



# New South Wales Sustainability Bond Programme

Annual Report 2023

## About this report

This is the fifth annual report for the NSW Sustainability Bond Programme.

The report is compiled by the Reporting Group, a sub-committee of the NSW Sustainability Bond Committee, led by the Office of Social Impact Investment branch of NSW Treasury, and published by TCorp. It will continue to be published on an annual basis over the life of the Programme.

The report provides an overview of the Programme including details on governance and external verification, how bond proceeds were utilised, and the impact of projects allocated to the bonds on issue. It is intended to cover the Programme as a whole, highlighting FY23 bond issuance and the new projects introduced to the asset pool.

All dollar amounts quoted are Australian, unless otherwise noted.

Electronic copies of current and previous reports are available at [www.tcorp.nsw.gov.au](http://www.tcorp.nsw.gov.au).

This report is dated as at 30 November 2023.

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### Cover photo

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Royal National Park, Sydney, NSW

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## Acknowledgement of Country

### Regeneration

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By Josie Rose 2020

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TCorp acknowledges Aboriginal and Torres Strait Islander peoples as the First Peoples and Traditional Custodians of Australia, and recognises their continued custodianship of Country – land, seas and skies.

We pay respect to Elders past, present and emerging.

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## Bonds on issue

# \$9.2bn

as at 30 June 2023

- Added \$1.5bn into the Programme's asset pool
- Added liquidity to existing 4 bonds on issue – 2 green and 2 sustainability

## Supported NSW communities and people

A new social project, the Aboriginal Housing Office Stimulus 2022 Program, added to the asset pool.

## Strong governance

- Independent assurance provided by EY
- Guided by NSW Sustainability Bond Framework, reviewed by Sustainalytics
- Aligned to NSW Government's sustainability policies and goals
- Asset pool oversight by the NSW Sustainability Bond Committee

## Aligned to United Nations Sustainable Development Goals\*



\* The Sustainable Development Goals (SDGs) were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. Source: <https://www.undp.org/sustainable-development-goals>

# NSW Treasurer's foreword

Delivering a sustainable  
future for our state

The Hon.  
Daniel Mookhey,  
MLC

**NSW  
Treasurer**



New South Wales is at the heart of the Australian finance sector and a hub for the broader region. In 2018, NSW became the first state in Australia to establish a Sustainability Bond Programme. The Programme has grown over time, with over \$9.2bn on issue, and remains one of the largest semi-sovereign green and sustainability bond programmes in Australia as at 30 June 2023.

Demand for our green and sustainability bonds remains strong and we have seen each public issuance to date oversubscribed as interest in the sector continues to grow.

The NSW Sustainability Bond Programme is an invaluable mechanism that provides our Government an opportunity to diversify our investor base and sources of funding, by attracting investors looking to allocate capital to green and social assets.

The proceeds raised from these bonds are earmarked to refinance projects and assets that deliver a broad range of positive outcomes. Put simply, these bonds allow the private market to support NSW Government investments as it leads the transition to a cleaner and more sustainable future for the state.

I am pleased to see more social assets included in the Programme in 2023, specifically initiatives that support housing accessibility and affordability. This is a key focus of our Government as we reimagine and revitalise the role of government agencies we trust to lead and deliver our housing objectives. This year the Programme added the Aboriginal Housing Stimulus 2022 Program, which is aimed at developing safe, affordable and culturally appropriate housing for Aboriginal people.

This project expands the Programme's affordable housing asset pool, building on the NSW Land and Housing Corporation's maintenance stimulus program included 2 years ago, showcasing the need for investment in maintaining the quality of social housing stock and the benefits to tenants of doing so.

We are also acting on climate change. Through the *Climate Change (Net Zero Future) Bill 2023* that recently passed in Parliament, we are legislating our state to cut its net greenhouse gas emissions from the 2005 level by at least 50% by 2030, at least 70% by 2035 and to reach net zero by 2050. We are also legislating an adaption objective for NSW to be more resilient to a changing climate. To support this transition the NSW Government and the Net Zero Commission (once established) will liaise with the state's communities and regions to ensure that climate action is informed, fair and transparent.

Since its beginnings in 2018, this Programme has provided investors with a way to connect with NSW Government assets that support a net zero economy. Clean transport assets have been critical to this, with the Sydney Metro Northwest earmarked to all 4 bond lines issued. More recently, the Programme has added to its clean transport portfolio by including the CBD and South East Light Rail and Parramatta Light Rail Stage 1.

The NSW Sustainability Bond Programme plays an important role in supporting this Government's policy priorities and our focus on delivering a sustainable fiscal environment for all our citizens and future generations.

A stylized, handwritten signature in dark ink, consisting of several overlapping loops and a long horizontal stroke at the end.

**The Hon. Daniel Mookhey, MLC**  
NSW Treasurer

# A message from TCorp and NSW Treasury

In characterising the 2023 NSW Sustainability Bond Programme, 2 words come strongly to mind: evolution and maturity.

Rob  
Kenna

## General Manager

Financial Markets  
TCorp



Katherine  
Palmer

## Executive Director

Strategic Balance Sheet  
Management  
NSW Treasury



Since the Programme was established 5 years ago, the focus has been on adding new, syndicated bond lines. More recently, it pivoted by adding liquidity through issuance into our existing lines.

The Programme plays an integral role in the NSW Government's ongoing efforts to advance Environmental, Social and Governance (ESG) outcomes for the state. The approach in 2023 demonstrates not only the Programme's growth and maturity but also its ongoing attractiveness to investors in both the domestic and international markets.

As part of TCorp's extensive engagement with investors, we sought their feedback. Two consistent themes emerged, providing greater opportunities for investors to access the Programme and enhancing the liquidity of our bonds outstanding.

The Programme added \$1.5bn in eligible assets to the pool, including a new social asset – the \$183mn Aboriginal Housing Stimulus 2022 Program, which expands our focus on affordable housing. There were also increased expenditures across a range of projects including Public School Infrastructure, Parramatta Light Rail and the Social Housing Maintenance Stimulus Program. This supported us to issue over \$2.0bn into the November 2030 Green Bond and November 2032 Sustainability Bond.

We remain committed to ongoing asset identification, not just to add more volume to the pool but also to add diversity in the types of projects supported by the Programme. While we continue to build on our new and existing inter-governmental relationships to grow the asset pool, we have learnt much more from our delivery partners who have been so generous with their knowledge.

## Policy developments

The addition of social assets into the Programme in 2023 is a welcome development, giving more emphasis to the 'S' in ESG, and a key area of interest for the NSW Government in terms of housing accessibility and affordability. There is a nexus between environmental and social initiatives. Several assets within the Programme often exhibit both characteristics; Sydney Metro is an example of support for electrified mass transport but the way in which the asset was delivered achieved positive social milestones, such as supporting jobs, skills and diversity. We can also highlight the Transport Access Program, which provides more accessible train stations.

At the same time, work on legislating NSW's net zero targets remains front of mind for the government. An election commitment, the *Climate Change (Net Zero Future) Bill 2023*, was passed in Parliament in November to legislate emission reduction targets and establish the Net Zero Commission.

This report highlights work delivered over the past year that underpins NSW Government policy developments. This includes addressing climate change via the NSW Environment Protection Authority's Climate Change Action Plan, providing essential infrastructure through the State Infrastructure Strategy, and moving people in a sustainable manner via the Future Transport Strategy.

Other key government initiatives include action against modern slavery, funding to increase workforce participation through making quality childcare more affordable and accessible and reforming planning laws to build more social and affordable homes faster.

## Evolving frameworks and standards

NSW Government ESG policy and regulation continues to develop, alongside efforts by the financial sector on a global basis to develop standards and meet regulatory requirements.

The International Sustainability Standards Board issued its first 2 sustainability standards, the EU introduced new regulations on corporate transparency, and the Taskforce on Nature-related Financial Disclosures (TNFD) continued development of its framework on risk management and disclosures. Locally, the Australian Government advanced work on climate-related financial disclosures and the Australian Sustainable Finance Taxonomy project progressed to its second phase. From FY25, NSW public sector entities, consisting of government agencies, businesses, and universities, will be required to include climate-related disclosures within their annual reports.

TCorp and NSW Treasury are committed to maintaining a Programme that is robust and in line with best market practice. Staying abreast of and contributing to the development of global and domestic standards is one way in which we do this.

## Where to from here?

When the Programme was established in 2018, our intention was to create an ESG curve, and we had approached this over the years by syndicating 4 new bond lines – 2 in green and 2 in sustainability format. As the Programme matured to become a core component of NSW's funding activities, we have evolved our approach to sustainable issuance in response to investor feedback. Our focus is now to provide greater access and liquidity into existing lines, specifically the November 2030 Green Bond and November 2032 Sustainability Bond.

