

**national
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bank**



Green Bond Report 2022

Key information

This Green Bond Report (Report) includes general background information about the activities of National Australia Bank Limited ABN 12 004 044 937 (NAB) and its controlled entities (together, the Group) for the year ended 30 September 2022 (unless otherwise stated herein). It is information in a summary form and does not purport to be complete.

This Report does not constitute an offer or invitation for the sale or purchase of securities, nor does it form part of any prospectus or offering document relating to any securities of NAB. Distribution of this Report may be restricted or prohibited by law. Recipients are required to inform themselves of, and comply with, all such restrictions or prohibitions and NAB does not accept liability to any person in relation thereto.

While care has been taken in preparing the information in this Report, NAB does not warrant or represent that such information is accurate, reliable, complete, or current.

Anyone proposing to rely on or use such information should independently verify and check the accuracy, completeness, reliability, and suitability of the information and should obtain independent and specific advice from appropriate professionals or experts. Certain information in this Report has been sourced from third parties, and this Report also directs readers to publicly available third-party information over which NAB has no control. NAB takes no responsibility for the accuracy, currency or completeness of such information.

In this Report, a designation of 'green', 'social', 'sustainable' and/or 'sustainability-linked' is based on the application of relevant external guidelines and principles, such as the International Capital Market Association (ICMA) Green/Social/Sustainability-Linked Bond Principles, ICMA Sustainability Bond Guidelines, Loan Market Association (LMA)/Asia Pacific Loan Market Association (APLMA)/Loan Syndications and Trading Association (LSTA) Green/Social/Sustainability-Linked Loan Principles and/or the Climate Bonds Standard sector criteria.

This Report contains statements that are, or may be deemed to be, forward looking statements, including climate-related goals, targets, pathways and ambitions. These forward looking statements may be identified by the use of forward looking terminology, including the terms "believe", "estimate", "plan", "project", "anticipate", "expect", "goal", "target", "intend", "likely", "may", "will", "could" or "should" or, in each case, their negative or other variations or other similar expressions, or by discussions of strategy, plans, objectives, targets, goals, future events or intentions. You are cautioned not to place undue reliance on such forward looking statements. Such forward looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of the Group. This may cause actual results to differ materially from those expressed or implied in such statements. There are uncertainties, assumptions and judgements underlying climate-related metrics that limit the extent to which climate-related metrics are useful for decision-making and you are cautioned not to place undue reliance on the information in this Report. The measures and forward-looking statements in this Report reflect the Group's best estimates, assumptions and judgements as at the date of the Report, however, the uncertainty in climate-related metrics, methodologies and modelling may lead to the Group changing its views in the future.

The information in this Report has been prepared based on NAB's financial year ended 30 September 2022. Where information as at 30 September 2022 was not available, information for the closest 12 month period available was used.

NAB has only used client information in case studies and tables within this Report where readily available. Where information is not available, it has not been represented in the Report.

Introduction

NAB is pleased to present its annual Green Bond Report for the financial year ended 30 September 2022. This Report relates to NAB's Green Bond Portfolio (three NAB Green Bonds⁽¹⁾ and NAB's ubank Green Term Deposits), as well as NAB's Green Instruments (Green Residential Mortgage Backed Security (Green RMBS) tranches and the NAB Low Carbon Shared Portfolio (LCSP)) as at 30 September 2022 and provides reporting on the use of the proceeds for these instruments and their environmental impact.

It is NAB's intent to be transparent about the methodologies underlying its Green Bond Reporting and the attribution of key aspects of the environmental impact arising from NAB's lending activities.

NAB seeks to implement key aspects of best practice for annual impact reporting, based on guidelines developed by the ICMA set out in the June 2022 publication of the [Harmonised Framework for Impact Reporting](#), together with input from investors, assurance providers and guidance from other sources including the Climate Bonds Initiative (CBI) and the Green Bond Principles (GBP). NAB continues to work with these stakeholders and seeks to improve its annual impact reporting and disclosure over time.

Addressing sustainability

Sustainability is embedded within the 'long-term' pillar of NAB's strategy. NAB's ambition is to drive commercial responses to society's biggest challenges, create resilient and sustainable business practices, and innovate for the future.

Environmental issues, including climate change, biodiversity loss and ecosystem degradation, are considered across the business. NAB recognises that nature underpins economic activity and human wellbeing, and is taking action to further integrate consideration of nature-related risks and opportunities. This includes further developing NAB's understanding of natural capital to better support customers. More information on NAB's approach to biodiversity and natural capital can be found in NAB's [2022 Annual Report](#).

NAB's climate ambition is to act as a catalyst for climate action, supporting emissions reduction and aligning with pathways to net zero by 2050, consistent with a maximum temperature rise of 1.5°C above pre-industrial levels by 2100.

This approach is underpinned by core beliefs:

- Climate transition can create growth for the economy.
- Management of climate transition is core to NAB's business, not an adjacency.
- NAB will be relationship-led, supported by strong enabling capabilities.
- External targets will be science-based and aligned with NAB's climate strategy.

Climate action is everybody's job and NAB is playing its part. The challenge is formidable, and NAB still has work to do to embed further consideration of climate-related risks and opportunities throughout the bank.

NAB's climate strategy

NAB refined its climate strategy in 2022 (Figure 1). The climate strategy is designed to maximise the climate transition's economic benefits for customers and NAB and help to achieve NAB's emissions reduction targets.

NAB is acting now for the long-term, with the strategy requiring immediate actions to support achieving targets well into the future. NAB's focus remains unchanged, taking a relationship-led approach that prioritises supporting customers to decarbonise and build resilience. While NAB recognises the beneficial impact made by reducing NAB's own greenhouse gas emissions, NAB can have a greater impact by helping the economy transition, through the finance it provides. NAB joined the Net Zero Banking Alliance (NZBA) in December 2021.

In 2022, NAB appointed a Chief Climate Officer. The creation of this role reflects the increasing requirements in all parts of the economy, and all parts of the bank, to support the transition to a low emissions future. This role is responsible for driving the execution of the climate strategy.

NAB Green Bonds provide an opportunity for investors to direct capital towards projects and assets or other related expenditures that may contribute towards the objectives of the Paris Agreement or may address environmental challenges including pollution reduction and control, reducing biodiversity loss and ecosystem degradation, improving water security and the development of a circular economy.

NAB regularly discloses progress against its climate strategy, including associated goals, targets, and risk settings.

Figure 1 presents a summary of NAB's climate change priorities, with detailed disclosure on NAB's management of the impacts of climate change, progress against targets and broader sustainability performance available in NAB's inaugural [2022 Climate Report](#), as well as in the [2022 Annual Report](#) and the [2022 Sustainability Data Pack](#).

(1) NAB Climate Bonds and NAB Sustainable Development Goal (SDG) Bonds are together referred to as 'NAB Green Bonds'.

Figure 1: NAB's climate strategy priorities

Grow by supporting our customers to decarbonise and to build resilience

- Supporting customers with their transition plans.
- Providing measurements, insights and advice to customers to help them understand their climate transition needs and opportunities to reduce their emissions.
- Funding customer transitions.
- Financing emission reduction activities and renewable energy growth.
- Financing farms and homes to enable customers to increase resilience to physical climate risks including severe weather events.
- Financing and investing in new industries contributing to the sustainable energy supply chain.
- Connecting customers to carbon capital markets and sustainable investments.

Investing in climate capabilities

- Investing in colleagues.
- Investing in data and technology.
- Investing in risk management.
- Investing in partnerships, research and development and advocacy.

