility. The LieNa® process allows lithium to be extracted from otherwise discarded mining waste, which will allow for greater resource utilisation for this critical mineral. The project is now moving to the final phases of piloting to produce high quality lithium phosphate for use in batteries.

- Novel uranium ion exchange plant starts up at Honeymoon (Nuclear technologies) — The Honeymoon in-situ recovery uranium mine was restarted this year by owners Boss Energy after operations were suspended in 2014. In the intervening years, ANSTO's Minerals unit developed a novel ion exchange process with Boss Energy that allows uranium to be recovered efficiently from the saline leach solution. The new process was installed and commissioned and has performed above expectations, with over 57,000 pounds of U3O8 (yellowcake) produced to date.

- Better tools for diagnosis of breast cancer (Research infrastructure benefits) — Lipidomics is a growing field which correlates temporal and spatial changes in the type and amount of lipids to specific physiological or pathological conditions. Identification of lipid biomarkers of disease has the potential to enable non-invasive diagnosis. However, to develop an accurate quantitative diagnostic test, many sources of variability must be accounted for. The gold standard for mass spectrometry-based analyses is to use a stable isotope labelled internal standard. During 2023-2024, ANSTO's increased the variety and number of tailor-made deuterated lipids that can be produced for this application. These bespoke standards were specifically designed for BCAL Diagnostics Limited, an Australian biotechnology company developing a diagnostic tool for breast cancer, a disease that affects one in seven Australian women.

- State of the art neutron scattering equipment upgrades for Australian researchers (Research infrastructure benefits) — ANSTO has successfully completed $10.9 million of complex upgrades to critical instrument systems and expanding equipment at the ACNS, funded through the Australian Government's NCRIS. These investments have ensured that ANSTO's state-of-the-art neutron scattering research infrastructure remains world-class and can operate reliably for decades to come.

- Extraction of critical minerals from seawater (Research infrastructure benefits) — There have been concerns that the increasing demand for uranium may outstrip the supply available from the ground. The Earth's oceans have plentiful amounts of uranium but it is heavily diluted, making extraction challenging. Using two of the spectroscopy beamlines at the Australian Synchrotron (Soft X-ray Spectroscopy and X-ray Absorption Spectroscopy), as well as electron microscopy and other surface sensitive characterisation techniques, ANSTO scientists in collaboration with researchers from UNSW have developed a new material for the simple and efficient extraction of uranium from other elements that are present in seawater.

- Indigenous partnerships (Research infrastructure benefits) – ANSTO has been working closely with research teams from a number of regions across Australia to further develop knowledge of Indigenous cultural history. One such research partnership with the University of Melbourne, the Kimberley Foundation Australia, and the traditional owners from the Balanggarra people is seeking to improve our understanding of the evolution of rock art painting styles that are found in rock shelters across the Kimberley region. Using the extreme sensitivity of the unique Accelerator Mass Spectrometry (AMS) micro-carbon dating capability at ANSTO's CAS, this project has completed radiocarbon dating of over 400 extremely challenging microgram carbon samples, analysing preserved biological material from mud wasp nests and oxalate rock veneers taken from artworks across the region. This pioneering technique has allowed the dating of some of the oldest Indigenous rock artworks in Australia and has been supported by funding from an Australian Research Council grant. ANSTO is also working with the Yulur Heritage group and the Wintawari Guruma Aboriginal Corporation to use AMS radiocarbon dating to study Indigenous cultural heritage sites across the central Pilbara region. This ongoing partnership involving local archaeologists, ethnographers and Eastern Guruma cultural specialists aims to identify and record cultural heritage sites to aid in their preservation, while also modelling the timing and ongoing connection between coastal and inland sites.

- Expanding impact capacity (Research infrastructure benefits) — The $105 million BRIGHT program to build eight new beamlines at ANSTO's Australian Synchrotron passed the half-way point this year with four beamlines now in operation and four more nearing completion. The BRIGHT program will allow researchers access to world-leading capability in imaging, spectroscopy, scattering and microscopy that will turbo-charge research impacts around the country.

Current Research Information System and Portal (CRISP) project

Corporate Plan 2023-2024 planned progress: **Implementation**

The CRISP project will provide our organisation with best practice, integrated software tools, and analytics to more effectively manage information and data related to all aspects of our research activities. Outcomes from the project will include improved reporting and analytics, plus improved support for compliance. The project has three components: a Research Information Management Strategy, a Laboratory Information Management Strategy, and a portal to manage access and coordination of ANSTO's research infrastructure.

The Research Information Management Strategy has been implemented and is currently being introduced to users for testing and further feedback. The Laboratory Information Management System and ANSTO Research Portal projects are undergoing a revised approach to bring them into operation using components that are better aligned with current cybersecurity requirements and to explore different funding models.

Operate world-class research infrastructure and leverage capabilities to deliver outcomes for Australia

Performance criterion	Measure	Result (2023 - 2024)
OPAL	220 days at power	ACHIEVED ✔ **224** Days
Australian Synchrotron	95% utilisation	ACHIEVED ✔ **95**%
Australian Centre for Neutron Scattering (ACNS)	85% utilisation	ACHIEVED ✔ **89**%
Centre for Accelerator Science (CAS)	65% utilisation	ACHIEVED ✔ **65**%
National Deuteration Facility (NDF)	90% utilisation	NOT ACHIEVED ✖ **89**%
User Satisfaction (NPS)	90% NPS*	NOT ACHIEVED ✖ **79**%

* Net Promoter Score (NPS) is a rating of user promotion of research infrastructure. Achieving a score of 90 requires nearly all users to be promoters (scoring 9 or 10) and almost none to be detractors (scoring 0 to 6). This is considered to be an unrealistic target for industry standards and leaves almost no room for improvement. Future reporting metrics have been adjusted to reflect current industry performance standards.

Analysis of performance

The OPAL multi-purpose nuclear reactor continues to be the heart of ANSTO's landmark infrastructure, with results over the past year demonstrating an outstanding facility reliability of 99.6%. The utilisation goal of ACNS, CAS and Australian Synchrotron were also achieved. In addition, it is positive to see the user satisfaction goal achieved, with figures similar to scores from previous years, demonstrating a consistency of user satisfaction. However, there remains room for improvement in the coming years. The utilisation goal of the NDF was not achieved, due to issues such as additional maintenance requirements and calibrations, relocation of laboratory equipment and funding timeframes.

Key activities for 2023-2024

How we deliver on our strategy and purpose.

OPAL multi-purpose reactor upgrades

Corporate Plan 2023-2024 planned progress:

- *Replacement of CNS:* Implementation
- *Replacement and Expansion of Neutron Beams:* Monitoring Improving

The OPAL multi-purpose reactor has been operating since 2007. OPAL is a 20-megawatt multi-purpose research reactor used for radioisotope production, irradiation services and scientific neutron beam research.

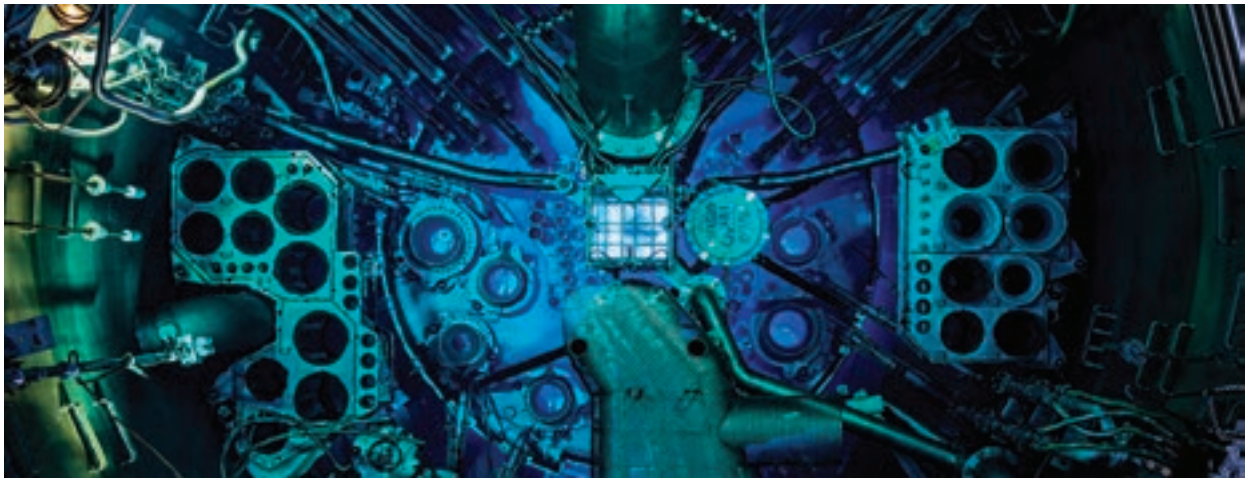
OPAL uses low-enriched uranium fuel in a compact core, cooled by light (normal demineralised) water and moderated by heavy water, which works to maintain the nuclear reaction in the core by "reflecting" neutrons back towards the core.

It is equipped with a special Cold Neutron Source (CNS) operating at minus 250 degrees Celsius, which provides further research capabilities. The CNS has a time-limited operating life and the planned shutdown of OPAL to replace the CNS began in March 2024. Dedicated resources and planning ensured there was minimal disruption to domestic nuclear medicine supply and enough project agility to respond appropriately to challenges. The successful replacement of the CNS and restart of OPAL will preserve and enhance our ability to continue to provide effective scientific infrastructure utilisation for science, research and industry partners.

ANSTO is focused on ensuring the ongoing and safe operation of the OPAL nuclear reactor to optimally position ANSTO to supply radioisotopes reliably, undertake effective silicon irradiations, and deliver neutrons for research and industry applications.

The ongoing maintenance of the Nuclear Medicine Production Facility is key as we continue to strive to deliver safe, quality, and reliable nuclear medicines to improve the health outcomes for all Australians through the effective application of radioisotopes and radioisotope-enabled technologies, including radiopharmaceuticals.

The 2023–24 Federal Budget provided funding for ongoing maintenance of the current production facility. In line with a ten-year Asset Management Plan commencing in 2023, a shorter shutdown was successfully implemented, with a longer shutdown in April 2024. The longer shutdown was managed successfully with essential upgrades to the facility achieved while ensuring minimal impact on nuclear medicine supply.



The BRIGHT Beamline Program

Corporate Plan 2023-2024 planned progress:

- *MCT, MEX1, MEX2:* Completion
- *BioSAXS, ADS 1&2, MX3:* Implementation
- *NANO:* Preparation Implementation

The $105 million BRIGHT Beamline Program has been funded by 33 universities, research institutes and government agencies in Australia and New Zealand. This program has enabled ANSTO to construct eight new beamlines at the Australian Synchrotron. The creation of these new beamlines will nearly double the Australian Synchrotron's research capacity, making it the "go-to" facility for the nation's scientific characterisation capabilities in addressing national and global challenges. This level of support from our research community underscores the importance of the facility to the Australian and New Zealand innovation and science ecosystem.

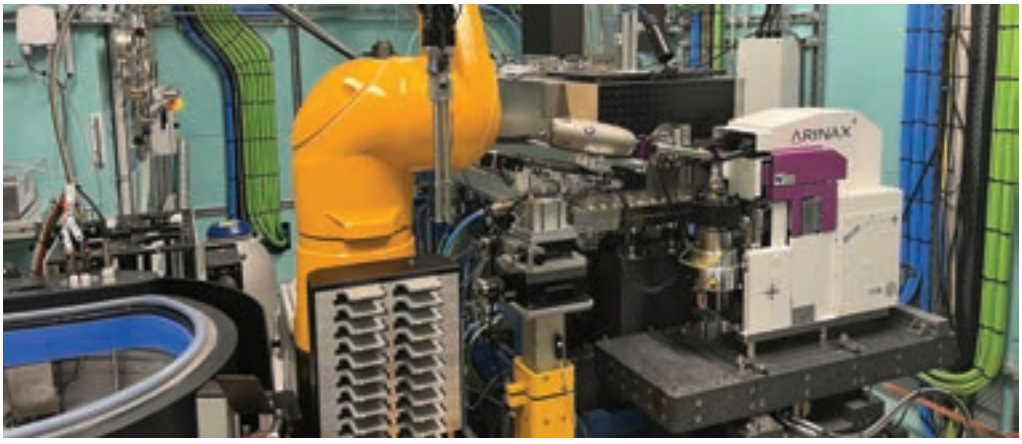
The Micro-Computed Tomography (MCT), Medium Energy X-ray Absorption Spectroscopy-1 (MEX1), and the Medium Energy X-ray Absorption Spectroscopy-2 (MEX2) beamlines all commenced in 2022-2023, while the Biological Small Angle X-ray Scattering (BioSAXS)beamline commenced user operations in November 2023.

Collectively MCT, MEX1, MEX2 and BioSAXS have scheduled and undertaken more than 270 user experiments since commencing operations. Fields of research encompassed by these beamlines include vulcanology, palaeontology, environmental science and climate change, advanced manufacturing and aerospace, development of new X-ray imaging methods, agriculture, mineral processing, catalysts, energy materials and batteries, electronic materials, protein structure and conformational change, development of pharmaceutical formulations, studies of nanomaterials, and biomedical and disease studies.

Installation and cold commissioning of the High-Performance Macromolecular Crystallography (MX3) beamline has also been completed. Further testing and refinement of its data acquisition and analysis systems are being undertaken while awaiting approval from the regulator to commence hot commissioning with synchrotron X-rays. It is expected that MX3 will commence user experiments in 2025.

The Advanced Diffraction & Scattering-1 (ADS1) and Advanced Diffraction & Scattering-2 (ADS2) have seen good progress as well as some significant delays in 2023-2024. Major endstation systems have been installed for ADS1 and the fit out of the ADS2 endstation is underway. The major photon delivery system (PDS) components for ADS1 and ADS2 have been received and installed; however, one of the key optical systems failed after installation and has been returned to the vendor for re-engineering. In January 2024 we installed a temporary Wiggler system to enable commissioning of ADS1, while we await the delivery and commissioning of a new Superconducting Wiggler for the ADS1 and ADS2 beamlines in late 2025. Unfortunately, due to the lower power of the temporary Wiggler system, the hot commissioning of the ADS2 beamline will be delayed until a new Superconducting Wiggler is installed and operational. ADS1 is expected to commence operations in early 2025-2026 and ADS2 in early 2026-2027.

The X-ray Fluorescence Nanoprobe (NANO) beamline achieved a major milestone in May 2024 with the completion and handover of the NANO satellite building. ANSTO has placed contracts for most of its major systems, including the in-vacuum cryo-undulator and the beamline X-ray optics. Designs are well advanced for the NANO endstation systems, including the high-precision sample robot. The radiation enclosures for the NANO X-ray optics have been installed and tested, and construction has commenced on the NANO satellite building. The NANO beamline is expected to commence user operations in the second half of 2025.



The High-Performance Macromolecular Crystallography (MX3) beamline, which is expected to undertake commissioning in 2025

Australian Centre for Neutron Scattering Upgrades

Corporate Plan 2023-2024 planned progress:

- *Research Infrastructure Investment Plan:* Completion
- *Koala Upgrades:* Completion
- *Wombat and Bilby detector upgrades:* Implementation
- *ACNS Expansion Scoping Studies:* Preparation Implementation

The ACNS is the home of neutron scattering science in Australia.

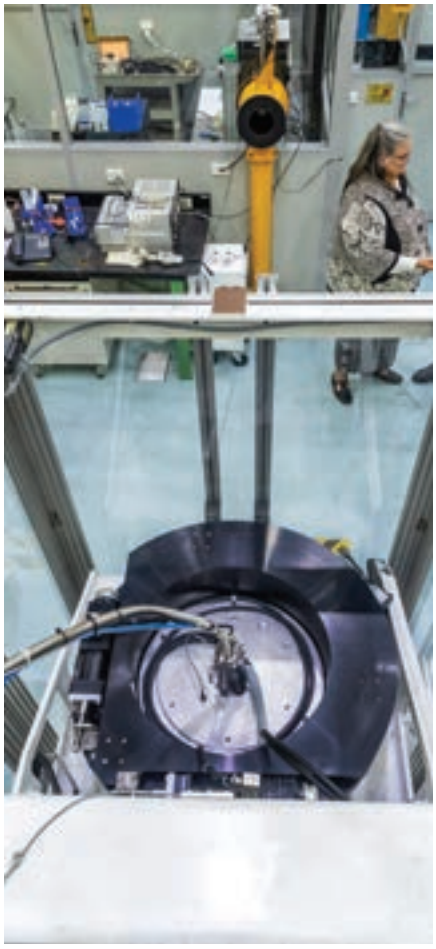
ACNS uses neutrons from the OPAL reactor to enable scientists and industry to solve complex questions and problems. Neutron scattering enables research into areas of national importance including health, food, materials, engineering, quantum materials, energy, cultural heritage and environmental science.

ANSTO has completed upgrading critical instrument systems and expanding equipment at the ACNS funded through the NCRIS. These investments will ensure ANSTO's state-of-the-art neutron scattering research infrastructure remains world-class and can operate reliably for decades to come.

The upgraded Koala (Laue diffractometer) instrument received its first users in September 2023.

The Bilby (small-angle neutron scattering) instrument detector upgrade will be completed in September 2024 after the OPAL reactor returns to normal operation after the long shutdown.

The Wombat (diffractometer) instrument detector replacement, which will ensure its reliability, scientific capabilities and performance, as well as future maintainability, is in the design phase and is planned to be completed in 2029.



The Koala – Laue Diffractometer Instrument at ANSTO's Centre for Neutron Scattering

Centre for Accelerator Science Upgrades

Corporate Plan 2023-2024 planned progress:

- *Research Infrastructure Investment Plan for Critical Systems, Facilities and Equipment:* Implementation
- *Automation of Sample Processing and End Station Mounting:* Completion
- *Space Radiation Testing:* Implementation
- *CAS Expansion Scoping Studies:* Preparation Implementation

ANSTO's CAS is a national user facility open to all, co-funded by the NCRIS and ANSTO. With a multi-disciplinary team of expert scientists and technicians, CAS operates four megavolt ion beam accelerators, beamlines and laboratory facilities employed for ultra-sensitive analysis, using AMS and ion beam analysis (IBA) techniques, and for radiation testing and surface fabrication using precision irradiation and implantation. The facility supports academic and industry users across Australia and the world in applications informing policy, providing critical services for the International Atomic Energy Agency (IAEA), and enabling discovery and innovation in areas such as environment, climate and health sciences, space and green energy technologies testing, advanced materials and cultural heritage.

The CAS is undertaking significant upgrades of critical accelerator systems and equipment, initiating a single site consolidation and expansion of sample preparation facilities, as well as recruiting additional support for the industry and commercial user program, with funding secured through the 2020 Research Infrastructure Investment Plan. These investments will ensure the sustained long-term and efficient operation of the world-class accelerator science capabilities and instrumentation delivered by CAS.

They will also provide sovereign capability for ion beam precision irradiation to meet the national need for facilities supporting space, defence and advanced manufacturing with funding from the Australian Space Agency's Space Infrastructure Fund. CAS continued to deploy major capital uplift and renewal projects initiated in 2023-2024, including the upgrade of critical accelerator systems on the STAR and ANTARES accelerators. CAS continues to grow expertise and a portfolio of users from both academia and industry, utilising new ion beam space radiation testing facilities in partnership with the National Space Qualification Network, as well as ion beam radiobiology capabilities. This will build on previous partnerships and collaborations utilising CAS' ion beam irradiation capability for radiobiology studies through the merit-access scheme.

In 2023-2024, a new four-year capability development program supported by NCRIS Step Change funding was initiated. This $10.65 million funding package focuses on development of new or expanded capabilities and an increase in specialist staff in each of the four step change program areas:

- *Transforming Australia's accelerator mass spectrometry capability for the environment and climate challenges of this crucial decade*: This activity will deploy automated sample processing methodologies for increased capacity and throughput for AMS analysis to support critical national research support in areas such as groundwater resilience, climate science and nuclear safeguards.

- *Ion irradiation for the emerging needs of defence, health, semiconductor and space sectors*: Automation and expansion of the capacity and range of services of the newly developed space radiation and radiobiology testing facilities will provide precise and verified irradiation dose delivery, thereby meeting the international standards needed for defence and space testing of semiconductors, electronics and materials, and the controls needed for pre-clinical and radiobiology community research.

- *Ion beam analysis for continental-scale pollution monitoring and PFAS contamination screening*: This involves the development of an automated, rapid, high-throughput, national-scale capability for the expansion of capacity in ion beam analysis for environmental air monitoring and per- and poly-fluoroalkyl substance (PFAS) contamination screening analysis, plus the development of an expanded and automated fleet of air filter collections for the establishment of a national air monitoring network.

- *Industry uplift for innovation and translation:* The uplift will increase and diversify our industry reach and ensure a bespoke and high-impact industry and commercial user access experience.

ANTARES Accelerator at ANSTO's Centre for Accelerator Science

National Deuteration Facility Capability Expansion

Corporate Plan 2023-2024 planned progress:

- *Increase Production Capacity:* Completion
- *Provide Stable Isotope Internal Standards:* Completion
- *Provide Solutions to Industry:* Completion
- *Build Australia's Human Capital:* Monitoring Improving

The NDF delivers a world-leading facility in the provision of chemicals and biochemicals labelled with the stable isotope deuterium, to enable investigations into the relationships between molecular structures, functions and interactions within complex biological and chemical systems. The NDF offers various labelling methods that provide distinct advantages to researchers in Australia and around the world in areas such as structural biology, drug delivery, molecular electronics, thin film nanotechnology, energy and gas adsorption materials, and more. Australian-based drug discovery programs benefit from the NDF capabilities, which reduce their dependence on international commercial suppliers and bioanalysis service providers. This, in turn, mitigates challenges related to delivery time frames and logistics.

In 2023-2024 NDF received further uplift funding of $2.8 million from NCRIS to maintain its world-leading position in deuteration science for research applications by upgrading its instrumentation as well as further support for its research infrastructure with emerging technologies in hydrothermal and bioreactors and novel synthesis methodologies. The aim is to broaden the NDF's user base to provide further deuteration support to the wider nuclear magnetic resonance spectroscopy, infrared spectroscopy and mass spectrometry research communities across Australia and overseas, and to deliver science and technology solutions to industry. The NDF user demand continued to be high in 2023-2024 despite the scheduled long shutdown of OPAL and neutrons to ACNS, demonstrating the high demand from non-neutron research communities and international users which doubled in 2023-2024 (33% of the total demand) compared to last year.

ANSTO continued to provide stable isotope internal standards for breast cancer diagnostics tests for a biotechnology company in NSW and more work is planned for next year.

ANSTO also engaged with new industries (both local and international), including pharmaceutical companies in Sweden and Australia who accessed the NDF bespoke deuterated lipids for m-RNA technology, demonstrating our expansion in this field. We also fulfilled our target to build Australia's human capital in deuteration by training seven students.

Biodeuteration at ANSTO's National Deuteration Facility

Build new knowledge, drive innovation, and support training and development for the safe management of radioactive waste

Key activities for 2023-2024

How we deliver on our strategy and purpose.

Development and implement world-leading innovative radioactive waste treatment and management technologies

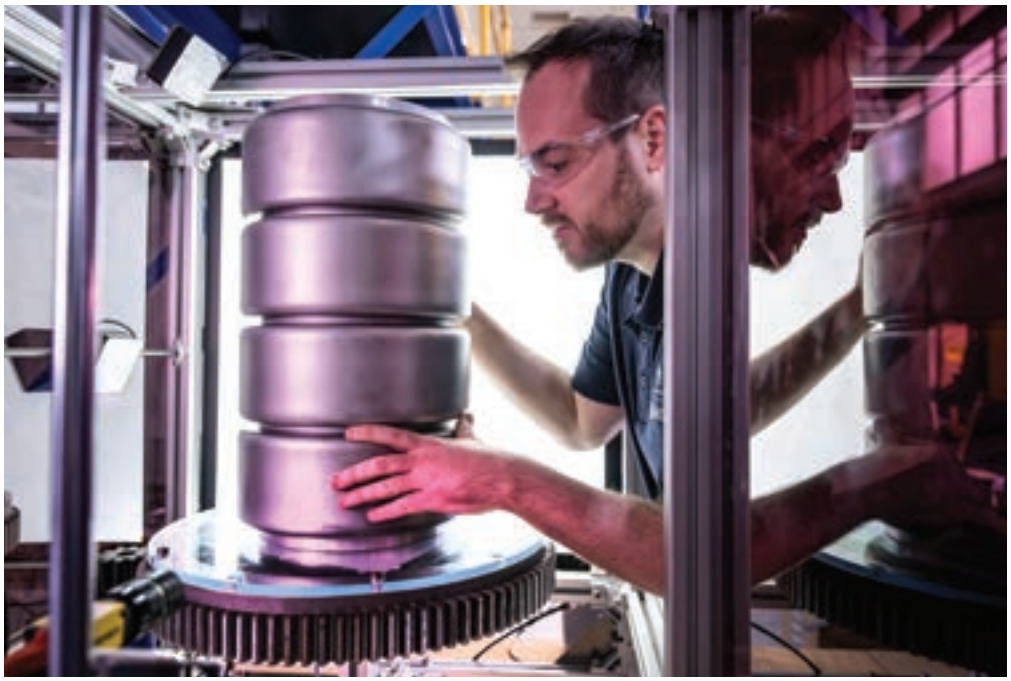
Corporate Plan 2023-2024 planned progress: **Implementation**

ANSTO Synroc® technology provides a safe, secure and sustainable approach to nuclear waste conditioning and management which will bring benefits to domestic and international holders of radioactive waste. The facility, ANSTO's world-first waste treatment plant, will use hot isostatic pressing technology to treat and immobilise waste by-products from the manufacture of Molybdenum-99 (Mo-99).

Situated adjacent to the nuclear medicine production facility where Mo-99 is manufactured, ANSTO Synroc® technology integrates a waste form designed to meet final disposal requirements together with a process technology to immobilise radioactive waste, minimise volume and provide an extremely durable matrix.

The Synroc waste treatment plant will undergo comprehensive staged commissioning and technology performance qualification between 2025 and 2029 to ensure this first-of-a-kind plant is operationally safe, secure and sustainable.

Delivery of ANSTO Synroc® waste treatment technology supports ANSTO's core capability and legislated mandate to temporarily store and manage radioactive waste on behalf of Australia.