More recently, cost of living pressures driven by inflation and rising interest rates have elevated the focus on social projects. Our observations are that investors are increasingly seeking ways to link their investments to initiatives that improve social outcomes.

While growing the asset pool continues to be a focus for us, the process to add an asset is the result of significant work across the NSW Government family. Ultimately, all stakeholders must ensure robust standards are applied to green and social assets. For many years now, this has held up well to the evolving expectations of investors.

Reflecting the strong interest from investors in this sector, we have also been delighted to see developments elsewhere in Australia, with new semi-government issuers entering the market and the Australian Government looking to make its green bond debut in 2024. This follows the passing of Australia's landmark Climate Change Bill in 2022, to enshrine in legislation the country's emissions reduction target of 43% below 2005 levels by 2030 and net zero emissions by 2050.

## Acknowledgements

Partnership is at the core of this Programme, and we acknowledge the close collaboration across the NSW Treasury and TCorp teams. We offer our thanks to all the participating entities who work with us – Transport for NSW (including Sydney Metro), Sydney Water, Land and Housing Corporation, Department of Education, Telco Authority, Aboriginal Housing Office and National Parks and Wildlife Service.

As we celebrate the Programme's progress and strive for the highest standards of transparency and accountability, we acknowledge the need to keep working towards continually evolving expectations. We will listen to the broad range of stakeholders as we seek to elevate our reporting of impact indicators and showcase the NSW Government family's commitment to driving better and more sustainable outcomes for the people of the state.



**Rob Kenna**  
General Manager,  
Financial Markets  
TCorp



**Katherine Palmer**  
Executive Director, Strategic  
Balance Sheet Management  
NSW Treasury



# New NSW sustainability policies and initiatives

## Covering the financial year 2023

The NSW Government recognises the importance of sustainable finance in supporting its vision of a resilient and prosperous economy, in which our communities thrive. By integrating environmental, social and governance (ESG) considerations into its economic and financial decision making, the Government continues to mitigate ESG risks and realise related opportunities for the lasting benefit of the state.

Under the Paris Agreement, Australia is committed to keeping global temperature rises to below 2°C.

This year the NSW Government reinforced its Paris-aligned commitment by legislating NSW's net greenhouse gas emissions reduction targets – net zero emissions by 2050, at least 70% reduction by 2035 and at least 50% reduction by 2030 on 2005 net greenhouse gas emission levels. The government is also focused on supporting the community to meet the challenges associated with the increasing cost of living and to improving the delivery of essential services and infrastructure.

This section highlights a range of policies and programs delivered in financial year 2023 which contribute to delivering sustainable outcomes for the state and support the government's ESG ambition.

## Staying Ahead: State Infrastructure Strategy (SIS) 2022-2042

Infrastructure NSW's independent advice to the NSW Government, this 20-year strategy recommends reforms, policies and projects that respond to the state's changing economic, social and environmental outlook.

The strategy is built around 9 strategic objectives focused on enhancing sustainable outcomes for the state, including achieving an orderly and efficient transition to net zero, embedding reliability and resilience, and protecting our natural endowments.



## Future Transport Strategy: Our vision for transport in NSW

This strategy outlines Transport for NSW's vision for the future of mobility in NSW, to deliver safe, healthy, sustainable, accessible, and integrated passenger and freight journeys, including efforts to move towards net zero emissions.

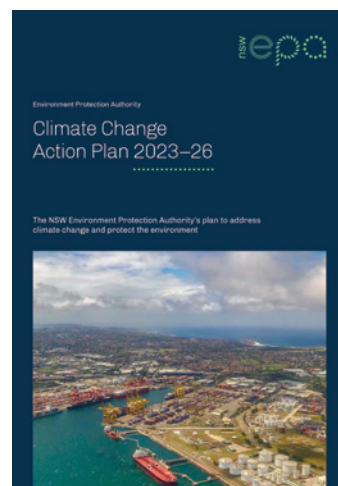
It sets out the direction for investment, services, and policy to connect people and goods between cities, to regional centres and villages, within neighbourhoods, and to country.



## NSW Environment Protection Authority’s Climate Change Action Plan: 2023-2026

As the state’s primary environmental regulator, the NSW Environment Protection Authority (EPA) has devised an action plan to set out the specific actions that EPA will take over the next 3 years, as part of its evolving regulatory response to climate change.

1. Inform and plan – continually improving as EPA listens, provides support and reports.
2. Mitigate – focusing on reducing greenhouse gas emissions by regulated entities.
3. Adapt – adapting and building resilience to a changing climate, including helping regulated entities build their own climate change resilience.



## NSW Anti-slavery Commissioner’s Strategic Plan 2023-2026

In June 2023 the NSW Anti-slavery Commissioner unveiled his strategic plan titled *Working Together for Real Freedom* (Strategic Plan) to address modern slavery in NSW.

The plan sets out actions aimed at achieving 5 interconnected priorities:

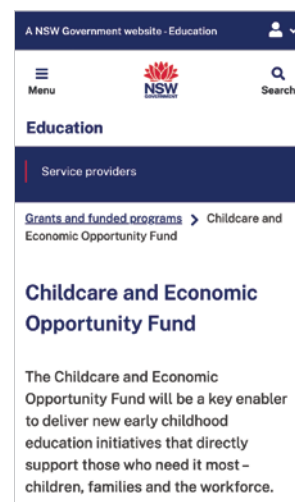
1. Build prevention capacity
2. Enable remedy
3. Foster responsible business practices
4. Change the narrative
5. Develop a community of purpose.



## Childcare and Economic Opportunity Fund

This fund is intended to increase participation in the state's workforce, particularly for women, by making quality childcare more affordable and accessible.

To do this, it will target barriers for parents and carers participating in work, improve affordability and accessibility of childcare, and support the early childhood education and care workforce and sector. This may involve supporting ways to expand capacity and improve the viability and flexibility of existing and future services, particularly in regional and rural locations and areas where there is a shortage of affordable and accessible services.



## Planning reforms to deliver more social and affordable housing

The NSW Government will use new state planning laws to build more social and affordable homes faster.

The reforms include providing the NSW Land and Housing Corporation and Aboriginal Housing Office with an expanded State Significant Development approval pathway for projects with more than 75 homes or more than \$30mn capital investment. In addition, Landcom will have access to the same pathway where any project it develops contains at least 50% affordable housing. These reforms will allow faster planning decisions, providing certainty sooner to investors and communities.



# Overview of market developments

‘Use of proceeds’ issuance – green, social and sustainability bonds – continues to be a focus.

‘Use of proceeds’ issuance comprises around 94% of labelled bonds. In the Australian market, Bloomberg figures show the total value of sustainable bonds outstanding at 30 June reached \$92bn in 2023, up from \$68bn in 2022 and \$43bn in 2021.

Growth in the sustainable sector continues to be supported by measures including policy and regulatory initiatives, along with the ongoing requirement for jurisdictions to step up efforts to decarbonise and address the physical risks of climate change. It is expected that the funding of adaptation and resilience measures will accelerate in years to come, across both the public and private sectors, with factors such as persistent inflation, economic uncertainty and ongoing geopolitical tensions presenting headwinds.<sup>1</sup>

## Global initiatives

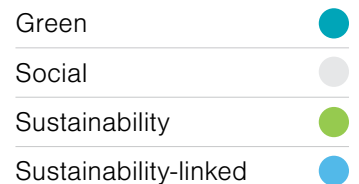
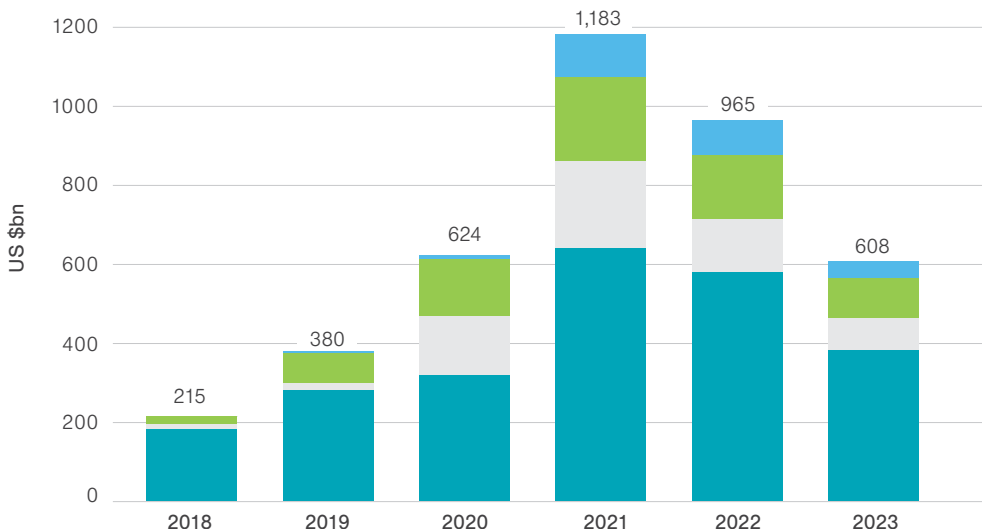
There were several notable developments in global frameworks and standards over FY23:

- The International Sustainability Standards Board (ISSB) issued its first 2 sustainability disclosure standards in June 2023 – [International Financial Reporting Standards \(IFRS\) S1 General Requirements for Disclosure of Sustainability-related Financial Information](#) and [IFRS S2 Climate-related Disclosures](#). Both S1 and S2 integrate recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD) and are effective for annual reporting periods beginning on or after 1 January 2024

## Global context

In 2022, global bond market issuance declined compared to 2021 due to elevated volatility in markets. This in turn impacted sustainable bond issuance over the same period as illustrated in Chart 1, however 2023 is showing signs of recovery with issuance reaching US\$608bn as at 30 June.

**Chart 1: Global sustainable bond issuance by instrument type as at 30 June 2023**



Source: BloombergNEF

- The EU Sustainable Finance Framework, underpinned by the EU Taxonomy, introduced new EU regulations on corporate transparency:
  - The [Corporate Sustainability Reporting Directive](#) will supersede the Non-Financial Reporting Directive from 2024, strengthening the rules and improving uniformity on reporting social and environmental information
  - The [Sustainable Finance Disclosure Regulation](#) is designed to aid investors in assessing the integration of sustainability risks into investment decisions.
- The Taskforce on Nature-related Financial Disclosures (TNFD) released its [final recommendations](#) on risk management and disclosures, to enable the integration of nature by entities into decision making processes. There is a high level of alignment with the structure, language and approach taken by the TCFD to encourage consistent disclosures across both climate and nature
- The International Capital Markets Association (ICMA) released new editions of the:
  - [Climate Transition Finance Handbook](#) with updated guidance and disclosure requirements, including for climate-themed bonds targeted at hard-to-abate sectors
  - [Sustainability-Linked Bond Principles](#) featuring adapted language and metrics for sovereign issuers, and an expansion of the Key Performance Indicator registry related to social issues, a just transition and value chains.
- The Climate Bonds Initiative extends its reach of sustainable finance with the release of an updated [Standard version 4.0](#), covering the certification of general purpose assets, non-financial legal entities and sustainability-linked debt instruments.

## Australian initiatives

- Australia's emissions reduction target of 43% (from 2005 levels) by 2030 and net zero by 2050 was enshrined in Commonwealth legislation. The Australian Government has also announced plans for an inaugural sovereign green bond issuance in mid-2024, which will follow the launch of a Green Bond Framework developed by Treasury in conjunction with the Australian Office of Financial Management.
- Australian climate disclosure standards will be developed by the Australian Accounting Standards Board (AASB), with the intention to align as far as practicable, with the final ISSB standards. The Australian Government released a [second consultation paper on climate-related financial disclosure](#) seeking views on the workability of proposed positions relating to coverage, content, framework and enforcement of the requirements.
- The Australian Government has pledged to co-fund the second phase of the Australian Sustainable Finance Taxonomy project, which will be overseen by the Australian Council of Financial Regulators Climate Working Group.

From FY25, NSW public sector entities, consisting of government agencies, businesses and universities, will be required to include climate-related disclosures within their annual reports.<sup>2</sup>

# The NSW Sustainability Bond Programme

## Our vision

To lead the way in sustainability bonds in Australia and demonstrate pathways to mobilise capital to support projects with positive environmental or social outcomes.

## Overview

The NSW Sustainability Bond Programme provides investors with the opportunity to be part of a more sustainable future by helping to refinance projects that support positive and transparent social and environmental outcomes for the community. Under the Programme, TCorp can issue green, social and sustainability bonds. Each issuance's classification is determined based on the primary objectives of the underlying projects.

In contrast to TCorp's regular bonds – where proceeds are provided to NSW Treasury and borrowing clients for general purpose expenditure – our green, social and sustainability bonds are used to refinance projects and assets that:

- Deliver positive environmental and social outcomes
- Align with and contribute towards meeting the United Nations Sustainable Development Goals (SDGs)
- Support the NSW Government's environmental and social objectives.

## What are green, social and sustainability bonds?

These bonds are defined by the International Capital Market Association (ICMA).

### Green bonds

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Green bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or refinance, in part or in full, new and/or existing eligible Green Projects and which are aligned with the 4 core components of the Green Bond Principles (GBP).

### Social bonds

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Social bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or refinance, in part or in full, new and/or existing eligible Social Projects and which are aligned with the 4 core components of the Social Bond Principles (SBP).

### Sustainability bonds

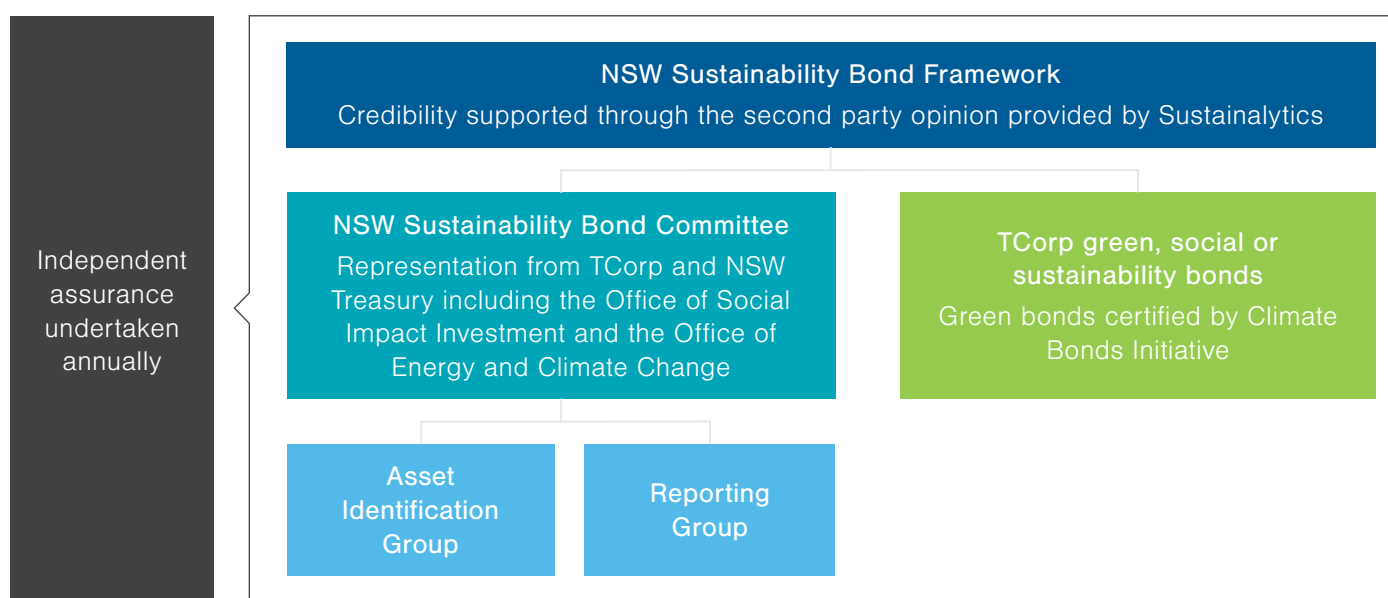
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Sustainability bonds are bonds where the proceeds will be exclusively applied to finance or refinance, a combination of both Green and Social Projects. Sustainability bonds are aligned with the 4 core components of both the GBP and SBP.

## Governance and external validation

The Programme is underpinned by sound governance and a credible Framework, to remain impactful in this constantly evolving sector. This is illustrated in Chart 2.

**Chart 2:** Programme governance and validation process



## Our objectives

- Seek ways for finance to contribute towards meeting UN SDG outcomes.
- Support the development of the wider sustainable finance sector.
- Draw upon and contribute to global best practice in the discipline of impact and outcomes measurement, reporting and transparent disclosure of sustainability outcomes.
- Highlight and influence sustainability practices through the lifecycle of government assets and programmes.
- Inspire innovative cross-government solutions to NSW’s most pressing environmental and social problems.
- Contribute to NSW Treasury’s focus on delivering a sustainable fiscal environment, enabling better outcomes.

