

**national  
australia  
bank**



**Climate  
Report  
2023**

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## About this Report

The 2023 Climate Report ('Report') details NAB's climate action-related activities during the period 1 October 2022 to 30 September 2023. It outlines our climate strategy and progress against our targets associated with decarbonising operations and supporting customers through the transition to an inclusive, net zero economy and to build climate resilience. To help address climate change and reduce financed and operational emissions, we disclose our exposures to high-emitting sectors, operational emissions and environmental financing. The Bank of New Zealand's (BNZ) climate reporting is available at [www.bnz.co.nz/about-us/sustainability/reports](http://www.bnz.co.nz/about-us/sustainability/reports).

This Report has been structured to align with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and the target setting requirements of the Net Zero Banking Alliance (NZBA), of which we are a member.

## Acknowledgement of Country

NAB acknowledges Australia's First Nations people as the Traditional Custodians of the land and their continuing connection to country, sea and water. We pay respect to their Elders past and present.

We make this acknowledgement with the ambition to continue supporting a reconciled Australia through our actions and voice. This is backed by why we are here: to serve customers well and help our communities prosper.



### Important information

This Report contains statements that are, or may be deemed to be, forward looking statements, including climate-related goals, targets, pathways and ambitions. 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 (including in relation to customer and other third party data over which the Group has no control) 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.

### Certain definitions

The Group's financial year ends on 30 September. The financial year ended 30 September 2023 is referred to as 2023 and other financial years are referred to in a corresponding manner. Reference in this document to the year ended September 2023 are references to the twelve months ended 30 September 2023. Reference in this document to the environmental reporting year are references to the twelve months ended 30 June 2023. Other twelve month periods referred to in this document are referred to in a corresponding manner.

The abbreviations \$m and \$bn represent millions and thousands of millions (i.e. billions) of Australian dollars respectively.

Exposure at default (EAD) is an estimate of the credit exposure amount outstanding if a customer defaults. EAD is presented net of eligible financial collateral.

EAD used in financed emissions baselines and for setting sector targets excludes securitisation exposures within the scope of APS 120 *Securitisation*, off-balance sheet EAD (including performance guarantees to rehabilitate existing thermal coal mining and oil and gas assets) and markets-related EAD (including derivative exposures). Australian Energy Market Operator (AEMO) bonds have also been excluded as they are a requirement to participate in domestic electricity and gas markets for any entity not regulated by the Australian Prudential Regulation Authority (APRA). EAD used in financed emissions has not been adjusted to account for changes through the revised capital framework implemented from 1 January 2023.

Key terms used in this report are contained in the *Glossary*.

# Our progress

## Progress in 2023

### Supporting customers to decarbonise and build resilience

**\$4.5bn**

NAB's new green lending, green CRE (REIT), securitisation, and underwriting and arranging activities as at 30 September 2023<sup>(1)</sup>

**73%**

of the Group's lending to energy generation is to renewable energy<sup>(2)</sup>

### NAB Ready Together support

**\$3.2m**

Total funding provided by NAB and NAB Foundation to support customers, colleagues and communities withstand and recover from natural disasters<sup>(3)</sup>

### Investing in climate capabilities

**1,200**

The approximate number of colleagues that were supported with climate training in 2023

### Reducing financed emissions

**7**

Three further interim sector-specific decarbonisation targets set in 2023, taking total targets to seven. Further decarbonisation targets planned to be set in May 2024<sup>(4)</sup>

**70%**

of financed emissions attributable to NAB's lending to emissions-intensive sectors covered by sector decarbonisation targets<sup>(5)</sup>

### Reducing operational emissions

**35%**

Reduction in Scope 1 and 2 emissions compared to 2022 baseline<sup>(6)</sup>

**88%**

of the Group's electricity consumption sourced from renewable energy<sup>(7)</sup>

(1) Comprises green lending, green CRE (REIT) lending and green securitisation for new 2023 lending drawn amounts (\$2.6 billion), and new 2023 underwriting and arranging activities (\$1.9 billion) as at 30 September 2023. Refer to the *Environmental financing* section on page 55 for further details.

(2) NAB methodology (based upon the 1993 Australian and New Zealand Standard Industrial Classification (ANZSIC) codes) on a net EAD basis. Excludes exposure to counterparties predominantly involved in transmission and distribution. Vertically integrated retailers included and categorised as renewable where the majority of their generation activities are sourced from renewable energy. NAB has no direct lending to coal-fired power generation assets remaining, however there is indirect exposure to coal-fired power within the Mixed Fuel category as a result of NAB's corporate level exposure to gentailers, which have a mix of generation assets (including coal, gas and renewables) within their generation portfolio.