ANSTO Synroc® waste treatment plant

Implement intermediate-level waste storage solutions - a new building

Corporate Plan 2023-2024 planned progress: Implementation

ANSTO generates low- and intermediate-level radioactive wastes (ILW) as a result of producing lifesaving nuclear medicines for the benefit of all Australians. ANSTO has been safely managing its own radioactive wastes since the 1950s. ANSTO currently generates approximately five cubic metres of waste, also known as remote-handled solid waste, every year.

ANSTO received a funding allocation in Budgets 2020–21 and 2021–22 to expand its interim storage capacity for ILW via a new building, which has come to be known as the Intermediate-Level Waste Capacity Increase (ILWCI).

In June 2023, a decision was made to consolidate existing intermediate-level liquid waste holdings into the proposed facility, subject to securing relevant approvals.

These interim storage solutions will ensure ANSTO can continue to manage its waste safely and responsibly, which, in turn, will support the continued reliable, sovereign supply of radiopharmaceuticals over the coming decades.

Ensure the reliable and sustainable supply of commercial products and services for the benefit of Australia and the world

Performance criterion	Measure	Result (2023 - 2024)
NTD Silicon DIFOT*	≥95%	ACHIEVED **98**% ✔

* Delivery in full and on time. DIFOT is calculated as delivery in full of the product along with delivery on time.

Silicon irradiation, also known as neutron transmutation doping (NTD), is conducted in the OPAL multi-purpose nuclear reactor. Customers deliver silicon ingots to ANSTO which are then irradiated in the OPAL multi-purpose nuclear reactor and returned to customers for further processing. This material is then utilised in high power semiconductor devices that are key to the global electrification movement and delivering projects towards "net-zero".

Through a combination of efficient OPAL utilisation and materials flow throughout the process, as well as optimising scheduling and high-quality irradiation, we have met our target of at least 95% NTD Silicon DIFOT.

Key activities for 2023-2024

How we deliver on our strategy and purpose.

Minerals and Metals

ANSTO expertise in chemical engineering, metallurgy, mineralogy, chemistry, geology and radiation safety has been supporting the Australian mining and minerals processing industry for more than 40 years. Some of the world's most prominent industrial brands rely on ANSTO's expertise to unlock value in their supply chains, resulting in the restart and growth of sovereign capabilities and domestic jobs.

ANSTO continues its collaboration with the Australian Critical Minerals Research and Development Hub, building Australian intellectual property to underpin advancements in the critical technologies our modern society relies on, such as renewable energy, medicine and defence.

As part of its work with the Hub, ANSTO is leading and contributing to critical and strategic minerals programs such as high purity quartz (essential for photovoltaic production), rare earth elements (essential for high strength magnets in wind turbines), gallium (essential for semi-conductors and electronic applications) and tungsten (essential for tooling and advanced manufacturing).

Australia is home to some of the largest recoverable mineral deposits on earth. ANSTO solves problems that enable manufacturers to increase onshore investment and build a downstream industrial base. ANSTO's critical minerals processing development aligns with the delivery of the government's Future Made in Australia plan.

Ensure ANSTO operates sustainably

Key activities for 2023-2024

How we deliver on our strategy and purpose.

Campus Renewal Plan 2035

Corporate Plan 2023-2024 planned progress: **Implementation**

The Campus Renewal Plan provides for the future of the Lucas Heights campus and aims to enhance ANSTO's NSW campus with improved long-term operational and environmental sustainability, and an upgrade of ageing infrastructure. The status of the plan is as follows:

- *Implementation of Site Development Accommodation*

  Relocatable buildings are being provided to house the project delivery teams that are standing up to support the delivery of key projects across the site. Construction of the first of two such buildings was completed in 2023 and occupation commenced shortly after. These buildings are constructed to the latest standards and offer efficiencies in environmental impact, construction speed and reusability.

  The second relocatable building for the purpose of facilitating the construction of the planned NMMF will be installed and commissioned in the second quarter of 2024-2025.

Artist's render of planned additions to ANSTO's Lucas Heights campus

- *Detailed design completed for enabling projects including calibration centre and campus utility building*

  Calibration centre: The detailed design of the new facility to support the calibration of radiation detection equipment was completed, and a process review of construction requirements and cost is progressing.

  Campus utility building: Detailed design for the new facility to house ANSTO's critical utility infrastructure, including the back up High Voltage Power and Compressed Air system, was completed, and a process review of construction requirements and costs is underway.

- *Concept design for other buildings*: The concept designs for a consolidated science laboratory building and consolidated office accommodation have been completed. Further planning is underway on options for delivery of these projects.

Developing an environmental sustainability strategy

Corporate Plan 2023-2024 planned progress: **Preparation**

In March 2022, ANSTO introduced its Environmental Sustainability Strategy. The Strategy is regularly reviewed to align with Australian Government policy announcements, emerging environmental issues and organisational priorities. The focus of the Strategy during 2023-2024 has been to prepare:

- *Our carbon emissions reduction plan to align with ANSTO's objective to achieve net zero scope 1 and 2 emissions by 2030;*
- *Our waste reduction plan to align with the Australian Government's National Waste Strategy; and*
- *Our climate-related disclosure reporting framework and action plan to align with the Australian Government's Commonwealth climate disclosure requirements.*

STRATEGIC OBJECTIVE 2:

Improve the health of Australia by supporting access to current and future nuclear technologies for diagnostic, therapeutic and innovative treatments for current and emerging diseases

Performance criterion	Measure	Result (2023 - 2024)
ANM (Mo-99) DIFOT	≥95%	**ACHIEVED** ✔ **100%**
ANSTO Nuclear Medicine Production Facility DIFOT	≥95%	**ACHIEVED** ✔ **96%**

Analysis of performance

DIFOT measures our ability to reliably deliver our products to our customers. Overall, Nuclear Medicine recorded 96.0% DIFOT. This is the highest result achieved in Nuclear Medicine.

Health Products achieved 96% DIFOT. This is an exceptional result, with <1% of customer orders not being filled across the year. The drivers of the DIFOT loss were Gentech® (-5.7%) due to equipment failures, and Lu-177 (-7.9%) due to products failing to meet quality standards.

Key activities for 2023-2024

How we deliver on our strategy and purpose.

Nuclear Medicine Project – Planning and design

Corporate Plan 2023-2024 planned progress: Preparation Implementation

ANSTO's current Nuclear Medicine Production Facility has been operational for 60 years. In the 2023–24 Budget, the Commonwealth Government allocated funds to construct a new facility for nuclear medicine manufacturing. This initiative ensures Australia's sustained capability in nuclear medicine production. The new facility will be purpose-built with modern equipment and technology to meet high standards of safety, quality and reliability. This infrastructure will facilitate the provision of nuclear medicine services and foster industry development, including opportunities for skilled roles such as researchers, developers and practitioners in nuclear medicine. Additionally, it will support research and development, and promote collaboration between medical industries to advance healthcare in Australia.

The Parliamentary Standing Committee on Public Works (PWC) recommended the project to the House of Representatives on 14 May 2024, marking another key step in the approval process. Determination of another key regulatory referral was received from the Department of Climate Change, Energy, the Environment and Water (DCCEEW) on 8 May 2024, when it was advised that the project did not require further assessment and approval under the Environment Protection and Biodiversity Conservation Act 1999 before it could proceed.

The tender scope for the design and technical consultant closed on 11 June 2024. The scope is to progress the design from current concept stage to maturity and to provide procurement, construction, commissioning and licensing services. The tender review is underway and will conclude prior to internal approvals and subsequent award.

The next major activity will be the submission of the Siting Licence to Australian Radiation and Protection and Nuclear Safety Agency (ARPANSA) in 2024-2025. The Siting Licence will confirm the suitability of the selected site.

Artist's render of the NMMF building

Ongoing maintenance of our Nuclear Medicine Production Facility

Corporate Plan 2023-2024 planned progress: Monitoring Improving

ANSTO is responsible for the manufacture, production and distribution of radiopharmaceuticals, radiochemicals, cold kits, and accessories for use in healthcare and research globally. In order to provide a safe, secure and sustainable supply of nuclear medicines from the current facility, significant maintenance and capital improvements are being carried out.

ANSTO has a thorough Asset Management Plan that will be implemented over the remaining lifetime of the Nuclear Medicine Production Facility. This includes a capital improvement plan that initially focuses on the remediation of the facility over the next five years to enable it to continue to run safely and reliably.

The 2023–24 Budget provided funding for ongoing maintenance of the current production facility in line with a ten-year Asset Management Plan.

This Plan included the recruitment of additional engineers as well as an alternating approach to annual shutdowns, with shorter shutdowns being followed by an extended period in the following year. In 2024, a planned long shutdown was implemented from March to late September in coordination with the OPAL Reactor long shutdown. The 2024 shutdown affected domestically produced nuclear medicine products over its duration, and, as a result, certain products were imported to support Australian patients. Cross-functional teams have mitigations and supply solutions in place.

Five-year research and development strategy for successful innovation in health

Corporate Plan 2023-2024 planned progress: Preparation Implementation

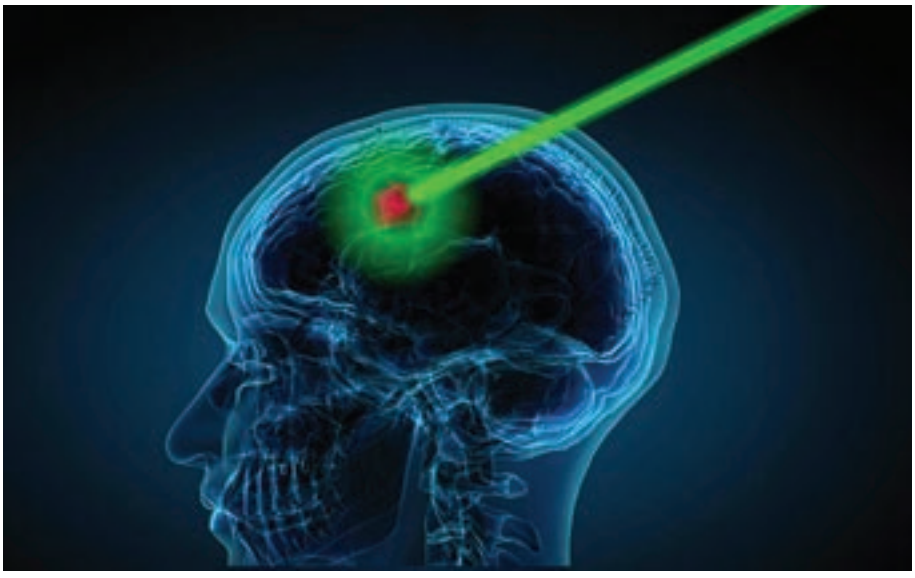
Using our sovereign capabilities in radioisotope and radiopharmaceutical development for the benefit and growth of nuclear medicine treatment and translational medical research leads to improvements in health outcomes for all Australians.

ANSTO's current health research and development strategy prioritises the development and application of radioisotopes and radioisotope-enabled technologies including radiopharmaceuticals for improved patient outcomes.

In 2023-2024, steps in the separation and purification of terbium-161 were semi-automated to enhance worker safety and improve process reliability. The milestone represents a crucial early step in the translation of this emerging therapeutic radioisotope through preclinical and clinical evaluation.

International patent protection has been secured for the Neutron Capture Enhanced Particle Therapy (NCEPT) technology and agreements with overseas facilities has established a pathway for clinical translation, opening potential future treatment options for rare and difficult-to-treat cancers.

The manufacturing facility operated on behalf of OncoBeta increased capacity to deliver a rhenium-188 radiotherapy product for the treatment of skin cancer in Australia.



Cross-section rendering of Neutron Capture Enhanced Particle Therapy

STRATEGIC OBJECTIVE 3:

Provide Australia's source of nuclear expertise, advice and services to governments, academia, industry and community

Deliver expert advice to local, state and federal governments, and other stakeholders to support the national interest

Performance criterion	Measure	Result (2023 - 2024)
Australian Government stakeholder satisfaction	75% federal, state and local government	ACHIEVED 100% ✔

Analysis of performance

As a Corporate Commonwealth entity, ANSTO has direct accountabilities and responsibilities to the Australian Government, particularly to the Minister for Industry and Science, and the Australian Parliament, which are mandated in legislation. ANSTO plays a vital role in providing expert advice to the Australian Government on all nuclear science and technology-related matters.

For example, we have provided advice to government regarding the nuclear industry capabilities that Australia possesses and will need to augment to support the acquisition of nuclear-powered submarines. ANSTO has been driving improvements in stakeholder engagement, advocacy and public communications for the nuclear sector. We have been supporting the nuclear-powered submarine program, including the South Australian and Western Australian state governments in public engagement, and we share our experience in developing social licence for Australia's only nuclear reactor.

As Australia's source of nuclear expertise, advice and services, ANSTO has been providing independent peer review of safety cases for licencing and regulatory matters, as related to the nuclear-powered submarine program.

ANSTO will continue to provide extensive technical expertise and advice to government to ensure Australia remains at the cutting edge of nuclear science capabilities.

Key activities for 2023-2024

How we deliver on our strategy and purpose.

Nuclear Security Science Capability – Planning and Design

Corporate Plan 2023-2024 planned progress: Preparation

ANSTO's Nuclear Security Science Capability (NSSC) seeks to deliver and sustain sovereign nuclear security science infrastructure and expertise which addresses the requirements of government entities across Australia as well as international partners, to strengthen nuclear non-proliferation and radiological and nuclear security. This function supports Commonwealth legislation, international treaties and partnerships.

Following the government two-stage investment approval process, ANSTO is currently progressing the development of a Detailed Business Case for consideration by government for investment in NSSC. Such an investment will protect and enhance Australia's self-reliance in defence and national security and support the management of, and responses to, the complex defence and national security challenges confronting Australia. Further, investment in the capability provides for current and future STEM skill development which leverages Australian science and research for both immediate and future national benefit.

Nuclear Powered Submarines

Corporate Plan 2023-2024 planned progress: **Implementation**

As the centre of Australia's nuclear research and technology capabilities, ANSTO has continued to support the Australian Government in the delivery of a conventionally-armed, nuclear-powered submarine capability for the nation, as part of the AUKUS trilateral agreement.

With the shift from the AUKUS Taskforce to the establishment of the Australian Submarine Agency (ASA) in July 2023, ANSTO has seen new areas in which we engage and support the implementation of the nuclear-powered submarine program. During this reporting period, ANSTO, through its Nuclear-Powered Submarine Working Group (NPSWG), has provided significant technical advice, collaboration, and support to the ASA and the team designing the new naval nuclear power safety regulator.

ANSTO's expertise, through the NPSWG, has also supported the establishment of Australia's nuclear baseline as it relates to a new nuclear-powered submarine enterprise, to determine what steps would be needed to safely operate a new nuclear program. We have been providing advice and expertise in areas including:

- *Environmental monitoring and analysis;*
- *Radioactive waste management;*
- *Nuclear safety, security, and safeguards analysis;*
- *Workforce development and professional development;*
- *Engineering;*
- *Radiation protection and dosimetry;*
- *Public communications and social licence; and*
- *Licencing and regulatory support.*

By sharing our knowledge, experience and expertise in the nuclear stewardship of Australia's only operational nuclear facilities with the ASA and key stakeholders, we continue to make a tangible contribution to the development and implementation of the AUKUS agreement.

Participate in global and regional nuclear discussions and forums to ensure that Australia remains a leader in the application of nuclear science and technology

Performance criterion	Measure	Result (2023 - 2024)
IAEA Regional Cooperative Agreement for Research, Development and Training related to Nuclear Science and Technology in Asia and the Pacific (RCA)	Participation in 80% of active projects, leading ≥ 1 project	**ACHIEVED** ✔ **100%** Lead in **two projects** and participation in **83%** of active projects*
IAEA Coordinated Research Projects (CRP)	Participate in ≥ 10 projects relevant to nuclear applications	**ACHIEVED** ✔ **100%** Exceeded - participation in **over 10 projects**

*Australia is engaged in 14 of the 17 RCA projects.

Analysis of performance

ANSTO, as Australia's leading national nuclear organisation, fulfilled its obligations to engage internationally in nuclear science and technology. We oversaw Australia's participation in IAEA activities, and continued to build and maintain regional partnerships in the peaceful uses of nuclear science and technology.

In October 2023, ANSTO facilitated, and hosted, 24 participants from Asia and the Pacific for an IAEA Regional Training Course on "Production and preclinical evaluation of emerging cyclotron-based radiopharmaceuticals". This course, part of a four-year project under the RCA, aimed to enhance regional capabilities in producing qualified radiopharmaceuticals, and aligns with the IAEA's commitment to improving the health of people in "our region using nuclear techniques – in line with the IAEA's flagship initiative, 'Rays of Hope'". Participants, including professionals from various cancer care fields, attended and gained both theoretical and practical knowledge. The course included presentations from ANSTO scientists and site visits to ANSTO facilities, Cyclotek and Royal North Shore Hospital.

In February 2024, ANSTO hosted the IAEA's Sub Regional Approach to the Pacific Islands National Liaison Officers Meeting. This offered officials from the Pacific Island countries of Fiji, the Marshall Islands, Papua New Guinea, Samoa, Tonga and Vanuatu the opportunity to come together to discuss how nuclear science and technology can achieve the UN Sustainable Development Goals in the Pacific. The officials meet with ANSTO experts to gain practical insight into how nuclear science research can help address food security and nutrition, water resource management, human health, and nuclear science education and outreach.

In May 2024, we concluded Australia's leadership role as Chair of the Regional Cooperative Agreement for Research, Development, and Training Related to Nuclear Science and Technology for Asia and the Pacific (RCA).

Also in May 2024, ANSTO supported Australia as Co-President of the IAEA's International Conference on Nuclear Security (ICONS) with Kazakhstan, led by Assistant Foreign Minister, The Hon Tim Watts MP, and Australian Ambassador to Austria and Permanent Representative to the IAEA, Mr Ian Biggs. Of significance at this event was the signing of a Memorandum of Understanding (MoU) between ANSTO and the US Department of Energy's National Nuclear Security Administration (NNSA) to enhance the Australian and United States partnership in nuclear security science and the physical protection of nuclear materials and facilities. Australia's exhibitions also included a technical demonstration of ANSTO's own innovative radiation and detection imaging technology, CORIS360®. Assistant Minister Watts announced a CORIS360® unit will be provided to the IAEA on loan, enabling the agency to gain hands-on experience with the technology.

Key activities for 2023-2024

How we deliver on our strategy and purpose.

Chaired the Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science and Technology for Asia and the Pacific (RCA)

Australia, through ANSTO, served as the Chair of the RCA from May 2023 to May 2024. The chair position, which rotates through each of the 22 RCA Government Parties annually, offered Australia a rare opportunity to provide strategic direction to the activities of this multilateral forum. We made significant progress during our term, putting a spotlight on gender equality and the unique priorities of the Pacific and Least Developing Countries, as well as demonstrating the social and economic impact of the technical cooperation regional programme and strengthened governance.

Left to right: ANSTO Group Executive Miles Apperley, IAEA Director General Rafael Mariano Grossi, and Assistant Minister for Foreign Affairs the Hon Tim Watts MP.

The RCA supported 17 technical cooperation projects across 22 countries in our region, and reached over 700 practitioners in fields such as radiation oncology, medical physics, agriculture, environment and industrial research and development. We launched two new Australian led RCA projects in radiation oncology and medical physics in April and May 2024. These two new projects will build capacity and networks amongst medical professionals engaged in cancer care, with the overall outcome to increase cancer patient outcomes in the Asia and Pacific region.

Grow a more informed generation of Australians who understand the benefits of nuclear science and technology

Performance criterion	Measure	Result (2023 - 2024)
Offer a range of resources for teachers and students to support the national science curriculum outcomes for Years 3 to 12	**Deliver ≥6 national programs** per annum	**ACHIEVED** ✔ **7**
Increase accessibility of STEM teacher training programs	**Deliver teacher professional development days** for all states and territories.	**ACHIEVED** ✔ **300 teachers** attended online professional development
Conduct educational tours and science experiences at ANSTO's Sydney and Melbourne campuses	**≥15,000 visitors to ANSTO's campuses** per annum	**ACHIEVED** ✔ **16,026** visitors to Lucas Heights **2,864** visitors to Australian Synchroton

Analysis of performance

The primary goal of the ANSTO Education and Outreach program is to educate teachers, students, and the general public about the advantages of nuclear science and technology, while also providing insights into potential careers in STEM and nuclear fields. In 2023-2024, a total of 692 site tours were conducted for 16,026 visitors at the Lucas Heights campus, with an additional 140 site tours for 2,864 visitors to the Australian Synchrotron. Site tours continue to be a powerful tool in changing public perceptions on nuclear science.

ANSTO also offers a variety of educational experiences and resources, many of which are available online or in the classroom for nationwide access. Key programs include online learning, the development of educational resources, teacher professional development, work experience opportunities and national competitions.

Key highlights

ANSTO Data Sets: Taking effect in 2026, ANSTO, along with the CSIRO, has been recognised as a preferred provider of science data sets (a new focus area of the NSW Science Syllabus). Our 12 data sets include key research topics such as nuclear medicine analysis, groundwater science, air quality sampling and ice core sampling. This has already led to increased collaboration with textbook publishers and other education partners to incorporate ANSTO content.

Think Science Competition: This new program received entries from over 80 schools nationally in 2023. Run as an online science fair, Think Science encourages students to enhance their inquiry skills by conducting hands-on investigations in small teams and creating videos to share their process and findings. The competition is supported by teacher professional development sessions which have proven to be popular, in particular, with primary school teachers who often lack experience in teaching STEM.

Basics in Nuclear Literacy Course: In support of the ASA, ANSTO Education has had 275 participants complete a fee-paying Nuclear Basics Course. Parts of this course are now being delivered to ANSTO staff members as a way of building their knowledge of radiation and nuclear matters.

Resources for Deaf and Hard-of-Hearing people: The ANSTO Education Team is now partnering with Australia's two peak bodies representing deaf people — Deaf Australia and Deaf Connect — so that educators can deliver science workshops in AUSLAN to school students and adults across NSW. These workshops will be delivered from August to November 2024 and are expected to reach approximately 120 school students and 100 adults through school incursions, AuslanX events and the Sydney Deaf Festival. These resources provide a rare but highly valued service to the community.

STRATEGIC OBJECTIVE 4:

Lead the development of a nuclear capable workforce aligned with government policy objectives

Provide an inclusive environment that empowers our people and supports a culture of collaboration and engagement

Performance criterion	Measure	Result (2023 - 2024)
Leadership teams — representation	Male **40%** | Female **40%** | Discretionary **20%**	**ACHIEVED** ✔ Male **56.8**% Female **43.2**%
ANSTO-wide — representation	Male **40%** | Female **40%** | Discretionary **20%**	**NOT ACHIEVED** ✖ Male **65.5**% Female **34.3**% Indeterminate **0.2**%

Analysis of performance

Gender equity is a core focus area in the ANSTO Diversity, Equity, Inclusion and Belonging Program. ANSTO strives to provide an equitable experience for employees throughout the entire employment lifecycle including attraction, development, mobility and retention, and at all career stages.

Key highlights over the last 12 months include:

- *Submission of the first ANSTO Workplace Gender Equality Agency (WGEA) Report. Against the categories surveyed ANSTO is well positioned in relation to recruitment policy and strategy, pay equity, employee consultation on matters of gender equality and a host of policies including flexible work, parental leave, carers leave and domestic violence.*
- *Increasing overall percentage of women with 42% of external hires being women and some internal business areas achieving 50% women, particularly in technical roles.*
- *Continued focus on the 40% women, 40% men and 20% discretionary target, as well as a continued focus on women in STEM. Despite not achieving the ANSTO-wide representation target, the 2023-2024 results are an improvement to the 2022-2023 reporting cycle.*
- *Recruitment and development of cadets and graduates with a focus on gender equity across all cohorts.*
- *Promotion of gender equality through events such as International Women's Day. Over 100 employees were in attendance, at Lucas Heights and over 50 at Clayton. It was observed by the speakers that a high proportion of men were in the audience, something they had not seen before. The Panel Pledge was a key takeaway. Employees and leaders committing to this pledge agree to only participate in events where meaningful efforts have been made to ensure gender diversity across speakers.*

An extended focus on women will see the development of further policies across talent, mobility and retention, equal remuneration, gender affirmation, menopause and a full overhaul of human resources policies in relation to gender neutral language and equity in line with the Enterprise Agreement 2024–2027.

Develop a workforce plan for the next generation of specialised nuclear professionals

Performance criterion	Measure	Result (2023 - 2024)
Postgraduates supervised	150	ACHIEVED ✔ **176**

Analysis of performance

ANSTO has some of the nation's most talented researchers, scientists, engineers and nuclear experts. To meet Australia's expanding nuclear science and technology needs, we collaborate with government bodies, industry and educational institutions to cultivate the next generation of talent.

ANSTO is dedicated to fostering the skills and knowledge required to harness the full potential of nuclear science and technology for Australia. We oversee this development through our partnerships with the Australian Institute of Nuclear Science and Engineering (AINSE) and directly with universities. Our collaboration connects Australian universities with the advanced facilities at ANSTO, supporting high-quality research, education, and training in nuclear science and engineering.

ANSTO, in conjunction with the NSW Government, provided support over the year through scholarships for graduates and early career researchers engaged in industry-focused research projects aligned with our strategic objectives. Scholarship recipients gain access to the expertise and technology necessary for pioneering scientific discoveries.

Key activities for 2023-2024

How we deliver on our strategy and purpose.

Organisation Capability Development

Corporate Plan 2023-2024 planned progress: Completion

ANSTO Graduate Program

ANSTO's Graduate Program enhanced the professional capabilities of 12 participants through a structured learning and development pathway. This included rotational placements, targeted training and mentorship that provided diverse learning experiences through workshops and continuous feedback, effectively preparing graduates for their future roles at ANSTO.

ANSTO Cadetship Program

ANSTO's Cadetship Program invested in seven second year engineering undergraduate students, offering them an entry-level employment pathway to engage in practical paid work while continuing their studies, with opportunities for ongoing development, professional growth and mentoring.

Emerging Engineers Program

ANSTO supported an elite group of emerging engineers to launch their career in engineering. Working alongside some of Australia's brightest minds, with a focus on various engineering design, delivery and project domains, the program placed them at the forefront of delivering major engineering outcomes for ANSTO assets and processes in Reactor Operations, Nuclear Medicine, Waste Management, Civil and Infrastructure, and Decommissioning activities.