## Strategy for sustainable issuance

The NSW Government is committed to the NSW Sustainability Bond Programme. As the state continues to embed sustainability practices across its activities, it will enable TCorp to remain a dominant market player in sustainable issuance. Over the years, the Programme also had notable success diversifying our investor base by attracting orders from funds that are restricted to investment in sustainable products.

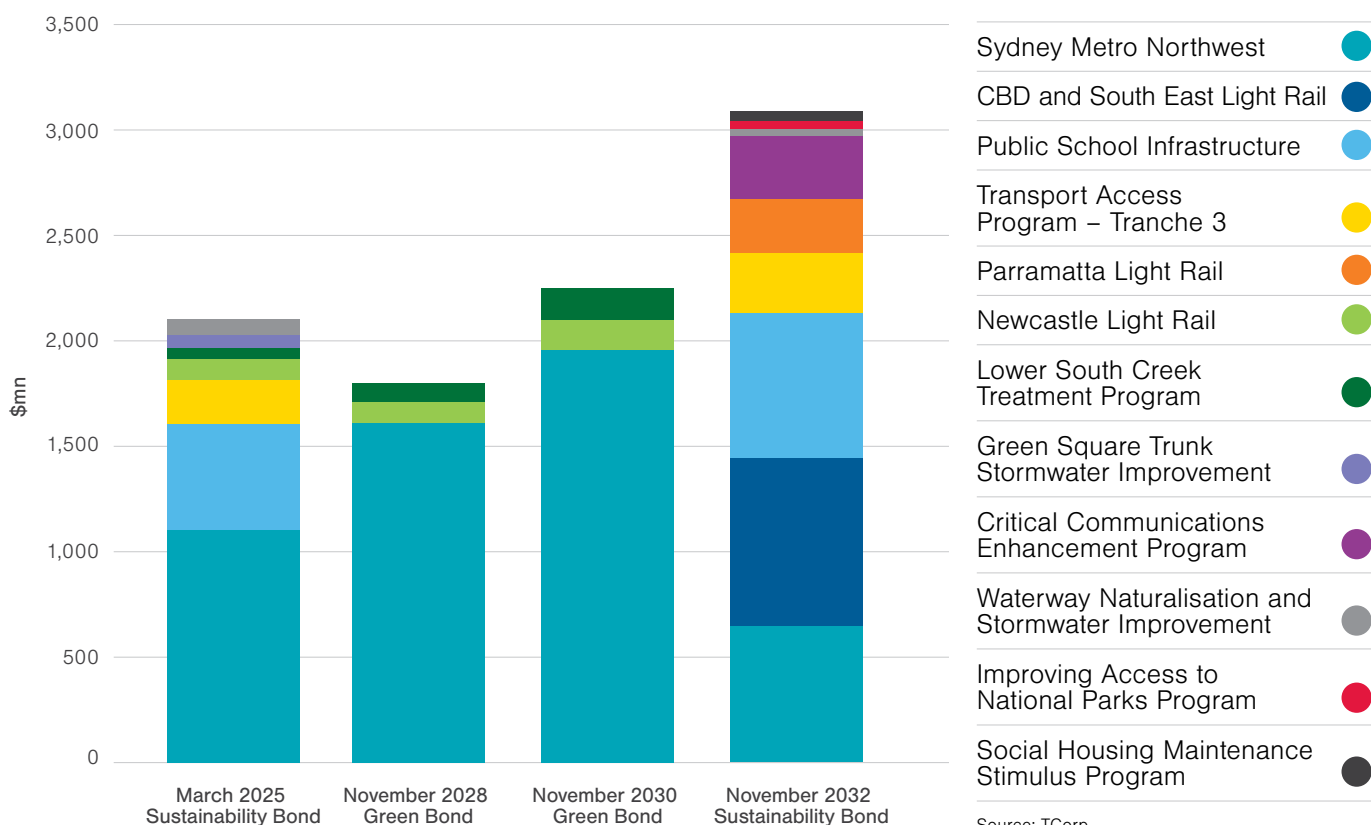
As a programmatic issuer, TCorp continues to receive a strong reception from investors for our sustainable issuance. In FY23, \$1.5bn of assets were added to the eligible pool resulting from increased expenditures across projects including Public School Infrastructure, Parramatta Light Rail and the Social Housing Maintenance Stimulus Program. It also included a new social asset – the

\$183mn Aboriginal Housing Stimulus 2022 Program – expanding the affordable housing category. This enabled us to issue over \$2.0bn of the November 2030 Green Bond and November 2032 Sustainability Bond into investor demand in FY23. The result is attributable to the ongoing support and collaborative work across the NSW Government family, along with the Programme’s strong governance.

As at 30 June 2023, there were 4 maturities outstanding with a total of \$9.2bn. Allocation of proceeds by project, bond type and ICMA category are illustrated in charts 3, 4 and 5.

Since inception of the Programme in 2018, issuance focused on establishing new bond lines with the objective of creating a liquid ESG curve over time, that sits alongside our nominal benchmark bond curve. In the first 4 years of the Programme’s operation, the 4 outstanding

Chart 3: Allocation of proceeds by project



Source: TCorp



bond lines were established, while the eligible asset pool was grown and project categories broadened.

Operation of the Programme pivoted in FY23, reflecting the evolution of the state’s approach to sustainable issuance from being a fledgling programme, where supply occurred on an annual basis with a new, syndicated bond line, to one that is more seasoned and representing a core component of funding activities.

Investor engagement undertaken over the past 12 months revealed 2 consistent themes relating specifically to issuance. Firstly, a desire for greater access to the Programme throughout the funding year and secondly, enhancing liquidity in lines having elevated importance given that the sector remains structurally undersupplied, with issuance of sustainable bonds tending to be more tightly held, impacting an investor’s ability to acquire bonds in the secondary market.

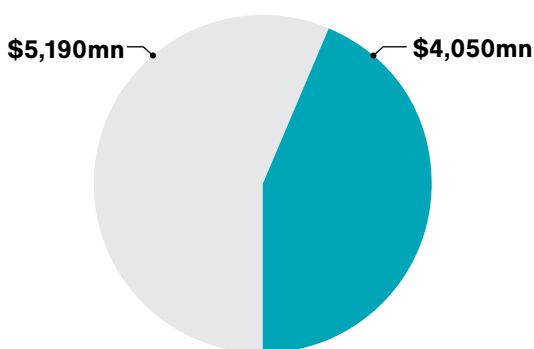
In response to this feedback, in FY23 TCorp did not add a new bond line and instead focused on issuing into existing lines, specifically the November 2030 Green Bond and November 2032 Sustainability Bond lines.

Going forward, TCorp intends to maintain an ESG curve and primarily focus on a small number of bond lines outstanding, that will grow over time and periodically add new lines as existing bond lines shorten and ultimately mature.

Given the desire for larger outstanding lines, TCorp will continue to showcase social assets, which represent a smaller portion of the current eligible asset pool relative to green assets, as part of sustainability bonds, as opposed to issuing more bespoke socially labelled bonds.

The list of allocable assets is detailed under Table 1: Use of proceeds, on page 21.

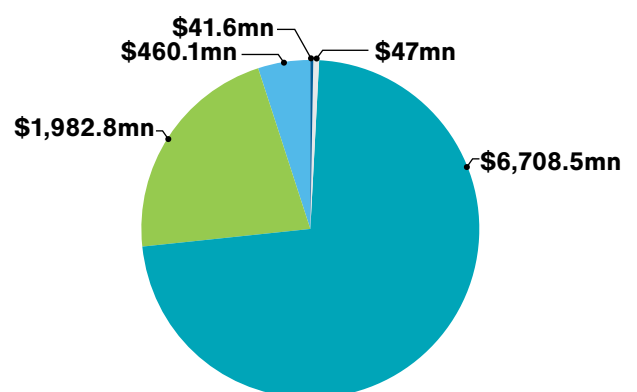
Chart 4: Allocation of proceeds by bond type



Green ●  
Sustainability ●

Source: TCorp

Chart 5: Allocation of proceeds by ICMA category



Clean transportation ● Affordable basic infrastructure ●  
Access to essential services ● Affordable housing ●  
Sustainable water and wastewater management ●

Source: TCorp

# A net zero future for NSW: How do we get there?

Green assets within the NSW Sustainability Bond Programme contribute towards the state meeting its net zero targets. Reporting on the impact of the Programme's assets is important to investors, but NSW is doing much more to improve the transparency and accessibility of data for the state. Here, Kaspar Sollberger and Ronan Kellaghan profile the resources used throughout the NSW public sector to inform their net zero strategies.

