

2023 Sustainability Bond Report



14 February 2023

Contents

- 01** [About NBN Co >](#)
- 02** [Sustainability Approach >](#)
- 06** [Sustainability Bond Framework >](#)
- 10** [Inaugural Green Bond issuance >](#)
- 11** [Fund allocation >](#)
- 12** [Impact indicators and calculation methods >](#)
- 13** [Case studies >](#)
- 16** [Independent limited assurance report >](#)

About NBN Co

The Company's purpose is to lift the digital capability of Australia

Established in 2009 as a Government Business Enterprise (GBE), the principal responsibility of NBN Co (NBN Co or the Company) is to operate and continue to build and upgrade the **nbn**[®] network in accordance with the expectations of the Government.

NBN Co works to fulfil the objectives set out by its Shareholder Ministers in a Statement of Expectations (SoE). The Government issued NBN Co with a revised SoE in December 2022.¹

The revised SoE confirms the Government will retain NBN Co in public ownership for the foreseeable future, expand full-fibre access to more homes and businesses, and ensure the **nbn**[®] network delivers for customers and facilitates productivity.

NBN Co will enhance Australia's digital capability by delivering services to meet the current and future needs of households, communities and businesses, and promote digital inclusion and equitable access to affordable and reliable broadband services.



¹ [nbn.com.au/StatementofExpectations22](https://www.nbn.com.au/StatementofExpectations22)

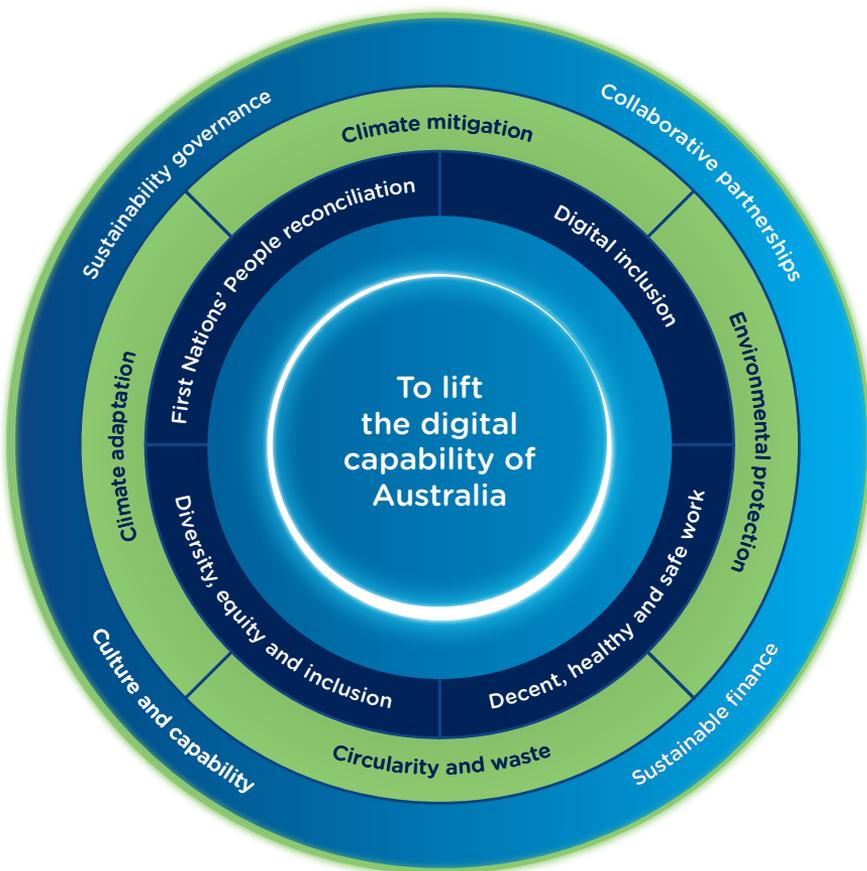
Sustainability Approach

Embedding sustainability across the Company’s activities supports NBN Co’s purpose to lift the digital capability of Australia, enabling long-term social, economic and environmental value for our people, customers, communities, partners, country and planet.

NBN Co’s Sustainability Approach¹ recognises how both social and environmental themes are interdependent, act as a system, and are enabled and controlled by governance. Taking action on environmental, social and governance themes creates and protects value for NBN Co and its stakeholders.

The Company’s Sustainability Approach is underpinned by an evidence-based, risk management approach, including materiality assessment and alignment to the latest climate science.

NBN Co’s Sustainability Approach



1 <https://www.nbnco.com.au/corporate-information/about-nbn-co/our-impact>

Governing NBN Co's Sustainability Approach

NBN Co's Sustainability Sub-Committee of the Executive Committee consists of six members and is responsible for the endorsement of the Sustainability Approach as well as overseeing the implementation of the Sustainability Program of Work. In FY23, the Sustainability Sub-Committee will continue to meet quarterly and support the integration of sustainability into business practices and programs. The Sustainability Sub-Committee reports to the Board biannually to oversee and monitor the effectiveness of NBN Co's Sustainability Approach and Sustainability Program of Work.

The four governance levers within NBN Co's Sustainability Approach - which are sustainability governance, culture and capability, collaborative partnerships and sustainable finance - enable and control action on NBN Co's social and environmental focus areas. The Sustainability Governance Framework underpins the implementation of the Company's sustainability strategy by outlining the arrangements for these four levers, supporting accountability for action, performance monitoring and reporting, and strengthening relationships between internal and external stakeholders.