Year In Industry Internship Program

ANSTO's Year in Industry Internship Program saw 23 penultimate year science and engineering students participate. The one-year program provided industry-based learning for the students to apply theory and skills to the workplace and use this experience to enhance the value of their remaining study.

Leadership Learning Pathway

Learning and Development introduced a comprehensive Leadership Learning Pathway designed to elevate our organisational leadership capabilities. The programs (Aspire, Elevate and LEAD) included targeted workshops for both emerging leaders and current leaders, fostering continuous development and excellence. The workshops empowered leaders at all levels ensuring ANSTO is well equipped to navigate future challenges.

LEAD Program

The 2023-2024 ANSTO LEAD Program saw 24 employees successfully graduate. This high potential, high performing leadership program comprised six in-depth workshops to develop leaders by equipping participants with a range of skills that are critical to effective leadership. These leadership capabilities are essential to leading diverse teams and organisations in constantly changing environments.

Safety, Security, and Community

Ensure a Highly Reliable, Safe, and Secure Environment

Performance criterion	Measure	Result (2023 - 2024)
Improvement in safety culture	**Increased opportunities for improvement** (OFI) to actual incidents recorded	**ACHIEVED** ✔ **73%**
Improvement in site-wide safety*	**Zero Class 1 incidents** **Year-on-year decrease in Class 2 & 3 incidents**	**ACHIEVED** ✔ **0** Class 1 or 2 incidents **3** Class 3 incidents

* Class 1 - Damage that permanently alters a person's life;
Class 2 - Damage that temporarily alters a person's life;
Class 3 - Inconveniences in a person's life or 1–5 days/shifts off work.

Analysis of performance

ANSTO acknowledges that any incident reported is an opportunity to learn, prevent a reoccurrence and potentially eliminate the increased impact of the incident. In 2023-2024, 73% of operational and safety incidents reported were opportunities for improvement.

There were no Class 1 or 2 incidents reported and a reduction in Class 3 incidents compared to 2022-2023. All Class 3 injuries were directly linked to ANSTO staff performing work activities at the Lucas Heights campus.

Key activities for 2023-2024

How we deliver on our strategy and purpose.

Cybersecurity uplift program

Corporate Plan 2023-2024 planned progress:

Monitoring | Improving

ANSTO continues to prioritise investment in cybersecurity. IT's Asset Management Planning incorporates continued focus on remediation of legacy technology across the organisation and uplift of compensatory cybersecurity controls where remediation isn't reasonable. ANSTO has completed a range of externally facilitated cybersecurity assessments and exercises with government and commercial partners, the outcomes of which now inform continued uplift activity. ANSTO continues to engage with the full range of services offered by the Australian Signals Directorate (ASD). Throughout 2023–2024 ANSTO did not have any cybersecurity incidents that impacted core operations.

Health monitoring program

Corporate Plan 2023-2024 planned progress: Monitoring | Improving

Human health monitoring compares worker exposures to established occupational exposure limits or action levels. This enables ANSTO to determine the level of potential exposure before harm to workers occurs and identify opportunities for improvement. With a strategic goal to improve the visibility of occupational health performance, ANSTO has successfully implemented an electronic occupational health and hygiene software and electronic dosimetry software platform. This has ensured compliance with health monitoring records requirements and enhanced reporting as well as evaluation of the effectiveness of processes and controls (for example, ventilation and hearing protection).

ANSTO expertise has also contributed to an Australian Institute of Occupational Hygienists (AIOH) working group aimed at defining what good worker health looks like and creating a framework of leading indicators to help demonstrate yearly progress.

Psychosocial safety culture program

Corporate Plan 2023-2024 planned progress: Monitoring Improving

A refreshed focus on psychosocial safety, wellbeing and culture was initiated in 2023 with a view to integrating psychosocial safety culture into the broader culture framework at ANSTO. Several initiatives have been delivered in the last 12 months, most notably the implementation of a new reporting system for the management of psychosocial hazards in the workplace and the delivery of an overarching change campaign to build awareness, educate and build employee and leader capability in relation to psychosocial health and wellbeing in the workplace. Over 400 leaders have attended targeted workshops on the new psychosocial laws and been trained in recognising and responding to the 14 common hazards as defined in the Safe Work Code.

Further to the above, an ANSTO Employee Experience Survey 2024 has been delivered to measure the experience of employees in the day-to-day work environment and identify the factors contributing to high engagement, connection with work and flourishing. A 72% response rate was achieved indicating a strong desire by the workforce to contribute to shaping the future of the organisation and having a voice. Initial results are positive in relation to intention to stay, flexibility, overall safety, work tasks, line management, performance management, psychosocial safety and workload factors.

Further initiatives on culture will be key actions stemming from the Survey and are in design for the next 12 months. These initiatives will also integrate with the adopted Diversity, Equity, Inclusion and Belonging Program and Calendar and form part of a pillar of work on Culture and Belonging. In the last 12 months we have delivered a significant number of cultural initiatives including working with and through our employee networks (LGBTQI+, Early Careers, Neurodiversity, Reconciliation Action Plan) and other groups (women). We have delivered events for R U OK, Wear It Purple, International Women's Day, National Reconciliation Week, Women in Engineering and Trades, and Neurodiversity celebrations. We publish a Diversity Focus every month and our people and leaders use the focus as an educational tool as well as a means for applying change and building an inclusive workplace. We continue to work on gender equity and have initiated WGEA reporting to close any gaps for women from a cultural perspective.We work with our Indigenous communities and deliver cultural awareness training for our people to educate them on issues of reconciliation.

Reconciliation Action Plan

Corporate Plan 2023-2024 planned progress: Implementation

ANSTO continues to make good progress with its second Innovate Reconciliation Action Plan (RAP), primarily in the area of Respect with annual celebrations of Reconciliation Week and NAIDOC Week at both campuses. Periodical cross-cultural awareness training is held at Lucas Heights and Clayton, while staff have access to the online videos and support material provided by SBS Broadcasting.

Enhanced Indigenous cultural acknowledgement is planned for the main reception building at Lucas Heights as well as the development of an ANSTO Songline to highlight the connections between scientific activities at ANSTO and Indigenous cultural knowledge.

In addition, the Clayton campus added a second Indigenous mural to the Australian Synchrotron administrative building.

Although the deliverables in the area of Relationships have proved challenging, there is a connection with the Sutherland Shire Reconciliation Group, Kuranulla Aboriginal Corporation and Gandangara Local Aboriginal Council at Lucas Heights, plus initial engagement with the Boonwurrung group in Victoria.

The area where the most progress is needed is the Support pillar with regard to employment opportunities and investment in Indigenous businesses. Discussions are underway to expedite some of these activities.

For Reconciliation Week, ANSTO organised a Blak Market to highlight the importance of procuring Indigenous goods and services. The topic was explored in an online webinar with the executives of Supply Nation and Kinnaway Chamber of Commerce.

Following the development of a strategy to implement the deliverables of the RAP, the ANSTO Group Executive committed to achieving those deliverables, which is expected to accelerate progress.

There is continued interest in the Indigenous Research digital map and plans to add more features to it. ANSTO continues to support Indigenous cultural research and other research, such as food origin, to elevate the importance of Indigenous Culture and Country.

The two young Indigenous trainees that joined ANSTO on a Nuclear Safety qualification program have thrived and plans are in place to expand the scheme.

ANSTO is seen by many organisations as progressive and demonstrates best practice in its Reconciliation activities.

Section 5:

Our organisation and people

Our People

Our people are the greatest and most valuable resource at ANSTO. We have a workforce that is committed to advancing a more sustainable world through scientific and technological research that serves the community of Australia in health, medicine, manufacturing, construction, logistics, waste and utility services.

We employ experts across a range of disciplines including science, engineering, research, operations, commercial services, manufacturing and health that are globally recognised in their respective domains and arenas. We cover a diverse set of roles including: technical assistants, scientists and researchers, engineers, education and learning professionals, commercial management experts, human resources and workforce planning specialists, communication and government liaison officers, financial and accounting professionals, maintenance and operations staff, administrators, compliance, regulatory and risk specialists, and information technology and artificial intelligence experts.

ANSTO is committed to building a safe, agile, inclusive and high performing workforce through planned, systematic and intentional programs and initiatives that speak to the heart of our values. We have a vision to be future fit with sustainable frameworks that allow for growth, mobility and capability so that people can thrive at work every day. We have a strong diversity, equity, inclusion and belonging program that covers the management and nurturing of internal employee resource groups (LGBTQI+, Allies, Early Careers, Neurodiversity, Women and Disability). We are committed to the development of women, women in leadership, women in STEM and the inception of gender equity at all levels of the hierarchy, as well as the end-to-end employee lifecycle: attraction, recruitment, onboarding, development, performance, talent identification, succession and promotion. ANSTO has a well adopted diversity strategy with a key target of 40:40:20 (men: women: discretionary) and is actively refreshing all people policies in line with the new enterprise agreement to ensure gender parity on pay, gender affirmation, inclusivity across all entitlements and the provision of a safe workplace where everyone is able to voice without fear of discrimination or harassment. In 2023, ANSTO submitted our first Workplace Gender Equity Agency Report and was commended on the submission and the work done to ensure gender equality in business and people practices.

In 2023, ANSTO launched a Psychosocial Hazards Change Transformation Program to build employee and leader capability in relation to changes in workplace health and safety laws. We continue to rollout more initiatives as we grow the skills and practices needed to ensure that every person at ANSTO is free to be who they are at work, without fear of being criticised or bullied.

The ANSTO Employee Experience Survey was also released in May 2024 with a range of results on employee sentiment in relation to the workplace. A comprehensive set of enterprise actions are currently inflight to support employees and provide for the needs of our people as they commit to delivering high quality work across the various domains noted above. This program is core to the employee value proposition, the ANSTO brand and what it means to work here.

ANSTO also launched the second Innovate RAP in 2023 and has continued in 2023-2024 to concentrate on building cultural awareness, setting up an Indigenous employment strategy and working across the organisation to introduce protocols that acknowledge and respect the traditional owners of the land on which ANSTO has a presence in both NSW and Victoria.

Finally, we are commencing work on our Disability Action Plan that will form part of the broader diversity program and will be a core pillar within the social sustainability framework. Attracting people with disability to ANSTO will be a focus area moving forward and we are committed to making workplace adjustments to allow diverse people to come to ANSTO and have a career.

Our Campuses

ANSTO Sydney Campus | Lucas Heights NSW

ANSTO Australian Synchrotron | Clayton VIC

Our Organisational Structure

as at 30 June 2024

ANSTO Board of Directors

Michael Quigley AM
Board Chair

APPOINTED
20 June 2024
TERM CONCLUDES
19 June 2028

Andrew Carriline
Deputy Board Chair

APPOINTED
9 May 2024
TERM CONCLUDES
8 May 2027

Shaun Jenkinson
Chief Executive Officer

APPOINTED (ACTING)
10 August 2020
APPOINTED
31 March 2021
REAPPOINTED
31 March 2024
TERM CONCLUDES
30 March 2027

Professor Brigid Heywood
Board Member

APPOINTED
28 June 2016
REAPPOINTED (ACTING)
28 June 2021
REAPPOINTED
28 September 2021
TERM CONCLUDES
27 September 2025

Professor Sze Ting Lee
Board Member

APPOINTED
20 July 2023
TERM CONCLUDES
19 July 2026

Professor Tim Senden
Board Member

APPOINTED
1 February 2024
TERM CONCLUDES
31 January 2027

Dr Gregory Storr
Board Member

APPOINTED
16 September 2021
TERM CONCLUDES
15 September 2024

Andrea Sutton
Board Member

APPOINTED
30 April 2020
TERM CONCLUDES
29 April 2025

Organisational Chart

as at 30 June 2024

ANSTO Subsidiaries

ANSTO's subsidiaries and companies operate in the context of the Corporate Plan to enhance our capabilities, deliver our purpose, and implement our strategy, as well as to provide transitional arrangements as we reorganise our activities.

ANSTO subsidiaries	Jurisdiction of operation	Achieving our purpose
PETTECH Solutions Pty Ltd	New South Wales	PETTECH Solutions Pty Ltd (PETTECH) is a wholly-owned ANSTO subsidiary that owns a cyclotron facility. On 2 January 2019, the business of this company was sold to Cyclotek NSW Pty Ltd. PETTECH Solutions Pty Ltd remains the owner of the major facility assets (building, cyclotrons, and hot cells) and is entitled to a share of profits from the Cyclotek NSW business in connection with this arrangement.
		Deliver on Australia's priorities for the benefit of people, industry, and the environment through nuclear excellence in research and the use of national infrastructure. **(Strategic objective 1)**
		Improve the health of Australians by supporting access to current and future nuclear technologies for diagnostic, therapeutic, and innovative treatments for current and emerging diseases. **(Strategic objective 2)**
ANSTO Nuclear Medicine Pty Ltd	New South Wales	During the year, ANSTO Nuclear Medicine Pty Ltd (ANM), became a wholly owned subsidiary of ANSTO. Until 30 November 2023, ANM owned the ANM Mo-99 Production Facility, which produces one of the world's most important nuclear medicines. ANSTO operated the facility.
		Budget 2023-24 decision to formally wind up ANM by 1 July 2024 and to transfer its operations, assets and liabilities to ANSTO. In line with this decision, the transfer to ANSTO occurred 1 December 2023 and ANM was liquidated. It was deregistered by the Australian Securities and Investments Commission on 21 May 2024.
		Improve the health of Australians by supporting access to current and future nuclear technologies for diagnostic, therapeutic, and innovative treatments for current and emerging diseases. **(Strategic objective 2)**

Other companies*	Jurisdiction of operation	Achieving our purpose
Applied Molecular Therapies Pty Ltd *(Not trading)*	Victoria	Contract development and manufacturer of radiopharmaceutical products. During the year ANSTO obtained approval from the Minister for Finance to dispose of its investment.
		Improve the health of Australians by supporting access to current and future nuclear technologies for diagnostic, therapeutic, and innovative treatments for current and emerging diseases. **(Strategic objective 2)**

Management and accountability

During 2023-2024, the Board worked closely with management on continuing to improve ANSTO's corporate governance, accountability and risk management practices. This is to ensure that ANSTO is able to deliver essential research, nuclear medicines, and other products and services, as well as expert advice, safely and sustainably for the benefit of all Australians.

Minister and governing legislation

ANSTO is a corporate Commonwealth entity within the Industry, Science and Resources portfolio. From 1 July 2023 and as at 30 June 2024, the Minister with responsibility for ANSTO was the Hon Ed Husic MP, Minister for Industry and Science.

Hon Ed Husic MP
Minister for Industry and Science

Statement of Expectations

In December 2022, Minister Husic provided the ANSTO Board with a Statement of Expectations in which he stated he looks forward to working with ANSTO in applying science to advance our national interests, progressing the government's policy priorities, delivering a future made in Australia through the National Reconstruction Fund, and promoting STEM with a focus on advancing Indigenous engagement in science. In addition, Minister Husic set clear expectations for ANSTO on driving organisational performance, including around legislative requirements, organisational governance and capability, agency staff and health, and working with the Minister's department and office. In May 2023, the ANSTO Board responded to the Statement of Expectations with a Statement of Intent, which sets out how the ANSTO Board seeks to meet the Minister's expectations.

These statements can be found here:

www.ansto.gov.au/about/how-we-work/governance

Ministerial directions and notifications

Under the ANSTO Act and the PGPA Act, ANSTO's responsible Minister and the Finance Minister may provide the ANSTO Board with Directions with respect to the performance of the functions or the exercise of the powers of the Board or the organisation. No such Ministerial Directions were received in 2023–2024.

ANSTO Board

The ANSTO Board is comprised of at least five and up to eight part-time, non-executive members drawn from the broader community and ANSTO's full-time CEO. Detailed information about the ANSTO Board, including appointment and cessation dates, is contained in the Appendices and Index – Public Governance, Performance and Accountability Rule 2014 (PGPA Rule) section 17BE(j), (i)–(v) – Accountable Authority.

As at 30 June 2024, there were seven part-time non-executive members in addition to the CEO. All non-executive members are appointed by the Governor-General. Under the ANSTO Act, the CEO is appointed by the ANSTO Board. As a significant appointment, Cabinet endorsement is also required for the CEO position.

Board Access to Information

Board members have access to all information required to fulfill their role. Although information is primarily provided through Board papers and presentations at Board meetings, the Board is also provided with opportunities to gather information through other means. Board members have direct access to the CEO, other members of the Executive, and as required or requested, other managers and subject matter experts. They also receive regular ANSTO/CEO updates, as well as media reports and all Ministerial briefings and submissions.

Site tours are arranged, when practicable, to coincide with Board meetings to offer further opportunities for information gathering and to support engagement between the Board and the wider ANSTO staff. Board members also participate in individual site visits and meet both formally and informally with different divisions and groups of staff. Site tours during the reporting period included the CAS, the Health Research & Technology Group, SyMo and Emergency Preparedness & Response.

Board members have a broad range of skills, knowledge and experience that seek to cover ANSTO's diverse range of responsibilities. This is necessary in order for the Board to provide the guidance and stewardship needed to ensure ANSTO's sustainability and to determine and monitor the achievement of its strategic direction.

The Board's Remuneration and Nomination Committee reviews the Board skills matrix at least annually; the skills matrix is used as the basis for making recommendations to government concerning the appointment/reappointment of Board members. The remuneration and allowances payable to members of the Board, including the CEO, are determined by the Australian Government Remuneration Tribunal.

During the year, there were opportunities for staff engagement at the Lucas Heights campus, including one lunch with ANSTO award recipients and another for staff involved in the Board reporting process. Newly appointed Board members are inducted into the organisation's operations and activities, as well as their duties and responsibilities as members of the Board of a corporate Commonwealth entity.

Board members are able to seek independent professional advice in accordance with their duties, responsibilities and obligations as members of the Board.

Board meetings

The Board meets up to six times a year with additional ad hoc meetings as deemed necessary by the Chair. Six Board meetings were held during the 2023–2024 financial year, five formally scheduled meetings with one ad hoc. The details of the number of Board meetings attended by each member during the 2023–2024 financial year are outlined in the Appendices and Index – PGPA Rule section 17BE(j), (i)– (v) – Accountable Authority.

A combination of meeting formats is used including remote and in person (with the option of attending remotely if required). Of the formally scheduled meetings, all five were held at the Lucas Heights campus. The Board ensured that its meetings continued to be effective and interactive through the use of video technology.

At the invitation of the Chair, members of the Executive and subject matter experts attend Board meetings as required to report on matters relevant to their individual areas of responsibility and expertise. The Secretary of the Department of Industry, Science and Resources, or a delegate, also attends regularly scheduled Board meetings as an observer at the invitation of the Chair.

ANSTO has a Company Secretary who assists with the running of the Board and advises on governance matters. The Company Secretary generally attends all Board meetings, except those meetings or parts of meetings where that attendance is precluded by the ANSTO Act. The Company Secretary is accountable directly to the Board, through the Chair, on all matters to do with the proper functioning of the Board.

Board committees

The Board is assisted by two standing committees which meet regularly:

Risk and Audit Committee —
Provides independent oversight, advice and assurance to the Board on the appropriateness of ANSTO's systems of risk oversight and management, financial reporting processes, performance reporting arrangements, systems of internal control, and systems to ensure compliance with relevant laws and policies.

Remuneration and Nomination Committee —
Assists the Board in fulfilling its responsibilities with regard to overall remuneration policy and strategy; performance and remuneration of the CEO; the approach to performance and remuneration of the Executive Team; the context and composition of the Board and Committees; and succession planning and nominations for the CEO.

The role, purpose and responsibilities of each of the committees are set out in the relevant committee Charter. All Charters are reviewed annually. A review of the Charters, as part of the Board Charter review, was conducted during the 2023–2024 financial year. Amendments were made to the various Board and committee Charters to better reflect the operation of the Board and the committees, ensure alignment between the Charters, and to provide greater clarity on the responsibilities of the committees. The Board approved the amended Charters at its meeting in December 2023.

All committee Charters are available here:
www.ansto.gov.au/about/how-we-work/governance

Other committees and working groups are established on an ad hoc basis as required by the Board.

Risk and Audit Committee

All committee members, including the Risk and Audit Committee Chair, are appointed by the Board. During the 2023–2024 financial year, the Risk and Audit Committee consisted of three non-executive Board members and two external representatives who had the appropriate qualifications, knowledge, skills or experience to assist the Risk and Audit Committee in performing its functions, including an understanding of systems of risk oversight and management (including nuclear), finance and systems of internal control. In accordance with the Risk and Audit Committee Charter, during 2023-2024, there was:

- One committee member with accounting or related financial management experience and/or qualifications, commensurate with the scope of ANSTO activities, which includes a comprehensive understanding of accounting and auditing standards, and
- One member with the understanding and experience of nuclear and radiation contexts and the associated risks and controls.

The Chair of the Board, the CEO and the Chief Financial Officer cannot be members of the Risk and Audit Committee and attend meetings of that Committee ex officio.

Membership of the Risk and Audit Committee is reviewed periodically against a skills matrix to ensure that there is a suitable mix of qualifications, knowledge, skills and experience. There were no changes to the composition of the Risk and Audit Committee during 2023–2024.

There is an induction program for new Risk and Audit Committee members which includes site visits to both the Lucas Heights and Clayton campuses as well as meetings with different Executives, members of Management and subject matter experts.

Engagement activities for committee members are arranged, when practicable, to coincide with committee meetings to offer further opportunities for information gathering. During the reporting period, the Risk and Audit Committee toured the Australian Synchrotron and Nuclear Operations. The Committee also met with staff from various areas of the organisation to discuss a range of safety, operational and project risks.

The Chair of the Board and other Board members may attend Risk and Audit Committee meetings as observers. Members of the ANSTO management team (including the Chief Operating Officer, Chief Financial Officer, Chief Risk and Assurance Officer and the General Counsel) attend meetings of the Risk and Audit Committee as advisors and observers, by invitation of the Risk and Audit Committee Chair. The Company Secretary is the secretary to the Risk and Audit Committee and attends all Risk and Audit Committee meetings.

Representatives from the Australian National Audit Office (ANAO) and their contracted service provider (currently Ernst & Young) also attend Risk and Audit Committee meetings, by invitation of the Risk and Audit Committee Chair.

The Risk and Audit Committee holds six formally scheduled meetings each year, with additional meetings held as required. The committee met on seven occasions during the 2023–2024 financial year. Details of the number of meetings attended by each member during the year are provided in Appendices and Index – PGPA Rule section 17BE(taa) – Audit Committee.

A combination of meeting formats is used including remote and in person. Of the formally scheduled meetings, two were held at the Lucas Heights campus, one was held at the Clayton campus and three were held remotely.

Remuneration and Nomination Committee

The Remuneration and Nomination Committee consists of the Board Chair, the CEO, and one or more non-executive Board members appointed by the Board. The Board Chair is the Chair of the Committee. The Chief Operating Officer, who has responsibility for people-related matters, attends committee meetings dealing with remuneration by invitation. Other relevant persons also attend Committee meetings by invitation of the Chair. The Company Secretary is the secretary to the committee and attends all meetings, except those meetings or parts of meetings where that attendance is precluded by the ANSTO Act. The Remuneration and Nomination Committee met on four occasions during the 2023–2024 financial year.

Member	Eligible to attend	Attended
The Hon Dr Annabelle Bennett, AC SC (Chair) Term ended 20 March 2024	3	3
Ms Penelope J Dobson (Acting Chair) 21 March 2024 to 23 April 2024	4	4
Mr Andrew Carriline (Acting Chair) 9 May 2024 to 19 June 2024	0	0
Mr Michael Quigley (Chair) Appointed 20 June 2024	0	0
Emeritus Professor Stephen Buckman, AM Term ended 22 July 2023	0	0
Professor Sze Ting Lee Appointed 8 August 2023	4	4
Mr Shaun Jenkinson	3	3

Board performance

In order to ensure its ongoing effectiveness and performance, the Board, along with its committees and its individual members, are evaluated regularly. During 2023-2024, questionnaires were provided to Board members for completion. The results were provided to the incoming Board Chair and will inform discussions around the operation of the Board and Committees.

There is also time set aside at each Board and Risk and Audit Committee meeting for reflections on the meeting and both the Board and its Committees frequently discuss their operation, including the structuring of agendas and development of Board and Committee papers, and performance during meetings.

Disclosure of interests and related entity transactions

Board members declare material interests in accordance with the ANSTO and PGPA Acts as appropriate.

ANSTO follows the Commonwealth Procurement Rules and has a system of delegated powers and authorisations for all procurement transactions so as to ensure that transactions are appropriately considered. The ANSTO Board, as its accountable authority, approves the operational and capital budgets of ANSTO under a policy of the Board. Where there are operating expenses of $5 million or more, these transactions are approved by the Board.

The Board also approves expenditure on capital projects of $5 million or more. For transactions under $5 million, the CEO will approve the transactions, or delegations are provided to management. However, the CEO has the discretion to bring any of those matters to the Board for consideration. This process applies regardless of the counterparty. During the reporting period, ANSTO and its subsidiaries undertook 171 transactions with Government entities or companies for goods and services above $10,000, which came to a total combined value of $41.4 million.

ANSTO Executive Management

The CEO is accountable for managing the affairs of the organisation in accordance with the strategy, plans and policies approved by the Board, as well as any Board Directions. The CEO is supported by the Executive Team. As a team and through their individual roles, the Executive leads, directs, coordinates and controls ANSTO's operations and performance. The high-level structural changes that occurred across ANSTO during the reporting period include:

- On 19 January 2024, Ms Amanda Ware in her capacity as Chief Risk and Assurance Officer and Mr Hefin Griffiths in his capacity as Chief Nuclear Officer joined the ANSTO Executive Team. Inclusion of these roles on the Executive strengthens the organisation's focus on managing business, operational and safety risks.
- Throughout the reporting period Mr Dave Filipetto acted as Group Executive, ANSTO Maintenance and Engineering. This arrangement provided important continuity while a review of ANSTO's engineering and maintenance services was undertaken. The objective of the review was to inform an optimal operating model for ANSTO's engineering and maintenance services. The new model came into effect on 1 July 2024.

The Executive is supported by key input committees and expert forums, including the Capital Committee, which makes decisions regarding the prioritisation and allocation of capital funding to projects to ensure their efficient delivery, and the Work, Health, Safety and Environment Committee, which is responsible for providing oversight and direction of ANSTO's safety and environment strategies, initiatives, incident management processes, targets and reporting.