Reducing financed emissions

- Member of the Net Zero Banking Alliance.
- Setting sector decarbonisation targets, prioritising emissions-intensive sectors, where there is sufficient data availability and quality.
- Investing in colleagues, processes and technology to support emissions monitoring and achieving targets.

Reducing operational emissions

- Target to source 100% renewable energy by 2025.
- Maintaining carbon neutrality for emissions yet to be reduced.

NAB's Green Bond Framework

NAB's Green Bond Framework

NAB has developed and implemented a NAB Green Bond Framework (Framework) which applies to its Green Bond Portfolio⁽¹⁾ and its Green Instruments⁽²⁾, which are certified under the Climate Bonds Standard (CBS) and also supports and contributes towards meeting the United Nations' Sustainable Development Goals (UN SDGs).

The Framework has been developed to help NAB meet the requirements of the CBS, which integrates the ICMA GBP. The Framework describes the processes to support NAB's Green Bond issuance, in the following areas:

- (a) Use of proceeds.
- (b) Process for evaluation and selection of eligible projects and assets.
- (c) Management of proceeds.
- (d) Reporting.
- (e) External review and assurance.

Use of proceeds

NAB allocates an amount equivalent to the net proceeds of the Green Bond Portfolio and Green Instruments towards financing, or refinancing, a portfolio of projects and assets that are in accordance with the Framework and meet eligibility requirements for certification in compliance with version 3.0 of the CBS and associated sector criteria.

Process for evaluation and selection of eligible projects and assets

NAB has established a Socially Responsible Investment Forum which oversees the Framework and Green Bond Reporting.

The eligible projects and assets supporting the Green Bond Portfolio (Green Bond Portfolio Collateral Pool) may be replenished as underlying loans are repaid, non-compliant projects or assets are removed, and additional eligible projects and assets are identified and funded or reallocated into the Green Bond Portfolio Collateral Pool.

Management of proceeds

NAB has implemented processes for the identification, approval, tagging, tracking and reporting of lending for eligible green projects and assets within NAB's core systems. This includes monthly verification to confirm that an amount equal to the net proceeds of all outstanding NAB Green Bonds has been fully allocated against eligible projects and assets.

Reporting

NAB adopts annual Green Bond Reporting in line with ICMA GBP for reporting, including an annual verification for the NAB Green Bond Portfolio and the Green Instruments. For the Green Bond Portfolio, this reporting package will contain details including, but not limited to:

- Net proceeds raised from the Green Bond Portfolio.
- Proceeds from the Green Bond Portfolio allocated against each of the Green Bond eligible categories identified within the Framework.
- A listing of eligible projects and assets included within the Green Bond Portfolio Collateral Pool.
- Where possible, qualitative and/or quantitative environmental impact reporting measures for the eligible projects and assets within the Green Bond Portfolio Collateral Pool, including calculation methodologies utilised in impact reporting.
- Any unallocated proceeds from the Green Bond Portfolio and details of temporary investments (if any).
- Confirmation from a verification agent that the use of proceeds of the Green Bond Portfolio is in compliance with the Framework and CBS requirements.

Disclosure of information related to projects, assets and expenditures financed or re-financed by NAB Green Bond proceeds will be made subject to NAB's confidentiality obligations and the availability of information.

Amounts are presented in Australian dollars (unless otherwise stated), which is NAB's functional and presentation currency.

External review and assurance

On an annual basis, NAB will engage an appropriate verification agent or agents to provide assurance over the NAB Green Bond Report, including impact reporting.

The independent verification agent also provides assurance that the Green Bond Portfolio and Green Instruments remain in compliance with the Framework and the post-issuance requirements of the CBS. Following this annual verification update, the verification agent issues its verification statement.

For the verification of this Report, NAB has retained DNV GL as the independent verification agent for its Green Bond Portfolio and Green Instruments. The NAB annual Green Bond Report and Verification Statement are published on the [NAB Capital & Funding website](#).

(1) Includes NAB's three green bonds and the ubank Green Term Deposit.
(2) Refers to the Green RMBS and the LCSP.

Green Bond Portfolio

Green Bond Portfolio summary

As at 30 September 2022, NAB had AUD 5,891,697,192⁽¹⁾⁽²⁾ of assets in its Green Bond Portfolio Collateral Pool located across Australia & New Zealand, the UK, Europe, and the USA. With AUD 3,837,551,133 outstanding in the Green Bond Portfolio there was a surplus of AUD 2,054,146,059 of collateral as at 30 September 2022.

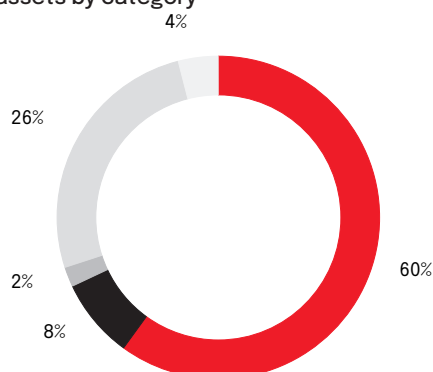
Issuances / Assets	Total (AUD)
Green Bond Portfolio Collateral Pool	5,891,697,192
Green Bond Portfolio (including Green Term Deposits)	3,837,551,133
Surplus in Green Bond Portfolio Collateral Pool	2,054,146,059

Geographic split of eligible assets in Green Bond Portfolio Collateral Pool⁽³⁾

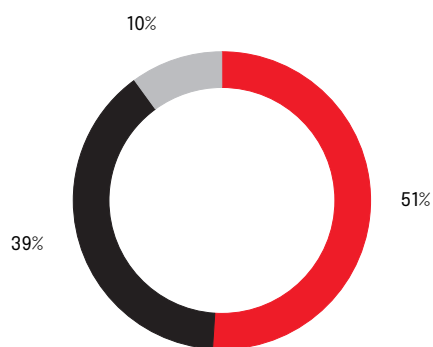
	Australia & New Zealand ⁽¹⁾	UK & Europe	USA	Total
	\$	\$	\$	\$
Renewable energy and energy efficiency	819,531,460	2,168,684,675	570,556,714	3,558,772,849
Clean transportation	346,571,379	145,620,149	-	492,191,528
Sustainable water and wastewater management	85,296,126	-	-	85,296,126
Green buildings	1,542,378,689	-	-	1,542,378,689
Environmentally sustainable management of living natural resources and land use	213,058,000	-	-	213,058,000
Grand Total	3,006,835,654	2,314,304,824	570,556,714	5,891,697,192

(1) New Zealand relates only to Clean Transportation.

Eligible assets by category



Eligible assets by region



- Renewable energy and energy efficiency
- Clean transportation
- Sustainable water and wastewater management
- Green buildings
- Environmentally sustainable management of living natural resources and land use

- Australia & New Zealand
- UK & Europe
- USA

(1) All AUD equivalent amounts in this Report are based on closing exchange rates published by the Reserve Bank of Australia (RBA) as at 30 September 2022. <https://www.rba.gov.au/statistics/historical-data.html#exchange-rates>.

(2) All amounts are rounded to the nearest whole number.

(3) The report has been updated to reflect the eligible categories in the NAB Green Bond Framework, and therefore smart meters have been re-categorised under renewable energy and energy efficiency.

NAB's Green Bond Portfolio

As at 30 September 2022, NAB had three outstanding senior unsecured green bonds, each certified in compliance with the CBS, with proceeds fully allocated to financing and refinancing a portfolio of CBS eligible projects located across Australia & New Zealand, the UK, Europe, and the USA. The identified portfolio of eligible projects is consistent with transitioning to a low-carbon economy and contributing towards meeting the UN SDGs.