Sustainability Program of Work

NBN Co's Sustainability Approach is supported by the FY23/24 Sustainability Program of Work (refer to Table 1 below), which includes key initiatives to support the achievement of environmental, social and governance objectives. An understanding of stakeholder expectations is obtained through the Company's sustainability materiality assessment, (which includes focus groups and interviews, media and external publication reviews, and peer analysis), and ongoing engagement with stakeholders including investors and external subject matter experts. The Sustainability Approach is endorsed by the Sustainability Sub-Committee of the Executive Committee, who report to the Board biannually to oversee and monitor the effectiveness of NBN Co's Sustainability Approach and Sustainability Program. The FY23/24 Sustainability Program of Work will help support NBN Co in meeting its environmental, social and governance objectives through key initiatives.

Table 1. NBN Co FY23/24 Sustainability Program of Work.

 <p>Environmental</p>	<p>Objective Operate a climate-resilient, resource-efficient network and business, aligned with the latest climate science, which protects the natural environment.</p>	<ul style="list-style-type: none"> • Develop a Climate Transition Plan including mitigation and adaptation actions to address physical climate change impacts • Explore how NBN Co can support Australia's transition to a Net Zero economy through product and service solutions • Explore how circular economy principles can be leveraged for NBN Co through a circularity framework and strategy
 <p>Social</p>	<p>Objective Enhance and protect social value by lifting the digital capability of Australia and enabling equity across our value chain.</p>	<ul style="list-style-type: none"> • Deliver diversity, equity and inclusion strategy and workplans • Release and deliver Reconciliation Action Plan (RAP) • Deliver digital inclusion programs • Deliver modern slavery workplan actions • Appraise and develop/explore a social value framework for NBN Co
 <p>Governance</p>	<p>Objective Manage our environmental and social risks, opportunities and issues through sustainability governance, sustainable finance, maturing our culture and capability and collaborative partnerships.</p>	<ul style="list-style-type: none"> • Embed sustainability throughout NBN Co including governance arrangements, to enable culture change • Transition to Integrated Reporting and commence Carbon Disclosure Project (CDP) and Green Bond impact reporting • Develop sustainability governance framework, to provide clarity for action on material sustainability risks, issues and opportunities

Supporting Australia's transition to a Net Zero emissions economy

The Commonwealth Government of Australia through the Climate Change Act 2022¹ has legislated a target to reduce emissions by 43 per cent compared with 2005 levels by 2030 and committed to achieve net zero emissions by 2050. This new target will make a responsible contribution to global efforts to keep 1.5°C of warming within reach.²

Through enabling digital connectivity, the **nbn**[®] network has the potential to enable reductions in emissions and reduce climate risks for homes and businesses across Australia. NBN Co will also reduce its own energy demand, and enable access to new modes of work to help businesses operate effectively.

While research has found that 'the emissions avoided through the use of Information and Communication Technologies (ICT) are nearly ten times greater than the emissions generated by deploying it'³, emissions in the ICT sector must dramatically reduce in line with the latest climate science.

Climate Mitigation and NBN Co

NBN Co is committed to setting and delivering long-term greenhouse gas emissions reduction targets and achieving Net-Zero emissions via the Science Based Targets initiative (SBTi)⁴. NBN Co's long-term greenhouse gas emissions reduction targets will be consistent with meeting and exceeding the Government's commitment to net zero emissions by 2050.

Mitigating the effects of climate change requires action now. That is why NBN Co is committed to setting near-term science-based emissions reduction targets via the SBTi⁴ (pending validation) and delivering on these commitments through our Climate Transition Plan, which covers three areas of action:

- Network
 - Deploying more fibre to neighbourhoods will enable homes and businesses to replace their copper connection, reducing NBN Co's energy demand
 - Implementing projects that reduce annual energy use by 25 GWh by December 2025
 - Target of purchasing 100 per cent renewable electricity from December 2025
 - Using electric or hybrid vehicles, where suitably available, by 2030.
- Customers
 - Improving the energy efficiency of devices used by customers to access the **nbn**[®] network.
- Communities and Partners
 - Engaging and partnering with suppliers to set science-based emission reductions targets
 - Enabling emission reductions through the **nbn**[®] network.

1. Climate Change Act 2022 ([legislation.gov.au](https://www.legislation.gov.au))

2. Australia's 8th National Communication on Climate Change (unfccc.int)

3. https://smarter2030.gesi.org/downloads/Full_report.pdf

4. The Science Based Targets initiative (SBTi) drives climate action in the private sector by enabling organisations to set science-based emissions reduction targets - <https://sciencebasedtargets.org/about-us>.

Sustainability Milestones

Table 2. Summary of NBN Co Sustainability Milestones from July 2020 to February 2023.