(3) The NAB Ready Together support figure includes funds provided by NAB and the NAB Foundation through the Community Grants program, Environmental Resilience Fund, disaster relief partnerships, payments for crisis response including donations and emergency relief grants. Refer to NAB's *2023 Annual Report* for further details on NAB Ready Together.

(4) NAB's interim sector-specific decarbonisation baselines and targets currently exclude BNZ.

(5) Financed emissions coverage estimate represented by seven sector decarbonisation targets now set, as a proportion of estimated total financed emissions attributable to NAB's lending portfolios for 'carbon-intensive' sectors defined by UNEP FI Guidelines. Scope 1 and 2 emissions included for all sectors. Scope 3 emissions included for sectors (or sub-sectors within value chain) where material and where reliable data is available, including thermal coal and oil and gas.

(6) In 2023, the Group updated its Scope 1 and 2 (market-based method) science-based greenhouse gas (GHG) emissions reduction target to align its ambition to be net zero by 2050 with the best available science and pathway for a 1.5°C warming scenario. The Group's new target is for a 72% reduction in Market-based Scope 1 and 2 emissions by 2030 from a 2022 baseline. Refer to page 56 for further details.

(7) The Group's operational environmental measures are reported on the basis of the Group's environmental reporting year from 1 July to 30 June. Refer to *Reducing operational emissions* on pages 56 to 61.



*"Global decarbonisation is gathering pace and there is a growing urgency to transition economies faster. What we achieve from now to 2030 is critically important and Australia needs to act quickly to set up our economy to capitalise on the opportunity before us.*

*NAB has a critical role to play in funding and supporting Australia's transition to net zero. We will keep backing our customers to realise the opportunity."*

**Philip Chronican**  
Chair

## Chief Climate Officer message

This is NAB's second standalone Climate Report, reporting our progress on our climate strategy.

2023 has highlighted the importance of understanding and managing our climate risks. Climate change is impacting communities globally. From flood to bushfires and drought, we are seeing the effects in the scale and frequency of natural disasters.

According to the International Energy Agency's 2023 update to its *Net Zero Roadmap*, the case for transforming the global energy system in line with the 1.5°C goal has never been stronger, and momentum must be accelerated. This requires the concerted action of governments, industries, businesses and communities.

NAB has a key role to play in supporting Australia's transition to net zero. This is in partnership with stakeholders right across the economy, to not only reduce Australia's emissions and help Australia build climate resilience, but also maximise the economic and social opportunities.

We welcomed the Australian Government's 2022 Climate Change Statement with legislated emissions reduction and renewable energy targets, and related investment shift. We also support the Government's intention to develop sectoral decarbonisation plans for the electricity and energy, industry, transport, agriculture and land, the built environment and resources sectors, informed by the Climate Change Authority's decarbonisation pathways.

Australia's ambitions to transition to net zero emissions by 2050 present significant opportunities. The [All Systems Go: Powering Ahead 2023 report](#) (available at [All systems go: Powering ahead - NAB News](#)), commissioned by NAB and produced by Deloitte Access Economics, modelled there is a \$435 billion economic opportunity to Australia's economy by 2050 from meeting domestic targets and transforming our industrial base to establish a clean energy platform to drive export growth in a rapidly decarbonising world. It also found that if Australia fails to transform and grow new export opportunities, under today's net-zero policies Australia's existing exports are projected to decline by \$270 billion out to 2050.

That's why we're funding renewables and growth of new industries critical to the low carbon transition. We're also supporting customers to build resilience, adapt and reduce emissions to align to net zero pathways.

Some of our progress this year included:

- Developing products including business finance for green equipment and the NAB Agri Green Loan, discounted

Lenders Mortgage Insurance for eligible home loan customers that meet energy efficiency criteria, as well as establishing NAB's Carbon Desk to support our corporate and institutional customers with trading, sales and insights.