ANSTO recognises the important role of managers in the sharing of information. ANSTO's Managers' Forums are designed to ensure that managers who drive strategy, as well as planning and leading teams, are equipped with the right information at the right time so they are in a position to take responsibility for core strategic and operational projects. The Forums provide managers with information on ANSTO's strategy and an opportunity to ask questions of the CEO and other Executives, as well as the opportunity to converse with peers on troubleshooting and problem solving. There were two Managers' Forums held during 2023–2024.

Integrated Business Planning Framework

ANSTO's Integrated Business Planning (IBP) process ensures ANSTO delivers on its purpose and strategy. It is a formal data-driven process led by senior management, which, on a monthly basis, evaluates and aggregates bottom-up data, time phased projections for new products, services and capabilities, demand, supply, strategic projects and the resulting financial plans. It is a decision-making process that realigns the tactical plans for all organisational functions in support of ANSTO's goals and targets. A primary objective of IBP is to monitor performance against the organisational strategy and the plans that underpin the strategy. The process ensures integration of activities and prioritisation of resources against an approved operating plan, to which executives and managers hold themselves accountable.

Internal Control

The ANSTO Board, through delegation to the Risk and Audit Committee, oversees ANSTO's system of internal control. This system has been designed to provide "reasonable assurance" that ANSTO's objectives will be achieved and encompasses the control environment, risk assessment, control activities, information and communication, and monitoring activities.

Risk Management Framework

Management is accountable to the ANSTO Board for designing, implementing and continuously improving the ANSTO Enterprise Risk Management (ERM) framework.

The ERM framework is aligned with best practice and has been designed to support the achievement of business goals and objectives, support decision making and standardise risk management processes. ANSTO recognises that risk management is essential to preserve and create value.

There is a need to engage with risk and exploit opportunity while also managing uncertainty on an ongoing basis. The ANSTO Board has set clear expectations for the management of risk at ANSTO.

The ANSTO Board determines the nature and extent of the risk it is willing to accept in achieving the organisation's strategic objectives, consistent with ANSTO's risk appetite, as well as the effective, efficient, ethical and economical use and management of public resources. The ANSTO Board takes a particular interest in those risks that may affect the safety of ANSTO staff and its operations and/or negatively impact the sustainability and reputation of the organisation.

The Risk and Audit Committee receives regular reports and briefings on ANSTO's risk profile and significant risks associated with operations and major capital programs.

Fraud

ANSTO has specific obligations under section 10 of the PGPA Rule to take all reasonable measures to prevent, detect and deal with fraud.

The ANSTO Fraud Control Plan reflects the "better practice" principles and practices articulated within the Commonwealth Fraud Control Framework. In addition, ANSTO operates a public interest disclosure scheme in accordance with the Public Interest Disclosure Act 2013 (Cth). Complementary to this scheme, ANSTO has a confidential, independent and externally hosted reporting service which provides another avenue for staff and contractors to report any concerns about unacceptable, unethical or illegal activities in the workplace.

Ethics

Business ethics play a key role in the proper governance of an organisation. The Code of Conduct is aligned to ANSTO's values and provides ANSTO employees with a framework for ethical decision making. It articulates the standards of behaviour, values and actions expected of all individuals who work for ANSTO. ANSTO's values and ethical standards are reinforced through various means, including training and awareness, staff engagement surveys and the ANSTO Enterprise Agreement.

Business Resilience

Operational continuity is a key area of focus for the Board, the CEO and executives. ANSTO's leadership is keenly aware that a range of ANSTO's products and services, notably radiopharmaceuticals, are important to the economic and social wellbeing and health of the Australian community.

ANSTO has in place a range of capabilities for responding to various disruption-related risk and disruptive incidents. The Business Resilience Framework provides an overall approach to the management of incidents and allows for the activation of an Incident Management Team and the Executive Crisis Management Team, if required. ANSTO has adopted the Australian Inter-Service Incident Management System for internal control and for coordination with external agencies.

ANSTO acknowledges that globally, the nature and types of incidents causing business disruptions are continually evolving due to various external factors, including technology developments and climate change. As a result, ANSTO is in the process of updating its Business Resilience Framework and related processes to reflect the changes to internationally recognised good practices that have been adapted to ensure they reflect current and emerging business challenges.

Operational Governance — Compliance and Regulatory Affairs

ANSTO operates within a highly regulated environment. In recognition of this environment, ANSTO has established policies, procedures and systems to comply with relevant laws and regulations. Pursuant to section 19(1)(e) of the PGPA Act, ANSTO had no instances of significant non-compliance with finance law in 2023–2024.

Internal Audit

The ANSTO Internal Audit function provides the ANSTO Board and CEO with independent and objective assurance and advisory services. The scope of Internal Audit's activities encompasses all financial and non-financial functions, systems, programs, projects, activities and processes across ANSTO and its subsidiaries.

The Chief Risk and Assurance Officer prepares risk-based strategic and annual work plans in consultation with the Risk and Audit Committee, Executive Team and the ANAO. The annual Internal Audit Plan is reviewed by the Risk and Audit Committee and approved by the ANSTO Board.

The outcomes of internal audit reviews are presented to the Risk and Audit Committee. Follow-up reviews are conducted to ensure that internal audit recommendations are properly implemented.

In order to ensure the independence of the Internal Audit function, the Chief Risk and Assurance Officer, who is responsible for Internal Audit, reports directly to the Risk and Audit Committee and has unrestricted access to the Risk and Audit Committee Chair and members, as well as to the Chair of the Board.

For administrative purposes, the Chief Risk and Assurance Officer reports to the CEO.

The role, purpose, scope and authority of the Internal Audit function is set out in the Internal Audit Charter. This Charter is reviewed by the Risk and Audit Committee and approved by the ANSTO Board.

External Audit

The Commonwealth Auditor-General, through the ANAO, is the External Auditor for ANSTO and its Australian-based subsidiaries. For the 2023–2024 financial year, the ANAO contracted Ernst & Young to assist with the external audits of ANSTO and its Australian-based subsidiaries. Ernst & Young did not provide any non-audit services to ANSTO during the period 1 July 2023 to 30 June 2024.

Judicial and Administrative Tribunal Decisions

There were no judicial decisions or decisions of administrative tribunals that had a significant impact on the operations of ANSTO during the financial year.

Reports Issued by the Commonwealth Auditor-General

Other than reports issued in relation to the audit of the financial statements of ANSTO and its Australian-based subsidiaries, there were no reports about ANSTO made by the Auditor-General during the financial year.

Office of the Australian Information Commissioner Decisions

There were no decisions made or issued by the Australian Information Commissioner in the last financial year in relation to ANSTO.

Parliamentary Committees

There was one report issued by the Public Works Committee in the last financial year in relation to ANSTO. The Report, issued in May 2024, concerns ANSTO's Nuclear Medicine Facility project. The report listed the following recommendation:

Recommendation 1:

"The Committee recommends that the House of Representatives resolve, pursuant to section 18(7) of the Public Works Committee Act 1969, that it is expedient to carry out the following proposed works: Australian Nuclear Science and Technology Organisation — Nuclear Medicine Facility project."

Reports by the Commonwealth Ombudsman

There were no reports on the operations of ANSTO by the Commonwealth Ombudsman during the financial year.

Indemnities

ANSTO's insurance coverage with Comcover includes professional indemnity as well as directors' and officers' liability. A Deed of Access, Indemnity and Insurance has been provided to each Board member and to each external Risk and Audit Committee member. Certain sections of the PGPA Act contain prohibitions against ANSTO giving indemnities and paying insurance premiums relating to liabilities arising from conduct involving a lack of good faith by officers, amongst other conduct.

There have been no exceptions to these provisions and no claims were made against ANSTO in respect of such directors' and officers' or professional liability that required a claim on ANSTO's insurer, Comcover. It should be noted that ANSTO subsidiaries are fully covered under ANSTO's overarching Comcover policies. Workers' compensation coverage is dependent on whether employees of a subsidiary are Commonwealth Government employees or employed under state labour legislation.

Nuclear Liability

ANSTO is provided with insurance coverage for ionising radiation liability from Comcover for up to $50 million. The Comcover policy includes liability arising out of ANSTO's responsibility for:

- Managing, storing, and conditioning ionising radiation emitting material and waste;
- Transporting nuclear waste and materials for disposal both within Australia and overseas; and
- Transporting radioactive materials including radioisotopes.

For any liability that is not covered by Comcover, ANSTO has been provided with a Deed of Indemnity by the Commonwealth under which the Commonwealth provides an indemnity to cover any loss or liability incurred by ANSTO and ANSTO Nuclear Medicine Pty Ltd, their respective employees and contractors, which arises from a claim for injury to a person or damage to property caused by ionising radiation. The current deed expires in April 2026.

Privacy

ANSTO is committed to protecting personal information in accordance with the Privacy Act 1988 (Cth) and the Australian Privacy Principles. The privacy function sits within the Chief Operating Officer Group. A Privacy Officer and Privacy Champion have been appointed as required by the Australian Government Agencies Privacy Code.

The aim of this function is to enhance existing privacy capabilities within ANSTO, build greater transparency in information-handling practices, ensure legislative compliance, and foster a culture of respect for privacy and the value of personal information. To achieve this aim, ANSTO has a documented Privacy Management Plan that identifies specific, measurable privacy goals and targets and sets out how ANSTO will meet its compliance obligations under the Privacy Act 1988.

ANSTO also conducts privacy impact assessments for all high privacy risk projects.

ANSTO has a data breach response plan. In the reporting year to 30 June 2024, ANSTO did not have any notifiable data breaches under the Notifiable Data Breaches Scheme.

Freedom of Information

The Freedom of Information Act 1982 (FOI Act) provides the public with a general right of access to documents held by Australian Government agencies, by requiring agencies, such as ANSTO, to publish the information and provide a right of access to the documents. This general right is limited by exceptions to protect essential public interests, including the privacy of individuals and the business affairs of those who give information to the agency. In the reporting year to 30 June 2024, ANSTO received 16 requests for information under section 15 of the FOI Act.

ANSTO is required to publish information to the public as part of the Information Publication Scheme (IPS). This requirement is in Part II of the FOI Act and has replaced the former requirement to publish a section 8 statement in an annual report. The IPS is designed to promote open and transparent communication of government information. ANSTO's website contains a plan showing what information ANSTO publishes in accordance with the IPS Scheme. See **www.ansto.gov.au/access-to-information**

ANSTO has a range of publications, reports, and information available for the public, including our Annual Reports, Corporate Plan, information on safety, research reports, educational books and leaflets, and DVDs. ANSTO also provides access to a searchable database of all of ANSTO's science publications, as well as an online archive for older publications. View the database at: **https://www.ansto.gov.au/research/publications**

Direct enquiries in relation to the FOI process to the FOI Coordinator:

Mail: FOI Coordinator, ANSTO, Locked Bag 2001, Kirrawee DC NSW 2232

Email: foi@ansto.gov.au Telephone: +61 2 9717 3111.

These contact details can be found on ANSTO's website.

Section 6:

Financial Statements

Australian National Audit Office

INDEPENDENT AUDITOR'S REPORT

To the Minister for Industry and Science

Opinion

In my opinion, the financial statements of the Australian Nuclear Science and Technology Organisation and its subsidiaries (together the Consolidated Entity) for the year ended 30 June 2024:

(a) comply with Australian Accounting Standards – Simplified Disclosures and the *Public Governance, Performance and Accountability (Financial Reporting) Rule 2015*; and

(b) present fairly the financial position of the Consolidated Entity as at 30 June 2024 and its financial performance and cash flows for the year then ended.

The financial statements of the Consolidated Entity, which I have audited, comprise the following as at 30 June 2024 and for the year then ended:

- Statement by the Accountable Authority, Chief Executive Officer and Chief Financial Officer;
- Consolidated Statement of Comprehensive Income;
- Consolidated Statement of Financial Position;
- Consolidated Statement of Changes in Equity;
- Consolidated Cash Flow Statement; and
- Notes to the financial statements comprising material accounting information and other explanatory information.

Basis for opinion

I conducted my audit in accordance with the Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing Standards. My responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of my report. I am independent of the Consolidated Entity in accordance with the relevant ethical requirements for financial statement audits conducted by the Auditor-General and their delegates. These include the relevant independence requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants (including Independence Standards)* (the Code) to the extent that they are not in conflict with the *Auditor-General Act 1997*. I have also fulfilled my other responsibilities in accordance with the Code. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Accountable Authority's responsibility for the financial statements

As the Accountable Authority of the Consolidated Entity, the Board is responsible under the *Public Governance, Performance and Accountability Act 2013* (the Act) for the preparation and fair presentation of annual financial statements that comply with Australian Accounting Standards – Simplified Disclosures and the rules made under the Act. The Board is also responsible for such internal control as the Board determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board is responsible for assessing the ability of the Consolidated Entity to continue as a going concern, taking into account whether the Consolidated Entity' operations will cease as a result of an administrative restructure or for any other reason. The Board is also responsible for disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless the assessment indicates that it is not appropriate.

GPO Box 707, Canberra ACT 2601
38 Sydney Avenue, Forrest ACT 2603
Phone (02) 6203 7300

Auditor's responsibilities for the audit of the financial statements

My objective is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with the Australian National Audit Office Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with the Australian National Audit Office Auditing Standards, I exercise professional judgement and maintain professional scepticism throughout the audit. I also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Consolidated Entity's internal control;
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Accountable Authority;
- conclude on the appropriateness of the Accountable Authority's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Consolidated Entity' ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Consolidated Entity to cease to continue as a going concern; and
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Consolidated Entity to express an opinion on the financial report. I am responsible for the direction, supervision and performance of the Consolidated Entity audit. I remain solely responsible for my audit opinion

I communicate with the Accountable Authority regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

Australian National Audit Office

Bradley Medina
Senior Executive Director
Delegate of the Auditor-General

Canberra
12 September 2024

Statement by Accountable Authority, Chief Executive and Chief Financial Officer

In our opinion, the attached financial statements for the year ended 30 June 2024 comply with subsection 42(2) of the *Public Governance, Performance and Accountability Act 2013* (PGPA Act), and are based on properly maintained financial records as per subsection 41(2) of the PGPA Act.

In our opinion, at the date of this statement, there are reasonable grounds to believe that the Australian Nuclear Science and Technology Organisation will be able to pay its debts as and when they fall due.

Signed in accordance with a resolution of the Board of Directors.

Michael Quigley
Accountable Authority - Chair
11 September 2024

Shaun Jenkinson
Chief Executive Officer
11 September 2024

Emily Hodgson
Chief Financial Officer
11 September 2024

AUSTRALIAN NUCLEAR SCIENCE AND TECHNOLOGY ORGANISATION
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Consolidated Statement of Comprehensive Income

For the year ended 30 June 2024

	Note	Budget 2024	Actual 2024	Actual 2023
		$'000	$'000	$'000
Net cost of services				
Expenses				
Employee benefits	1.1A	182,506	167,554	157,664
Supplier	1.1B	175,336	178,815	145,771
Depreciation and amortisation	2.2A	105,339	123,585	92,387
Impairment losses	2.2A	-	-	24,783
Write-down of fixed assets	2.2A	-	3,635	-
Nuclear waste management expenses	2.3C	-	5,840	15,330
Grant		4,443	4,956	3,274
Finance costs	1.1C	21,623	26,309	24,685
Foreign currency exchange losses		-	9,656	753
Total expenses		**489,247**	**520,350**	**464,647**
Own-source revenue				
Revenue from contracts with customers	1.2A	95,797	111,243	114,760
Interest	5.2	9,793	18,333	9,790
Rental income		8,309	-	-
Royalties		2,022	-	-
Grant income		25,680	16,081	30,460
Total own-source revenue		**141,601**	**145,657**	**155,010**
Gains				
Decommissioning provision gains	2.3C	-	27,977	55,770
Nuclear waste management provision gains	2.3C	-	923	27,300
Foreign currency exchange gains		-	583	4,501
Unrealised gain on investment	2.1C	-	18,809	-
Reversal of impairments recognised in net cost of services	2.2A	-	160,061	-
Gains from asset sales		-	115	-
Total gains		**-**	**208,468**	**87,571**
Total own-source income		**141,601**	**354,125**	**242,581**
Net cost of services		**(347,646)**	**(166,225)**	**(222,066)**
Revenue from Government	3.1	318,527	318,527	289,027
Surplus/(deficit) before income tax		**(29,119)**	**152,302**	**66,961**
Income tax expense	1.1D	-	(302)	(283)
Surplus/(deficit) after income tax		**(29,119)**	**152,000**	**66,678**
Other comprehensive income				
Items that will not be subsequently reclassified to net cost of services				
Changes in asset revaluation reserve	2.4A	-	(4,185)	168,965
Total comprehensive surplus/(deficit)		**(29,119)**	**147,815**	**235,643**

The above statement should be read in conjunction with the accompanying notes.
The budget variance commentary is contained in the Other Information section (note 6.4).

Consolidated Statement of Financial Position

As at 30 June 2024

	Note	Budget 2024 $'000	Actual 2024 $'000	Actual 2023 $'000
Assets				
Financial assets				
Cash and cash equivalents	2.1A	14,494	62,074	53,543
Trade and other receivables	2.1B	35,350	23,250	29,115
Investments	2.1C	165,858	289,512	190,703
Total financial assets		**215,702**	**374,836**	**273,361**
Non-financial assets				
Property, plant and equipment	2.2A	1,379,050	1,610,920	1,427,530
Intangible assets	2.2A/B	62,798	50,411	57,801
Inventories	2.2C	55,798	58,879	54,543
Deferred tax asset	1.1D	1,466	12	229
Prepayments		21,329	11,447	15,555
Total non-financial assets		**1,520,441**	**1,731,669**	**1,555,658**
Total assets		**1,736,143**	**2,106,505**	**1,829,019**
Liabilities				
Payables				
Suppliers		22,976	19,867	27,008
Employees	4.1	-	6,653	6,138
Other payables	2.3A	6,966	15,175	10,070
Total payables		**29,942**	**41,695**	**43,216**
Interest bearing liabilities				
Lease liabilities	2.3D	407	115	264
Total interest bearing liabilities		**407**	**115**	**264**
Revenue in advance	2.3B	**-**	**22,013**	**16,013**
Provisions				
Employees	4.2	58,533	61,541	59,144
Decommissioning	2.3C	459,416	494,509	502,913
Nuclear waste management	2.3C	132,950	138,381	130,192
Intellectual property payment	2.3C	20,330	26,610	20,462
Total provisions		**671,229**	**721,041**	**712,711**
Total liabilities		**701,578**	**784,864**	**772,204**
Net assets		**1,034,565**	**1,321,641**	**1,056,815**
Equity				
Contributed equity		1,134,276	1,134,276	1,017,265
Reserves	2.4A	490,235	655,018	659,203
Accumulated deficit		(589,946)	(467,653)	(619,653)
Total equity		**1,034,565**	**1,321,641**	**1,056,815**

The above statement should be read in conjunction with the accompanying notes.
The budget variance commentary is contained in the Other Information section (note 6.4).

Consolidated Statement of Changes in Equity

For the year ended 30 June 2024

	Accumulated deficit		Asset revaluation reserve		Other reserves		Contributed equity		Total	
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Balance at 30 June 2022	**(686,331)**		**480,854**		**9,384**		**971,521**		**775,428**	
Surplus for the year	66,678		-		-		-		66,678	
Other comprehensive income										
Revaluation increment	-		168,965		-		-		168,965	
Total comprehensive surplus for the year	**66,678**		**168,965**		**-**		**-**		**235,643**	
Transactions with owners										
Government equity injection	-		-		-		45,744		45,744	
Balance at 30 June 2023	**(619,653)**	**(560,827)**	**649,819**	**480,852**	**9,384**	**9,383**	**1,017,265**	**1,017,265**	**1,056,815**	**946,673**
Surplus/(deficit) for the year	152,000	(29,119)	-	-	-	-	-	-	152,000	(29,119)
Other comprehensive income										
Revaluation increment	-	-	(4,185)	-	-	-	-	-	(4,185)	-
Total comprehensive surplus/(deficit) for the year	**152,000**	**(29,119)**	**(4,185)**	**-**	**-**	**-**	**-**	**-**	**147,815**	**(29,119)**
Transactions with owners										
Government equity injection	-	-	-	-	-	-	117,011	117,011	117,011	117,011
Balance at 30 June 2024	**(467,653)**	**(589,946)**	**645,634**	**480,852**	**9,384**	**9,383**	**1,134,276**	**1,134,276**	**1,321,641**	**1,034,565**

The above statement should be read in conjunction with the accompanying notes.

Consolidated Statement of Cash Flows

For the year ended 30 June 2024

	Note	Budget 2024 $'000	Actual 2024 $'000	Actual 2023 $'000
Cash flows from operating activities				
Contracts with customers		104,106	142,117	130,514
Grants received		-	23,452	24,221
Interest received		9,793	15,734	7,598
Receipts from Government		329,232	318,527	289,027
Payments to employees		(182,506)	(164,798)	(155,699)
Payments to suppliers		(175,357)	(193,884)	(160,917)
Payments for decommissioning	2.3C	-	(6,127)	(9,096)
Payments for nuclear waste management	2.3C	-	(1,982)	(2,176)
Interest payments on lease liabilities	2.3D	(13)	(2)	(3)
Other		5,086	-	-
Net cash from operating activities		**90,341**	**133,037**	**123,469**
Cash flows from investing activities				
Proceeds from sale of property, plant, equipment and intangibles		-	142	-
Proceeds from maturing financial instruments		423,453	536,192	490,000
Purchase of financial instruments		(396,046)	(635,000)	(495,000)
Purchase of property, plant, equipment and intangibles	2.2A	(231,345)	(142,702)	(152,173)
Net cash used in investing activities		**(203,938)**	**(241,368)**	**(157,173)**
Cash flows from financing activities				
Government equity injection	3.1	117,011	117,011	45,744
Principal payments on lease liabilities	2.3D	(128)	(149)	(121)
Net cash from financing activities		**116,883**	**116,862**	**45,623**
Net increase in cash and cash equivalents		**3,286**	**8,531**	**11,919**
Cash and cash equivalents at the beginning of the reporting year		11,208	53,543	41,624
Cash and cash equivalents at the end of the reporting year	2.1A	**14,494**	**62,074**	**53,543**

The above statement should be read in conjunction with the accompanying notes.

Overview

Objectives of Australian Nuclear Science and Technology Organisation

Australian Nuclear Science and Technology Organisation (ANSTO) is a not-for-profit Australian Government Corporate Commonwealth entity incorporated and domiciled in Australia.

Registered office
New Illawarra Road
Lucas Heights
NSW 2234
Australia

ANSTO's strategic objectives, as set out in its current Corporate Plan, are:

- Deliver on Australia's priorities for the benefit of people, industry and the environment through nuclear excellence in research and the use of national infrastructure;
- Improve the health of Australia by supporting access to current and future nuclear technologies for diagnostic, therapeutic and innovative treatments for current and emerging diseases;
- Australia's source of nuclear expertise, advice and services to governments, academia, industry and community; and
- Lead the development of a nuclear-capable workforce aligned with government policy objectives.

In the 2023-24 Portfolio Budget Statements, ANSTO has one outcome as reflected below:

Outcome 1: Improved knowledge, innovative capacity and healthcare through nuclear-based facilities, research, training, products, services and advice to Government, industry, the education sector and the Australian population.

ANSTO's activities contributing towards the outcome are classified as departmental. Departmental activities involve the use of assets, liabilities, income and expenses controlled or incurred by ANSTO in its own right. The continued existence of ANSTO in its present form and with its present programs is dependent on Government policy and continuing funding by Parliament for the entity's administration and programs.

Reference to ANSTO means ANSTO and its controlled entities except in Notes 1.1D and 6.2.

Basis of preparation of the financial statements

The financial statements required by section 42 of the *Public Governance, Performance and Accountability Act 2013*.

The financial statements have been prepared:

a) having regard to the provisions of the *Australian Nuclear Science and Technology Organisation (ANSTO) Act 1987* (as amended); and
b) in accordance with:
    i. *Public Governance, Performance and Accountability (Financial Reporting) Rule 2015* (FRR); and
    ii. Australian Accounting Standards and Interpretations – including simplified disclosures for Tier 2 Entities under AASB 1060 issued by the Australian Accounting Standards Board (AASB) that apply for the reporting period.

Overview (continued)

Basis of preparation of the financial statements

The financial statements have been prepared on an accrual basis and in accordance with the historical cost convention, except for certain assets and liabilities at fair value. Except where stated, no allowance is made for the effect of changing prices on the results or the financial position. Where necessary the comparative information for the preceding financial year has been reclassified to achieve consistency in disclosure with current financial year amounts.

The financial statements are presented in Australian dollars and values are rounded to the nearest thousand dollars unless otherwise specified.

The financial statements were authorised for issue by the Board of Directors on 11 September 2024.

Foreign currency

Transactions denominated in a foreign currency are converted to Australian currency at the rate of exchange prevailing at the date of the transaction. At reporting date, amounts receivable and payable in foreign currency are translated to Australian currency at the exchange rate prevailing at that date and any exchange differences are brought to account in the Statement of Comprehensive Income. ANSTO does not enter into speculative forward exchange contracts.

Principles of consolidation

The consolidated financial statements incorporate the financial statements of ANSTO and the entities it controls. Control is achieved when ANSTO has all of the following:

- power over the investee;
- is exposed, or has rights, to variable returns from its involvement with the investee; and
- the ability to use its power to affect its returns.

Consolidation of a subsidiary begins when ANSTO obtains control over the subsidiary and ceases when they lose control of the subsidiary. All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation. Profit or loss and each component of other comprehensive income are attributed to the owners of the entity and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of the entity and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance. Changes in the Group's ownership interests in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognised directly in equity and attributed to ANSTO.

Overview (continued)

Significant accounting judgements and estimates

In the process of applying the accounting policies listed in this note, management has made a number of judgements and applied estimates and assumptions to future events. Information regarding judgements and estimates which are material to the financial statements are found in the following notes:

- Notes 2.2A and 5.3: Property, plant and equipment fair value measurement and useful lives;
- Note 2.3C: Decommissioning and waste provisions phasing of work and discounted cash flow assumptions; and
- Note 2.2B: Recoverable amount of the intangible asset relating to intellectual property and fair value of the associated liability.