	NAB SDG EUR Green Bond	NAB SDG USD Green Bond	NAB SDG EUR Green Bond
Format	Fixed Rate MTNs	Fixed Rate MTNs	Fixed Rate MTNs
Issue Amount	€750 million	US\$750 million	€1,000 million
Issue Date	30 August 2018	20 June 2018	24 May 2022
Final Maturity Date	30 August 2023	20 June 2023	24 May 2028
ISIN	XS1872032369	US63254ABA51	XS2484111047
Assurance	Certified in compliance with the CBS and in accordance with the NAB Green Bond Framework , with assurance provided by DNV GL.	Certified in compliance with the CBS and in accordance with the NAB Green Bond Framework , with assurance provided by DNV GL.	Certified in compliance with the CBS and in accordance with the NAB Green Bond Framework , with assurance provided by DNV GL.
Use of Proceeds	Proceeds are earmarked for financing, or refinancing, a portfolio of projects and assets that meet eligibility requirements for certification under the CBS which also support and contribute towards meeting the UN SDGs.	Proceeds are earmarked for financing, or refinancing, a portfolio of projects and assets that meet eligibility requirements for certification under the CBS which also support and contribute towards meeting the UN SDGs.	Proceeds are earmarked for financing, or refinancing, a portfolio of projects and assets that meet eligibility requirements for certification under the CBS which also support and contribute towards meeting the UN SDGs.

Additional information about NAB Green Bonds can be found on the [NAB Capital & Funding webpage](#).

ubank Green Term Deposit

In 2019, ubank, a division of NAB, launched the world's first CBS certified green term deposit for consumers.

	ubank Green Term Deposit
Format	Green Term Deposit
Outstanding Deposit Amount as at 30 September 2022	AUD 39,801,133 ⁽¹⁾
Launch Date	13 March 2019
Assurance	Certified in compliance with the CBS, with assurance provided by DNV GL.
Use of Proceeds	Proceeds are set aside for financing, or refinancing, a portfolio of projects and assets that meet eligibility requirements for certification under the CBS.

(1) ubank no longer offers the green term deposit product to new customers, this has contributed to the decline in the balances from \$133 million for the 2021 full year.

Impact and use of proceeds

UN SDG Alignment and Contribution⁽¹⁾

NAB SDG Green Bond proceeds will be set aside for financing, or refinancing, portfolios of projects and assets which meet eligibility requirements for certification under the Climate Bonds Standard, and also support and contribute towards meeting the SDGs as described below. Eligible categories and project types are identified within the CBI Climate Bonds Taxonomy and are supported by sector criteria published by the CBI.

Renewable energy and energy efficiency

- Aligns to UN SDG 7: Affordable & Clean Energy and towards UN SDG Target 7.2 – By 2030, increase substantially the share of renewable energy in the global energy mix.
- Aligns to UN SDG 11: Sustainable Cities & Communities and towards UN SDG Target 11.6 – By 2030, reduce the adverse per capita environmental impact of cities.

Smart meters

- Aligns to UN SDG 7: Affordable & Clean Energy and to UN SDG Target 7.3 – By 2030, double the global rate of improvement in energy efficiency.

Clean transportation

- Aligns to UN SDG 9: Industry innovation and infrastructure and to UN SDG Target 9.1 – Sustainable & resilient infrastructure.
- Aligns to UN SDG 11 Sustainable Cities & Communities and to UN SDG Target 11.6 – By 2030, reduce the adverse per capita environmental impact of cities.

Sustainable water and wastewater management

- Aligns to UN SDG 6: Ensure availability and sustainable management of water and sanitation for all and to UN SDG Target 6.3 – By 2030, improve water quality.
- Aligns to UN SDG 9: Industry innovation and infrastructure and to UN SDG Target 9.1 – Sustainable & resilient infrastructure.

Green buildings (commercial office)

- Aligns to UN SDG 7: Affordable & Clean Energy and to UN SDG Target 7.3 – By 2030, double the global rate of improvement in energy efficiency.
- Aligns to UN SDG 11: Sustainable Cities & Communities and to UN SDG Target 11.6 – By 2030, reduce the adverse per capita environmental impact of cities.

Low carbon buildings (Residential for NAB Green RMBS)

- Aligns to UN SDG 7: Affordable & Clean Energy and to UN SDG Target 7.3 – By 2030, double the global rate of improvement in energy efficiency.
- Aligns to UN SDG 11: Sustainable Cities & Communities and to UN SDG Target 11.6 – By 2030, reduce the adverse per capita environmental impact of cities.

(1) SDI Asset Owner Platform, Taxonomy, <https://www.sdi-aop.org>.

Case studies

The net proceeds raised through the issuance of the Green Bond Portfolio have been allocated against a range of eligible categories of assets. This section includes examples of projects which have been funded.

Renewable energy and energy efficiency

Energy efficiency - UK smart meters

Calisen is an owner and manager of essential energy infrastructure assets, especially in the installation and management of smart meters in the UK⁽¹⁾ and has received NAB funding since 2018. According to Calisen, 'smart meters are considered to be a key enabler of progress in the new decentralised and digital energy landscape in Britain, and a key element of the investment required to move towards decarbonisation'.

A smart meter is a device with a digital two-way communication system that measures when and how much electricity or gas is used by a household. It can record this information as frequently as in 30 minute intervals and transmits it directly to the energy retailer. Accurate real time information is provided via an 'In Home Display' device that consumers can use to manage energy use, save money and reduce emissions⁽²⁾. Smart meters are also a key enabler for innovative dynamic 'time of use' tariffs that can, for example, avoid peak times or focus on when there is excess clean electricity available⁽³⁾.

Using analysis from the UK Department of Business, Energy and Industrial Strategy⁽⁴⁾ (DBEIS), it has been estimated that Calisen's installed smart meter portfolio as at 31 December 2022 is anticipated to contribute towards a total lifetime carbon emissions reduction of 4.2 million tonnes by 2037 resulting from household energy savings alone.⁽⁵⁾

Clean shipping

KiwiRail Interislander Ferries

NAB's Green Bond Portfolio Collateral Pool includes lending to KiwiRail for its two new Interislander ferries which in the 2022 financial year became the first green shipping loan in the world to be certified by the CBI⁽⁶⁾. KiwiRail is state-owned and operates the Interislander ferry network, as well as the rail and long-distance passenger rail network⁽⁷⁾ in New Zealand.

The new ferries are being built by Hyundai Mipo Dockyard and are due for completion in 2025 and 2026. Each vessel will be able to hold 1,910 passengers and 90 crew. In order to achieve CBI certification KiwiRail demonstrated a clear path for fuel and propulsion systems achieving zero carbon emissions by 2050⁽⁸⁾. Once the Interislander's four old ferries are phased out, the new ferries are expected to achieve a 40% reduction in Interislander's carbon emissions⁽⁸⁾, by operating on a combination of diesel, battery, and shore power.

From the start of each trip, 30% of each crossing, including port time, will be battery and shore powered. The propulsion of the ferries operates via diesel-electric hybrids with two azimuth thrusters and a battery package.

To capitalise on advancements in clean-power technology over time, it is planned that the electrical installation, switchboard, transformers and other components will be future-proofed to allow for pure battery operation on a two-way journey when the battery technology can support the service requirements of Interislander.