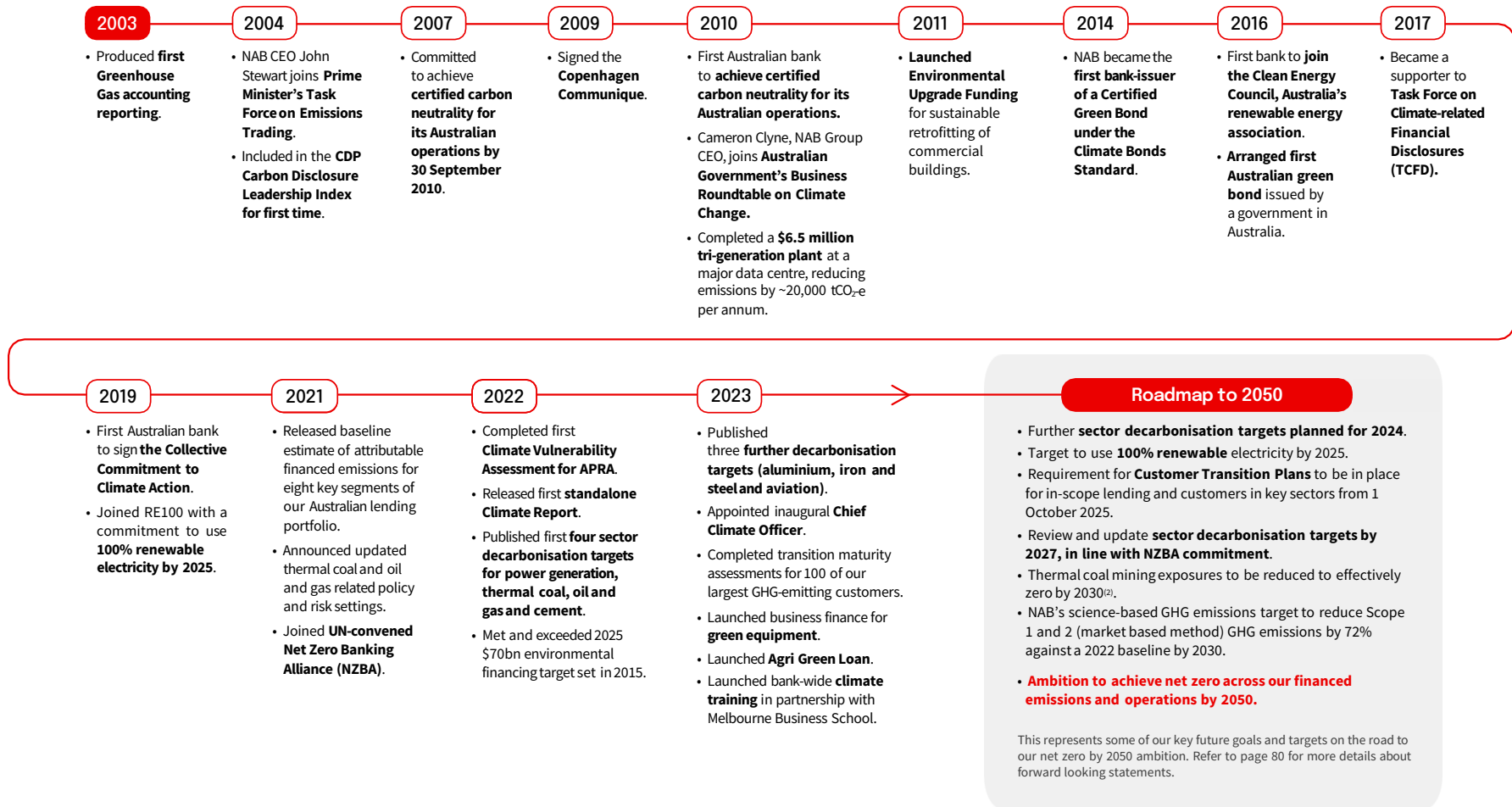
- Establishing a standalone Climate Investment Committee to consider equity investments aligned to our climate strategy.
- Setting 2030 interim sector-specific decarbonisation targets for our iron and steel, aviation and aluminium lending portfolios, to meet our NZBA commitment and which are in line with pathways to net zero by 2050. This year's targets follow our 2022 release of decarbonisation targets for NAB's power generation, thermal coal, oil and gas, and cement lending portfolios.
- Investing in the skills and capability of our colleagues including new bank-wide climate training in partnership with Melbourne Business School.
- Contributing to public advocacy, business insights and thought leadership.

The transition is accelerating and our customers are progressing with their transition plans. We're taking action and helping our customers take action, too.

Jacqueline Fox  
Chief Climate Officer  
9 November 2023



# Our 20+ year climate journey and roadmap<sup>(1)</sup>



More detailed information about NAB's achievements and ambitions in relation to addressing climate change and supporting the transition to net zero can be found throughout this Report.

(1) Based on NAB's financial reporting year.

(2) 'Effectively zero' refers to the fact that NAB may still hold some exposures to thermal coal in 2030, only through residual performance guarantees to rehabilitate existing coal mining assets. These guarantees are excluded from the financed emissions coverage of NAB's thermal coal sector target

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Strategy





# Climate strategy

NAB's climate strategy is aligned to our strategic ambition - to serve customers well and help our communities prosper. We acknowledge that climate change is a significant risk to the planet and a major challenge for society to address. Beyond this risk, there is an immense economic opportunity as the world transitions to a low-carbon future. We are working with customers as they decarbonise, adapt and build resilience, while pursuing new climate opportunities for a prosperous future.