Apart from these assumptions and estimates no other accounting assumptions or estimates have been identified that have a significant risk of causing a material adjustment to carrying amounts of assets and liabilities within the next accounting period.

Adoption of new Australian Accounting Standard requirements

In the current year, ANSTO adopted all new and revised Australian Accounting Standards issued by the Australian Accounting Standards Board that are mandatorily effective for accounting periods that ended on 30 June 2024.

No accounting standard has been adopted earlier than the application date as stated in the standard.

ANSTO has initially applied AASB 2020-1 *Amendments to Australian Accounting Standards – Classification of Liabilities as Current of Non-current*, AASB 2021-5 *Amendments to Australian Accounting Standards – Deferred Tax related to Assets and Liabilities arising from a Single Transaction* and AASB 2021-6 *Amendments to Australian Accounting Standards – Disclosure of Accounting Policies: Tier 2 and Other Australian Accounting Standards*. There has been no material effect on ANSTO's financial statements.

1. Financial Performance

This section details the financial performance of ANSTO.

1.1 Expenses

1.1A Employee benefits

	2024	2023
	$'000	$'000
Wages and salaries	121,218	111,963
Superannuation - defined contribution plans	17,400	15,990
Superannuation - defined benefit plans	9,369	8,605
Leave and other entitlements	18,337	17,309
Separation and redundancies	1,230	3,797
Total employee benefits	**167,554**	**157,664**

Accounting policy

Liabilities for 'short-term employee benefits' (as defined in AASB 119 *Employee Benefits*) and termination benefits expected within twelve months of the end of reporting period are measured at their nominal amounts.

Other long-term employee benefits are measured as the total net present value of the defined benefit obligation at the end of the reporting period.

Leave

Annual and long service leave, including applicable on-costs that are not expected to be wholly settled before 12 months after the end of the reporting period when the employees render the related service, are measured at the present value of estimated future payments to be made in respect of services provided by employees up to the reporting date. The provision for employee entitlements encompasses annual leave and long service leave that ANSTO has a present obligation to pay resulting from employee services provided up to the reporting date. The provision for annual leave and long service leave includes estimated on-costs. As these on-costs only become payable if the employee takes annual and long service leave while in-service, the probability that employees will take annual and long service leave while in-service has been taken into account in estimating the liability for on-costs.

The leave liabilities are calculated on the basis of employees' remuneration at the estimated salary rates that will be applied when leave is taken, including employer superannuation contribution rates to the extent that the leave is likely to be taken during service rather than paid out on termination.

The Enterprise Agreement provides under the heading General Leave for an employee entitlement which combines sick leave, carer's leave and leave for 'other' prescribed purposes. No provision has been made for general leave as all such leave is 'non-vesting'.

The estimate of the present value of the liability takes into account attrition rates and pay increases through promotion and inflation.

Separation and redundancy

Provision is made for separation and redundancy benefit payments. ANSTO recognises a provision for termination when it has developed a detailed formal plan for the termination and has informed those employees affected that it will carry out the termination.

Superannuation

ANSTO's staff are members of the Commonwealth Superannuation Scheme (CSS) and the Public Sector Superannuation Scheme (PSS) or the PSS accumulation plan (PSSap), or other superannuation funds held outside of the Australian Government that provide retirement, death and disability benefits to employees. The CSS and PSS are defined benefit schemes for the Australian Government. The PSSap is a defined contribution scheme.

1. Financial Performance (continued)

1.1A Employee Benefits (continued)

The liability for defined benefits is recognised in the financial statements of the Australian Government and is settled by the Australian Government in due course. This liability is reported in the Department of Finance's administered schedules and notes.

ANSTO makes employer contributions to the employees' superannuation scheme at rates determined by an actuary to be sufficient to meet the current cost to the Government. ANSTO accounts for contributions as if they are contributions to defined contribution scheme.

The liability for superannuation recognised as at 30 June represents outstanding contributions for the final week of the year.

1.1B Supplier

	2024	2023
	$'000	$'000
Goods supplied from external entities	63,409	58,342
Services rendered from related entities	16,473	10,529
Services rendered from external entities	97,037	75,249
Workers' compensation premiums - related entities	1,896	1,651
Total supplier expenses	**178,815**	**145,771**

1.1C Finance costs

	Note	2024	2023
		$'000	$'000
Bank charges		16	16
Interest expense on lease liabilities	2.3D	2	3
Unwinding of discount on provisions	2.3C	26,291	24,666
Total finance costs		**26,309**	**24,685**

1. Financial Performance (continued)

1.1D Income tax

	2024	2023
	$'000	$'000
Prima facie income tax expense on results of taxable subsidiaries	(302)	(2,491)
Deferred tax expense not recognised	-	2,208
Total income tax expense	**(302)**	**(283)**

Taxation
ANSTO is exempt from income tax. Unrecognised deferred tax assets in relation to un-recouped tax losses, including timing differences, in ANSTO Nuclear Medicine Pty Ltd (ANM) in 2024 is nil (2023: $67.927M), ANM has been liquidated during the year. The total deferred tax assets recognised as at 30 June 2024 is from PETTECH Solutions Pty Ltd at $0.012M (2023: $0.229M).

Subsidiaries
ANSTO's subsidiary is subject to normal taxation.

The PETTECH Solutions Pty Ltd director believes it is probable that sufficient profits will be generated to utilise the tax losses available.

Accounting policy
In respect of the subsidiaries, current tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities based on the current period's taxable income. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted by reporting date.

Deferred income tax is provided on all temporary differences at reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

ANSTO is exempt from all forms of Australian taxation except fringe benefits tax (FBT) and the goods and services tax (GST). ANSTO is not exempt from any foreign taxation laws relative to its overseas operations.

Revenues, expenses, assets and liabilities are recognised net of GST except:

- where the amount of GST incurred is not recoverable from the Australian Taxation Office; and
- for receivables and payables.

1. Financial Performance (continued)

1.1D Income tax (continued)

Deferred income tax liabilities are recognised for all taxable temporary differences except:

- when the deferred income tax liability arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination and that, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; or

- when the taxable temporary difference is associated with investments in subsidiaries, associates or interests in joint ventures, and the timing of the reversal of the temporary difference can be controlled and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred income tax assets are recognised for all deductible temporary differences, carry forward of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available in the foreseeable future against which the deductible temporary differences and the carry forward of unused tax credits and unused tax losses can be utilised, except:

- when the deferred income tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; or

- when the deductible temporary difference is associated with investments in subsidiaries, associates or interests in joint ventures, in which case a deferred tax asset is only recognised to the extent that it is probable that the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilised.

Unrecognised deferred income tax assets are reassessed at each reporting date and are recognised to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

Deferred income tax assets and liabilities are measured at the tax rates that are expected to apply to the year when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at reporting date. Deferred tax assets and deferred tax liabilities are offset only if a legally enforceable right exists to set off current tax assets against current tax liabilities and the deferred tax assets and liabilities relate to the same taxable entity and the same taxation authority.

1.1E Auditor's remuneration

During the period the following fees were paid or payable for services provided by the auditor of ANSTO and its subsidiaries, the Australian National Audit Office:

	2024	2023
	$'000	$'000
Audit of the financial statements	238	265
Total auditor's remuneration	**238**	**265**

No other services were provided by the Australian National Audit Office during the reporting period.

1. Financial Performance (continued)

1.2 Revenue

1.2A Revenue from contracts with customers

	2024	2023
	$'000	$'000
Sales of goods		
Radioisotope sales	66,017	72,032
Total sales of goods	**66,017**	**72,032**
Rendering of services		
Service & contract research	25,865	21,802
Silicon irradiation	9,187	13,314
CSIRO site support	1,201	1,265
Training courses	927	692
Land management	8,046	5,655
Total rendering of services	**45,226**	**42,728**
Total revenue from contracts with customers	**111,243**	**114,760**

Accounting policy
Revenue from contracts with customers
ANSTO recognises revenue for the transfer of promised goods and services to customers in an amount that reflects the consideration expected for the exchange of those goods and services.

The following is a description of the principal activities, and their respective revenue recognition treatment, from which ANSTO generates its revenue:

- Revenue from radioisotope sales is recognised at a point in time once control of the products is transferred to the customer. This generally occurs when products are dispatched for domestic customers and from when the products have departed from Australian soil for international customers;
- Revenue for service & contract research is recognised upon completion of the service milestone as per the contract or when the research has been provided if there are no specific milestones other than delivery on the agreed scope;
- Silicon irradiation revenue is recognised once the customer's product has undergone the irradiation process and control of the ingot returns to the customer;
- Revenue from land management includes operating lease revenue recognised on a straight- line basis or another systematic basis; and
- Revenue from training courses is recognised in the period the training course held when the performance obligations have been satisfied.

Receivables for goods and services are recognised at the contractual amounts due less any impairment allowance. Collectability of debts is assessed at invoicing. At this time an assessment is made of the expected credit loss based on life-time expected credit losses. Lifetime expected credit losses represent the expected credit losses that are expected to result from default events over the expected life of the financial asset. This takes into account historical experience, the credit risk for each customer as well as other indicators.

1. Financial Performance (continued)

1.2A Contracts with customers (continued)

Accounting policy (continued)

Grant revenue
Operating grants
Assets arising from operating grants that do not satisfy the criteria to be accounted for under AASB 15 *Revenue from Contracts with Customers* are recognised at fair value when ANSTO obtains control of the asset. Income is recognised at this amount less any related amounts required to be recognised in accordance with applicable Australian Accounting Standards.

Capital grants
A transfer of a financial asset, including cash, to enable ANSTO to acquire or construct a recognisable non-financial asset to identified specifications to be controlled by the organisation is referred to as a capital grant. These grants are initially recognised as a liability and subsequently recognised as income as, or when, the company satisfies its obligation to acquire or construct the specified asset to which the capital grant relates. For the acquisition of specified assets, income is recognised when the asset is acquired and controlled by ANSTO. For the construction of specified assets, income is recognised as the construction progresses on the basis of costs incurred relative to expected costs.

Resources received free of charge
Resources received free of charge are recognised as revenue when and only when a fair value can be reliably determined and the services would have been purchased if they had not been donated. Use of those resources is recognised as an expense.

Resources received free of charge are recorded as either revenue or gains depending on their nature i.e. whether they have been generated in the course of the ordinary activities of ANSTO. Contributions of assets at no cost or for nominal consideration are recognised as gains at their fair value when the asset qualifies for recognition.

2. Financial Position

This section details the financial position of ANSTO.

2.1 Financial assets

2.1A Cash and cash equivalents

Accounting policy

Cash is recognised at its nominal amount. Cash and cash equivalents include:

- Cash on hand; and
- Demand deposits in bank accounts with an original maturity of 3 months or less that are readily convertible to known amounts of cash and subject to insignificant risk of changes in value.

2.1B Trade and other receivables

	2024	2023
	$'000	$'000
Goods and services		
Related entities	123	893
External entities	12,714	19,228
Trade receivables	**12,837**	**20,121**
Less impairment loss allowance	-	-
Net receivables for goods and services	**12,837**	**20,121**
Other receivables		
Accrued interest	5,157	2,558
GST receivable from the Australian Tax Office	1,586	2,443
Accrued revenue	2,897	3,384
Other	773	609
Total other receivables	**10,413**	**8,994**
Total net trade and other receivables	**23,250**	**29,115**

Trade and other receivables are expected to be received within 12 months.

Net receivables are aged as follows:

	2024	2023
	$'000	$'000
Overdue but not impaired:		
Less than 31 days	19,386	24,275
31 to 60 days	353	829
61 to 90 days	996	520
More than 90 days	2,515	3,491
Total net trade and other receivables	**23,250**	**29,115**

Accounting policy

Receivables for goods and services are recognised at the nominal amounts due less any impairment loss allowance. Contractual payment terms are 30 days from billing. Collectability of debts is reviewed at reporting date. Allowance is made when collectability of the debt is no longer probable.

2. Financial Position (continued)

2.1C Investments

	2024	2023
	$'000	$'000
Term deposits	270,000	190,000
Other - Clarity Pharmaceuticals Ltd	19,512	703
Total investments	**289,512**	**190,703**

ANSTO's 3,559,920 shares in Clarity Pharmaceuticals Ltd (2023: 3,559,920) has been valued at the 28 June 2024 closing market rate of $5.42 (2023: $0.20), with a corresponding gain of $18.809M recognised through profit and loss.

2. Financial Position (continued)

2.2 Non-financial assets

2.2A Property, plant and equipment and intangible assets

	Land	Buildings	Plant and Equipment	Intellectual property	Software	Other intangibles	Buildings Right of Use	Total
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Gross value as at 30 June 2023	**201,500**	**236,061**	**1,156,505**	**51,210**	**62,116**	**21,942**	**212**	**1,729,546**
Additions	-	22,027	114,019	-	6,656	-	-	**142,702**
Transfers and reclassifications	-	5,422	(7,647)	-	8,517	(6,292)	-	**-**
Assets written-off	-	(888)	(6,903)	-	(853)	(800)	-	**(9,444)**
Transfer of depreciation on revaluation	-	(68,945)	(103,758)	-	-	-	-	**(172,703)**
Revaluations and impairments recognised in other comprehensive income	-	15	469	-	-	-	-	**484**
Reversal of impairments recognised in cost of services	-	84,878	75,183	-	-	-	-	**160,061**
Disposals	-	-	(143)	-	-	-	-	**(143)**
Gross value as at 30 June 2024	**201,500**	**278,570**	**1,227,725**	**51,210**	**76,436**	**14,850**	**212**	**1,850,503**
Accumulated depreciation, amortisation and impairment losses 1 July 2023	**-**	**72,271**	**94,477**	**51,210**	**20,219**	**6,038**	**-**	**244,215**
Depreciation and amortisation	-	17,947	90,887	-	12,510	2,108	133	**123,585**
Assets written-off	-	(571)	(5,238)	-	-	-	-	**(5,809)**
Released on disposal	-	-	(116)	-	-	-	-	**(116)**
Transfer of depreciation on revaluation	-	(68,945)	(103,758)	-	-	-	-	**(172,703)**
Accumulated depreciation, amortisation and impairment losses 30 June 2024	**-**	**20,702**	**76,252**	**51,210**	**32,729**	**8,146**	**133**	**189,172**
Net book value as at 30 June 2024	**201,500**	**257,868**	**1,151,473**	**-**	**43,707**	**6,704**	**79**	**1,661,331**
Property, plant and equipment	**201,500**	**257,868**	**1,151,473**	**-**	**-**	**-**	**79**	**1,610,920**
Intangibles	**-**	**-**	**-**	**-**	**43,707**	**6,704**	**-**	**50,411**

No property, plant and equipment and intangible assets are expected to be disposed of within the next 12 months.

2. Financial Position (continued)

2.2A Property, plant and equipment and intangible assets (continued)

Accounting policy
Asset recognition threshold
Items of buildings, infrastructure, plant and equipment and major facilities are recorded at cost of acquisition and depreciated as outlined below. Items of plant and equipment with a cost of less than $5,000 (2023: $5,000) are expensed in the year of acquisition (other than where they form part a group of similar items which are significant in total).

The initial cost of an asset includes an estimate of the cost of dismantling and removing the item and restoring the site on which it is located at the end of its useful life. This is particularly relevant to 'make good' or decommissioning provisions on buildings, infrastructure, plant and equipment and major facilities, taken up by ANSTO where there exists an obligation to restore the property to its original condition. These costs are included in the value of the asset it relates to with a corresponding provision for the 'make good' or decommissioning taken up.

The cost of assets constructed by the entity includes the cost of materials, direct labour and an appropriate proportion of fixed and variable overheads.

Lease right-of-use (ROU) assets
Leased ROU assets are capitalised at the commencement date of the lease and comprise of the initial lease liability amount, initial direct costs incurred when entering into the lease less any lease incentives received. These assets are accounted for by Commonwealth lessees as separate asset classes to corresponding assets owned outright.

Following initial application, an impairment review is undertaken for any right of use lease asset that shows indicators of impairment and an impairment loss is recognised against any right of use lease asset that is impaired.

Revaluations of non-financial assets
Following initial recognition at cost, buildings, infrastructure, plant and equipment and major facilities (excluding right-of-use (ROU) assets) are carried at fair value less accumulated depreciation and accumulated impairment losses. Valuations are conducted with sufficient frequency to ensure that the carrying amounts of assets do not differ materially from the assets' fair values as at reporting date. The regularity of independent valuations depends upon the volatility of movements in market values for the relevant assets. Independent valuers are generally used to conduct these scheduled revaluations. Revaluation increases or decreases arise from differences between an asset's carrying value and fair value.

ANSTO engaged CBRE Valuations Pty Limited, a qualified independent party, to provide an assessment on the indicators of whether fair value had materially changed for ANSTO's property, plant and equipment as at 30 June 2024. No material impact, and subsequent revaluation, has been deemed applicable.

Revaluation adjustments are made on a class basis. Any revaluation increment is credited to equity under the heading of asset revaluation reserve except to the extent that it reverses a previous revaluation decrement of the same asset class that was previously recognised through profit and loss. Revaluation decrements for a class of assets are recognised directly through profit and loss except to the extent that they reverse a previous revaluation increment for that asset class.

Any accumulated depreciation as at the revaluation date is eliminated against the gross carrying amount of the asset and the asset restated to the revalued amount.

2. Financial Position (continued)

2.2A Property, plant and equipment and intangible assets (continued)

Any revaluation increase to the decommissioning cost included in the initial cost of the asset will be reflected as an increase to the provision for decommissioning and a decrease to the asset revaluation reserve to the extent that there is a sufficient balance in the asset revaluation reserve for this asset class, any residual decrease will be recognised in profit or loss. Any revaluation decrease will be reflected as a decrease to the provision for decommissioning and an increase to the asset revaluation reserve and, to the extent of the decrease reversing a previous revaluation decrease of the related asset class that was previously recognised in profit and loss, the decrease is credited to profit and loss as a reversal. If the decrease in the provision exceeds the Depreciated Replacement Cost of the asset, the excess is taken to profit and loss.

Depreciation
Items of buildings, infrastructure, plant and equipment and major facilities, but excluding freehold land and ROU assets, are depreciated over their estimated useful lives to ANSTO using the straight-line method. The depreciation rates for ROU assets are based on the commencement date to the earlier of the end of the useful life of the ROU asset or the end of the lease term.

The depreciation rates (useful lives), residual values and methods are reviewed during each reporting date and necessary adjustments are recognised in the current, or current and future reporting periods, as appropriate. ROU assets are amortised based on the life of the lease.

Depreciation and amortisation rates applying to each class of depreciable asset (excluding ROU assets) are based on the following useful lives:

	2024	2023
Buildings on freehold land	**5 to 45 years**	5 to 45 years
Plant and equipment	**2 to 45 years**	2 to 45 years
Infrastructure	**20 years**	20 years
Landmark, national and major research facilities	**5 to 45 years**	5 to 45 years

Impairment
All assets were assessed for indications of impairment at 30 June 2024. Where indications of impairment exist, the asset's recoverable amount is estimated and an impairment adjustment made if the asset's recoverable amount is less than its carrying amount.

The recoverable amount of an asset is the higher of its fair value less costs to sell and its value in use. Value in use is the present value of the future cash flows expected to be derived from the asset. Where the future economic benefit of an asset is not primarily dependent on the asset's ability to generate future cash flows, and the asset would be replaced if the entity were deprived of the asset, its value in use is taken to be its depreciated replacement cost.

Any resulting impairment losses, for property, plant and equipment assets, are recorded as a decrease in the Asset Revaluation Surplus relating to these classes of assets. This is because these asset classes are measured at fair value and have an Asset Revaluation Surplus attached to them. Where the impairment loss is greater than the balance of the Asset Revaluation Surplus for the relevant class of asset, the difference is expensed in the Statement of comprehensive income.

Derecognition
An item of property, plant and equipment is derecognised upon disposal or when no further future economic benefits are expected from its use or disposal.

2. Financial Position (continued)

2.2B Intangibles

The useful lives of intangible assets are assessed as either finite or indefinite.

Intangible assets with finite lives are amortised over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. Intangible assets with indefinite useful lives are not amortised, but are tested for impairment annually, either individually or at the cash-generating unit level.

Software
Items of software are recorded at cost and amortised as outlined below. Items with a cost of less than $5,000 (2023: $5,000) are expensed in the year of acquisition. Software and licences are reported at cost. There is no material internal software development, though there are significant internal capitalised costs involved in the implementation of purchased software.

Intellectual property
ANSTO and NTP Radioisotopes (SOC) Limited (NTP) signed the Intellectual Property (IP) Licence Agreement on 15 May 2012 for the provision of NTP's IP to ANSTO, assisting ANSTO with the build of the Mo-99 manufacturing plant and the utilisation of the IP in its operations at Lucas Heights.

Under the terms of the IP Agreement NTP granted to ANSTO an exclusive, irrevocable, perpetual licence to use, exploit, reproduce and modify the current IP and the future IP.

ANSTO originally recognised the IP right conveyed, at fair value, as an intangible asset with an indefinite life and a financial liability for the accumulated future payments required in relation to the asset. In 2022-23 the IP intangible asset has been fully impaired based on the assessment of cash flows generated over the next 10 years.

Amortisation
Intangibles are amortised over their estimated useful lives to ANSTO using the straight-line method.

Amortisation rates applying to intangibles are as follows:

	2024	2023
Purchased software	**2 to 10 years**	2 to 10 years
Licences	**3 years**	3 years
Intellectual property	**Indefinite life**	Indefinite life

Impairment
All intangible assets were assessed for impairment at 30 June 2024. Where indications of impairment exist, the asset's recoverable amount is estimated and an impairment adjustment made if the asset's recoverable amount is less than its carrying amount.

Patents
Due to the uncertain commercial value of patents and because benefits extending beyond one accounting period cannot be assured, the costs associated with the development and registration of patents are expensed in the year in which they are incurred, unless recoverability is assured beyond any reasonable doubt. At 30 June 2024 there were 176 patents (2023: 171) registered to ANSTO and no associated costs are recognised as an asset (2023: $nil).

2. Financial Position (continued)

2.2C Inventories

	2024	2023
	$'000	$'000
Raw materials and stores – not held for resale		
Stores - at cost	35,406	38,699
Cobalt-60 sources - at net realisable value	42	44
Reactor fuel and heavy water - at average purchase price	18,031	11,063
	53,479	49,806
Work in progress - at cost	4,212	3,959
Finished goods - at cost	1,188	778
Total inventories	**58,879**	**54,543**
Inventories expected to be realised within		
No more than 12 months	50,202	44,446
More than 12 months	8,677	10,097
Total inventories	**58,879**	**54,543**

In 2023-2024, opening inventories of $50.2M (2023: $38.1M) were recognised as an expense.

Accounting policy
Inventories held for sale are valued at the lower of cost and net realisable value. Costs incurred in bringing each item of inventory to its present location and condition, are assigned as follows:

- Raw material and stores (with the exception of reactor fuel) - purchase cost on a first-in first-out basis;
- Reactor fuel - average purchase price; and
- Finished goods and work-in-progress - cost of direct materials and labour plus attributable costs that can be allocated on a reasonable basis.

2.2D Commitments

	2024	2023
	$'000	$'000
Infrastructure, plant and equipment	46,073	75,654
Fuel element purchase	22,926	22,382
Mo-99 plate purchase	20,033	15,205
Total commitments	**89,032**	**113,241**
One year or less	48,476	68,871
From one to five years	40,556	44,370
Total commitments	**89,032**	**113,241**

Accounting policy
Commitments are expenditure contracted for at the reporting date, but not recognised as liabilities.

2. Financial Position (continued)

2.3 Liabilities

2.3A Other payables

	2024	2023
	$'000	$'000
Accrued expenses	9,492	9,319
Other	5,683	751
Total other payables	**15,175**	**10,070**
Other payables expected to be settled within		
No more than 12 months	15,175	10,070
Total other payables	**15,175**	**10,070**

Accounting policy
Other payables are recognised at amortised cost. Liabilities are recognised to the extent that the goods or services have been received (and irrespective of having been invoiced).

2.3B Revenue in advance

	2024	2023
	$'000	$'000
Grant monies received in advance	18,150	10,779
Revenue received in advance - goods and services	3,863	5,234
Total revenue in advance	**22,013**	**16,013**
Revenue in advance expected to be settled within		
No more than 12 months	22,013	10,209
More than 12 months	-	5,804
Total revenue in advance	**22,013**	**16,013**

Accounting policy
Revenue in advance is recognised if a payment is received before ANSTO performs the related services, the customer has yet to obtain control of the goods or the grant performance obligations, if any, have yet to be met.

2. Financial Position (continued)

2.3C Provisions (other than employees)

		2024	2023
		$'000	$'000
Decommissioning	(a)	494,509	502,913
Nuclear waste management	(b)	138,381	130,192
Intellectual property payment	(c)	26,610	20,462
Total provisions		**659,500**	**653,567**
Provisions expected to be settled within			
No more than 12 months		36,211	12,507
More than 12 months		623,289	641,060
Total provisions		**659,500**	**653,567**

Accounting policy
The initial measurement of the provision for decommissioning and nuclear waste management is the present value of expected expenditures to settle the obligation.

Any adjustment to the provision for decommissioning and nuclear waste management attributable to the timing of expenditure, consumer price index (CPI) and discount rate at 30 June each year will be reflected as an adjustment to the provision and recognised in profit or loss in the reporting year in which the estimates change. The accounting policy relating to adjustments to the provision for decommissioning arising on revaluation of the decommissioning cost included in the underlying asset is disclosed in Note 2.2A.

2. Financial Position (continued)

2.3C Provisions (other than employees) (continued)

	Decommissioning	Nuclear waste management	Intellectual property payment
	$'000	$'000	$'000
Carrying amount 30 June 2022	**547,735**	**139,730**	**27,383**
Nuclear waste management expenses	-	15,330	-
Amounts used	(9,096)	(2,176)	(6,935)
Change in accounting estimate	(55,770)	(27,300)	-
Unwinding discount	20,044	4,608	14
Carrying amount 30 June 2023	**502,913**	**130,192**	**20,462**
Nuclear waste management expenses	-	5,840	-
Revaluation recognised in Other Comprehensive Income	4,669	-	
Amounts used	(6,127)	(1,982)	(2,738)
Change in accounting estimate	(27,977)	(923)	-
Foreign currency movement	-	-	8,880
Unwinding discount	21,031	5,254	6
Carrying amount 30 June 2024	**494,509**	**138,381**	**26,610**

Provisions movement reconciliation

(a) This provision includes decommissioning costs relating to property, plant, equipment and infrastructure.