A key part of the hybrid propulsion system and its ability to deliver carbon reductions is New Zealand's dominant source of electricity generation⁽⁶⁾. At least 40% of New Zealand's electricity⁽⁸⁾ is derived from renewable energy (hydroelectric, geothermal and wind).



(1) <https://www.calisen.com/about-us/>.

(2) <https://www.gov.uk/guidance/smart-meters-how-they-work>.

(3) <https://www.gov.uk/government/publications/smart-meter-enabled-tariffs-comparison-project-smarter-tariffs-smarter-comparisons>.

(4) <https://www.gov.uk/government/publications/smart-meters-statistics-methodology-note>.

(5) Sourced directly from Calisen, and based on analysis completed by DBEIS.

(6) <https://www.kiwirail.co.nz/who-we-are/sustainability/green-loan-certification/>.

(7) <https://www.kiwirail.co.nz/our-network/our-regions/>.

(8) <https://www.energymix.co.nz/our-consumption/new-zealands-consumption/>.

Impact and use of proceeds by region

NAB has only used client information where readily available. Where information is not available, it has not been represented in the tables that follow.

Renewable energy and energy efficiency

Australia

Asset ⁽¹⁾	CBI sector criteria	A/M ⁽²⁾	Status (C/O) ⁽³⁾	Annual energy produced (MWh) ⁽⁴⁾	NAB's outstanding drawn debt amount (\$)	Annual GHG emissions avoided (tCO ₂ -e)	NAB's % share of debt (attribution of impact) ⁽⁵⁾	Annual GHG emissions avoided attributable to NAB (tCO ₂ -e) ⁽⁶⁾
Wind 1	Wind	M	O	58,187	5,366,842	40,692	37%	14,997
Wind 2	Wind	M	O	304,520	21,616,568	261,004	14%	37,286
Wind 3	Wind	M	O	494,844	35,890,100	454,878	28%	127,366
Wind 4	Wind	M	O	420,527	34,621,061	75,279	25%	18,820
Wind 5	Wind	M	O	305,348	40,513,312	323,380	31%	101,780
Wind 6	Wind	M	O	227,274	6,063,830	158,892	100%	158,892
Wind 7	Wind	M	O	564,258	30,959,804	518,767	17%	89,090
Wind 8	Wind	M	C	-	45,438,383	-	17%	-
Wind 9	Wind	M	O	928,901	88,608,746	981,006	15%	144,266
Wind 10	Wind	M	O	33,086	27,771,429	35,020	14%	5,003
Wind & Hydro 1	Wind & Hydropower	M	O	1,009,403	27,551,640	917,478	13%	118,122
Solar 1	Solar	M	O	234,059	27,103,908	201,291	19%	37,969
Solar 2	Solar	M	O	239,404	19,572,362	88,579	16%	13,977
Solar 3	Solar	M	O	205,677	36,730,702	75,153	34%	25,656
Solar 4	Solar	M	O	153,686	41,527,743	55,635	50%	27,766
Solar 5	Solar	M	O	100,353	19,435,133	106,167	33%	35,364
Solar 6	Solar	M	O	230,566	37,752,342	210,736	41%	86,360
Solar 7	Solar	M	O	366,388	13,000,000	332,452	100%	332,452
Portfolio 1	Wind	M	O	2,909,154	96,553,739	2,593,200	8%	195,825
Portfolio 2	Wind & Solar	M	O	2,911,899	61,973,018	2,588,829	97%	2,512,066
Portfolio 3	Solar	M	O	-	101,480,798	185,093	51%	94,074
Total				11,697,534	819,531,460	10,203,531		4,177,131

(1) NAB's sequential numbering of assets reflects the dynamic and changing nature of the portfolio with new assets consistently being added and removed from NAB's Green Bond Portfolio Collateral Pool.

(2) Column indicates whether the project aims to mitigate climate change (M) or adapt to climate change (A). Refer to 5.0 in the methodology on page 21 for definitions.

(3) Column indicates whether the project was under construction (C) or operational (O) as at 30 September 2022. Certain multi-stage projects classified as 'operational' may still have portions of the project under construction.

(4) Refer to 1.1 in the methodology on page 20 for information relating to the annual energy (MWh) produced by each asset.

(5) Calculated as NAB's committed debt limit/total group syndicate debt limit.

(6) Refer to 1.0 in the methodology on page 20 for calculations relating to emissions avoided for the renewables portfolio.

Impact and use of proceeds by region (cont.)

Renewable energy and energy efficiency (cont.)

UK & Europe

Asset ⁽¹⁾	CBI sector criteria	A/M ⁽²⁾	Status (C/O) ⁽³⁾	Annual energy produced (MWh) ⁽⁴⁾	NAB's outstanding drawn debt amount (\$)	Annual GHG emissions avoided (tCO ₂ -e)	NAB's % share of debt (attribution of impact) ⁽⁵⁾	Annual GHG emissions avoided attributable to NAB (tCO ₂ -e) ⁽⁶⁾
Wind 1	Wind	M	O	153,844	52,744,447	40,238	47%	18,834
Wind 2	Wind	M	O	1,608,200	71,462,675	420,625	13%	53,582
Wind 3	Wind	M	O	567,281	36,506,200	148,372	7%	10,087
Wind 4	Wind	M	O	114,425	21,549,408	36,181	87%	31,318
Wind 5	Wind	M	O	2,194,645	18,854,000	574,009	1%	8,439
Wind 6	Wind	M	O	755,972	114,650,281	197,725	20%	39,057
Wind 7	Wind	M	O	4,349,800	428,500,000	1,137,690	100%	1,137,690
Wind 8	Wind	M	O	2,472,000	107,855,101	449,368	8%	36,293
Wind 9	Wind	M	O	1,743,000	103,764,987	455,882	13%	57,410
Wind & Solar 1	Wind & Solar	M	O	607,600	41,056,246	151,626	48%	72,640
Wind & Solar 2	Wind & Solar	M	O	7,765,020	93,145,622	2,154,428	24%	510,825
Wind & Solar 3 ⁽⁷⁾	Wind & Solar	M	O	-	19,552,537	-	3%	-
Wind & Solar 4	Wind & Solar	M	O	-	226,650,000	-	32%	-
Wind & Solar 5	Wind & Solar	M	O	377,910	94,385,013	98,843	33%	32,529
Solar 1	Solar	M	O	773,100	35,811,156	202,204	14%	27,527
Solar Portfolio 1	Solar	M	O	606,400	59,079,287	131,407	11%	14,602
Renewables Fund 1 ⁽⁸⁾	Wind & Solar	M	O	5,377,000	113,722,550	1,164,946	11%	128,822
Renewables Fund 2	Wind & Solar	M	O	-	197,815,540	-	33%	-
Renewables Portfolio 1	Wind & Solar	M	O	-	38,663,245	-	15%	-
Renewables Portfolio 2	Wind & Solar	M	O	670,400	46,499,144	84,088	11%	9,460
Renewables Portfolio 3	Wind, Bioenergy, Hydropower & Solar	M	O	1,656,441	24,465,043	433,242	8%	36,376
Smart Meters 1	Electrical grids and storage	M	O	56,788	105,210,404	14,853	11%	1,673
Smart Meters 2	Electrical grids and storage	M	O	117,797	38,488,921	27,804	8%	2,191
Smart Meters 3	Electrical grids and storage	M	O	415,475	78,252,868	88,762	7%	5,884
Total				32,383,098	2,168,684,675	8,012,293		2,235,239

(1) NAB's sequential numbering of assets reflects the dynamic and changing nature of the portfolio with new assets consistently being added and removed from NAB's Green Bond Portfolio Collateral Pool.