Timing	Milestone
2020	July NBN Co executes first renewable electricity power purchase agreement (PPA) in NSW
	October Sustainability Sub-Committee of Executive Committee established
	November Third Reconciliation Action Plan (RAP) launched
2021	January NBN Co publishes first Sustainability Report
	March NBN Co publishes first Modern Slavery Statement
	May Awarded Gold employer status in Australian Workplace Equality Index (AWEI)
	December NBN Co announces Towards Zero Carbon Ambition; joins RE100 and commits to a target of 100 per cent renewable electricity from December 2025; and commits to reducing its annual energy use by 25GWh by December 2025 and using electric or hybrid vehicles, where suitably available, by 2030 Publishes second Sustainability Report and Modern Slavery Statement
2022	January Modern Slavery working group established
	February Sustainability Bond Framework established
	March NBN Co commits to set near-term emissions reduction targets via the Science Based Targets Initiative (SBTi) ¹
	April First 5 year AUD \$800 million Green Bond issued Climate change transition elevated to material business risk
	June NBN Co's first enterprise-wide Climate Change Risk Assessment completed
	September Sustainability Approach and FY23/24 Sustainability Program of Work released Sustainability Approach embedded in the Company's value creation model and released through 2022 Annual Report Task Force on Climate Related Financial Disclosures (TCFD) included in NBN Co's 2022 Annual Report First environmental, social and governance (ESG) Data Book released on the NBN Co website Near-term science-based emissions reduction targets submitted to SBTi for validation
	October Sustainability Governance Framework established
	November NBN Co received KangaNews Awards for 2022: <ul style="list-style-type: none"> • Australian Corporate Issuer of the Year • Australian Sustainability Issuer of the Year
	December NBN Co publishes third Modern Slavery Statement NBN Co received Finance Asia's Achievement Awards for 2022 related to the AUD Green Bond: <ul style="list-style-type: none"> • Best Local Bond Deal • Best Sustainable Finance Deal - Corporate for Australia Sustainability embedded within the Board charter and Board skills matrix
	2023

1. The Science Based Targets initiative (SBTi) drives climate action in the private sector by enabling organisations to set science-based emissions reduction targets - <https://sciencebasedtargets.org/about-us>.

Sustainability Bond Framework

Overview

The Sustainability Bond Framework (the Framework) was established in February 2022 to demonstrate how the Company intends to enter transactions which support NBN Co's purpose, Sustainability Approach and Program of Work, as well as how NBN Co may issue Green, Social and Sustainability Bonds (GSS Bonds).

The Framework describes NBN Co's eligible green projects and eligible social projects which include assets, investments and other related and supporting expenditures (Eligible Projects). The net proceeds of the Company's GSS Bonds will be used to finance or refinance eligible green and social projects that deliver positive environmental and social outcomes.

Alignment to international standards & frameworks

International Capital Markets Association

NBN Co's Sustainability Bond Framework was developed to demonstrate how NBN Co may issue green bonds that are aligned with the Green Bond Principles (GBP)¹, social bonds that are aligned with the Social Bond Principles (SBP)², and sustainability bonds that are aligned with the GBP, SBP, and Sustainability Bond Guidelines (SBG).³

Inaugural Bond Report

The approach presented in this report is consistent with NBN Co's Sustainability Bond Framework, which remains in compliance with the International Capital Market Association (ICMA) Principles as at the date of this report.

UN SDG alignment

NBN Co supports the United Nations Sustainable Development Goals (SDGs), which were developed and adopted by all United Nations member states in 2015 to achieve a more sustainable future for all by 2030. NBN Co has identified SDGs 7, 8, 9 and 12 as most relevant to its Sustainability Bond Framework.

SDG 7 and 9 align to the 'Energy efficiency' GBP category, through expenditure and investments targeting improved energy efficiency of the **nbn**[®] network.



Other relevant standards and frameworks

NBN Co's Sustainability Approach and Program of Work is also informed by leading practice international standards and frameworks, including:

- Science Based Targets initiative (SBTi)⁴
- RE100 initiative
- International Integrated Reporting Framework
- Task Force on Climate-related Financial Disclosures (TCFD)
- Sustainability Accounting Standards Board (SASB) Telecommunication Services Sustainability Accounting Standard
- Global Reporting Initiative (GRI) Standards 2016.

For further details see the [2022 NBN Co Reporting Index](#).

1 <https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/>

2 <https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/social-bond-principles-sbp/>

3 <https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/sustainability-bond-guidelines-sbg/>

4. The Science Based Targets initiative (SBTi) drives climate action in the private sector by enabling organisations to set science-based emissions reduction targets - <https://sciencebasedtargets.org/about-us>.

Use of proceeds

The net proceeds of each Green Bond issued under the Framework will be exclusively applied to finance or refinance, in part or in full, new and/or existing eligible green projects that meet one or more of the following categories of eligibility as recognised in the Green Bond Principles (GBP).

The table below includes a sample of Eligible Green Projects which may be considered by NBN Co:

Eligible GBP Categories	Green Project Descriptions	SDG Mapping	
Energy efficiency	Deployment of Australia's broadband network, using a more energy-efficient technology such as a Fixed Line fibre optic connection instead of legacy technology (i.e. copper), to lift the digital capability of Australia.		
Renewable energy	Purchasing renewable electricity to power our network and infrastructure in line with our RE100 Commitment.		

The net proceeds of each Social Bond issued under the Framework will be exclusively applied to finance or refinance, in part or in full, new and/or existing eligible social projects that meet one or more of the following categories of eligibility as recognised in the Social Bond Principles (SBP).

The table below includes a sample of Eligible Social Projects which may be considered by NBN Co:

Eligible SBP categories	Target populations	Social project description	SDG Mapping	
Access to essential services and Socio-economic advancement and empowerment	Under-served regional and remote communities ¹	Deployment of Australia's broadband network for under-served regional and remote communities, using Fixed Wireless or Satellite technology, to lift the digital capability of Australia.		

The net proceeds of each GSS Bond issued under the Framework will be exclusively applied to finance or refinance, in part or in full, a combination of new and/or existing Eligible Green Projects and Eligible Social Projects.

¹ Underserved regional and remote communities includes those people living in regional and remote communities with low take up of broadband services. Communities are considered to be low take-up on the basis of low NBN Co network service penetration (i.e. the number of premises ready to connect compared to number of premises connected to a NBN Co network service) and where it is reported that mobile and legacy broadband services (ADSL/ADSL2) are sub-standard.