An important milestone on NSW's path to net zero was reached in October 2023, with the NSW Government honouring an election commitment to introduce the Climate Change (Net Zero Future) Bill. The bill was passed in November and legislates the state's targets – to reduce net greenhouse gas emissions by at least 50% by 2030, at least 70% by 2035 (over 2005 levels) and net zero by 2050 – and establish the Net Zero Commission, an independent advisory body that will take a holistic view of the state's journey.

Compared to the rest of Australia, NSW is aiming high on its targets; its goal for 2030 is more ambitious than that of the Commonwealth and we have a good base on which to build. Legislating emission reduction targets provides certainty and opportunity to households, industry and investors that will support optimal outcomes.

## The need for quality data

With a host of government agencies seeking to implement their plans and global attention on the transparency and accountability of net zero initiatives, it is vital to provide quality data. A key development for NSW has been the establishment of the [Net Zero Emissions Dashboard](#) – an interactive tool that went live in August 2022 and

tracks the state's progress toward achieving its targets. It establishes a science-based understanding of the problem and informs where the government is best placed to support.

NSW is the first Australian state to provide greenhouse gas emissions projections out to 2050 that are publicly available. Projections are produced annually, using the latest available data in areas such as economic trends, population growth, commodity projections and corporate commitments, and incorporating progress on net zero programs. Further background on the modelling supporting the projections can be found in our [Net Zero Plan Implementation Update](#) documents.

Historical emissions from 1990 are sourced from the NSW Greenhouse Gas Inventory and the National Greenhouse Accounts compiled by the Australian Government, aligned to the Intergovernmental Panel on Climate Change sectors and Australian and New Zealand Standard Industrial Classification economic sectors. Emissions projections to 2050 and local-scale emissions were developed by the NSW Net Zero Emissions Modelling Program. Datasets, assumptions and methods applied to derive projections and local-scale emissions were subject to external, independent peer review and can be downloaded on the [SEED website](#).

## Making use of the data

Transport for NSW (TfNSW) uses the modelling data from the Net Zero Emissions Dashboard to help inform the setting of its Net Zero and decarbonisation targets, including those in the [Transport Net Zero and Climate Change Policy](#), and assists the development of emissions pathways and priority actions that are required to meet its targets. TfNSW contributes to the modelling processes with some raw data inputs and information from its strategic planning and modelling teams that is used to inform emission projections.

## Modelling scenarios and pathways

There is significant engagement among all areas of the NSW Government to get the widest possible input. We model a current policy scenario and pathway out to 2050, which will be updated annually based on future policy decisions. We factor in scenarios such as green hydrogen becoming available to decarbonise industry and transport, or what a decarbonised electricity grid might look like. Ultimately, we will aim to model multiple future scenarios, and if one pathway to net zero leads to a barrier, we have alternatives mapped. One of the goals is to identify the highest emitters and develop programs and policies that ensure they can transition as fast as possible.

Primarily the Dashboard is a tool for local and state government agencies, businesses and communities. Investors who have been curious about the state's emissions have also found it useful and may find the sectoral breakdowns of interest. Insights into how different sectors are tracking towards their net zero targets are of value – looking at, say, the contribution of the electricity generation sector compared to transport or industrial processes.

We are keen to attract a broader audience to the Dashboard and get feedback on areas such as additional information to present, to make it more useable and informative.

*At the time of writing, Kaspar Sollberger is Acting Policy Manager, NSW Office of Energy and Climate Change, and Ronan Kellaghan is Senior Team Leader, Net Zero Emissions Modelling at NSW Department of Planning and Environment.*

## Transforming NSW's electricity system

The NSW Electricity Infrastructure Roadmap, enabled by the [Electricity Infrastructure Investment Act 2020](#) (EII Act), is the state's 20-year plan to transform our electricity system.

By 2030, the Roadmap will drive the delivery of at least 12 gigawatts of new renewable energy capacity and 2 gigawatts of long-duration storage, ensuring NSW has an electricity system that is more affordable, clean and reliable, and is expected to reduce NSW's carbon emissions by a total of 90mn tonnes.

As at August 2023, over 4,800 megawatts of new renewable generation capacity has been either committed or commissioned against the Roadmap's 2030 target.

At the centre of the Roadmap are Renewable Energy Zones (REZs). These are modern-day power stations that combine generation, storage, and network infrastructure to deliver energy to homes, businesses, and industries. To date, 5 REZs have been declared across NSW. The Energy Corporation of NSW (EnergyCo) is the Infrastructure Planner responsible for coordinating their delivery.

The first REZ in Central West Orana is underway and recently reached a major milestone with the lodgement of an Environmental Impact Statement for a transmission project which will connect it to the electricity grid. It is the first REZ to reach this stage of development.

Consultation regarding the transmission route for the New England REZ is underway, while the Hunter-Central Coast, South-West and Illawarra REZs are in the early stages of planning.

In February 2023 planning approval for a key piece of supporting

infrastructure, the Waratah Super Battery, was granted. It will be the largest battery in the Southern Hemisphere by nameplate capacity, and one of the largest committed batteries in the world. Construction has begun since the project's handover to Akaysha Energy in May 2023.

The core objectives of the EII Act include building the right infrastructure and setting the right operating environment for industry to confidently invest in the NSW energy sector. For example, it is estimated that the transmission and generation projects in the Central-West Orana REZ will deliver up to \$10bn in private investment to the region and around 5,000 jobs at the peak of construction.

To incentivise investment, Long-term Energy Service Agreements (LTESAs) are being tendered by the NSW Consumer Trustee for new generation, long-duration storage and firming infrastructure projects. LTESAs provide long-term certainty for investors and lower the cost of capital by reducing risk. They are designed to protect investors from the risk of unexpectedly low electricity prices while capturing upside for consumers.

Private investors have demonstrated their engagement with the process with over 150 gigawatts of interest registered from project developers across all 5 REZs.

The NSW Government has committed an additional \$800mn to the Transmission Acceleration Facility to connect the state's REZs to the grid sooner and bring forward the benefit schemes for communities, such as through the [Community and Employment Benefit Fund](#).

# Reporting: NSW Sustainability Bond Programme assets

This section outlines the assets earmarked against the Programme's Green and Sustainability Bonds.

The NSW Sustainability Bond Committee has assigned a Reporting Group to oversee this process and meet regularly throughout the year with asset owners. The impact indicators on pages 22-29 are intended to capture global principles on green and social bonds impact reporting. For assets under construction or in early stages of operation, the impact indicators related to operations contain estimates. Where assets are already operational, impact indicators related to operations contain actual data for FY23, unless otherwise stated. The impact indicators have not been pro-rated for the share of project financed by NSW state debt.

Information on project costs has been provided by the relevant NSW Government entities and NSW Treasury.



## **Parramatta Light Rail**

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Photograph courtesy of Transport for NSW.

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Table 1: Use of proceeds

Project name	Delivery partner	ICMA green or social bond category	Total proceeds allocation (\$mn)	Eligible assets – at 30 June 2023 (\$mn)	Eligible assets – unallocated (\$mn)
Sydney Metro Northwest	Sydney Metro	Clean transportation	5,314	6,039	725
Newcastle Light Rail	Transport for NSW	Clean transportation	340	343	3
CBD and South East Light Rail	Transport for NSW	Clean transportation	800	800	0
Parramatta Light Rail Stage 1	Transport for NSW	Clean transportation	254	1,093	839
Lower South Creek Treatment Programme: Quakers Hill and St Marys Water Recycling Plants Process and Reliability Renewal	Sydney Water	Sustainable water and wastewater management	294	401	107
Green Square Trunk Stormwater Improvement	Sydney Water	Sustainable water and wastewater management	63	63	0
Waterway Naturalisation and Stormwater Improvement – Tranche 1 Astrolabe Park, Strangers Creek, Powells Creek and Cooks River	Sydney Water	Sustainable water and wastewater management	73	73	0
Waterway Naturalisation and Stormwater Improvement – Tranche 2 Johnstons Creek, Milson Park, Parkside Drive	Sydney Water	Sustainable water and wastewater management	30	52	22
Transport Access Program – Tranche 3	Transport for NSW	Access to essential services	496	813	317
Public School Infrastructure	Department of Education	Access to essential services	1,187	2,229	1,042
Social Housing Maintenance Stimulus Program	NSW Land and Housing Corporation	Affordable housing	47	247	200
Improving Access to National Parks Program	NSW National Parks and Wildlife Service	Affordable basic infrastructure	42	126	84
Critical Communications Enhancement Program	Telco Authority	Access to essential services	300	738	438
Aboriginal Housing Office Stimulus 2022 Program	Aboriginal Housing Office	Affordable housing	0	183	183
<b>Total</b>			<b>9,240</b>	<b>13,200</b>	<b>3,960</b>



### Sydney Metro Northwest

Metro North West Line is the first stage of Sydney Metro – Australia’s biggest public transport project.