(2) Column indicates whether the project aims to mitigate climate change (M) or adapt to climate change (A). Refer to 5.0 in the methodology on page 21 for definitions.

(3) Column indicates whether the project was under construction (C) or operational (O) as at 30 September 2022. Certain multi-stage projects classified as 'operational' may still have portions of the project under construction.

(4) Refer to 1.2 and 1.3 in the methodology on page 20 for information relating to the annual energy (MWh) produced by each asset.

(5) Calculated as NAB's committed debt limit/total group syndicate debt limit.

(6) Refer to 1.0 in the methodology on page 20 for calculations relating to emissions avoided for the renewables portfolio.

(7) This facility is a revolving credit facility and is drawn down for the purpose of acquiring solar and wind farms. As such, there will be no emissions calculations associated with this entity.

(8) A portion of the fund's renewables were grouped under three countries. NAB chose the lowest of the country's emissions factors to provide the most conservative estimate of emissions avoided.

Impact and use of proceeds by region (cont.)

Renewable energy and energy efficiency (cont.)

USA

Asset ⁽¹⁾	CBI sector criteria	A/M ⁽²⁾	Status (C/O) ⁽³⁾	Annual energy produced (MWh)	NAB's outstanding drawn debt amount (\$)	Annual GHG emissions avoided (tCO ₂ -e)	NAB's % share of debt (attribution of impact)	Annual GHG emissions avoided attributable to NAB (tCO ₂ -e) ⁽⁴⁾
Geothermal 1	Geothermal energy	M	O	5,519,169	45,374,076	1,358,787	2%	23,019
Portfolio 1	Wind & Solar	M	O	2,140,196	150,962,524	877,327	13%	116,163
Portfolio 2	Wind	M	O	66,663	151,762,158	30,203	17%	5,210
Solar 1	Solar	M	O	29,779	21,440,352	23,756	17%	3,924
Wind 1	Wind	M	O	345,713	39,990,059	85,113	13%	11,127
Wind 2	Wind	M	O	254,397	27,932,179	62,631	13%	8,188
Wind 3	Wind	M	O	462,942	19,621,275	254,615	30%	76,890
Wind and Solar 1	Wind & Solar	M	O	8,328,791	113,474,091	3,412,410	13%	447,698
Total				17,147,650	570,556,714	6,104,842		692,219

(1) NAB's sequential numbering of assets reflects the dynamic and changing nature of the portfolio with new assets consistently being added and removed from NAB's Green Bond Portfolio Collateral Pool.

(2) Column indicates whether the project aims to mitigate climate change (M) or adapt to climate change (A). Refer to 5.0 in the methodology on page 21 for definitions.

(3) Column indicates whether the project was under construction (C) or operational (O) as at 30 September 2022. Certain multi-stage projects classified as 'operational' may still have portions of the project under construction.

(4) Refer to 1.0 in the methodology on page 20 for calculations relating to emissions avoided for the renewables portfolio.

Impact and use of proceeds by region (cont.)

Clean transportation

Australia & New Zealand

Asset ⁽¹⁾	CBI sector criteria	A/M ⁽²⁾	Status (C/O) ⁽³⁾	Number of electric vehicles and charging infrastructure	NAB's outstanding drawn debt amount (\$)	Annual total number of passenger trips per annum	Annual total kilometres (km)	Operational information
Low Carbon Transport 1	Clean transportation	M	O	-	41,999,077	3,165,958 ⁽⁴⁾	969,929 ⁽⁵⁾	<ul style="list-style-type: none"> Improved disability access across stations and trains with additional handrails, access ramps, priority seats and wheelchair spaces. Electricity used to power rail vehicles, maintenance and administration buildings are 100% renewable. Energy recovery via regenerative braking system. 93% of vehicle components are recycled. Track slab uses a fibreglass reinforcing material, reducing the volume of concrete and steel required. Achieved IS As-Built Rating of "Leading". Stage 1 achieved an ISCA Rating of 88.
Low Carbon Transport 2	Clean transportation	M	O	-	74,897,917	N/A	9,027,202 ⁽⁶⁾	<ul style="list-style-type: none"> Trains feature energy efficient LED cabin lighting and regenerative braking technology. Maintenance facility uses solar panels to supplement power usage and manages storm water with dedicated bio-basins. Estimated 7,946 tonnes of avoided CO₂ emissions over project life (relative to a baseline that includes public transport).
Low Carbon Transport 3	Clean transportation	M	O	-	93,918,465	N/A	12,320,000 ⁽⁷⁾	<p>Features of rail fleet include:</p> <ul style="list-style-type: none"> Smart air conditioning. Improved lighting using energy saving LED lighting. Energy recovery via regenerative braking system. Improved disability access with additional handrails, priority seats and more wheelchair spaces.
Low Carbon Transport 4	Clean transportation	M	C	-	51,570,430	15,557,800 ⁽⁷⁾	N/A	<ul style="list-style-type: none"> Improved disability access across stations and trains with additional handrails, priority seats and wheelchair spaces. 100% of operational electricity needs offset. 57% of operations staff from culturally and linguistically diverse backgrounds. Achieved IS As-Built Rating of 'Leading'.

Impact and use of proceeds by region (cont.)

Asset ⁽¹⁾	CBI sector criteria	A/M ⁽²⁾	Status (C/O) ⁽³⁾	Number of electric vehicles and charging infrastructure	NAB's outstanding drawn debt amount (\$)	Annual total number of passenger trips per annum	Annual total kilometres (km)	Operational information
Low Carbon Transport 5	Clean transportation	M	O	-	60,623,296	-	-	Project to replace existing infrastructure with new metro line: <ul style="list-style-type: none"> 100% clean spoil will be beneficially reused. 90% of construction and demolition waste will be recycled.
Low Carbon Transport 6	Clean transportation	M	O	-	17,891,919	N/A	N/A	Asset consists of a hybrid diesel-electric crane which uses innovative hydro-pneumatic technology to increase energy efficiency and reduce diesel use.
Low Carbon Transport 7	Clean transportation	M	O	41	170,275	N/A	N/A	Asset consists of a securitisation warehouse which provides customers loans for both new and used electric vehicles and electric vehicle charging infrastructure.
Clean Shipping 1	Clean transportation	M	C	-	5,500,000	N/A	N/A	Funding is for the construction of two CBI certified ferries in New Zealand. See 'Case Studies' for further details.
Total				41	346,571,379	18,723,758	22,317,131	

(1) NAB's sequential numbering of assets reflects the dynamic and changing nature of the portfolio with new assets consistently being added and removed from NAB's Green Bond Portfolio Collateral Pool.

(2) Column indicates whether the project aims to mitigate climate change (M) or adapt to climate change (A). Refer to 5.0 in the methodology on page 21 for definitions.

(3) Column indicates whether the project was under construction (C) or operational (O) as at 30 September 2022. Certain multi-stage projects classified as 'operational' may still have portions of the project under construction.

(4) Last twelve months (LTM) to Dec-22

(5) LTM to Dec-22.Total since 2019 is 3,459,557.

(6) LTM to Dec-22.Total since 2017 is 38,297,652.

(7) LTM to Dec-22.