Estimated nominal costs being the estimate of future cash flows required to fund the decommissioning of current facilities and infrastructure (2024: $781.8 million; 2023 $756.1 million):

- An external company, Project Time & Cost LLC (PT&C), was engaged in 2018-19 to provide rough-order-of-magnitude costs for decommissioning facilities at ANSTO's Lucas Heights campus effective 30 June 2019 based upon characteristics that are similar to other facilities for which there is a known decommissioning liability. The parametric estimate provided by PT&C has an expected accuracy range between +50% ($1,075.1M) and -30% ($501.7M), this can also be defined as the bandwidth of estimating uncertainty associated with parametric estimating, and is based on a Class 4 cost estimate; ANSTO has applied the mid-point estimate ($716.7M).
- ANSTO's internal subject matter experts update the decommissioning and nuclear waste management provision at year end to reflect revised costings and expected timing of future expenditure.

2. Financial Position (continued)

2.3C Provisions (other than employees) (continued)

Phasing of the estimated nominal costs over the expected time period of the decommissioning provision being 54 years (2023: 55 years):

- The cash flows are phased based on when it is expected that the work will be undertaken, which is subject to the use of the asset, the available funding and, where applicable, the licence.
- Decommissioning costs are funded by government and received on a pro-rata basis with the longest funding over 54 years for the decommissioning of infrastructure.

Inflating the nominal costs by expected CPI over time (2024: 2.5%, 2023: 2.5%):

- Payments to fund decommissioning are made in the future and need to account for expected increases in the underlying cost of the final outflow due to inflationary pressures. The inflation rate assumption applied by ANSTO is set with reference to the Standard Parameters made available by the Department of Finance.

Discounting for the effect of the time value of money (2024: ranging from 4.07% to 4.64%, 2023: ranging from 3.95% to 4.34%):

- Projected nominal costs are discounted to a present value using risk free rates to reflect the time value of money and are set with reference to the Standard Parameters made available by the Department of Finance.

Given the high degree of judgement required to estimate future cash flows and the phasing of these cash flows, there is inherent uncertainty in establishing the liability, therefore it is likely that the final outcome will differ from the original liability established.

The sensitivity of the decommissioning provision, based on the nominal cost of $781.8 million as at 30 June 2024 (2023: $756.1 million), to changes in the primary drivers are indicated in the table below. Each change has been calculated in isolation and without regard to other driver changes that may occur simultaneously.

		Decommissioning provision increase/(decrease)	
Driver	**Change**	**2024 $'000**	**2023 $'000**
CPI	(1.0)%	(85,823)	(92,698)
	(0.5)%	(45,990)	(49,662)
	0.5%	53,318	57,514
	1.0%	115,375	124,352
Discount rate	(1.0)%	203,166	123,265
	(0.5)%	88,476	56,755
	0.5%	(69,102)	(48,664)
	1.0%	(123,713)	(90,592)
Delaying planned expenditure	1 year	(9,922)	(8,735)
	3 years	(29,538)	(25,906)
	5 years	(48,620)	(42,711)

2. Financial Position (continued)

2.3C Provisions (other than employees) (continued)

(b) The nuclear waste management provision consists of future costs relating to the management of accumulated waste arising from nuclear operations.

Estimated nominal costs being the estimate of future cash flows required to fund the waste management activities (2024: $148.4 million; 2023 $139.9 million):

- The legacy nuclear waste relates to the future costs of managing legacy nuclear waste from research and the production of nuclear medicine. The provision also includes the future costs of managing nuclear waste that has arisen from current operations. Also included are the estimated costs of managing the spent fuel from the OPAL multipurpose reactor. The costs of the legacy waste, current waste and spent fuel are based primarily on ANSTO experience and expertise of managing these items over a number of years.

Phasing of the estimated nominal costs over the expected time period of the nuclear waste management activities being 16 years (2023: 16 years):

- The cash flows are phased based on when it is expected that the work will be undertaken.

Inflating the nominal costs by expected CPI over time (2024: 2.5%, 2023: 2.5%):

- Payments to fund nuclear waste management are made in the future and need to account for expected increases in the underlying cost of the final outflow due to inflationary pressures. The inflation rate assumption applied by ANSTO is set with reference to the Standard Parameters made available by the Department of Finance.

Discounting for the effect of the time value of money (2024: ranging from 4.07% to 4.41%, 2023: ranging from 3.95% to 4.13%):

- Projected nominal costs are discounted to a present value using risk free rates to reflect the time value of money and are set with reference to the Standard Parameters made available by the Department of Finance.

Given the high degree of judgement required to estimate future cash flows and the phasing of these cash flows, there is inherent uncertainty in establishing the liability, therefore it is likely that the final outcome will differ from the original liability established. Changes in the provision year on year are recognised in profit or loss in the reporting year in which the estimates change.

2. Financial Position (continued)

2.3C Provisions (other than employees) (continued)

The sensitivity of the nuclear waste management provision, based on the nominal cost of $148.4 million as at 30 June 2024 (2023: $139.9 million), to changes in the primary drivers are indicated in the table below. Each change has been calculated in isolation and without regard to other driver changes that may occur simultaneously.

		Nuclear waste management provision increase/(decrease)	
Driver	**Change**	**2024 $'000**	**2023 $'000**
CPI	(1.0)%	(5,490)	(5,964)
	(0.5)%	(2,783)	(3,024)
	0.5%	2,862	3,110
	1.0%	5,806	6,309
Discount rate	(1.0)%	7,535	6,276
	(0.5)%	3,623	3,079
	0.5%	(3,369)	(2,966)
	1.0%	(6,514)	(5,825)
Delaying planned expenditure	1 year	(2,253)	(1,837)
	3 years	(6,917)	(5,570)
	5 years	(11,840)	(9,493)

(c) The provision of intellectual property relates to future payments required in relation to the intellectual property asset (Notes 2.2A and 2.2B). The liability is derived from calculating the estimated commission to be paid to NTP based on expected future sales and then discounted back at 6.32% (2023: 6.90%).

2.3D Lease liabilities

ANSTO leases property in Camperdown from the Central Sydney Area Health Service under one operating lease. The current lease was entered into in November 2000 and will terminate in January 2025. The lease enables ANSTO to undertake its principal activities. Lease payments are variable to the extent that they are reviewed every three years in accordance with the market rental valuation clause of the agreement. ANSTO does not have an interest in the residual value of the property but does have a responsibility at the termination of the lease to ensure the property is in good and tenantable condition. At 30 June, the future minimum lease payments under non-cancellable operating leases were payable as follows:

	Note	2024	2023
		$'000	**$'000**
Opening balance		264	385
Lease repayments		(151)	(124)
Interest expense on lease liabilities	1.1C	2	3
Closing balance		**115**	**264**
Maturity analysis			
Buildings			
Less than one year		115	149
One to five years		-	115
Total undiscounted lease liabilities		**115**	**264**

2. Financial Position (continued)

2.3D Lease liabilities (continued)

Accounting policy
ANSTO recognises right-of-use assets and lease liabilities for most leases. However, ANSTO has elected not to recognise right-of-use assets and lease liabilities for some leases of low value assets based on the value of the underlying asset when new or for short-term leases with a lease term of 12 months or less.

2.4 Reserves

2.4A Reserves

	Note	2024	2023
		$'000	$'000
Asset revaluation			
Opening balance		649,819	480,854
Revaluation - non-financial assets	2.2A	484	168,878
Revaluation - decommissioning costs	2.3C	(4,669)	-
Revaluation - deferred tax asset		-	87
Asset revaluation reserves	(a)	**645,634**	**649,819**
Other reserves			
OPAL depreciation	(b)	**9,061**	**9,061**
Foreign currency reserves	(c)	**323**	**323**
Other reserves		**9,384**	**9,384**
Total reserves		**655,018**	**659,203**

(a) Asset revaluation
This reserve represents the revaluation of property, plant and equipment.

(b) OPAL depreciation reserve
This reserve represents unused funding for OPAL depreciation. This was due to a delay in final commissioning of OPAL. This reserve will be transferred to the accumulated reserves in line with the end of OPAL's useful life.

(c) Foreign currency reserve
This reserve relates to foreign currency translation at reporting date.

3. Funding

This section identifies ANSTO's funding structure.

3.1 Government funding

	2024	2023
	$'000	$'000
Revenue from Government	318,527	289,027
Government equity injection	117,011	45,744
Total government funding	**435,538**	**334,771**

Revenue from government

Funding received or receivable from the then Department of Industry, Science and Resources (DISR) (appropriated as a Corporate Commonwealth Entity payment item for payment to ANSTO) is recognised as Revenue from Government when ANSTO gains control of the funding unless it is an equity injection, such amounts are recognised directly in contributed equity in the year received.

4. People and relationships

This section describes a range of employment and post-employment benefits provided to our people and our relationships with key people.

4.1 Employee payables

	2024	2023
	$'000	$'000
Accrued salaries and wages	5,581	4,490
Incentives	1,072	1,648
Total employee payables	**6,653**	**6,138**

All employee payables are expected to be settled within 12 months.

4.2 Employee provisions

	2024	2023
	$'000	$'000
Annual leave	19,247	18,958
Long service leave	42,294	40,186
Total employee provisions	**61,541**	**59,144**
Employee provisions expected to be settled within		
No more than 12 months	53,860	53,159
More than 12 months	7,681	5,985
Total employee provisions	**61,541**	**59,144**

Accounting policy is at Note 1.1A.

4. People and relationships (continued)

4.3 Key management personnel remuneration

Key management personnel (KMP) are those persons having authority and responsibility for planning, directing and controlling the activities of ANSTO, directly or indirectly, including any director (whether executive or otherwise) of ANSTO. ANSTO has determined the KMP to be the ANSTO Portfolio Minister, the Board and the Executive Leadership Team. KMP remuneration is reported in the table below:

	2024	2023
	$'000	$'000
Short-term employee benefits:		
Salary	4,298	3,573
Performance bonuses	55	53
Other	15	19
Total short-term employee benefits	**4,368**	**3,645**
Post-employment benefits:		
Superannuation	406	368
Total post-employment benefits	**406**	**368**
Other long-term benefits:		
Long-service leave	16	135
Other	-	(136)
Total other long-term benefits	**16**	**(1)**
Total key management personnel remuneration	**4,790**	**4,012**

The ANSTO Group had 25 individuals in KMP roles during the year, 22 in ANSTO and 3 in its subsidiaries (2023: 20 individuals, 17 ANSTO and 3 subsidiaries).

In ANSTO, these individuals equated to a full time equivalent (FTE) of 16.88 (2023: 16.08). Represented by 8 non-executive board members and 2 independent risk and audit committee members, prorated 6.97 (2023: 8) and 9.91 FTE (2023: nil FTE) members of the ANSTO Executive Leadership Team. In the subsidiaries the FTE is nil (2023: 3) represented by non-executive board members. The above key management personnel remuneration excludes the remuneration and other benefits of the Portfolio Minister. The Portfolio Minister's remuneration and other benefits are set by the Remuneration Tribunal and are not paid by ANSTO.

4.4 Related party transactions

A related party is a person or entity that controls or has significant influence over the reporting entity, or is a member of the Key Management Personnel (KMP) of the reporting entity or its parent entity, and includes their close family members and entities in which the KMP and/ or their close family members individually or jointly have controlling interests. ANSTO is an Australian Government controlled entity. Related parties to this entity are the Key Management Personnel, the Commonwealth cabinet and other Australian Government entities.

Significant transactions with related parties or entities that they are associated with can include:

- the payments and receipt of grants; and
- purchases of goods and services.

Giving consideration to relationships with related parties, their associated entities, and transactions entered into during the reporting period by ANSTO, it has been determined that there are no related party transactions to be separately disclosed.

5. Managing Uncertainties

5.1 Contingent assets and liabilities

At 30 June 2024, ANSTO has accumulated, and will continue to accumulate, nuclear waste that requires characterisation in order to determine the nature and therefore the costs and timing required to manage the waste to final disposal, which is unfunded. When these factors are known with reasonable certainty a liability will be recognised, until this time an unquantifiable contingent liability may exist. The majority of this waste has arisen from the production of nuclear medicine. The underlying assumption is that the ultimate storage of the nuclear waste will be the responsibility of the planned National Radioactive Waste Management Facility. If there is a change in Government policy, ANSTO may need to bear the costs relating to the future management of the waste.

Accounting policy
Contingent assets and contingent liabilities are not recognised in the Statement of Financial Position but are reported in the Notes. They may arise from uncertainty as to the existence of a liability or asset or represent an asset or liability in respect of which the amount cannot be reliably measured. Contingent assets are disclosed when settlement is probable but not virtually certain and contingent liabilities are disclosed when settlement is greater than remote.

5. Managing Uncertainties (continued)

5.2 Financial instruments

	Note	Carrying amount 2024	Amortised Cost 2024	Fair value through profit or loss 2024	Carrying amount 2023	Amortised Cost 2023	Fair value through profit or loss 2023
Financial assets		**$'000**	**$'000**	**$'000**	**$'000**	**$'000**	**$'000**
Cash and cash equivalents		62,074	62,074	-	53,543	53,543	-
Trade receivables	2.1B	12,837	12,837	-	20,121	20,121	-
Accrued interest	2.1B	5,157	5,157	-	2,558	2,558	-
Accrued revenue	2.1B	2,897	2,897	-	3,384	3,384	-
Other	2.1B	773	773	-	609	609	-
Term deposits	2.1C	270,000	270,000	-	190,000	190,000	-
Investments - other	2.1C	19,512	-	19,512	703	-	703
Total financial assets (recognised)		**373,250**	**353,738**	**19,512**	**270,918**	**270,215**	**703**
Total financial liabilities							
Suppliers		19,867	19,867	-	27,008	27,008	-
Other payables	2.3A	15,175	15,175	-	10,070	10,070	-
Revenue in advance	2.3B	22,013	22,013	-	16,013	16,013	-
Total financial liabilities (recognised)		**57,055**	**57,055**	**-**	**53,091**	**53,091**	**-**

Interest revenue from financial assets

	2024	2023
	$'000	**$'000**
Loans and receivables		
Cash and cash equivalents	3,683	3,915
Investments	14,650	5,875
Net income from financial assets	**18,333**	**9,790**

Accounting policy
Interest revenue is recognised using the effective interest method as set out in AASB 139 *Financial Instruments: Recognition and Measurement*.

5. Managing Uncertainties (continued)

5.2 Financial instruments (continued)

Net expenses from financial liabilities
There were no expenses from financial liabilities for 2024 (2023: $nil).

Financial assets
The net fair values of cash, deposits on call and non-interest-bearing monetary financial assets are in accord with their carrying amounts. Loans receivable are carried at cost, which is above their net fair value, because it is intended to hold them to maturity.

Financial liabilities
The net fair values for trade creditors and grants received in advance, all of which are short-term in nature, are in accord with their carrying amounts.

Accounting policy
ANSTO classifies its financial assets in the following categories:

- Fair value through profit or loss; and
- Amortised cost.

The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition. Financial assets are recognised and derecognised upon trade date.

Effective interest method
The effective interest method is a method of calculating the amortised cost of a financial asset or a financial liability and of allocating interest income over the relevant period. The effective interest rate is the rate that discounts estimated future cash receipts through the expected life of the financial asset, or, where appropriate, a shorter period.

Income is recognised on an effective interest rate basis except for financial assets at fair value through profit or loss.

Financial assets at fair value through profit or loss
Financial assets are classified as financial assets at fair value through profit or loss where the financial assets have been acquired principally for the purpose of selling in the near future. Assets in this category are classified as current assets.

Financial assets at fair value through profit or loss are stated at fair value, with any resultant gain or loss recognised in the profit or loss. The net gain or loss recognised in the profit or loss incorporates any interest earned on the financial assets.

5. Managing Uncertainties (continued)

5.2 Financial instruments (continued)

Financial Assets at Amortised Cost
Financial assets included in this category need to meet two criteria:

1. the financial asset is held in order to collect the contractual cash flows; and
2. the cash flows are solely payments of principal and interest on the principal outstanding amount. Amortised cost is determined using the effective interest method.

Investments
Non-derivative financial assets with fixed or determinable payments and fixed maturity dates that the group has the positive intent and ability to hold to maturity are classified as investments. Investments are recorded at amortised cost using the effective interest method less impairment, with revenue recognised on an effective yield basis.

Loans and receivables
Trade receivables, loans and other receivables that have fixed or determinable payments that are not quoted in an active market. Loans and receivables are measured at amortised cost using the effective interest method less impairment. Interest is recognised by applying the effective interest rate.

Impairment of financial assets
Financial assets are assessed for impairment at each reporting date.

If there is objective evidence that an impairment loss has been incurred for loans and receivables or investments, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the asset's original effective interest rate. The carrying amount is reduced by way of an allowance account. The loss is recognised in the Statement of Comprehensive Income. If there is objective evidence that an impairment loss has been incurred the amount of the impairment loss is the difference between the carrying amount of the asset and the present value of the estimated future cash flows discounted at the current market rate for similar assets. The net fair values of cash, deposits on call and non-interest-bearing monetary financial assets are in accord with their carrying amounts.

Financial liabilities
Financial liabilities are classified as other financial liabilities and are recognised and derecognised upon trade date.

Other financial liabilities
Other financial liabilities, including borrowings, are initially measured at fair value, net of transaction costs. These liabilities are subsequently measured at amortised cost using the effective interest method, with the interest expense recognised on an effective interest basis.

Supplier and other payables are recognised at amortised cost. Liabilities are recognised to the extent that the goods or services have been received (and irrespective of having been invoiced).

5. Managing Uncertainties (continued)

5.3 Fair value measurement

The following tables provide an analysis of assets and liabilities that are measured at fair value. The different levels of the fair value hierarchy are defined below.

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at measurement date.
Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
Level 3: Unobservable inputs for the asset or liability.

Non-financial assets	Category	Fair value 2024 $'000	Fair value 2023 $'000	Valuation technique[1]	Inputs used[1]
Land	**3**	**201,500**	**201,500**	Market approach.	Adjusted market transactions (zoning, access, existing use, size, topography, location).
Buildings	**3**	**257,868**	**163,790**	Depreciated replacement cost approach.	Replacement cost/consumed economic benefit/ obsolescence of asset.
Infrastructure, plant and equipment	**3**	**1,151,473**	**1,062,028**	Depreciated replacement cost approach.	Replacement cost/consumed economic benefit/ obsolescence of asset.

1. The valuation techniques and inputs used in 2024 and 2023 are consistent except for Infrastructure, plant and equipment where the depreciated replacement cost approach has been used for all items with a fair value at 30 June 2024.

The highest and best use of all non-financial assets is the same as their current use.

5. Managing Uncertainties (continued)

5.3 Fair value measurement (continued)

Recurring and non-recurring Level 3 fair value measurements - valuation processes
ANSTO tests the procedures of the valuation output as an internal management review at least once every 12 months (valuations are conducted with sufficient frequency to ensure that the carrying amounts of assets do not differ materially from the assets' fair values as at reporting date). If a particular asset class experiences significant and volatile changes in fair value (i.e. where indicators suggest that the value of the class has changed materially since the previous reporting period), that class is subject to specific valuation in the reporting period, regardless of the timing of the last specific valuation.

Land, Buildings, Infrastructure, Plant and Equipment
Assets that do not transact with enough frequency or transparency to develop objective opinions of value from observable market evidence have been measured utilising the depreciated replacement cost (DRC) approach. Under the DRC approach, the estimated cost to replace the asset is calculated and then adjusted to take into account its consumed economic benefit/asset obsolescence (accumulated depreciation). Consumed economic benefit/asset obsolescence has been determined based on professional judgment regarding physical, economic and external obsolescence factors relevant to the asset under consideration.

Assets are recorded at cost on acquisition except as stated below. The cost of acquisition includes the fair value of assets transferred and liabilities undertaken. Fixed assets are initially measured at their fair value plus transaction costs where appropriate.

Assets acquired at no cost, or for nominal consideration, are initially recognised as assets and revenues at their fair value at the date of acquisition, unless acquired as a consequence of restructuring of administrative arrangements. In the latter case, assets are initially recognised as contributions by owners at the amounts at which they were recognised in the transferor's accounts immediately prior to the restructuring.

6. Other information

6.1 Deed of indemnity

A Deed of Indemnity between the Commonwealth Government and ANSTO, under which the government has formally agreed to indemnify ANSTO and ANSTO Officers from any loss or liability arising from claims caused by ionising radiation, was signed by the then Minister for Industry, Innovation and Science in April 2016. It will remain in place until April 2026.

6.2 Information relating to ANSTO (the parent entity)

	2024	2023
	$'000	$'000
Financial assets	379,803	269,454
Non-financial assets	1,727,285	1,548,665
Total assets	**2,107,088**	**1,818,119**
Payables	41,458	43,511
Provisions	718,999	619,632
Revenue in advance	22,012	16,011
Lease liabilities	89	247
Total liabilities	**782,558**	**679,401**
Net assets	**1,324,530**	**1,138,718**
Contributed equity	1,134,276	1,017,265
Asset revaluation reserve	644,458	648,643
Other reserves	9,059	9,061
Accumulated deficit	(463,263)	(536,251)
Total equity	**1,324,530**	**1,138,718**
Surplus of the parent entity	**72,988**	**59,271**
Other comprehensive income/(expense) of the parent entity	**(4,185)**	**169,149**
Total comprehensive surplus of the parent entity	**68,803**	**228,420**

	Interest rate	Maturity date	2024	2023
			$	$
$15 million unsecured loan facility from ANSTO to ANM[1]	CommSec Variable Rate N/A (2023: 10.03%)	N/A (2023: 30.6.25)	-	9,553,215
Total unsecured loan from ANSTO to ANM			**-**	**9,553,215**
Interest on unsecured loan facility			**422,457**	**971,832**

1. On wind-up of ANM, the loan no longer exists.

6. Other information (continued)

6.2 Information relating to ANSTO (the parent entity) (continued)

There are transactions between ANSTO and its subsidiaries for land leases, purchases and sales of goods and services. The prices charged for transactions between ANSTO and its subsidiaries are on normal commercial terms and conditions no more favourable than those available to other parties with the exception of goods and services provided by ANSTO to ANM. These were on cost recovery rates, with ANM only charged for services to the extent it is had the funds available to pay for them.

Investment in subsidiaries

The current carrying value of ANSTO's subsidiaries at 30 June 2024 are set out below. Unless otherwise stated, share capital consists solely of ordinary shares that are held directly by ANSTO, and the proportion of ownership interests held equals the voting rights held by the group. The country of incorporation is also their principal place of business.

		2024	2024	2023
Name	**Place of incorporation**	**%**	**$**	**$**
PETTECH Solutions Pty Ltd (a)	Australia	100	17,227,588	2,965,588
ANSTO Nuclear Medicine Pty Ltd (b)	Australia	-	-	-
Total investment in subsidiaries			**17,227,588**	**2,965,588**

(a) ANSTO owns 100% of PETTECH Solutions Pty Ltd (PETTECH). PETTECH's primary activity is the ownership of infrastructure for the manufacture of fludeoxyglucose.
In 2023-24, prior impairments of $14.262 million in the value of PETTECH were reversed as PETTECH continues to be cash flow positive and generating profits. During 2019-20 PETTECH recognised a right of use asset of $0.5 million resulting from a lease with ANSTO. The NBV as at 30 June 2024 was $0.5 million (2023: $0.5 million).

(b) ANM's principal activities were to own and operate the new Molybdenum 99 (Mo-99) and Synroc Waste Treatment facilities. ANSTO's investment in ANM was fully impaired in 2022-23. In accordance with the decision announced in the Federal 2023-24 Budget to transfer ANM's operations, assets and liabilities to ANSTO and wind the company up by 1 July 2024, ANM was deregistered on 21 May 2024.

6.3 Significant events after the end of the reporting period

ANSTO's OPAL multi-purpose nuclear research reactor was scheduled to shutdown for necessary upgrades and scheduled maintenance from 18 March to 5 July. OPAL's return to power date has been revised to the end of September. Forecast lost revenue and costs from the importation of nuclear medicine during the extension to the shutdown, is approximately $1.4 million per week. This has no impact on ANSTO's ability to continue as a going concern.

6. Other information (continued)

6.4 Budgetary reports and explanations of major variances

The following tables provide a comparison between the May 2023–24 Portfolio Budget Statements (PBS) budget and the final financial outcome in the 2023–24 financial statements.

The ANSTO PBS does not include ANM, the $168.8 million nuclear medicine initiative, as it is a Public Non-Financial Corporation (PNFC) but does contain ANSTO's other controlled entities. PNFC's do not form part of the General Government Sector and are outside of the scope of AASB 1055 *Budgetary Reporting*. ANM is included in the Actual figures in the financial statements, up until its deregistration in May 2024, as it is controlled by ANSTO.

A budget has not been provided in the PBS for non-cash items such as asset revaluations, foreign exchange, sale/impairment of asset adjustments and the change in parameters used in the calculation of provisions. Unless the explanation of the variance assists users of financial statements understand the movement between the budget and the final financial outcome, it has not been assessed as 'major' and no explanation has been provided.