A high frequency single deck train system connecting Sydney’s growing north west with Chatswood.

First fully automated metro rail system in Australia, delivering 36km of new metro rail, and 8 new stations and 5 that have been upgraded.

The line is estimated to provide public transport travel time savings of 10 to 30 minutes between popular destination pairs along its route.

#### Status

Operational as of May 2019.

#### Target population

General population in Sydney’s main statistical area with highest car ownership per household.<sup>3</sup>

#### Indicator<sup>4</sup>

21.1mn total passenger trips.<sup>5</sup>

100% of grid electricity required for operations (84 GWh) is offset by renewable energy through the voluntary surrender of LGCs, avoiding emissions of 63,104 tCO<sub>2</sub>-e.<sup>6</sup>

Restatement of historical passenger trips data.

FY22: 11.0mn

FY21: 14.4mn

FY20: 19.0mn

#### SDG



### Newcastle Light Rail

A 2.7km system providing a frequent and reliable travel option throughout the city centre, with capacity to transport 1,200 people per hour. The project is a key part of the programme to revitalise Newcastle’s city centre.

#### Status

Operational as of February 2019.

#### Target population

General population.

#### Indicator

0.9mn total passenger trips.<sup>7</sup>

1,415 tCO<sub>2</sub>-e total emissions.<sup>8</sup>

Restatement of historical passenger trips data.

FY22: 0.6mn

FY21: 0.8mn

FY20: 1.0mn

#### SDG





## CBD and South East Light Rail

A 12km route that features, 2 new lines (L2 Randwick and L3 Kingsford) and 19 stops, designed to service major city and inner-city transport hubs and create easy interchange points with buses, trains, ferries and the Inner West Light Rail. Each light rail service can carry around 450 passengers, which is as many as up to 9 standard buses.

### Status

The L2 Randwick Line operational as of December 2019. The L3 Kingsford Line operational as of April 2020.

### Target population

General population.

### Indicator

30.5mn total passenger trips.<sup>9</sup>

11,008 tCO<sub>2</sub>-e total emissions.<sup>10</sup>

Restatement of historical passenger trips data.

FY22: 14.4mn

### SDG



## Parramatta Light Rail Stage 1

A 12km light rail, 2-way track infrastructure that will connect Westmead to Carlingford via the Parramatta CBD and Camellia via 16 stops and a fleet of 13 light rail vehicles.

### Status

Under construction, expected completion in 2024.

### Target population

General population.

### Indicator

*Construction*<sup>11</sup>

Over 30% reduction in GHG emissions.

22% reduction in water use.

99% of waste diverted from landfill.

1,414 trees planted.

### SDG





### Lower South Creek Treatment Programme: Quakers Hill and St Marys Water Recycling Plants Process and Reliability Renewal

Sydney Water is delivering world-class technology and infrastructure upgrades to meet the demands of a growing Western Sydney and protect the regions waterways. Working towards a circular economy, the Lower South Creek Treatment Program includes the upgrade of St Marys and Quakers Hill water recycling plants, which will deliver improved sustainability and significant energy and carbon savings. When fully operational, the improved treatment processes will produce a higher grade of stabilised biosolid and generate more biogas captured through cogeneration to increase energy efficiency and allow a large proportion of self-supply of electricity at the plants.

#### Status

Most construction works completed and staged process commissioning continuing. Upgraded facilities expected to be fully operational by early 2024.

#### Target population

General population.

#### Indicator

*Operations (current)*

100% (or ~6,842 tonnes) of biosolids recovered from wastewater beneficially reused.

*Operations (post-upgrades)*

42% estimated reduction in GHG emissions during construction and across its 50-year operation.

#### SDG



### Waterway naturalisation and stormwater improvement – Tranche 1

Replacement of deteriorating concrete sections with sandstone and stabilisation of banks with native plants, trees and rocks.

Naturalising the stormwater channels increases the asset life from approximately 80 to 150+ years.

Naturalisation and restoration works improve water quality, mitigate flooding, increase amenity and liveability, as well as provide greater park access for the community.

#### Status

Engineering works completed in stages up to March 2019. Vegetation establishment periods of around 24 months and ongoing maintenance occur subsequently.

#### Target population

General population.

#### Indicator

*Operations*

Removal of 501 cubic metres of litter and 304 tonnes of combined sediment and litter.

#### SDG







## Waterway naturalisation and stormwater improvement – Tranche 2

Tranche 2 activities include:

- Replacement of deteriorating concrete sections with sandstone and stabilisation of banks with native plants, trees and rocks.
- Construction of several water sensitive urban design projects, developed in collaboration with Councils and community input across 3 major Sydney catchments.

Naturalisation and restoration works improve water quality, mitigate flooding, increase amenity and liveability, as well as provide greater park access for the community.

### Status

Engineering works completed in stages up to October 2023. Vegetation establishment periods of around 24 months and ongoing maintenance occur subsequently.

### Target population

General population.

### Indicator

*Infrastructure*

0.6km of waterways naturalised and 0.5ha of constructed wetland built.

Approximately 0.3ha native vegetation gain with more than 74,710 local natives planted including 2,700m<sup>3</sup> of endangered saltmarsh.

1.7km of new paths and cycleways, 1 boardwalk, 2 bridges and 5 lookouts constructed, 8 seats installed, and 4 interpretive signage provided.

### SDG



## Green Square Trunk Stormwater Improvement

Construction of a 2km underground stormwater drain from Zetland to the existing stormwater system at Alexandra Canal.

The project significantly reduces flooding in the area, improves water quality and enables future development projects in Green Square.

Demand for drinking water is reduced through the harvest and purification of 900 kL/day of stormwater at full capacity – the equivalent of 150 Olympic swimming pools of stormwater every year.

### Status

Completed as of October 2019.

### Target population

General population.

### Indicator

*Operations*

Removal of ~79 tonnes of combined litter and sediment.

### SDG





### Public School Infrastructure

New builds and major upgrades that will provide school-aged children with access to high quality education facilities at their local public school.

The new and upgraded schools aim to improve the way classrooms are designed, creating open-planned, interactive and multipurpose indoor and outdoor spaces that include state-of-the-art technology.

**Status**

Ongoing.

**Target population**

Children.

**Indicator<sup>12</sup>**

*Infrastructure*

14 new schools and major upgrades.

42,815 teaching spaces for the state.

*Operations*

83% of primary and 62% of secondary public school students reporting a sense of belonging, expectations for success and advocacy at school.

795,497 enrolments for the state.

**SDG**



### Transport Access Program – Tranche 3 (TAP3)

Upgrade of train stations across the Sydney Trains, Regional Trains and Intercity Trains network to improve accessibility for people with disability and limited mobility.

The initiative will provide a better experience for public transport customers by delivering accessible, safe and integrated transport infrastructure.

**Status**

Underway, due for completion in 2024.

**Target population**

People with disabilities and limited mobility, and parents with prams.

**Indicator**

*Infrastructure*

15 train station upgrades completed.<sup>13</sup>

*Operations*

69% of NSW train stations accessible to people with physical disability and limited mobility.

**SDG**





## Critical Communications Enhancement Program

Expansion and enhancement to the NSW Public Sector Network (PSN), providing emergency services with mission critical radio communication.

Investment in critical communications will support our frontline responders to:

- Increase the sharing of information during emergencies, such as floods and fires
- Improve network access, resilience and reliability
- Improve responses to communities affected by disasters and critical incidents
- Allow for cross-border connections to networks in other states.

### Status

Underway, due for completion in 2027.

### Target population

General public. PSN is for the exclusive use of frontline responders, emergency services, essential agencies and local government.

### Indicator

#### *Infrastructure*

48% geographic coverage across NSW (compared to 35% baseline).  
97.6% population coverage across NSW (compared to 80% baseline).

#### *Operations*

9 operational areas available for Emergency Services Operator (ESO) migration (out of 198).

36.7mn voice airtime minutes in ESO communications (compared to 20.2mn baseline in FY16).