UK & Europe

Asset ⁽¹⁾	CBI sector criteria	A/M ⁽²⁾	Status (C/O) ⁽³⁾	Number of electric vehicles and charging infrastructure	NAB's outstanding drawn debt amount (\$)	Annual total number of passenger trips per annum	Annual total kilometres (km)	Operational information
Low Carbon Transport 1	Clean transportation	M	O	N/A	145,620,149	N/A	6,900,000	Financing provided to fund additional rail carriages increasing capacity on a commuter train network.
Total					145,620,149		6,900,000	

(1) NAB's sequential numbering of assets reflects the dynamic and changing nature of the portfolio with new assets consistently being added and removed from NAB's Green Bond Portfolio Collateral Pool.

(2) Column indicates whether the project aims to mitigate climate change (M) or adapt to climate change (A). Refer to 5.0 in the methodology on page 21 for definitions.

(3) Column indicates whether the project was under construction (C) or operational (O) as at 30 September 2022. Certain multi-stage projects classified as 'operational' may still have portions of the project under construction.

Impact and use of proceeds by region (cont.)

Sustainable water and wastewater management

Australia

Asset ⁽¹⁾	CBI sector criteria	A/M ⁽²⁾	Status (C/O) ⁽³⁾	NAB's outstanding drawn debt amount (\$)	Current installed capacity	Total emissions (tCO ₂ -e)	Annual gigalitres of fresh drinking water made available
Desalination plants	Sustainable water and wastewater management	A	O	85,296,126	In aggregate, the plants can supply 241.25 GL of water to their surrounds annually, if required.	100% of the plants' energy is obtained from renewable sources or offset by Renewable Energy Certificates.	147.3

(1) NAB's sequential numbering of assets reflects the dynamic and changing nature of the portfolio with new assets consistently being added and removed from NAB's Green Bond Portfolio Collateral Pool.

(2) Column indicates whether the project aims to mitigate climate change (M) or adapt to climate change (A). Refer to 5.0 in the methodology on page 21 for definitions.

(3) Column indicates whether the project was under construction (C) or operational (O) as at 30 September 2022. Certain multi-stage projects classified as 'operational' may still have portions of the project under construction.

Green buildings

Australia

Green buildings will play an important role in Australia contributing to the achievement of the Paris Agreement goals. Loans in the Green Bond Portfolio Collateral Pool to finance green buildings had a total value of AUD 1,542,378,689. Commercial buildings in the Green Bond Portfolio Collateral Pool have an average NABERS energy rating of 5.41, which is above the NABERS published Australian average of 4.9 stars for commercial buildings.

In our FY20 and FY21 Green Bond Reports, the equivalent *Low Carbon Buildings* tables contained a transposition error relating to annual portfolio GHG emissions avoided. The amounts reported represented kgCO₂-e however the relevant column for each table was labelled tCO₂-e. For comparative purposes, the correct numbers expressed in tCO₂-e are 166,656 for FY20 and 129,143 for FY21.

Asset ⁽¹⁾	CBI sector criteria	A/M ⁽²⁾	Status (C/O) ⁽³⁾	NAB's eligible low carbon commercial buildings outstanding drawn debt amount (\$)	Average portfolio NABERS energy rating	Annual portfolio energy savings achieved (MWh)	Annual portfolio GHG emissions avoided (tCO ₂ -e)
188 Australian low carbon commercial office buildings	Green Buildings	M	O	1,542,378,689	5.41	544,768	130,429

(1) NAB's sequential numbering of assets reflects the dynamic and changing nature of the portfolio with new assets consistently being added and removed from NAB's Green Bond Portfolio Collateral Pool.

(2) Column indicates whether the project aims to mitigate climate change (M) or adapt to climate change (A). Refer to 5.0 in the methodology on page 21 for definitions.

(3) Column indicates whether the project was under construction (C) or operational (O) as at 30 September 2022. Certain multi-stage projects classified as 'operational' may still have portions of the project under construction.

Impact and use of proceeds by region (cont.)

Environmentally sustainable management of living natural resources and land use

Australia

Asset ⁽¹⁾	CBI sector criteria	A/M ⁽²⁾	Status (C/O) ⁽³⁾	NAB's outstanding drawn debt amount (\$)	Estimated increase in area planted (Ha) per annum	Estimated increase in number of new trees planted per annum	Estimated native forest preserved (Ha) per annum	NAB's % share of debt (attribution of impact) ⁽⁴⁾	Total annual GHG emissions sequestered (tCO ₂ -e)	Annual GHG emissions avoided attributable to NAB (tCO ₂ -e)
Forestry 1	Environmentally sustainable management of living natural resources and land use	M	O	55,000,000	-	-	-	100%	-	-
Forestry 2	Environmentally sustainable management of living natural resources and land use	M	O	54,050,000	-	-	-	100%	-	-
Forestry 3	Environmentally sustainable management of living natural resources and land use	M	O	100,000,000	945	970,760	122,293	83%	53,000,000	44,166.667
Forestry 4	Environmentally sustainable management of living natural resources and land use	M	O	4,008,000	-	-	-	12%	-	-
Total				213,058,000	945	970,760	122,293		53,000,000	44,166,667

(1) NAB's sequential numbering of assets reflects the dynamic and changing nature of the portfolio with new assets consistently being added and removed from NAB's Green Bond Portfolio Collateral Pool.

(2) Column indicates whether the project aims to mitigate climate change (M) or adapt to climate change (A). Refer to 5.0 in the methodology on page 21 for definitions.

(3) Column indicates whether the project was under construction (C) or operational (O) as at 30 September 2022. Certain multi-stage projects classified as 'operational' may still have portions of the project under construction.

(4) Calculated as NAB's committed debt limit/total group syndicate debt limit.

NAB's Green Instruments

NAB's Green RMBS

In 2018, NAB issued the first Australian Green RMBS (RMBS 2018-1, Green Tranche A1-G), and in 2022, NAB issued a second Australian Green RMBS (RMBS 2022-1), both certified in compliance with the CBS. The LCSP trust was terminated in June 2022 and is not included in this Report.

	NAB RMBS 2018-1 – Green Tranche A1-G	NAB RMBS 2022-1 – Green Tranche A1-G
Format	Green RMBS A1-G Notes	Green RMBS A1-G Notes
Issue Amount	A\$300m	A\$500m
Outstanding Issue Amount as at 30 September 2022	A\$74m	A\$423m
Issue Date	15 February 2018	30 June 2022
Final Maturity Date	24 August 2049	22 December 2053
ISIN	AU3FN0040622	AU3FN0069035
Assurance	Certified in compliance with the CBS, with assurance provided by DNV GL.	Certified in compliance with the CBS, with assurance provided by DNV GL.
Use of Proceeds	Proceeds earmarked against NAB originated mortgages for Australian residential properties that meet the CBS sector specific criteria for low carbon buildings.	Proceeds earmarked against NAB originated mortgages for Australian residential properties that meet the CBS sector specific criteria for low carbon buildings.

Green buildings (residential) – eligible asset pool for NAB RMBS 2018-1 A1-G green tranche (as at September 2022)

Project Name	Asset Type	Details	A/M ⁽¹⁾	Status (C/O) ⁽²⁾	Eligible Low Carbon Residential Mortgages Balance outstanding (AUD)	Annual emissions avoided (tCO ₂ e)
Australian Residential Mortgages	Australian low carbon residential buildings	Mortgages for 618 residential properties which meet the CBS criteria for Australian low carbon residential buildings diversified across New South Wales, Victoria, and Tasmania.	M	O	132,283,228	130

(1) Column indicates whether the project aims to mitigate climate change (M) or adapt to climate change (A). Refer to 5.0 in the methodology on page 21 for definitions.