Project evaluation and selection process

NBN Co has a strong governance structure in place for sustainability and sustainable finance, supported by the Sustainability Governance Framework and Sustainability Bond Advisory Group.

NBN Co's sustainability and sustainable finance governance structure is visually represented below. Further details on key roles and responsibilities are described in the Framework.



Sustainability Bond Advisory Group

NBN Co has formed a Sustainability Bond Advisory Group to carry out the evaluation and selection process by following the procedures outlined in the Framework. The advisory group meets regularly to implement the Framework for the issuance of GSS Bonds, identify appropriate assets or projects to be funded from proceeds of GSS Bonds and manage the annual reporting process to bond investors. It considers and makes recommendations to the Financing Committee of the Board in respect of matters relating to Green, Social and Sustainability Bonds.

Management of proceeds

The proceeds of each GSS Bond will be allocated to finance or refinance Eligible Projects. This includes refinancing of existing debt which has been allocated to eligible projects as described in the Framework. NBN Co will track the receipt and use of proceeds via its internal reporting systems and leverage these systems to ensure the proceeds are fully allocated to Eligible Projects. NBN Co will monitor the allocation of proceeds from GSS Bonds on an aggregated basis. This means monitoring to ensure that proceeds have been allocated to a single common pool of Eligible Projects and ensure the aggregate value of the common pool is larger than the aggregate value of the proceeds on issue across all GSS Bonds. NBN Co intends to allocate the net proceeds of each GSS Bond to Eligible Projects within 24 months following receipt.

Reporting

NBN Co understands the importance of transparency and disclosure. All reporting will be in line with the applicable market standards for GSS Bonds, such as the GBP, SBP and SBG. Information will be available as follows:

Item	Frequency	Location
Sustainability Bond Framework	Prior to or at issuance of the first GSS Bond issued under the Framework, then for any subsequent Framework updates	NBN Co Debt Investor Information portal ¹
Second Party Opinion	Prior to or at issuance of first GSS Bond issued under the Framework and as at the time of any subsequent Framework updates	NBN Co Debt Investor Information portal
Annual Review and Assurance by an appropriate External Reviewer	Annually for all outstanding GSS Bonds	NBN Co Debt Investor Information portal
Sustainability Bond Report	Annually for all outstanding GSS Bonds	NBN Co Debt Investor Information portal

External Review

Sustainalytics provided a second-party opinion (SPO) confirming that the Framework is credible, impactful and aligns with the Green Bond Principles 2021 (GBP), Social Bond Principles 2021 (SBP) and Sustainability Bond Guidelines 2021 (SBG) administered by the International Capital Market Association (ICMA).

An appropriate external review provider has been engaged to provide independent limited assurance over NBN Co's compliance with the obligations contained within its Framework and selected impact metrics disclosed within this report for the financial years ended 30 June 2020 (FY20), 30 June 2021 (FY21) and 30 June 2022 (FY22).

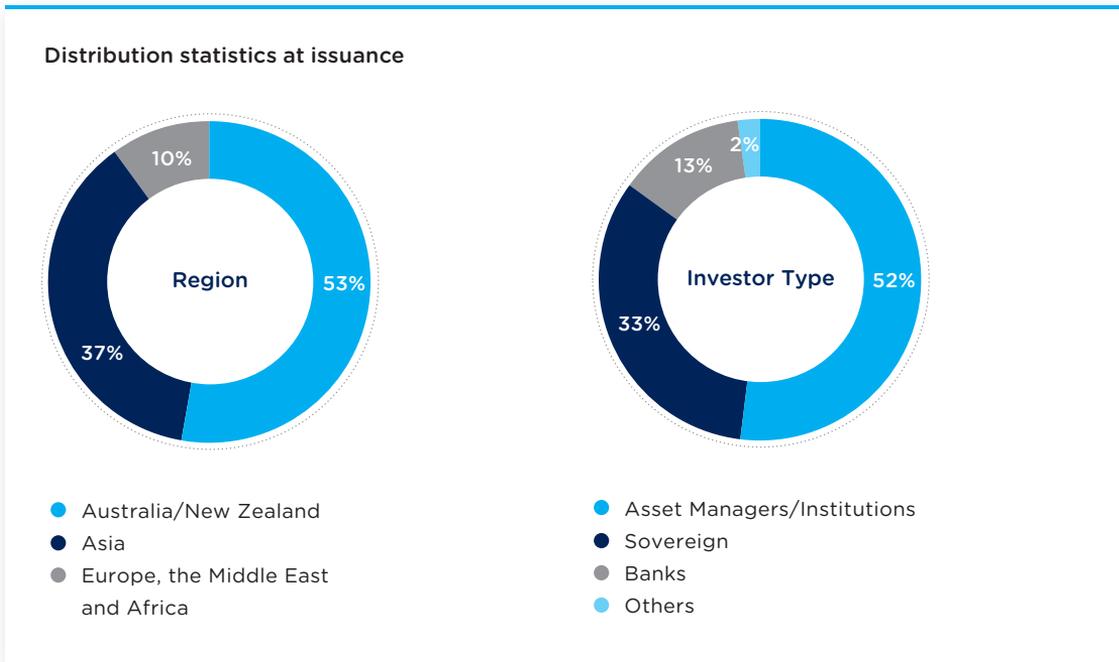
Inaugural Green Bond issuance

NBN Co issued its inaugural AUD 800 million “use of proceeds” Green Bond referencing the Sustainability Bond Framework in April 2022. This transaction represented the largest AUD Green Bond offering by an Australian corporate on record at that time and was also the largest single tranche Green, Social, Sustainable or Sustainability-linked bond offering in the corporate Australian Medium-Term Note market as at the time of issuance.