### SDG





### Social Housing Maintenance Stimulus Program – Tranche 1

Accelerated maintenance of social housing infrastructure.

As part of the stimulus response to the COVID-19 pandemic, the NSW Government allocated funding to accelerate maintenance of NSW Land and Housing Corporation's social housing portfolio. The program's work included:

- Addressing critical asset condition needs
- Increasing supply of social housing through upgrading untenanted stock
- Improving access to affordable and efficient energy
- Improving residents' housing experience, wellbeing and satisfaction
- Supporting employment in the construction/trade industry.

#### Status

Completed as of June 2020.

#### Target population

NSW social housing residents and applicants.

#### Indicator<sup>14</sup>

Maintenance and upgrade of over 2,300 properties.

#### SDG



### Social Housing Maintenance Stimulus Program – Tranche 2

Accelerated maintenance of social housing infrastructure. To improve social housing conditions and support jobs during the COVID-19 pandemic, the NSW Government made further capital investments through Tranche 2. The program's work included:

- Improving property condition and extending the useful life of aged properties
- Improving access to affordable and sustainable energy
- Improving residents housing experience and wellbeing
- Supporting employment in the construction and trade industries
- Strengthening partnerships with the community housing sector.

#### Status

Completed as of June 2022.

#### Target population

NSW social housing residents and applicants.

#### Indicator<sup>15</sup>

Maintenance and upgrade of over 12,600 properties.

#### SDG





### Improving Access to National Parks Program

The Improving Access to National Parks Program involves capital works to upgrade visitor infrastructure and facilities, the development of digital tools, the expansion of safety programs and the enhancement of mobile connectivity across NSW national parks.

#### Status

Underway, due for completion in 2024.

#### Target population

General population, in particular women and children, older persons and persons with disabilities.

#### Indicator

##### *Infrastructure*

139 projects completed to date, including 17 lookouts with mobility access.

##### *Operations*

53.2mn visitors to national parks (compared to 60.2mn baseline).<sup>16</sup>

#### SDG



# How the Programme asset pool has grown

## Expansion of existing project categories

### Affordable housing

#### AHO Stimulus 2022 Program



The Aboriginal Housing Office (AHO) is a statutory body established under the *Aboriginal Housing Act 1998* (NSW) to ensure that Aboriginal and Torres Strait Islander people have access to affordable, quality housing. The AHO owns 6,723 properties with a value of over \$3.2bn, and its work is guided by its 10-year [Strong Family, Strong Communities strategy](#) to improve the well-being of NSW Aboriginal families and communities through housing.

As part of the stimulus response to the COVID-19 pandemic, the NSW Government allocated funding to increase supply of Aboriginal housing, improve living conditions for Aboriginal housing residents, build capability of Aboriginal Community Housing Providers (ACHPs), and support local construction industry across a range of local government areas, many in the recent bushfires and drought affected parts of the state.

From December 2020 to June 2022, the work was completed under 3 workstreams:<sup>17</sup>

- Workstream 1 – delivery of new homes for Aboriginal people, and where feasible utilising land already owned by the AHO. Included a pilot program building granny flats to address overcrowding
- Workstream 2 – upgrades to homes in the AHO's housing portfolio, with the needs identified through the AHO's annual maintenance assessment processes
- Workstream 3 – new builds and upgrades delivered by the ACHPs, building their capability in the process. Included delivery of 351 upgrades to Local Aboriginal Land Council owned properties across 10 discrete communities.

### Profile of NSW AHO resident and applicants

Aboriginal people in NSW Aboriginal social housing reflect a unique set of client characteristics.

As at 30 June 2023:

- There were 4,123 Aboriginal households on the Department of Communities and Justice waiting list who were eligible for AHO housing.
- Out of the 6,723 homes owned by AHO, 2,617 tenancies were managed by Aboriginal community housing providers.

The average age of AHO head tenants was around 50 years, of whom 76.6% were female while 63.6% of all tenants were either single, or single with dependent children.

## Achievements

The key achievements included:

- Delivering over 180 new homes (17% by ACHPs and 83% by AHO), with 64% of new homes in regional or remote parts of NSW
- Delivering over 6,500 upgrades (25% by ACHPs and 75% by AHO)<sup>18</sup>. The upgrades include 4,172 energy saving upgrades. Of the upgrades delivered, 58% were in regional or remote parts of NSW
- Supporting over 2,400 jobs with 30% going to Aboriginal community members and 86% of jobs created in the regional or remote parts of NSW.



# NSW Sustainability Bond Programme milestones

## 2018

### March

Treasury Asset and Liability Committee (ALCO) endorsed the creation of the NSW Sustainability Bond Programme, the first programme of its type among semi-government issuers in Australia.

### September

ALCO approved the NSW Sustainability Bond Framework.

### November

Issued inaugural \$1.8bn 15 November 2028 Green Bond

- Largest single green bond in the Australian dollar market at the time of issuance.
- Won 3 industry awards.

Bond proceeds were earmarked to:

- Sydney Metro Northwest
- Newcastle Light Rail
- Quakers Hill and St Marys Water Recycling Plants Process and Reliability Renewal.

## 2019

### November

Issued inaugural \$1.8bn 20 March 2025 Sustainability Bond

- Largest single sustainability bond in the Australian dollar market at the time of issuance.
- First Australian semi-government authority to issue a sustainability bond.
- Won 5 industry awards both locally and globally.

Eligible assets new to the pool:

- Green Square Trunk Stormwater Improvement
- Waterway Naturalisation and Stormwater Improvement – Tranche 1
- Public School Infrastructure
- Transport Access Programme – Tranche 3.

## 2020

### October

Issued \$1.3bn of a new 20 November 2030 Green Bond

- Established an ESG curve.
- Largest Australian semi-government issuer in green and sustainability format with A\$5.2bn outstanding at the time of issuance.

Eligible assets new to the pool:

- Improving Access to National Parks Program.



## 2021

Eligible assets new to the pool:

- Social Housing Maintenance Stimulus Program – Tranche 1
- Waterway Naturalisation and Stormwater Improvement – Tranche 2
- CBD and South East Light Rail
- Parramatta Light Rail.

## 2022

### February

Issued \$1.5bn of a new 22 November 2032 Sustainability Bond.

Eligible assets new to the pool:

- Critical Communications Enhancement Program
- Social Housing Maintenance Stimulus Program – Tranche 2
- Won one industry award.

## 2023

Eligible asset new to the pool:

- Aboriginal Housing Office Stimulus 2022 Program.

# About TCorp

Our mission is to provide best-in-class financial management, solutions and advice to the NSW public sector.

TCorp is the financial services partner to the NSW public sector, providing best-in-class investment management, financial management solutions and advice. With \$106.2bn of assets under management, TCorp is a top 10 Australian institutional investor and is the central borrowing authority of the state of NSW, with a balance sheet of \$148.6bn as at 30 June 2023.

Created by the *Treasury Corporation Act 1983*, TCorp is a wholly owned entity of the state of NSW and is part of the NSW Treasury portfolio. We have the same legal capacity, powers and authorities as a company under the *Corporations Act 2001* (Cth), which allows us to raise and manage money to help the NSW Government and ultimately, the people of NSW.

TCorp is a public financial corporation (PFC) and not a budget dependent agency. PFCs provide financial services including insurance, lending and investment management, trade in financial assets and liabilities of the state and operate commercially in the financial markets.

Furthermore, TCorp is a net contributor to the state through the payment of tax equivalents and dividends and in FY23, we generated a dividend of \$106.0mn.

Our borrowing, investment and financial management activities are regulated by the *Government Sector Finance Act 2018*.

## Our objectives

### Financial management

Best-in-class for financial management, solutions and advice.

### People and culture

Sought after for the capability and conduct of our people.

### Whole-of-state outcomes

A long-term focused organisation delivering for all of NSW.

## For the benefit of NSW

TCorp has a unique remit, being the only public sector organisation that acts as both a fund manager and a government central borrowing authority. We combine both functions to our clients' advantage and provide long-term benefits to the people and communities of NSW. Our scale, market presence and strong credit rating provide access to a broader range of opportunities at lower costs, compared with the private sector.

TCorp's product and service lines are detailed below.

### Financial Markets

As the central borrowing authority for the NSW Government, TCorp's key activities include:

- Raising funds in local and international debt markets
- Managing risk on the TCorp balance sheet
- Managing liquidity assets
- Providing lending and tailored financial solutions to the NSW public sector.

### Investment Management

TCorp is the state's central provider of funds management services and aims to deliver client investment objectives through a Total Portfolio Approach, ultimately for the benefit of NSW. Investment strategies are agreed with and managed within the risk appetites of TCorp's clients.