Explanation of major variances

Event impacting financial statements	Affected consolidated statements and line items
ANM is reported differently in the Budget compared to the Actual figures. ANM is a subsidiary of ANSTO, it is consolidated into the financial statements up until its deregistration. For budget purposes, ANM did not form part of the PBS and was reflected as an investment by ANSTO. Upon wind up of ANM, ANM's operations, assets and liabilities were transferred to ANSTO, the impact of this transfer is reflected in the Actual figures but not in the budget. ANSTO traded with ANM, provided a loan facility and operating lease. The nuclear waste management expense and provision gains include a component relating to ANM's production of Mo-99. The decommissioning provision gains include a component relating to ANM's production of Mo-99.	**Statement of Comprehensive Income:** Supplier expenses Depreciation and amortisation expense Nuclear waste management expenses Nuclear waste management provision gains Decommissioning provision gains Revenue from contracts with customers Fixed asset impairment – prior years reversal Changes in asset revaluation reserve **Statement of Financial Position** Cash and cash equivalents Trade and other receivables Investments Property, plant and equipment Prepayments Payables – suppliers Provisions – decommissioning Provisions – nuclear waste management **Statement of Changes in Equity:** Accumulated deficit Asset revaluation reserve **Statement of Cash Flows:** Contracts with customers Payments to suppliers

6. Other information (continued)

Event impacting financial statements	Affected consolidated statements and line items
Delays in recruiting employees, due to shortages in the labour market, resulted in employee costs being less than budgeted.	**Statement of Comprehensive Income:** Employee benefits **Statement of Financial Position:** Cash and cash equivalents Liabilities – Employees Accumulated deficit **Statement of Changes in Equity:** Accumulated deficit **Statement of Cash Flows:** Payments to employees
ANSTO manages its cash using term deposits. The term of each deposit is dependent on the cash needs of the business and the prevailing interest rates. Changes in either the cash needs or interest rates impacts the number of times a deposit is 'rolled' in the period.	**Statement of Comprehensive Income:** Interest **Statement of Financial Position:** Cash and cash equivalents Investments – term deposits Accumulated deficit **Statement of Changes in Equity:** Accumulated deficit **Statement of Cash Flows:** Interest received Proceeds from maturing financial instruments Purchase of financial instruments
Working capital movements arise from the timing of receipt of invoices, and subsequent payment, with customers and suppliers. Amounts due to employees are largely dependent upon the timing of the final payroll run for the year.	**Statement of Financial Position:** Trade and other receivables Prepayments Payables – Suppliers Payables – Employees Payables – Other payables **Statement of Cash Flows:** Contracts with customers Payments to employees Payments to suppliers
ANSTO's investment in Clarity Pharmaceuticals Ltd has been revalued to the market rate, $5.42, as at 28 June 2024.	**Statement of Comprehensive Income:** Unrealised gain on investment **Statement of Financial Position:** Investments – Other – Clarity Pharmaceuticals Ltd Accumulated deficit

Appendices and Index

Glossary

TERM	DESCRIPTION
ACNS	Australian Centre for Neutron Scattering
ADS 1&2	Advanced Diffraction and Scattering beamlines
AINSE	Australian Institute of Nuclear Science and Engineering
ANAO	Australian National Audit Office
ANSTO	Australian Nuclear Science and Technology Organisation
ANSTO Act	Australian Nuclear Science and Technology Organisation Act 1987
ANM	ANSTO Nuclear Medicine
ARPANSA	Australian Radiation Protection and Nuclear Safety Agency
ASD	Australian Signals Directorate
AUKUS	Australia, United Kingdom, United States
BioSAXS	Small Angle X-ray Scattering beamline
CAS	Centre for Accelerator Science
CEO	Chief Executive Officer
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DIFOT	Delivery in full, on time
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
ESD	Ecologically sustainable development
FNCA	Forum for Nuclear Cooperation in Asia
FOI	Freedom of Information Act 1982
FTE	Full time equivalent
GIF	Generation IV International Forum
IAEA	International Atomic Energy Agency
ISO	International Organisation for Standardisation
ITER	ITER is the world's largest fusion experiment
ITRAX	X-ray fluorescence scanning instrument
LGBTQIA+	Lesbian, Gay, Bisexual, Transgender, Queer (or questioning), Intersex, and Asexual (or allies)
MCT	Microcomputed Tomography beamline
MEX 1&2	Medium Energy X-ray Absorption Spectroscopy beamlines
Mo-99	Molybdenum-99

TERM	DESCRIPTION
MX3	Micro Crsyallography beamline
NANO	Nanoprobe beamline
NCRIS	National Collaborative Research Infrastructure Strategy
NEA	Nuclear Energy Agency (OECD)
NMMF	Nuclear Medicine Manufacturing Facility
NTD	Neutron transmutation doped
OFI	Opportunities for improvement
OPAL	Open Pool Australian Light-water
PFAS	Per- and poly-fluoroalkyl substances
PGPA Act	Public Governance, Performance and Accountability Act 2013
RAC	Risk and Audit Committee
RCA	Regional Cooperative Agreement for Research, Development and Training related to Nuclear Science and Technology in Asia and the Pacific
RAP	Reconciliation Action Plan
RMIT	Royal Melbourne Institute of Technology
STA	Science and Technology Australia
STEM	Science, technology, engineering, and mathematics
UNSW	University of New South Wales
UoM	University of Melbourne
UoW	University of Wollongong
WGEA	Workplace Gender Equity Agency

Reporting under the Equal Employment Opportunity Act 1987

ANSTO seeks to create a culture of inclusion, where our diversity of thought and differing perspectives are a source of organisational agility, resilience and renewal. We provide empowering and effective work-based policies, which support flexibility and the individual needs of our employees, including flexible work practices and family-friendly programs. Our inclusive culture will enable us to retain our talent within a rewarding environment and attract the best talent to work with us in the future.

Gender and STEM

Coaching and mentoring provides an opportunity to build the potential of employees. It fosters professional relationships where employees have the opportunity to collaborate and share insights. ANSTO has an established in-house mentoring program for employees, which provides a forum for mentors to offer constructive advice and to support the career development of the mentees.

The Ignite Youth Network offers a dedicated space for younger adults and early career individuals at ANSTO to come together, share, learn and network across all walks of life. ANSTO recognises the voices of its future and facilitates knowledge sharing between these groups to leverage diversity across a range of people.

Indigenous engagement

ANSTO's two campuses are located on the traditional lands of the Aboriginal nations of Dharawal, at Lucas Heights, and Kulin, at Clayton. Furthermore, ANSTO's extensive collaboration with universities and industry partners naturally connects us with Aboriginal and Torres Strait Islander nations on a national scale. Therefore, we recognise these peoples as Australia's first scientists, navigators, mathematicians and engineers. Their knowledge and skills are an integral part of the future growth of Australia and contribute to our understanding of Australia's unique attributes. In recognition of this connection, ANSTO is enhancing activities to connect with local and broader Australian Indigenous communities, primarily under the umbrella of its RAP. ANSTO released its second Innovate RAP in May 2023. Initiatives captured by the RAP, towards which we work, include employment outreach such as scholarships and traineeships, and recognition of cultural heritage activities.

ANSTO's research activities are part of our commitment to build and strengthen relationships. Through university and industry partnerships, ANSTO is committed to developing the skills and knowledge necessary to bring the full benefit of nuclear technology to Australia. ANSTO recognises the importance of Aboriginal custodians and communities being involved in our work and we are continuously looking for ways to combine traditional knowledge and Western science.

LGBTQIA+ support

ANSTO's LGBTQIA+ Ally Network is a group that provides support, networking and advocacy to gender diverse and same-sex attracted people at ANSTO. This network meets on a regular basis and offers both a safe space and a forum for participants to simply be themselves. Discussions are held about issues affecting gender diversity and same-sex attracted people in the workforce as well as within society in general. The network also provides input into ANSTO policies and procedures on gender diversity and LGBTQIA+ issues. ANSTO aims to provide visibility to gender diversity and LGBTQIA+ issues, as well as support and advocacy for those encountering difficulties in the workplace.

Disability

ANSTO is committed to creating a workplace where different abilities are recognised, valued and celebrated. We care about providing a workplace where people with physical disability or neurodivergence, carers of people with a disability, and people experiencing and managing mental health issues are supported to thrive.

ANSTO assists people with disabilities by providing workplace modifications or reasonable adjustments to help them perform their job, including: changing when, where and how work is performed, providing ergonomic or specialist equipment, and making physical changes to access (accessibility parking permits and spaces).

All new buildings and areas being renovated at ANSTO must comply with the relevant disability legislation. We make ongoing improvements to the accessibility of our campuses. In the event that a workplace design has excluded facilities for people with disabilities, or the work environment is unsafe for people with disabilities to fulfill their duties, ANSTO reviews whether the work environment can be modified. ANSTO's policies and procedures align with the requirements of the Equal Employment Opportunity (Commonwealth Authorities) Act 1987 and the Disability Discrimination Act 1992, intended to ensure employees with disabilities working at ANSTO, as well as applicants for recruitment who have a disability, are not discriminated against. ANSTO also has procedures and support in place to handle complaints and grievances which may be raised by employees and visitors.

Meditation and multi-faith prayer space

ANSTO's Lucas Heights campus has two dedicated spaces that can be used for meditation and prayer, including a meeting room and silent room. This facility is intended to provide staff with a quiet and peaceful place. Rooms for private reflection, meditation, and prayer are also available to our staff working at ANSTO's Clayton campus. These spaces accommodate all religious affiliations and denominations. As such, they are part of ANSTO's ongoing commitment to provide facilities that enable a balance between personal, work, and faith-based commitments.

Equipping and empowering our leaders

Our leadership program, LEAD, is a six-month critical leadership skill-building course, which includes theory, workshops and approaches to help move our future leaders into roles requiring greater complexity and at scale. The program provides participants with the opportunity to take part in challenging and supportive development experiences, group discussions, personal reflections and use of real ANSTO examples. The program also draws on the experience of senior managers to expand content in the context of our values and commitment to diversity and inclusion, which are at the core of our organisational success.

Knowledgeable and skilled managers are central to meeting the challenges that lay ahead and to delivering outcomes for ANSTO. ANSTO's Management Development Program (MDP) drives progress towards lifting the skills and capabilities of our managers to ensure a high performing, driven and trusted management group. This is done by encouraging a culture of continuous individual and organisational investment in learning, sharing of learning resources and partnering with ANSTO subject matter experts as facilitators. Our people need not only to develop new skills, but to stay open to new ideas and new ways of working. ANSTO engages in continuous investment in the development of our people, thereby building a stronger foundation from which to deliver outcomes.

Supporting staff through adversity

ANSTO has maintained its use of flexible working arrangements across the organisation, where appropriate, with a hybrid model continuing to promote a healthy work-life balance. Flexible work arrangements help staff to live a lifestyle which can balance the priorities of work, family and community. The benefits extend not only to individual mental and physical health and wellbeing, but also to relationships with wider family and social networks.

Remuneration Report

The categories of officials, employees of ANSTO, covered by the disclosures are:

- Key Management Personnel (KMP) - members of the Board, the Risk and Audit Committee and the Executive Leadership team disclosure in Table 1.
- Senior executives: employees who are assigned General Manager or equivalent roles and delegations, disclosed in Table 2.
- Other highly paid staff: employees with total remuneration of at least $250,000 not disclosed in Table 1 or 2, disclosed in Table 3.
- The remuneration of the Risk and Audit Committee members is separately disclosed in Table 4.

Remuneration policies and practices

The remuneration of the ANSTO Board is in accordance with the Remuneration Tribunal (Remuneration and Allowances for Holders of Part-time Public Office) Determination 2022.

The remuneration parameters of the Chief Executive Officer are determined by the Australian Government Remuneration Tribunal. The ANSTO Remuneration and Nominations Committee assist the Board in fulfilling its responsibilities with regard to overall remuneration policy and strategy, performance and remuneration of the CEO.

Members of the Executive Leadership Team are on individual contracts which are based on market rates at the time of employment. The remuneration reflects qualifications, experience and levels of responsibility for each role. The Remuneration and Nominations Committee oversees the approach to performance and remuneration of the Executive Leadership Team.

Senior Manager and high paid positions are remunerated either in accordance with the ANSTO Enterprise Agreement salary tables or under individual contracts. Each role has a Position Description detailing the roles, responsibilities, reporting lines, delegations, qualifications, skills and knowledge required. The role is subject to the Mercer job evaluation system and is benchmarked to ensure the appropriateness of remuneration. The Enterprise Agreement sets out the remuneration and entitlements of employees.

Remuneration governance arrangements

The operations of the Remuneration and Nomination Committee for the year are detailed in the Corporate Governance Statement.

Table 1 - KMP

		Short Term Benefits			Post Employment Benefits	Other Long Term Benefits[2]		Termination Benefits	Total Remuneration[1]
Name	Position Title	Base Salary $	Bonus $	Other Benefits $	Super Contributions $	Long Service Leave $	Other Long Term Benefits $	$	$
The Hon Annabelle Bennett, AC SC	Board Chair to 21 March 2024	79,020	-	4,179	12,603	-	-	-	**95,802**
Mr Michael Quigley, AM	Board Chair from 20 June 2024	2,942	-	-	-	-	-	-	**2,942**
Ms Penny Dobson	Deputy Board Chair 1 July 2023 to 21 March 2024. Chair 22 March 2024 to 23 April 2024.	69,772	-	746	10,137	-	-	-	**80,656**
Mr Andrew Carriline	Deputy Board Chair 9 May 2024, Acting Board Chair 9 May 2024 to 19 June 2024.	12,945	-	-	1,941	-	-	-	**14,887**
Emeritus Professor Stephen Buckman, AM	Board Member until 22 July 2023	3,090	-	-	693	-	-	-	**3,783**
Professor Brigid Heywood	Board and RAC Member	57,920	-	5,425	8,931	-	-	-	**72,276**
Professor Tim Senden	Board Member from 1 February 2024	21,577	-	-	3,236	-	-	-	**24,813**
Ms Andrea Sutton	Board Member and RAC Chair	72,037	-	2,159	11,081	-	-	-	**85,277**
Dr Gregory Storr	Board Member and RAC Member	63,345	-	742	9,744	-	-	-	**73,831**
Mr David Antaw	RAC Member	8,938	-	-	1,373	-	-	-	**10,311**
Mr Stephen Ludlam	RAC Member	8,938	-	1,215	1,373	-	-	-	**11,526**
Mr Shaun Jenkinson	Chief Executive Officer and Board Member	527,794	55,061	-	27,412	15,278	-	-	**625,545**
Mr John Edge	Chief Operating Officer	392,620	-	-	27,412	3,334	-	-	**423,366**
Ms Pamela Naidoo-Ameglio	Group Executive, Nuclear Operations and Nuclear Medicine	382,684	-	-	57,341	1,957	-	-	**441,983**
Mr Con Lyras	Group Executive Major Capital Projects and Chief Engineer	396,905	-	-	27,412	(14,958)	-	-	**409,359**
Mr David Filipetto	Group Executive, Asset Maintenance and Engineering	397,550	-	-	27,412	-	-	-	**424,962**
Ms Marianne Morton	Chief Information and Digital Officer	374,077	-	-	27,500	2,800	-	-	**404,377**
Professor Andrew Peele	Group Executive, Nuclear Science and Technology	400,922	-	-	27,412	8,374	-	-	**436,709**
Dr Miles Apperley	Group Executive, Nuclear Safety, Security and Stewardship	321,395	-	-	50,413	4,734	-	-	**376, 547**
Ms Amanda Ware	Chief Risk and Assurance Officer, appointed to executive 16 January 2024	161,869	-	-	22,765	3,669	-	-	**188,303**
Mr Hefin Griffiths	Chief Nuclear Officer, appointed to executive 16 January 2024	124,534	-	-	19,229	(12,882)	-	-	**130,881**
Mr Oleh Nakone	Group Executive, Customers Products and Services	397,650	-	-	27,412	3,249	-	-	**428,311**

		Short Term Benefits			Post Employment Benefits	Other Long Term Benefits[2]		Termination Benefits	Total Remuneration[1]
Name	Position Title	Base Salary $	Bonus $	Other Benefits $	Super Contributions $	Long Service Leave $	Other Long Term Benefits $	$	$
ANSTO KMP		**4,278,526**	**55,061**	**14,466**	**402,835**	**15,554**	**-**	**-**	**4,766,442**
Subsidiary KMP		19,940	-	-	2,879	-	-	-	**22,819**
TOTAL Consolidated KMP - Financial Statements Note 4.3		**4,298,465**	**55,061**	**14,466**	**405,714**	**15,554**	**-**	**-**	**4,789,260**

1. Remuneration is reflected on an accruals basis not a cash basis and has not been annualised.
2. Other long term benefits reflect long term incentives.

Table 2 - Senior Executives

		Short Term Benefits (Average)			Post Employment Benefits	Other Long Term Benefits		Termination Benefits	Total Remuneration[1]
Total Remuneration Bands	Number of Senior Executives[2]	Base Salary $ (Average)	Bonus[3] $ (Average)	Other Benefits $ (Average)	Super Contributions $ (Average)	Long Service Leave $ (Average)	Other Long Term Benefits $ (Average)	$ (Average)	$ (Average)
$0-$220,000	10	127,080	-	37	20,058	3,900	-	-	**151,076**
$220,001-$245,000	7	191,770	-	-	28,705	18,178	-	-	**238,654**
$245,001-$270,000	2	225,111	-	-	23,733	8,501	-	-	**257,344**
$270,001-$295,000	5	240,180	-	-	33,621	6,364	-	-	**280,164**
$295,001-$320,000	2	253,329	-	-	42,955	6,397	-	-	**302,682**
$320,001-$345,000	3	280,929	-	-	39,197	8,142	-	-	**328,269**
$345,001-$370,000	4	315,565	-	-	38,575	6,189	-	-	**360,330**
$370,001-$395,000	3	246,437	-	-	29,388	2,974	-	101,552	**380,351**
$395,001-$420,000	1	337,910	-	-	61,380	978	-	-	**400,267**
$420,001-$445,000	1	365,410	-	-	55,007	3,354	-	-	**423,771**
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1. Remuneration is reflected on an accruals basis not a cash basis.
2. Remuneration has only been included for the period the employee is in a General Manager or equivalent role.

Table 3 - Other Highly Paid Officers

		Short Term Benefits			Post Employment Benefits	Other Long Term Benefits		Termination Benefits	Total Remuneration[1]
Total Remuneration Bands	Number of Highly Paid Officers	Base Salary $ (Average)	Bonus $ (Average)	Other Benefits $ (Average)	Super Contributions $ (Average)	Long Service Leave $ (Average)	Other Long Term Benefits $ (Average)	$ (Average)	$ (Average)
$250,000-$270,000	2	232,927	-	-	29,749	2,966	-	-	**265,641**
$270,001-$295,000	5	133,254	-	-	23,574	(896)	-	125,685	**281,617**
$320,001-$345,000	2	275,797	-	-	49,469	(684)	-	-	**324,582**
$345,001-$370,000	2	303,070	-	-	45,578	19,109	-	-	**367,757**
	11								

1. Remuneration is reflected on an accruals basis not a cash basis and has not been annualised.

Table 4 - Risk and Audit Committee

		Short Term Benefits		Post Employment Benefits	Total Remuneration[1]
Name	Position Title	Base Salary $	Other Benefits $	Super Contributions $	$
Ms Andrea Sutton	Chair	17,450	1,079	2,687	**21,216**
Professor Brigid Heywood	Member	8,730	2,034	1,344	**12,108**
Dr Gregory Storr	Member	8,730	742	1,344	**10,816**
Mr David Antaw	Member	8,938	-	1,373	**10,311**
Mr Stephen Ludlam	Member	8,938	1,215	1,373	**11,526**

1. Remuneration is reflected on an accruals basis not a cash basis and has not been annualised.

Description	Employees (FTE)		% of Total		% of change 2023-2022	Average salary		% of change 2024-2023
Financial year	**2024**	**2023**	**2024**	**2023**		**2024 $**	**2023 $**	
Women	481.42	411.25	33.52	32.16	4.23	117,579	116,113	1.26
Men	951.81	866.66	66.27	67.76	(2.20)	128,567	123,095	4.45
Non binary and other	3.00	1.00	0.21	0.08	162.50	81,401	67,318	20.92
Total	**1,436.23**	**1,278.91**	**100.00**	**100.00**		**124,708**	**120,806**	**3.23**

Reporting under the Modern Slavery Act 2018 (MS Act)

ANSTO understands that ethical conduct and protecting human rights are both critical to upholding our values and delivering our core mandate. We are committed to contributing to the eradication of modern slavery through compliant, responsible and ethical business practices. ANSTO's Modern Slavery Statement outlines how we assess and address modern slavery risks in our business and supply chain, as well as our plans for continuous improvement in the future. This statement can be accessed here: https://www.ansto.gov.au/media/7216/download?inline

ANSTO intends to update this statement for the 2023–2024 reporting period prior to the statutory deadline.

Reporting under s516A of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

Achieving ecologically sustainable development (ESD)

ANSTO's commitment to environmental protection and sustainability principles align with requirements of the EPBC Act and are defined in its Health, Safety, Community and Environmental Policy, which can be found here: www.ansto.gov.au/media/1615/download?inline=

These values are integral to ANSTO's Business Management System — the framework that defines how business is conducted to deliver outcomes to ANSTO's customers and stakeholders in a safe, consistent and environmentally responsible manner. Objectives and targets for safe, secure and sustainable operations are implemented through documented operational and business plans at all levels of the organisation.

Environmental protection is mandated when planning and undertaking major capital works, and any activities which fall under the EPBC Act are assessed for referral to DCCEEW.

Proposals for new (or modifications to existing) facilities or activities also undergo a rigorous internal safety, regulatory and environmental assurance process.

ESD principles are embedded in ANSTO's core values and in decisions relating to procurement and project activities throughout their planning and development phases. ANSTO's Environmental Sustainability Strategy aims to significantly reduce ANSTO's environmental footprint through embedding environmental and sustainability considerations into all business decision-making processes.

The ANSTO Building Code supports the application of the National Construction Code and aims to align with the Australian Government's Climate Action in Government Operations Policy, to provide the minimum sustainable design standards with which new and refurbished facilities at ANSTO must conform. This ANSTO Building Code is periodically reviewed to ensure the most appropriate sustainable design outcomes for building and infrastructure works at ANSTO.

Environmental and quality management systems

ANSTO implements appropriate environmental protection and management practices through its environmental management system, which is independently certified to the International Standard ISO14001. ANSTO's environmental management system provides the framework to identify environmental risks and appropriately control them. ANSTO's extensive environmental monitoring program also operates within a quality framework that is certified to the International Standard ISO9001 for quality management systems. Within this framework, ANSTO's environmental protection measures and performance are frequently and routinely reviewed. Annually, an accredited third party conducts an ISO14001 audit of ANSTO's environmental management system. The third-party audit conducted in November 2023 found no new non-conformances to the ISO14001 standard.

Environmental Sustainability Strategy

In March 2022, ANSTO introduced a new Environmental Sustainability Strategy. Aligning with the implementation of the Lucas Heights Campus Renewal Program, the Strategy establishes ten high-level goals to be achieved (at the latest) by 2035, supported by a series of ambitious objectives seeking to significantly reduce ANSTO's emissions, burden on landfill waste and impacts on the local environment. The Strategy aligns with recent Australian Government policy announcements, such as the Climate Action in Government Operations Policy, Commonwealth Fleet Selection Policy and the National Waste Strategy.

The Strategy can be found here: https://www.ansto.gov.au/science/environment/environmental-protection/environmental-sustainability-strategy

The performance of the Strategy's implementation is supported by a series of key performance indicators and short-term targets aligned to each objective, which will be tracked through ANSTO's IBP process. In January 2024, ANSTO completed the installation of a 1.5-megawatt solar photovoltaic array at its Clayton campus. Utilising almost all of the remaining available roof space, this will produce approximately 1.8 gigawatt hours of electricity each year, accounting for about eight per cent of the campus' electricity consumption.

Environmental performance

ANSTO's environmental performance for 2023-2024 along with a critical analysis of the results and a comparison to previous years is published here: **www.ansto.gov.au/science/environment/environmental-protection/environmental-performance**

In 2023, the Australian Government introduced new carbon emissions reporting requirements. ANSTO's report was provided to the Department of Finance (DoF) in August 2024. The report includes emissions from scope-1 sources (from the direct combustion of fuels or releases of greenhouse gases and refrigerant losses during commissioning, servicing and decommissioning), scope-2 sources (from the consumption of electricity from the grid) and limited scope-3 sources (from the transmission losses for the supply of electricity and combustible fuels, and indirect emissions from staff business flights, accommodation and land transport, that is, rental cars and ridesharing). Reporting of further emissions sources are expected to become mandatory in 2024-2025.

The table below provides a summary of the emissions reported by ANSTO to DoF.

2023-24 GREENHOUSE GAS EMISSIONS INVENTORY – LOCATION-BASED METHOD

Emission Source	Scope 1 t CO2-e	Scope 2 t CO2-e	Scope 3 t CO2-e	Total t CO2-e
Electricity (Location Based Approach)	N/A	46,361.947	3,739.338	50,101.285
Natural Gas	612.018	N/A	65.594	677.612
Solid Waste*	N/A	N/A	1,879.636	1,879.636
Refrigerants*†	1,271.833	N/A	N/A	1,271.833
Fleet and Other Vehicles	193.490	N/A	48.312	241.802
Domestic Commercial Flights	N/A	N/A	187.127	187.127
Domestic Hire Car*	N/A	N/A	3.276	3.276
Domestic Travel Accommodation*	N/A	N/A	32.420	32.420
Other Energy	83.874	N/A	21.100	104.975
Total t CO2-e	**2,161.215**	**46,361.947**	**6,020.404**	**54,543.566**

Note: the table above presents emissions related to electricity usage using the location-based accounting method. CO2-e = Carbon Dioxide Equivalent.
* indicates emission sources collected for the first time in 2023-24. The quality of data is expected to improve over time as emissions reporting matures.
† indicates optional emission source for 2023-24 emissions reporting.

2023-24 ELECTRICITY GREENHOUSE GAS EMISSIONS INVENTORY – LOCATION-BASED METHOD

Emission Source	Scope 2 t CO2-e	Scope 3 t CO2-e	Total t CO2-e	Percentage of electricity use
Electricity (Location Based Approach)	46,361.947	3,739.338	50,101.285	100%
Market-based electricity emissions	42,295.399	5,221.654	47,517.053	81.28%
Total renewable electricity	-	-	-	18.72%
Mandatory renewables1	-	-	-	18.72%
Voluntary renewables2	-	-	-	0.00%

Note: the table above presents emissions related to electricity usage using both the location-based and the market-based accounting methods. CO2-e = Carbon Dioxide Equivalent.
1 Mandatory renewables are the portion of electricity consumed from the grid that is generated by renewable sources. This includes the renewable power percentage.
2 Voluntary renewables reflect the eligible carbon credit units surrendered by the entity. This may include purchased large-scale generation certificates, power purchasing agreements, GreenPower and the jurisdictional renewable power percentage (ACT only).

The following caveats are relevant for this year's emissions report.

- A portion of natural gas data was unable to be separated from Landlord data and has not been included.One member with the understanding and experience of nuclear and radiation contexts and the associated risks and controls.