Key terms of the Green Bond are outlined below.

Issuer	NBN Co Limited
Issue Rating	Moody’s A1 Fitch AA
Ranking	Senior unsecured
Format	Use of proceeds fixed rate Green Bond
Tenor	5-year
Volume	AUD 800 million
Pricing date	8 April 2022
Settlement	14 April 2022
Maturity	14 April 2027
Coupon	4.20 per cent p.a.
ISIN	AU3CB0288397
Use of proceeds	100 per cent of the net proceeds raised from the bond have been earmarked to support the refinancing and financing of eligible energy efficiency projects that are aligned with the ICMA Green Bond Principles

A [pricing supplement](#) with full details of the Green Bond is available on NBN Co’s website.



Fund allocation

NBN Co has made significant progress to roll out more fibre infrastructure and deliver faster broadband services to Australians, deploying fixed line fibre optic connection on-demand, which is a more energy-efficient technology compared to legacy ADSL-based network.

The net proceeds of the April 2027 Green Bond, issued under NBN Co's Australian Medium-Term Note Programme and in line with the Sustainability Bond Framework, have been allocated to refinance and finance energy efficiency projects related to the build out of fibre in the **nbn**[®] network. The Green Bond further supports the company's commitment to reduce emissions by delivering fibre deeper into communities and improving the energy intensity of the network.

Green Bond allocation
as at 30 June 2022
(AUD million)

Eligible projects portfolio

Eligible Green Bond categories	
Energy efficiency	800
Renewable energy	-
Eligible Social Bond categories	
Access to essential services /socio-economic advancement and empowerment	-
Total eligible projects portfolio	800

Green Bond allocation as at 30 June 2022	Percentage (%)	Amount (AUD million)
Net proceeds allocated	100%	800
Unallocated proceeds	-	-
Allocation to capital expenditures	100%	800
Proceeds used for refinancing existing eligible projects	87.5%	700
Proceeds used for financing new eligible projects	12.5%	100

Impact metrics and calculation methods

NBN Co has two key metrics to demonstrate the energy and emissions impacts of investments made to enhance the **nbn**[®] network. The tables below outline the impact metrics, definitions, methods and results.

Impact metrics – definitions

Table 1. Impact metric definitions¹

Metric	Definition
Energy intensity	Measure of energy per unit of activity, using data traffic volumes (i.e. energy consumed per unit of activity). Only Scope 2 emissions have been included (i.e. electricity use) under a financial control boundary as per The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard. Terabyte of data downloaded used as unit of activity.
Emissions intensity	Measure of emissions per unit of activity, using data traffic volumes (i.e. emissions per unit of activity). Only Scope 2 emissions have been included. Emissions calculated using market-based methodology under a financial control boundary as per The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard ¹ . Terabyte of data downloaded used as unit of activity.

Impact metrics – Calculation methodology

Table 2. Impact metric calculation methods¹

Metric	Methods
Energy intensity	The methodology uses the total electricity consumed by the nbn [®] network in a given reporting year under a financial control boundary in kilowatt hours divided by the total data downloaded by the nbn [®] network in terabytes.
Emissions intensity	The methodology uses the total Scope 2 emissions generated by the nbn [®] network in a given reporting year under a financial control boundary and market-based calculation method in kilograms of carbon dioxide equivalents divided by the total data downloaded by the nbn [®] network in terabytes.

Impact metrics – results

Table 3. Impact metric results¹

Indicator	Units	FY20	FY21	FY22
Energy intensity	kWh/TB	15.05	11.42	9.07
Emissions intensity	kgCO ₂ -e/TB	12.12	8.87	6.88

¹ A - The energy and emissions intensity metrics for the **nbn**[®] network are calculated under a financial control boundary as per the Greenhouse Gas Accounting Protocol: A Corporate Accounting and Reporting Standard.

B - The financial control boundary has been selected to align with NBN Co's RE100 Commitment and science-based emissions reduction targets that are submitted to the SBTi and pending validation.

C - As per the Greenhouse Gas Accounting Protocol: A Corporate Accounting and Reporting Standard, the financial control boundary includes energy use and Scope 2 emissions from the **nbn**[®] network, which includes: FTTP, FTTN, FTTC, HFC, Fixed Wireless, Satellite, Transit Network Infrastructure and other supporting network and non-network infrastructure.

D - The energy and emissions intensity metrics exclude NBN Co's Scope 1 emissions.

Case Studies

CASE STUDY



Upgrading and extending energy-efficient fibre

nbn Sustainability Approach focus area: **Climate Mitigation, Climate Adaption & Digital Inclusion**

nbn Sustainability Bond Framework eligible categories: **Energy Efficiency**

To meet Australia's growing need for broadband the Company is continuing to invest in the **nbn**[®] network by extending the fibre footprint. Full fibre connections will help deliver faster broadband speeds, better reliability, are more energy efficient, and support the provision of additional data capacity across the **nbn**[®] network.

Fibre optic connections are more energy efficient and lower the overall cost of maintenance compared with copper. More energy efficient technology will help the Company realise its Towards-Zero Carbon Ambition by helping to decrease the overall power consumption of the network.

Expanding gigabit capability has been a core element of the Company's strategy since it announced its initial fibre upgrade program as part of NBN Co's [Corporate Plan 2021](#).