(2) Column indicates whether the project was under construction (C) or operational (O) as at 30 September 2022. Certain multi-stage projects classified as 'operational' may still have portions of the project under construction.

Green buildings (residential) – eligible asset pool for NAB RMBS 2022-1 A1-G green tranche (as at September 2022)

Project Name	Asset Type	Details	A/M ⁽¹⁾	Status (C/O) ⁽²⁾	Eligible Low Carbon Residential Mortgages Balance outstanding (AUD)	Annual emissions avoided (tCO ₂ e)
Australian Residential Mortgages	Australian low carbon residential buildings	Mortgages for 1,637 residential properties which meet the CBS criteria for Australian low carbon residential buildings diversified across New South Wales, Victoria, and Tasmania.	M	O	613,885,371	540

(1) Column indicates whether the project aims to mitigate climate change (M) or adapt to climate change (A). Refer to 5.0 in the methodology on page 21 for definitions.

(2) Column indicates whether the project was under construction (C) or operational (O) as at 30 September 2022. Certain multi-stage projects classified as 'operational' may still have portions of the project under construction.

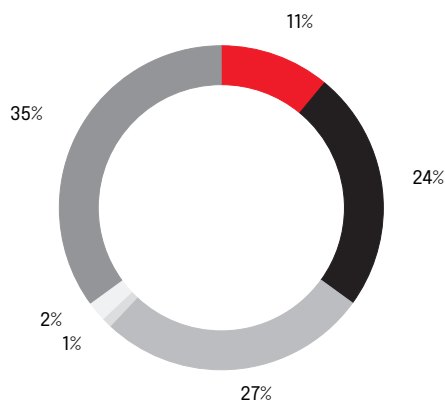
Breakdown of NAB RMBS 2018-1 green mortgage pool as at September 2022⁽¹⁾

Green loan status as at 30 September 2022	Number of loans	Balance of loans (\$)	Number of loans (as a % of NAB RMBS 2018-1 total green and non-green mortgage pool)	Balance of loans (as a % of NAB RMBS 2018-1 total green and non-green mortgage pool)
Green mortgage	618	132,283,228	21%	24%
Non-green mortgage	2,301	424,027,531	79%	76%
Total	2,919	556,310,759	100%	100%

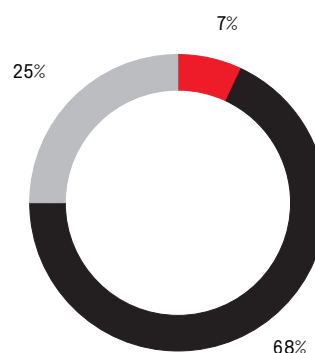
Green mortgages - Geographic distribution as at 30 September 2022	Number of loans	Balance of loans (\$)	Number of loans (%)	Balance of loans (%)
NSW non-metro	163	31,995,173	26%	24%
NSW Sydney inner city	147	35,552,242	24%	27%
TAS Hobart metro	6	871,977	1%	1%
TAS non-metro	2	293,576	0%	0%
VIC Melbourne inner city	9	2,923,823	1%	2%
VIC Melbourne metro	208	45,765,439	34%	35%
VIC non-metro	83	14,880,998	13%	11%
Total	618	132,283,228	100%	100%

Green loans - Distribution of loans by property type as at 30 September 2022	Number of loans	Balance of loans (\$)	Number of loans (%)	Balance of loans (%)
Apartment/Unit/Flat	45	9,430,610	7%	7%
House	429	89,727,048	69%	68%
Other	144	33,125,570	23%	25%
Total	618	132,283,228	100%	100%

Balance of loans - geographic distribution



Balance of loans - property type



- VIC non-metro
- NSW non-metro
- NSW Sydney inner city
- TAS Hobart metro
- VIC Melbourne inner city
- VIC Melbourne metro
- Apartment / Unit / Flat
- House
- Other

(1) NAB, Capital and Funding, <https://capital.nab.com.au/popup-disclaimers/securitisation-deal-summaries.phps>.

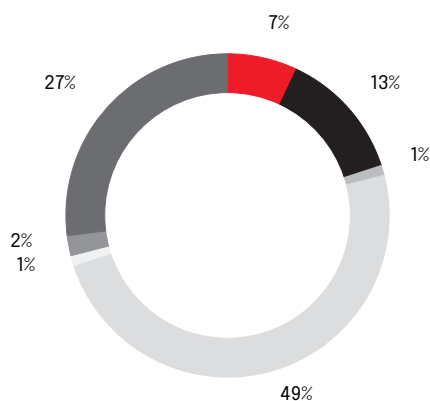
Breakdown of NAB RMBS 2022-1 green mortgage pool as at September 2022⁽¹⁾

Green loan status as at 30 September 2022	Number of loans	Balance of loans (\$)	Number of loans (%)	Balance of loans (%)
Green mortgage	1,637	613,885,371	41%	48%
Non-green mortgage	2,355	674,370,950	59%	52%
Total	3,992	1,288,256,321	100%	100%

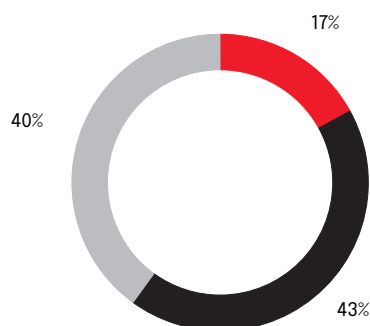
Green mortgages - Geographic distribution as at 30 September 2022	Number of loans	Balance of loans (\$)	Number of loans (%)	Balance of loans (%)
NSW non-metro	291	83,283,427	18%	13%
NSW Sydney inner city	9	5,939,680	0%	1%
NSW Sydney metro	653	299,408,199	40%	49%
TAS Hobart metro	15	4,395,222	1%	1%
TAS non-metro	8	1,999,093	0%	0%
VIC Melbourne inner city	29	10,446,100	2%	2%
VIC Melbourne metro	474	167,393,029	29%	27%
VIC non-metro	158	41,020,621	10%	7%
Total	1,637	613,885,371	100%	100%

Green loans - Distribution of loans by property type as at 30 September 2022	Number of loans	Balance of loans (\$)	Number of loans (%)	Balance of loans (%)
Apartment/Unit/Flat	295	104,204,277	18%	17%
House	743	261,258,777	45%	43%
Other	599	248,422,317	37%	40%
Total	1,637	613,885,371	100%	100%

Balance of loans - geographic distribution



Balance of loans - property type



- VIC non-metro
- NSW non-metro
- NSW Sydney inner city
- NSW Sydney metro
- TAS Hobart metro
- VIC Melbourne inner city
- VIC Melbourne metro
- Apartment / Unit / Flat
- House
- Other

(1) NAB, Capital and Funding, <https://capital.nab.com.au/popup-disclaimers/securitisation-deal-summaries.phps>.

Methodology

1.0 Annual GHG Emissions avoided – Renewable energy and energy efficiency

1.1 Australia

- Australian power generation data was sourced from the [Clean Energy Regulator's National Greenhouse and Energy Reporting \(NGER\) data Electricity sector emissions and generation data 2021-2022](#).
- The emissions avoided calculation used was as follows: Annual energy produced (MWh) x applicable electricity emission factor (kg CO₂-e/KWh) = tonnes CO₂-e avoided. Australian GHG emissions factors were taken from the Australian National Greenhouse Accounts Factors (August 2021) and the National Greenhouse and Energy Reporting (Measurement) Amendment Determination 2008 (updated for 2021-2022).
- Impact attributable to NAB was calculated by applying NAB's % of the total issued debt to the total GHG emissions avoided by each project or portfolio.