- The electricity emissions reported above may show a slight discrepancy to emissions ANSTO have reported under National Greenhouse and Energy Reporting Act 2007 (NGER Act), due to the emissions factors applied to electricity consumption. The emissions reported for APS Net Zero purposes use emissions factors sourced from the National Greenhouse Accounts Factors (Department of Climate Change, Energy, the Environment and Water, 2023). Electricity consumption reported under the NGER Act apply emissions factors provided in the National Greenhouse and Energy (Measurement) Determination 2008.

- A portion of solid waste data was estimated based on the number of full-time employees on site, due to waste data being unable to be separated from Landlord data.

- Emissions from electricity consumed by electric and plug-in hybrid vehicles has only been reported for electricity directly purchased by ANSTO. Emissions associated with electricity consumption from public charging stations has not been reported for 2023-24.

- Consumption of ethanol blend (E10) for fleet vehicles was not able to be separated from unleaded petrol consumption. Some fleet vehicle emissions were calculated using unleaded petrol emissions factors instead of ethanol and are expected to be overestimated.

- Emissions from hire cars for 2023-24 have been sourced from third party providers and may be incomplete. The quality of data is expected to improve over time as emissions reporting matures.

The following caveat is relevant to rectify a small discrepancy with ANSTO's reported emissions in its 2022-2023 Annual Report and its emissions report to the Department of Finance.

- ANSTO overreported an emission of 56 kg of CO2-e from the combustion of acetylene in its 2022-2023 Annual Report. This overreporting was due to a back-end calculation error with the spreadsheet provided by the Department of Finance. This discrepancy was identified on 1 December 2023.

ANSTO also continues to report annually on its greenhouse gas emissions and energy consumption and production as required under section 19 of the National Greenhouse and Energy Reporting Act 2007; the data is aggregated and disseminated by the Clean Energy Regulator.

ANSTO routinely reports to regulators on its performance and communicates with other interested parties where it is possible that its activities may impact the environment.

Commonwealth climate-related disclosure

ANSTO is participating in the Commonwealth climate-related disclosure pilot for 2023-2024. While it will not be mandatory for ANSTO to produce a climate-related disclosure until 2024-2025, ANSTO views reporting against the pilot requirements as an opportunity to establish and improve its climate-related disclosure framework, which will assist ANSTO in meeting the full requirements from 2024-2025.

A copy of the report can be found at: **www.ansto.gov.au/science/environment/environmental-protection**

Environmental monitoring program

ANSTO conducts an extensive effluent and environmental monitoring program that measures radioactivity in authorised emissions to air and liquid effluent discharges to the sewer; and in samples of air, surface water, ground water, sediment and biota from the local environment. Many of the monitoring results are independently verified.

The results of environmental monitoring conducted in 2023–2024 demonstrate that ANSTO's authorised releases of radioactive material to the air and sewer continue to be effectively controlled, comply with regulatory limits, and have minimal radiological impact on humans, wildlife or the environment. Radiation monitoring is ongoing and the data is published online every 15 minutes at: **https://www.ansto.gov.au/environmental-protection/radiation-monitoring**

Local weather conditions are reported here:
https://www.ansto.gov.au/science/environment/lucas-heights-weather-station

Environmental protection in operations

ANSTO has adopted an integrated approach to planning and decision making to optimise the efficient and effective management of its operations.

Supporting the application of the National Construction Code to new developments, the ANSTO Building Code outlines the principles of ecologically sustainable design required for new and refurbished buildings. All new projects for all new and refurbished buildings are required to have an independent sustainable design consultant involved in the design phase. ANSTO currently requires relevant new buildings to achieve a minimum five-star National Australian Built Environment Rating System (NABERS) energy rating and comply with the requirements for the Energy Efficiency in Government Operations Policy. Through the implementation of the Environmental Sustainability Strategy, ANSTO will progressively increase the minimum standards for achieving NABERS energy, water, indoor environment and waste ratings over the next seven years. Furthermore, other minimum standards for the efficient use of water in offices and laboratories, installation of rainwater tanks, reuse of wastewater and sub-metering are all enforced through the ANSTO Building Code.

Environmental protection principles are mandated for all major project activities. All capital projects such as the construction of buildings, infrastructure and support facilities must have construction environmental management plans in place. These plans aim to prevent or minimise environmental impacts such as emissions, waste, soil erosion, dust, noise and discharges to stormwater. Assurance measures include the independent approval of these plans, ad-hoc inspections and formal audits. All projects are continually evaluated on their environmental protection performance and on completion.

ANSTO incorporates sustainable procurement practices into all new tenders and contracts awarded, meeting the requirements of the Commonwealth Procurement Rules, specifically seeking value-for-money, and aligning to the Australian Government's Sustainable Procurement Guide. Tenders include environmental and sustainability specifications, and potential suppliers must provide evidence of commitment to environmental protection and their ability to deliver upon relevant environmental outcomes. ANSTO routinely evaluates the environmental performance of successful suppliers.

ANSTO continues to investigate waste diversion opportunities utilising reuse and recycling programs. These efforts focus around construction wastes, soft plastics, metals, e-waste, batteries and green waste. ANSTO also actively works with suppliers to reduce packaging waste and ensure end-of-life reuse or recycling options for purchased goods can be secured.

ANSTO's bushland perimeter covers an area of approximately 300 hectares, which includes important Indigenous heritage and provides a significant wildlife corridor between the Royal and Heathcote National Parks to the east and the remnant Cumberland plain woodlands to the west. ANSTO conducts regular proactive inspections of the Lucas Heights bushland perimeter area to ensure that biodiversity values are maintained, and Indigenous cultural sites are preserved. No significant impacts to biodiversity or Indigenous cultural values have been reported during this reporting period. Rehabilitating historically disturbed areas within the bushland perimeter area has been established as a focus area in ANSTO's new Environmental Sustainability Strategy. Progress on achieving the relevant objectives to restore or improve the habitat within the bushland perimeter area will be monitored through these routine inspections.

EPBC Act Referrals

Within this reporting period, ANSTO submitted two referrals pursuant to Part 3 of the EPBC Act and one permit to move a listed species under section 200 of the EPBC Act:

- **2023/09748 – New nuclear medicine manufacture and production facility**

  ANSTO referred this action to DCCEEW following ANSTO's self-assessment that this constitutes a nuclear action, specifically for the establishment of a radiopharmaceutical facility (sections 21 and 22(1)(a)). DCCEEW decided that this action was not a controlled action if conducted in a particular manner.

- **2022/09756 – Transport of spent nuclear fuel to France in 2025**

  ANSTO referred this action to DCCEEW following ANSTO's self-assessment that this constitutes a nuclear action, specifically for the transporting spent nuclear fuel (sections 21 and 22(1)(b)). DCCEEW decided that this action was not a controlled action if conducted in a particular manner.

- **E2023–0219 Movement of Koalas for Hazard Reduction Burn**

  ANSTO plans to conduct a prescribed hazard reduction burn on its land at Lucas Heights, NSW, in 2024. The location of the burn area is a known koala habitat area. ANSTO conducted a self-assessment on whether an EPBC referral is required, and determined that a referral was not required, however a permit to move any koala found in the burn area immediately prior to the burn would be required. ANSTO applied to DCCEEW for a permit to move a listed threatened species (specifically koalas) pursuant to section 200 of the EPBC Act. DCCEEW issued a permit to ANSTO valid to 31 December 2024.

Supporting research and collaboration for environmentally sustainable outcomes

Leveraging ANSTO's Environment Industry Engagement Strategy, ANSTO will look to build new opportunities to work with industries concerned with product sustainability and mitigating or remediating environmental impact from industrial activity. ANSTO continues to collaborate with other research partners to progress research in the key areas of air quality, soil erosion, water resource management, wetland health, biodiversity, food provenance, and climate variability and global warming impacts such as rising sea levels and temperatures on marine ecosystems.

ANSTO participates in the Sustainability Advantage Program facilitated by DCCEEW — Office of Environment and Heritage, for which ANSTO was awarded a silver partnership award in 2019.

In June–July 2023, ANSTO participated in a project in conjunction with the NSW Sustainability Advantage Program and 2XE Ltd to trial a value chain stakeholder engagement toolkit, specifically focused on sustainability and emissions reduction outcomes in our value chain. Following this trial, ANSTO is continuing to work with some of the suppliers from the trial to improve specific environmental outcomes, such as aggregating deliveries and reporting on scope-3 emissions.

Supporting staff to be environmentally sustainable

Environmental awareness is promoted throughout the organisation via inductions, the staff intranet, training and communication programs. ANSTO encourages staff to cycle, carpool, or take public transport to travel to work, and to walk rather than drive around the site. A new shared path connecting the Lucas Heights site to the neighbouring suburb of Barden Ridge was completed in late 2020, further encouraging staff living in the area to walk or ride to work. Staff suggestions for environmental improvements are encouraged at ANSTO and are successfully implemented across the organisation.

ANSTO also encourages staff to proactively report environmental hazards (near misses) or incidents using ANSTO's incident management system. In 2023-2024, ANSTO staff raised 22 reports, most of which were of low significance not requiring any further investigation.

ANSTO's chemical management system enables staff in different business areas to share and track chemical resources, which reduces the need to procure new chemicals. ANSTO is also utilising the system to report on requirements under the National Pollution Inventory, and to improve the identification and control of environmentally hazardous chemicals. Further advancements in the transition to full digital authorisations and workflows continue, with the aim of achieving a paperless office environment.

Functions and Powers of the Organisation Under the ANSTO Act

The ANSTO Act details our functions, powers, Board, CEO duties, staffing, finance and other roles and responsibilities.

The Act (No. 3 of 1987 as amended) and taking into account amendments up to Act No. 109 of 2017, as prepared by the Office of Legislative Drafting and Publishing, Attorney-General's Department, Canberra (19 September 2017) and can be found on the Federal Register of Legislation.

A summary of the key statutory provisions in relation to ANSTO's functions are outlined below. Section 3: Interpretation "scientific research, innovation and training" includes the following, whether or not related to nuclear science and nuclear technology:

Section 3: Interpretation

"scientific research, innovation and training" includes the following, whether or not related to nuclear science and nuclear technology:

- **(a)** any activities in the fields of natural or applied science (including engineering and technology) for the extension or application of knowledge;
- **(b)** any activities that involve innovation or high levels of technical risk for the purposes of creating new or improved materials, products, devices or processes;
- **(c)** the education and training of persons in matters related to activities mentioned in paragraph (a) or (b).

Section 5: Functions of Organisation

(1) The functions of the Organisation are:

- **(a)** to undertake research and development in relation to:
  - **(i)** nuclear science and nuclear technology; and
  - **(ia)** the application and use of nuclear science and nuclear technology; and
  - **(ii)** the production and use of radioisotopes, and the use of isotopic techniques and nuclear radiation, for medicine, science, industry, commerce and agriculture; and
  - **(iii)** such other matters as the Minister directs; and
- **(b)** to encourage and facilitate the application and use of the results of such research and development; and
- **(ba)** to condition, manage and store radioactive materials and radioactive waste, arising from:
  - **(i)** the Organisation's activities (including the production of radioactive materials for other persons); or
  - **(ii)** the activities of companies in which the Organisation holds a controlling interest (including the production of radioactive materials for other persons); or
  - **(iii)** the use by other persons of radioactive materials produced by the Organisation or such companies; or
  - **(iv)** the activities of other persons who are specified in the regulations; and
- **(bb)** to condition, manage and store radioactive materials and radioactive waste generated, possessed or controlled by the Commonwealth or a Commonwealth entity; and
- **(bc)** to condition, manage and store radioactive materials and radioactive waste at the request of:
  - **(i)** a law enforcement agency; or
  - **(ii)** a Commonwealth, State or Territory agency responsible for the management of emergencies or disasters; including, but not limited to, radioactive materials or radioactive waste involved in, or arising out of, a radiological incident or a radiological emergency; and
- **(bd)** to condition, manage and store radioactive waste that has been, or is to be, sent to Australia under contractual arrangements relating to the conditioning or reprocessing of ANSTO spent nuclear fuel; and
- **(c)** to produce, acquire, provide and sell goods, and to provide services, that are:
  - **(i)** in connection with the production and use of radioisotopes, and the use of isotopic techniques and nuclear radiation, for medicine, science, industry, commerce and agriculture; or
  - **(ia)** in connection with the conditioning, management and storage of radioactive materials or radioactive waste; or
  - **(ib)** in connection with nuclear science and nuclear technology; or
  - **(ic)** in connection with the application and use of nuclear science and nuclear technology; or
  - **(ii)** otherwise in connection with matters related to its activities; and
- **(d)** to act as a means of liaison between Australia and other countries in matters related to its activities; and
- **(e)** to provide advice on aspects of:
  - **(i)** nuclear science and nuclear technology; and
  - **(ii)** the application and use of nuclear science and nuclear technology; and
  - **(iii)** other matters related to its activities; and

(ea) to make available to other persons, whether or not on a commercial basis, the knowledge, expertise, equipment, facilities, resources and property of the Organisation by:

(i) providing training and management expertise; or

(ii) selling or leasing equipment; or

(iii) leasing land, buildings and facilities; or

(iv) taking any other action that the Organisation thinks appropriate; and

(f) to cooperate with appropriate authorities of the Commonwealth, the States and the Territories, and with other organisations and institutions in Australia or elsewhere, in matters related to its activities; and

(g) to publish scientific and technical reports, periodicals and papers on matters related to its activities; and

(h) to collect and sell or distribute, as appropriate, information and advice on matters related to its activities; and

(j) to arrange for training, and the establishment and award of scientific research studentships and fellowships, in matters related to its activities; and

(k) to make grants in aid of research into matters related to its activities; and

(m) to make arrangements with universities and other educational research institutions, professional bodies and other persons for the conduct of research or of other activities in matters related to its activities.

(1A) A regulation made for the purposes of subparagraph (1)(ba)(iv) must not have the effect of authorising the premises on which the Lucas Heights Research Laboratories are situated to become a national nuclear waste repository.

(1B) In subsection (1A): "national nuclear waste repository" means a site chosen by the Commonwealth, after the commencement of this subsection, for the storage of nuclear waste with a view to it never being moved to another site.

Section 6A: Constitutional limits

(1) The Organisation may perform its functions only:

(a) for purposes relating to activities that are peculiarly adapted to the government of a nation and cannot otherwise be carried on for the benefit of the nation; or

(b) for purposes relating to trade and commerce:

(i) between Australia and places outside Australia; or

(ii) among the States; or

(iii) within a Territory, between a State and a Territory or between 2 Territories; or

(c) for purposes relating to postal, telegraphic, telephonic or other like services;

(d) for purposes relating to the security or defence of Australia; or

(e) for purposes relating to astronomical and meteorological observations; or

(f) for purposes relating to statistics; or

(g) for purposes relating to weights and measures; or

(h) for purposes relating to copyrights, patents of inventions and designs, and trademarks; or

(i) for purposes relating to the provision of medical and dental services; or

(j) for purposes related to external affairs, including:

(i) giving effect to any international agreement to which Australia is a party; and

(ii) addressing matters of international concern; and

(iii) by way of the performance of its functions in a place outside Australia; or

(k) for purposes relating to the relations of the Commonwealth with the islands of the Pacific; or

(l) in, or for purposes relating to, a Territory; or

(m) in, or for purposes relating to, a Commonwealth place (within the meaning of the Commonwealth Places (Application of Laws) Act 1970); or

(n) for purposes relating to matters incidental to the execution of any of the legislative powers of the Parliament or the executive power of the Commonwealth.

(2) A term used in subsection (1) and the Constitution has the same meaning in that subsection as it has in the Constitution

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Compliance Index

PGPA Rule reference	Part of report	Description	Requirement
17BE(a)	**109 - 110**	Details of the legislation establishing the body.	**Mandatory**
17BE(b)(i)	**109 - 110**	A summary of the objects and functions of the entity as set out in legislation.	**Mandatory**
17BE(b)(ii)	**14**	The purposes of the entity as included in the entity's corporate plan for the reporting period.	**Mandatory**
17BE(c)	**44**	The names of the persons holding the position of responsible Minister or responsible Ministers during the reporting period, and the titles of those responsible Ministers.	**Mandatory**
17BE(d)	**44**	Directions given to the entity by the Minister under an Act or instrument during the reporting period.	**If applicable, mandatory**
17BE(e)	**N/A**	Any government policy order that applied in relation to the entity during the reporting period under section 22 of the Act.	**If applicable, mandatory**
17BE(f)	**N/A**	Particulars of non-compliance with: **(a)** a direction given to the entity by the Minister under an Act or instrument during the reporting period; or **(b)** a government policy order that applied in relation to the entity during the reporting period under section 22 of the Act.	**If applicable, mandatory**
17BE(g)	**16 - 39**	Annual performance statements in accordance with paragraph 39(1)(b) of the Act and section 16F of the rule.	**Mandatory**
17BE(h),17BE(i)	**N/A**	A statement of significant issues reported to the Minister under paragraph 19(1)(e) of the Act that relates to non-compliance with finance law and action taken to remedy non-compliance.	**If applicable, mandatory**
17BE(j)	**114**	Information on the accountable authority, or each member of the accountable authority, of the entity during the reporting period.	**Mandatory**
17BE(k)	**42 - 43**	Outline of the organisational structure of the entity (including any subsidiaries of the entity).	**Mandatory**
17BE(ka)	**115 - 116**	Statistics on the entity's employees on an ongoing and non-ongoing basis, including the following: **(a)** statistics on full-time employees; **(b)** statistics on part-time employees; **(c)** statistics on gender; **(d)** statistics on staff location.	**Mandatory**
17BE(l)	**41**	Outline of the location (whether or not in Australia) of major activities or facilities of the entity.	**Mandatory**
17BE(m)	**40 - 51**	Information relating to the main corporate governance practices used by the entity during the reporting period.	**Mandatory**
17BE(n), 17BE(o)	**47**	For transactions with a related Commonwealth entity or related company where the value of the transaction, or if there is more than one transaction, the aggregate of those transactions, is more than $10,000 (inclusive of GST): **(a)** the decision-making process undertaken by the accountable authority to approve the entity paying for a good or service from, or providing a grant to, the related Commonwealth entity or related company; and **(b)** the value of the transaction, or if there is more than one transaction, the number of transactions and the aggregate of value of the transactions.	**If applicable, mandatory**
17BE(p)	**48**	Any significant activities and changes that affected the operation or structure of the entity during the reporting period.	**If applicable, mandatory**
17BE(q)	**50**	Particulars of judicial decisions or decisions of administrative tribunals that may have a significant effect on the operations of the entity.	**If applicable, mandatory**

PGPA Rule reference	Part of report	Description	Requirement
17BE(r)	**50**	Particulars of any reports on the entity given by: **(a)** the Auditor-General (other than a report under section 43 of the Act); or **(b)** a Parliamentary Committee; or **(c)** the Commonwealth Ombudsman; or **(d)** the Office of the Australian Information Commissioner.	**If applicable, mandatory**
17BE(s)	**N/A**	An explanation of information not obtained from a subsidiary of the entity and the effect of not having the information on the annual report.	**If applicable, mandatory**
17BE(t)	**50**	Details of any indemnity that applied during the reporting period to the accountable authority, any member of the accountable authority or officer of the entity against a liability (including premiums paid, or agreed to be paid, for insurance against the authority, member or officer's liability for legal costs).	**If applicable, mandatory**
17BE(taa)	**46 - 57, 115**	The following information about the audit committee for the entity: **(a)** a direct electronic address of the charter determining the functions of the audit committee; **(b)** the name of each member of the audit committee; **(c)** the qualifications, knowledge, skills or experience of each member of the audit committee; **(d)** information about each member's attendance at meetings of the audit committee; **(e)** the remuneration of each member of the audit committee.	**Mandatory**
17BE(ta)	**100 - 102**	Information about executive remuneration.	**Mandatory**
17BF		Disclosure requirements for government business enterprises	
17BF(1)(a)(i)	**53 - 92**	An assessment of significant changes in the entity's overall financial structure and financial conditions.	**If applicable, mandatory**
17BF(1)(a)(ii)	**53 - 92**	An assessment of any events or risks that could cause financial information that is reported not to be indicative of future operations or financial conditions.	**If applicable, mandatory**
17BF(1)(b)	**53 - 92**	Information on dividends paid or recommended.	**If applicable, mandatory**
17BF(1)(c)	**N/A**	Details of any community service obligations the government business enterprise has including: **(a)** an outline of actions taken to fulfil those obligations; and **(b)** an assessment of the cost of fulfilling those obligations.	**If applicable, mandatory**
17BF(2)	**N/A**	A statement regarding the exclusion of information on the grounds that the information is commercially sensitive and would be likely to result in unreasonable commercial prejudice to the government business enterprise.	**If applicable, mandatory**

PGPA Rule Section 17BE(j), (i)–(v) — Accountable Authority

Details of Accountable Authority during the reporting period — Current report period (2023-24)

Name	Qualifications of the Accountable Authority	Experience of the Accountable Authority	Executive / Non-Executive Position Title / Position held	Date of Commencement	Date of Cessation	Number of meetings of accountable authority attended/ total number of meetings of accountable authority eligible to attend
The Hon Dr Annabelle Bennett AC SC FAA	BSc (Hons), PhD, LLB, D Univ (hon Causa), D Laws (hon Causa)	Chancellor of Bond University and practicing consultant Senior Counsel, mediator and arbitrator.*	Non-Executive Board Chair	**APPOINTED:** 21 March 2019	20 March 2024	**5/5**
Mr Michael Quigley AM	BSc (Physics), BE (Hons 1) Elect Eng. FTSE	Experienced director, senior business executive and former engineer.*	Non-Executive Board Chair	**APPOINTED:** 20 June 2024	19 June 2028	**0/0**
Ms Penelope (Penny) J Dobson	Dip Pharm, MPS, MBA, GAICD	Global pharmaceutical executive and businessperson.*	Non-Executive Deputy Board Chair	**APPOINTED:** 24 April 2014 **APPOINTED DEPUTY CHAIR:** 14 March 2018 **APPOINTED ACTING CHAIR:** 1 September 2018 – 20 March 2019 21 March 2024 - 23 April 2024 **REAPPOINTED:** 24 April 2019	23 April 2024	**5/6**
Mr Andrew Carriline	Bcomm LLB, GAICD	Senior experienced business executive in governance, risk and financial management.*	Non-Executive Deputy Board Chair	**APPOINTED:** 9 May 2024 **APPOINTED ACTING CHAIR:** 9 May 2024 - 18 June 2024	8 May 2027	**0/0**
Mr Shaun Jenkinson	BSc (Hons), GAICD	Chief Executive Officer.*	CEO	**ACTING CEO:** 10 August 2020 – 30 March 2021 **APPOINTED CEO:** 31 March 2021 *30 March 2024* **REAPPOINTED CEO:** 31 March 2024 *for a three-year term*	30 March 2027	**6/6**
Professor Brigid Heywood	BSc (Hons), PhD	Experienced leader in the university sector.*	Non-Executive Board Member	**APPOINTED:** 28 June 2016 **REAPPOINTED (ACTING):** 28 June 2021 **REAPPOINTED:** 28 September 2021	27 September 2025	**6/6**
Professor Sze Ting Lee	MBBS, PhD, FRACP, FAANMS, FANMB	Nuclear medicine specialist.*	Non-Executive Board Member	**APPOINTED:** 20 July 2023	19 July 2026	**6/6**
Professor Tim Senden	BSc(Hons), PhD	Accomplished physical chemist.*	Non-Executive Board Member	**APPOINTED:** 1 February 2024	31 January 2027	**2/2**
Dr Gregory Storr	BSc (Hons), PhD, GAICD	Nuclear engineering and safety specialist.*	Non-Executive Board Member	**APPOINTED:** 16 September 2021	15 September 2024	**6/6**
Ms Andrea Sutton	BEng Chemical (Hons), GradDipEcon	Senior executive in the mining industry.*	Non-Executive Board Member	**APPOINTED:** 30 April 2020	29 April 2025	**6/6**

* See full bio at www.ansto.gov.au/ansto-board

PGPA Rule Section 17BE (taa) - Audit committee

Risk and Audit committee

Member name	Qualifications, knowledge, skills or experience (include formal and informal as relevant)	Number of meetings attended / total number of meetings	Additional Information
Ms Andrea Sutton (Chair)	BEng Chemical (Hons), GradDipEcon Senior executive in the mining industry.	**7/7**	
Mr David Antaw	B.Bus. MComm Senior corporate executive.	**5/7**	
Professor Brigid Heywood	BSc (Hons), PhD Experienced leader in the university sector.*	**7/7**	
Mr Stephen Ludlam	MSc NucEng Global submarine expert.	**7/7**	
Dr Gregory Storr	BSc (Hons), PhD, GAICD Nuclear engineering and safety expert.	**7/7**	

* See full bio at www.ansto.gov.au/ansto-board

PGPA Rule section 17BE(ka) — Management of Human Resources

All ongoing employees current report period (2023–2024)

	Male			Female			Indeterminate			Total
	Full-time	Part-time	Total male	Full-time	Part-time	Total female	Full-time	Part-time	Total indeterminate	
NSW	782	16	798	363	52	415	2	0	2	1215
Vic	99	2	101	33	3	36	1	0	1	138
Overseas	0	0	0	1	0	1	0	0	0	1
Total	881	18	899	397	55	452	3	0	3	1354

All non-ongoing employees current report period (2023–2024)

	Male			Female			Indeterminate			Total
	Full-time	Part-time	Total male	Full-time	Part-time	Total female	Full-time	Part-time	Total indeterminate	
NSW	46	0	46	38	4	42	0	0	0	88
Vic	11	1	12	6	1	7	0	0	0	19
Total	57	1	58	44	5	49	0	0	0	107

All ongoing employees previous report period (2022–2023)

	Male			Female			Indeterminate			Total
	Full-time	Part-time	Total male	Full-time	Part-time	Total female	Full-time	Part-time	Total indeterminate	
NSW	709	17	726	299	56	355	1	0	1	1082
Vic	86	2	88	17	3	20	0	0	0	108
Overseas	0	0	0	1	0	1	0	0	0	1
Total	795	19	814	317	59	376	1	0	1	1191

All non-ongoing employees previous report period (2022–2023)

	Male			Female			Indeterminate			Total
	Full-time	Part-time	Total male	Full-time	Part-time	Total female	Full-time	Part-time	Total indeterminate	
NSW	39	1	40	34	4	38	0	0	0	78
Vic	18	1	19	14	1	15	0	0	0	34
Total	57	2	59	49	5	54	0	0	0	113

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ISSN 1031-6655