The net proceeds from the Green Bond were used to finance and refinance eligible green projects related to the fibre upgrade of the **nbn**[®] network.

In October 2022, the Australian Government announced further investment of \$2.4 billion to support NBN Co to enable an additional 1.5 million homes and businesses currently served by FTTN to upgrade to full fibre (FTTP) services. This additional investment will benefit over 660,000 premises in regional Australia.

NBN Co is on track to deliver on its goal of enabling around 10 million homes and businesses across Australia to access **nbn**[®] Home Ultrafast, offering wholesale download speeds of 500 Mbps to close to 1 Gbps by the end of 2025.¹

In addition to supporting the digital economy, this project will create thousands of jobs for construction workers, engineers and project managers in regional and metropolitan areas.

NBN Co is leveraging Nokia's next generation fibre solutions and Webscale for a faster, smarter, and greener network which offers greater capacity, space efficiency, low latency, intelligence, reliability and power efficiency.

NBN Co will be the first operator in the Southern Hemisphere to adopt Nokia's MF-14 platform. Deployment is expected to commence in 2023.



¹ Regardless of the retail service you purchase, the actual maximum wholesale speeds delivered to RSPs will be less than 1Gbps due to **nbn**[®] equipment and network limitations. In addition, HFC Home Ultrafast speeds will fall anywhere in the range of 500Mbps to close to 1Gbps and operate with a maximum sustained information rate of 750Mbps. An end customer's experience, including the speeds actually achieved, depends on some factors outside our control (like customer equipment quality, software, and how your retail service provider designs its network) and the **nbn**[®] technology used for your connection.



CASE STUDY

NBN Co’s first renewable electricity Power Purchase Agreement (PPA)

nbn Sustainability Approach focus area:	Climate Mitigation
nbn Sustainability Bond Framework eligible categories:	Renewable Energy

NBN Co has committed to a target of 100 per cent renewable electricity purchases from December 2025. This commitment is underpinned by membership of the RE100, a global renewable electricity initiative comprising 397 of the world’s largest businesses. NBN Co was the first Australian telecommunications company and first Australian Government Business Enterprise to join RE100.

Supporting this commitment, NBN Co has entered into its first renewable power purchase agreement in relation to a new solar farm under construction in the Riverina area of New South Wales.

Construction of the solar farm commenced in FY22. When operational - which is expected to be later in 2023 - the 260-hectare site at West Wyalong, 370 kilometres from Sydney, will generate enough electricity to power the equivalent of 27,000 Australian homes.

NBN Co is contracted to take approximately 80 Gigawatt hours (GWh) per year, or more than 50 per cent of the expected power generated by the solar farm. This equates to around 55 per cent of the Company’s electricity consumption in NSW, and 19 per cent of electricity consumed nationally.

Construction of the solar farm is expected to create up to 150 local jobs and help stimulate the local economy.



CASE STUDY



Fixed Wireless in peri-urban and regional areas

nbn Sustainability Approach focus area:	Digital Inclusion
nbn Sustainability Bond Framework eligible categories:	Access to essential services and socio-economic advancement and empowerment

The **nbn**[®] network is helping to improve connectivity, lift digital capability, and unlock social and economic benefits for people across Australia.

More than one million premises are able to connect to the **nbn**[®] Fixed Wireless and Satellite networks, with over 500,000 now connected. Population growth in regional areas, combined with ever increasing data usage, has put increasing demand on the Company's regional networks. There is also a predicted 300 per cent rise in customer demand for data on the **nbn**[®] Fixed Wireless network alone over the next ten years. So investing in regional customers through Fixed Wireless and Satellite upgrades is a crucial part of the Company's continued commitment to regional Australia.

The Fixed Wireless and Satellite Upgrade Program is a \$750 million co-investment initiative between the Australian Government (which contributed \$480 million), and NBN Co (who will contribute \$270million) to help meet the growing needs of homes and businesses in regional Australia. The Fixed Wireless and

Satellite Upgrade Program is part of NBN Co's eligible social assets under the Sustainability Bond Framework. The net proceeds from the Green Bond were not part of this upgrade program.

NBN Co will use the funding to upgrade the **nbn**[®] Fixed Wireless network using 4G technology and software enhancements and the latest 5G millimetre wave technology. The enhancements are being made across more than 2,300 Fixed Wireless infrastructure sites. The Company will use the latest technology from Ericsson to vastly extend the range, speed and capacity of the existing Fixed Wireless network, while reducing latency to deliver the best possible customer experience.

Ericsson's extended range innovation will enable NBN Co to extend its Fixed Wireless network range, from 14 km to at least 29 kms in many areas (subject to network capacity and topography), expanding the fixed wireless footprint by up to 50 per cent. This expansion will enable an additional 120,000 to move from Satellite to Fixed Wireless.

This will deliver more coverage, reduce congestion, improve reliability, and give access to higher speeds to customers - driving major benefits to homes and businesses across regional and remote Australia.