1.2 UK & Europe

- UK and European power generation data was sourced from operational reports available for each renewable energy generation project. For some of these projects, operational data was unavailable for the period and therefore an estimate was made based on available project data. In some instances, data was not available at the time of reporting, and therefore was not included.
- The emissions avoided calculation used was as follows: Estimated MWh of electricity produced per annum x applicable electricity emissions factor (per country) (kg CO₂-e/KWh) = tonnes CO₂ emissions from fuel combustion 2021.
- Amounts presented in NAB's outstanding drawn debt amount column have been converted to Australian dollars using the RBA's daily exchange rate as at 30 September 2022.
- The emissions factors for projects in the UK were sourced from the Department for Business, Energy & Industrial Strategy (DBEIS) [UK Government Greenhouse gas reporting: conversion factors 2022](#).
- The emissions factors for Europe (Ireland, Portugal, Spain, France, Belgium, Germany, Norway, Poland, Finland and Sweden) were sourced from the International Energy Agency's (IEA) CO₂ emissions from fuel combustion 2021. The generation and Transmission & Distribution (T&D) factors came from IEA.
- For smart meters, annual energy saved was calculated by applying a 1% saving on the annual UK household consumption of gas and electricity, where one household is equivalent to one meter connection. Annual consumption figures were sourced from the Ofgem: [Ofgem Average gas and electricity use explained](#).
- Impact attributable to NAB was calculated by applying NAB's % of the total issued debt to the total GHG emissions avoided by each project or portfolio.

1.3 USA

- US power generation data was sourced from operational reports available for each renewable energy generation project. For some of these projects, operational data was unavailable for the period and therefore an estimate was made based on available project data.
- Amounts presented in NAB's outstanding drawn debt amount column have been converted to Australian dollars using the RBA's daily exchange rate as at 30 September 2022.
- The emission factors for the US were sourced from [The Climate Registry 2022 default emission factors](#) and the T&D factors came from the IEA CO₂ emissions from fuel combustion 2021.
- Impact attributable to NAB was calculated by applying the NAB's % share of debt to the total GHG emissions avoided by each project or portfolio.

2.0 Green buildings (Annual energy savings and annual GHG emissions avoided)

- Commercial property data in reference to the buildings in NAB's CRE portfolio was sourced from a combination of:
 - internal reporting;
 - client reports;
 - company websites;
 - [Australian Government's Commercial Building Disclosure Program \(CBDP\)](#); and
 - average energy intensity and annual carbon intensity sourced from [NABERS Annual Report 2021-2022](#).
- Average NABERS Energy star rating was sourced from the NABERS annual report: [NABERS Annual Report 2021-2022](#).
- Annual Portfolio Energy Savings Achieved (kWh): (Average Statewide Base Building Energy Intensity – Building 'A' Energy Intensity) x Net Lettable Area of Building 'A'.
- Annual Portfolio GHG Emissions Avoided (tCO₂-e): (Average Statewide Base Building Carbon Intensity – Building 'A' Carbon Intensity) x Net Lettable Area of Building 'A'.
- Average NABERS Energy star rating, Annual Portfolio Energy Savings Achieved and Annual Portfolio GHG Emissions Avoided apply to the total portfolio area of all buildings in the portfolio rather than just NAB's % of debt.

3.0 Clean transportation

- Operational information was provided by the asset owner.
- For information on trips taken and sustainability initiatives, refer to Clean Transportation table on page 13.
- Amounts presented in NAB's outstanding drawn debt amount column in the UK & Europe table have been converted to Australian dollars using the RBA's daily exchange rate as at 30 September 2022.

4.0 Green mortgages

The operational carbon emissions of specific dwellings within NAB's Green Mortgage Portfolio have been estimated as a function of the minimum energy performance (star rating) requirement that applied (if any) at the time of construction of the dwelling in the relevant jurisdiction, the dwelling type (which is associated with different average dwelling sizes, or gross floor area), and the dwelling's location (post code, which is associated with its climate zone under the National House Energy Rating Scheme (NatHERS)). Once the greenhouse gas emissions associated with the electricity and gas consumption as a function of jurisdiction are calculated they are compared with that of a 'stock average' dwelling, of the same type, size and location. This is then used to determine any carbon savings from the Green Mortgage dwelling relative to the stock averages, in terms of annual tonnes of carbon dioxide equivalents (tCO₂-e) and percentages.

5.0 Additional notes - Definitions

- Adaptation⁽¹⁾: Taking practical actions to manage risks from climate impacts, protect communities and strengthen the resilience of the economy.
- Mitigation⁽²⁾: Activities that are designed to reduce greenhouse emissions and/or increase the amounts of greenhouse gases removed from the atmosphere by greenhouse sinks.

Complexities and limitations inherent in climate-related methodologies

Climate-related metrics are underpinned by methodologies containing uncertainties, assumptions and judgements that limit the extent to which they can be relied upon. This applies to all climate-related metrics, including (without limitation) historical metrics relating to emissions and forward-looking climate metrics, such as goals, targets, climate scenarios or projections and pathways. A summary of the Group's understanding of the main challenges associated with climate-related data, methodology and metrics relevant to NAB's Green Bond Portfolio follows:

- Data availability, quality and timeliness vary considerably within and across businesses, industries and geographies. Climate-related metrics are, in many cases, based on estimates, and rely on data that the Group does not generate or control, including property valuations used for Commercial Real Estate calculations, building codes used as a proxy for carbon performance of RMBS assets, emissions factors, and operational generation data for renewable energy generation assets. This may result in under or overestimates of climate-related risks or performance.
- Reliance on third party data can lead to lags in time between available data and the publishing of the Group's annual Green Bond reporting.
- While the Group's Green Bond reporting is based on ICMA Harmonised Framework for Impact Reporting and other guidelines including the CBI, and the GBP, these and other climate-related frameworks and standards are often voluntary. A range of frameworks and methodologies are used by corporate organisations reporting on climate related information and metrics which makes comparison by investors and others evaluating the climate performance of corporate organisations difficult.
- Estimating emissions and emissions reductions is complex and requires significant methodological choices, judgements and assumptions. Methodologies vary across jurisdictions and global standards are still emerging. This means methodologies used to estimate emissions and emissions reductions are likely to change over time, impacting existing estimates, and reduction estimates based on existing estimates.
- Climate science is continually evolving. Scenarios and projections adopted by projects funded by NAB's Green Bond Portfolio may have varying reliance on the commercialisation of currently unproven technologies to meet emissions reduction targets. Investment in these technologies may fail to achieve the intended outcomes. Overreliance on unproven technologies to meet project targets may impact the accuracy of estimates of emissions avoidable attributable to particular projects. Climate scenarios are modelled over a significantly longer time-frame than more traditional financial scenario modelling and therefore the complexity and risk of error is higher.

(1) Australian Government, Department of Agriculture, Water and the Environment, 'Adapting to Climate Change', <https://www.environment.gov.au/climate-change/adaptation>.

(2) NSW Government, 'Climate change mitigation', <https://climatechange.environment.nsw.gov.au/About-climate-change-in-NSW/NSW-Government-action-on-climate-change/Climate-change-mitigation>.

Contact us

NAB welcomes feedback from NAB's investors, other stakeholders, and market participants.

Please email your queries and comments to: **NAB Debt Investor Relations** at debtinvestorrelations@nab.com.au