The funds management activities include:

- Investment management and advisory services to NSW Treasury and other government entities including State Super and Insurance and Care NSW (icare)
- Direct management of domestic cash and fixed income portfolios
- Direct management of some infrastructure and property assets and portfolios (real assets and private markets).

# References

- 1 [Key sustainability trends that will drive decision-making in 2023](#)
- 2 [NSW Treasury Policy and Guidelines – Annual Reporting Requirements TPG23-10](#), p. 21
- 3 ABS, 2016 Census.
- 4 Historical passenger trip data has been restated. Previous data calculated trips made using credit cards, debit cards and mobile devices without adjustment (e.g. reversed taps and void data entries). It also excluded activity from transport concession entitlements, integrated ticketing for major events and fare non-compliance. Restated data accounts for these.
- 5 Trips are measured by tap on/off activity measured by Opal, credit card, debit card and mobile devices. Includes school travel using concessional cards, single tap-on or tap-off, transport concession entitlements, integrated ticketing for major events and fare non-compliance.
- 6 From electricity purchased to operate stations, traction power and a depot. Emissions calculated using the forecast emission factor of 0.75 tonnes CO<sub>2</sub>-e per MWh for scope 2 and 3 emissions for 2023. Factors sourced from Australia's emissions projections 2022, Australian Government Department of Industry, Science, Energy and Resources (December 2022).
- 7 See reference 5
- 8 See reference 6.
- 9 See reference 5.
- 10 See reference 6.
- 11 The infrastructure package only, excludes the smaller enabling works and supply, operate and maintain packages. Indicators are cumulative from the construction start date to June 2023.
- 12 Impact indicators are for 2022.
- 13 Includes upgrades to stations already rated accessible for people with physical disability and limited mobility. Works include: boarding assistance devices/zones, appropriate surfaces such as tactile indicators, seating, ramp access, toilet accessibility and lighting and signage.
- 14 Tranche 1 data are for FY20 and Tranche 2 data are for FY22. Indicators will not be updated annually as they reflect one-off activities.
- 15 See reference 14.
- 16 The impact indicator is for 2022 and has been impacted by bushfires and COVID-19. The baseline is for 2018.
- 17 The program included a fourth workstream encompassing the AHO reinvesting funds from property sales. Those expenditures were not included in the Programme's asset pool.
- 18 Including backlog maintenance upgrades, roof replacements, recladding and windows upgrades, solar and hydro panels upgrades, and air-conditioning upgrades.

# Appendix: Independent Reasonable Assurance Report



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## Independent Reasonable Assurance Report to the Executive and Management of Treasury Corporation of NSW ('TCorp')

### Scope

We have been engaged by TCorp to perform a "reasonable assurance engagement", as defined by Standards on Assurance Engagements, hereafter referred to as the engagement, to report on TCorp's 2018, 2019, 2020 and 2022 Sustainability Bonds, and Sustainability Bond Framework (the "Subject Matter") contained in TCorp's 2023 Sustainability Bond Impact Report as of 30 June 2023 (the "Report").

2023 Sustainability Bond Impact Report	
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### Criteria Applied by TCorp

In preparing the Subject Matter, TCorp applied the criteria identified in the following table:

Subject Matter	Criteria
<p>TCorp's Sustainability Bond process, as described in TCorp's Sustainability Bond Framework that sets out:</p> <ul style="list-style-type: none"> <li>▶ Policies and procedures related to the use of proceeds and management of proceeds raised from the Bond.</li> <li>▶ Processes for project evaluation and selection for inclusion in the Bond.</li> <li>▶ Procedures for reporting on the use of proceeds and environmental and social performance of the Bond.</li> </ul>	<ul style="list-style-type: none"> <li>▶ The Climate Bond Standard ('CBS') v2.1 and v3</li> <li>▶ The Climate Bond Standard Sector Eligibility Criteria for Low Carbon Transport</li> <li>▶ The Climate Bond Standard Sector Eligibility Sector for Water Infrastructure</li> <li>▶ The International Capital Market Association's ('ICMA') Sustainability Bond Guidelines ('SBG'), comprising the Green Bond Principles ('GBP'), and the Social Bond Principles ('SBP')</li> <li>▶ TCorp's own internal policies and procedures, as documented in TCorp's Sustainability Bond Framework</li> </ul>
<ul style="list-style-type: none"> <li>▶ The structure of, and disclosures within, TCorp's 2023 Sustainability Bond Impact Report</li> <li>▶ The asset values disclosed within TCorp's 2023 Sustainability Bond Impact Report</li> <li>▶ Select impact data disclosed within TCorp's</li> </ul>	<ul style="list-style-type: none"> <li>▶ The International Capital Market Association's ('ICMA') Sustainability Bond Guidelines ('SBG'), comprising the Green Bond Principles ('GBP'), and the Social Bond Principles ('SBP')</li> <li>▶ TCorp's own internal policies and procedures, as documented in TCorp's Sustainability Bond Framework</li> </ul>

### TCorp's Responsibilities

TCorp's management is responsible for selecting the Criteria, and for presenting the Subject Matter in accordance with that Criteria, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records, and making estimates that are relevant to the preparation of the Subject Matter, such that it is free from material misstatement, whether due to fraud or error.

### EY's Responsibilities

Our responsibility is to express an opinion on the presentation of the Subject Matter based on the evidence we have obtained.

We conducted our engagement in accordance with Standard on Assurance Engagements ASAE 3000 *Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* issued by the Auditing and Assurance Standards Board, and the terms of reference for this engagement as agreed with TCorp on 2<sup>nd</sup> October 2020. That standard requires that we plan and perform our engagement to obtain reasonable assurance about whether, in all material respects, the Subject Matter is presented in accordance with the Criteria, and to issue a report. The nature, timing, and extent of the procedures selected depend on our judgement, including an assessment of the risk of material misstatement, whether due to fraud or error.

We believe that the evidence we have obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

### Our Independence and Quality Management

We have complied with the independence and relevant ethical requirements, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality, and professional behaviour.

The firm applies Auditing Standard ASQM 1 *Quality Management for Firms that Perform Audits or Reviews of Financial Reports and Other Financial Information, or Other Assurance or Related Services Engagements*, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.



### Description of Procedures Performed

The assurance procedures we undertook included, but were not limited to:

- ▶ Assessing policies and procedures established by TCorp related to the issuance of the 2018, 2019, 2020 and 2022 Sustainability Bonds
- ▶ Confirming eligibility of nominated projects for inclusion in TCorp's 2018, 2019, 2020 and 2022 Sustainability Bonds against the Use of Proceeds Criteria within the CBS, SBP and GBP
- ▶ Interviewing selected business unit and group level personnel to understand key issues related to TCorp's policies and procedures
- ▶ Reviewing selected performance information for nominated projects, and documentation supporting assertions made in the subject matter
- ▶ Reviewing the impact report and checking that its structure and disclosures met the requirements of the framework, that asset values were disclosed accurately, and that individual impact data had been appropriately transcribed from the associated links in the 'source of information'.
- ▶ Checking the accuracy of calculations performed
- ▶ Confirming internal systems and processes were functioning as indicated and obtaining supporting evidence
- ▶ Confirming the maximum potential value of debt to understand the basis and integrity for the value of the bond
- ▶ Obtaining and reviewing evidence to support key assumptions and other data
- ▶ Seeking management representation on key assertions

### Limitations

There are inherent limitations in performing Assurance; for example, assurance engagements are based on selective testing of the information being examined and it is possible that fraud, error or non-compliance may occur and not be detected. There are additional inherent risks associated with assurance over non-financial information including reporting against standards which require information to be assured against source data compiled using definitions and estimation methods that are developed by the reporting entity. Finally, adherence to ASAE 3000 and the Climate Bond Standard is subjective and could be interpreted differently by different stakeholder groups.

Our assurance was limited to TCorp's 2018, 2019, 2020 and 2022 Sustainability Bonds, and did not include statutory financial statements. Our assurance is limited to policies and procedures in place as at 22 November 2023, after issuance of TCorp's 2018, 2019, 2020 and 2022 Sustainability Bonds.

### Use of Report

Our responsibility in performing our assurance activities is to the Executive and Management of TCorp only, and in accordance with the terms of

reference for this engagement, as agreed with TCorp. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organisation. Any reliance any such third party may place on the 2018, 2019, 2020 and 2022 Sustainability Bond assurance is entirely at its own risk. No statement is made as to whether the Criteria are appropriate for any third-party purpose.

Ernst & Young  
Sydney, Australia  
27 November 2023

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