Independent limited assurance report



To: The Board of Directors of NBN Co Limited

Independent limited assurance report on identified information in NBN Co Limited's Sustainability Bond Report

Scope

In accordance with the terms of our engagement we were engaged by NBN Co Limited (the Company) to perform an independent limited assurance engagement in respect of:

- Net proceeds allocated as at 30 June 2022 against the eligibility criteria as outlined in the Company's Sustainability Bond Framework Version 1.0 (February 2022) (the SBF);
- The energy intensity and emissions intensity impact metrics for the financial years ended 30 June 2020, 2021, and 2022 (impact metrics);
- Management's assertion regarding compliance of the SBF with the applicable Green Bond Principles (GBP) (June 2021 – with June 2022 Appendix 1), Social Bond Principles (SBP) (June 2021 – with June 2022 Appendix 1) and Sustainability Bond Guidelines (SBG) (June 2021) as issued by the International Capital Markets Association (ICMA) (collectively, the ICMA Principles) as at 14 February 2023; and
- Management's assertion regarding compliance of the Company's outstanding Green, Social and Sustainability Bonds (the GSS Bonds) with the SBF as at 14 February 2023.

The above will herein be referred to as the "Subject Matter" contained within the Company's Sustainability Bond Report dated 14 February 2023. We have not performed any procedures with respect to other periods or any other elements included in the Sustainability Bond Report and, therefore, do not express any conclusion thereon.

Subject Matter

The Subject Matter included within the scope of our engagement comprised the following:

Net proceeds allocated to Green Bond Projects eligible per the SBF as at 30 June 2022

Table 1:

Eligible Green Bond Categories	Green Bond allocation as at 30 June 2022 (AUD million)
Energy Efficiency	800
<i>Comprised of:</i>	
Proceeds used for refinancing existing eligible Energy Efficiency projects	700
Proceeds used for financing new eligible Energy Efficiency projects	100
Total allocation of proceeds	800

PricewaterhouseCoopers, ABN 52 780 433 757
 One International Towers Sydney, Watermans Quay, Barangaroo NSW 2000, GPO BOX 2650 Sydney NSW 2001
 T: +61 2 8266 0000, F: +61 2 8266 9999, www.pwc.com.au
 Level 11, 1PSQ, 169 Macquarie Street, Parramatta NSW 2150, PO Box 1155 Parramatta NSW 2124
 T: +61 2 9659 2476, F: +61 2 8266 9999, www.pwc.com.au

Liability limited by a scheme approved under Professional Standards Legislation.



Impact metrics for the financial years ended 30 June 2020, 2021, and 2022

Table 2:

Impact metric	Units	FY20	FY21	FY22
Energy Intensity	kWh/TB	15.05	11.42	9.07
Emissions Intensity	kgCO2-e/TB	12.12	8.87	6.88

Compliance-related assertions made in the Sustainability Bond Report

The following assertions were made by management of NBN Co in the Sustainability Bond Report:

1. The Company's SBF is in compliance with the applicable Green Bond Principles (GBP) (June 2021 – with June 2022 Appendix 1), Social Bond Principles (SBP) (June 2021 – with June 2022 Appendix 1) and Sustainability Bond Guidelines (SBG) (June 2021) as issued by the International Capital Markets Association (ICMA) (collectively, the ICMA Principles) as at 14 February 2023
2. The Company's outstanding Green, Social and Sustainability Bonds (the GSS Bonds) are in compliance with the SBF as at 14 February 2023.

Reporting Criteria

The criteria (the "Reporting Criteria") against which we assessed the Subject Matter was prepared by NBN Co Limited and is as follows:

Table 3:

Subject Matter	Reporting Criteria
Net proceeds allocated as at 30 June 2022	<p>Per the SBF, the net proceeds of each Green Bond issued under the SBF will be exclusively applied to finance or refinance, in part or in full, new and/or existing eligible green projects that meet one or more of the following categories of eligibility as recognised in the GBP:</p> <ul style="list-style-type: none"> • Energy efficiency • Renewable efficiency
Energy Intensity	<p>Measure of energy per unit of activity, using data traffic volumes (i.e. energy consumed per unit of activity). Only Scope 2 emissions have been included (i.e. electricity use) under a financial control boundary as per The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard Terabyte of data downloaded used as unit of activity.</p> <p>The methodology uses total electricity consumed by the nbn® network in a given reporting year under a financial control boundary in kilowatt hours divided by the total data downloaded on the nbn® network in terabytes.</p>
Emissions Intensity	<p>Measure of emissions per unit of activity, using data traffic volumes (i.e. emissions per unit of activity). Only Scope 2 emissions have been included. Emissions calculated using market-based methodology under a financial</p>

Independent limited assurance report



	<p>control boundary as per The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard. Terabyte of data downloaded used as unit of activity.</p> <p>The methodology uses total Scope 2 emissions generated by the nbn® network in a given reporting year under a financial control boundary and market-based calculation method in kilograms of carbon dioxide equivalents divided by the total data downloaded by the nbn® network in terabytes.</p>
<p>Management's assertion that the Company's SBF is in compliance with the ICMA principles as at 14 February 2023</p>	<p>The core components within the ICMA Principles:</p> <ul style="list-style-type: none"> • Use of proceeds • Process for project evaluation and selection • Management of proceeds • Reporting
<p>Management's assertion that outstanding GSS Bonds are in compliance with the SBF as at 14 February 2023.</p>	<p>The five core components as documented in the Company's Sustainable Bond Framework:</p> <ul style="list-style-type: none"> • Use of proceeds • Process for project evaluation and selection • Management of proceeds • Reporting • External review

Management's responsibilities

The Management of NBN Co Limited is responsible for:

1. The allocation of net proceeds allocated in accordance with the Reporting Criteria, as outlined in Table 3, as at 30 June 2022. This responsibility includes the design, implementation, and maintenance of internal controls relevant to the allocation of Net proceeds, such that the allocation of Net Proceeds is free from material misstatement, whether due to fraud or error.
2. The preparation of the impact metrics in accordance with the Reporting Criteria, as outlined in Table 3, for the financial years ended 30 June 2020, 2021 and 2022. This responsibility includes the design, implementation, and maintenance of internal controls relevant to the preparation of the impact metrics, such that the impact metrics are free from material misstatement, whether due to fraud or error.
3. Providing an assertion with respect to the outcome of the evaluation of the compliance activity as at 14 February 2023 against the Reporting Criteria in Table 3.
4. The compliance activities undertaken to meet the following obligations:
 - (i) Identification of the obligations within the ICMA Principles and SBF
 - (ii) SBF's compliance with the ICMA Principles as at 14 February 2023.
 - (iii) Issuance of the Green, Social and Sustainability Bonds (the GSS Bonds) in compliance with the SBF as at 14 February 2023.
5. Identification of risks that threaten the compliance requirements identified above being met and implementation of controls which will mitigate those risks and monitoring ongoing compliance.



Our Independence and Quality control

We have complied with the ethical requirements of the Accounting Professional and Ethical Standard Board's APES 110 Code of Ethics for Professional Accountants (including Independence Standards) relevant to assurance engagements, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

Our firm applies Australian Standard on Quality Management 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.

Our responsibilities

Our responsibility is to express a limited assurance conclusion on the Subject Matter based on the procedures we have performed and the evidence we have obtained. We conducted our limited assurance engagement in accordance with Australian Standard on Assurance Engagements 3000 (Revised), *Assurance Engagements other than Audits or Reviews of Historical Financial Information*¹, and, in respect of the impact metrics, Australian Standard on Assurance Engagements 3410, *Assurance Engagements on Greenhouse Gas Statements*, issued by the Australian Auditing and Assurance Standards Board.

These standards require that we plan and perform this engagement to obtain limited assurance about whether anything has come to our attention that the Subject Matter is not prepared, in all material respects, in accordance with the Reporting Criteria, for the periods specified above.

Given the circumstances of the engagement, in performing the procedures listed above we:

- through discussion, enquiries and observation and walk-throughs, obtained an understanding of the process for collecting and reporting the Subject Matter, as evaluated against the Reporting Criteria;
- through discussion, enquiries and observation, obtained an understanding of the SBF and the ICMA Principles and internal control environment to meet compliance requirements, as evaluated against the SBF and the ICMA Principles;
- through discussion, enquiries, observation and walk-throughs, obtained an understanding of relevant activities that are undertaken to meet the compliance requirements, as evaluated against the SBF and the ICMA Principles;
- performed enquiries of relevant staff responsible for preparing the Subject Matter;
- performed limited substantive testing on a selective basis of the Subject Matter to check that data had been appropriately measured, recorded, collated and reported;
- sought management representation on key assertions; and
- considered the disclosure and presentation of the Subject Matter.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement. Accordingly, we do not express a reasonable assurance opinion.

Independent limited assurance report



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

Use of report

This report was prepared for use by the Board of Directors of NBN Co Limited for the purpose of providing limited assurance over compliance with the obligations contained within their Sustainability Bond Framework. We disclaim any assumption of responsibility for any reliance on this report to any persons or users other than the Board of Directors of NBN Co Limited, or for any purpose other than that for which it was prepared.

Inherent limitations

Because of the inherent limitations of any assurance engagement due to the selective testing of the information examined, it is possible that fraud, error or non-compliance may occur and not be detected. A limited assurance engagement is not designed to detect all instances of non-compliance of the Subject Matter with the Reporting Criteria, as it is limited primarily to making enquiries of management, and applying analytical procedures.

The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measures and measurement techniques and can affect comparability between entities. In addition, greenhouse gas quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emissions factors and the values needed to combine emissions of different gases. The limited assurance conclusion expressed in this report has been formed on the above basis.

Conclusion

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the Subject Matter has not been prepared, in all material respects, in accordance with the Reporting Criteria for the following periods:

- Net proceeds allocated as at 30 June 2022 against the eligibility criteria as outlined in the Company's Sustainability Bond Framework dated February 2022 (the SBF);
- The energy intensity and emissions intensity impact metrics for the financial years ended 30 June 2020, 30 June 2021 and 30 June 2022;
- Management's assertion that NBN Co Limited's SBF is in compliance with the ICMA Principles as at 14 February 2023; and
- Management's assertion that outstanding GSS Bonds are in compliance with the Company's SBF as at 14 February 2023.

PricewaterhouseCoopers

PricewaterhouseCoopers

Rosalie Wilkie

Rosalie Wilkie

Partner

Sydney

14 February 2023

SYDNEY

Level 13, 100 Mount Street
North Sydney NSW 2060
Telephone: 61 2 9926 1900

MELBOURNE

Tower 5, Level 14
727 Collins Street
Docklands Victoria 3008
Telephone: 61 3 8662 8000

HOBART

Level 1-2, 54 Victoria Street
Hobart Tasmania 7000
Telephone: 61 3 6236 4726

CANBERRA

Unit 2, 16 National Circuit
Barton ACT 2600
Telephone: 61 2 9926 1900

PERTH

Level 4, 202 Pier Street
Perth WA 6000
Telephone: 61 8 6274 6000

ADELAIDE

Level 2, 31-33 Richmond Road
Keswick SA 5035
Telephone: 61 3 8662 8000

DARWIN

Unit 6, Terminal 1 Building,
396 Stuart Highway
Winnellie NT 0820
Telephone: 61 3 8662 8000

BRISBANE

44 Southgate Avenue
Cannon Hill Queensland 4170
Telephone: 61 2 9926 1900