NAB is seeking to act as a catalyst for climate action through the financing we provide and the insights we share with customers. This approach is underpinned by core beliefs including:

- Climate transition can create growth for the economy.
- Management of climate transition is core to our business, not an adjacency.
- Our approach is relationship-led, supported by strong enabling capabilities.
- Interim 2030 sector-specific decarbonisation targets (sector decarbonisation targets) should be science-based.

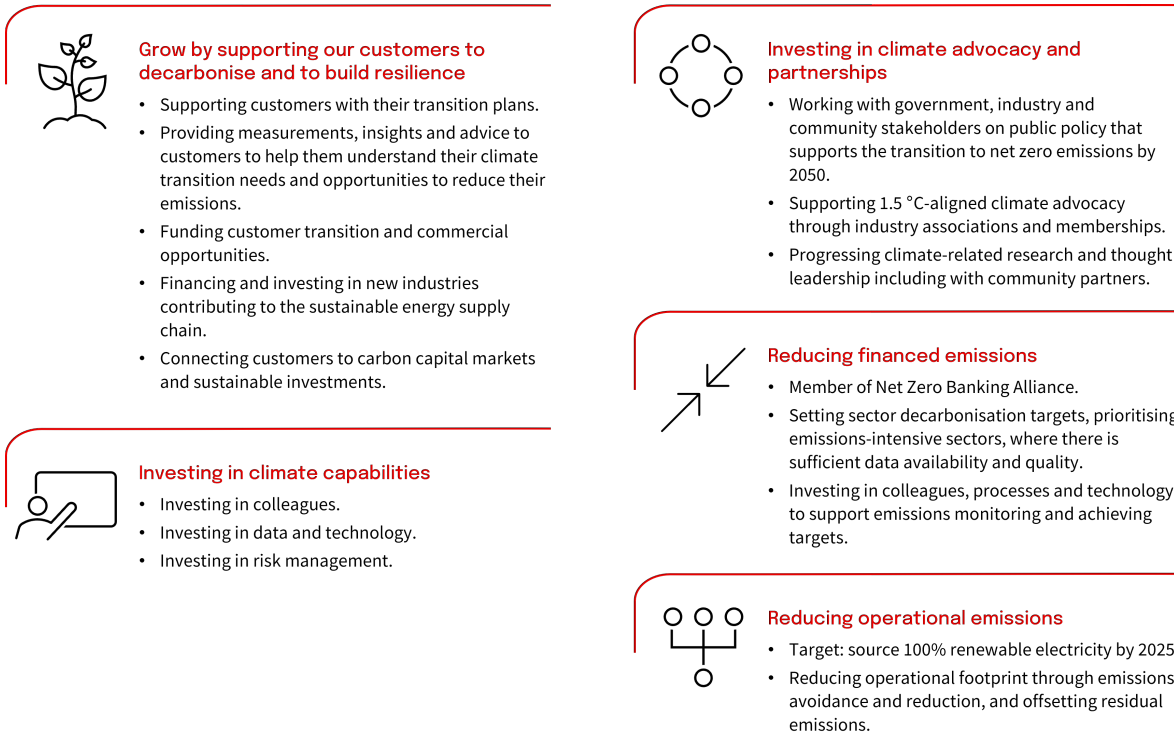
Our climate strategy is designed to maximise the climate transition's economic benefits for customers, NAB and the community, and to help achieve emissions reduction consistent with a maximum temperature rise of 1.5°C above pre-industrial levels by 2100.

The climate strategy ambition will be achieved through our strength as a relationship-led bank, by supporting customers to reduce their emissions and realise associated opportunities. This requires a long-term view together with short-term actions and continuous progress.

NAB is connected to all parts of the economy through our lending and other banking activities, and has a key role in supporting our customers' transition to a low emissions future, as well as their ability to adapt and pursue new climate opportunities.

Climate initiatives are in place across Business and Private Banking, Personal Banking, Corporate and Institutional Banking and BNZ. The climate strategy also captures our operational emissions ambition, which includes our international offices, in addition to the capability of our colleagues in supporting our customers through the transition.

Figure 1: NAB's climate strategy priorities



## Bank of New Zealand

BNZ is a subsidiary of NAB and operates in New Zealand. This presents specific climate-related risks and opportunities for BNZ and its customers in the transition to a low carbon economy. As such, BNZ has a separate climate strategy.

BNZ's climate strategy is to accelerate the just transition to a net zero emissions economy, one that supports the regeneration of the natural environment and builds resilience. The strategy is underpinned by four objectives:

- Transitioning investment and lending portfolios to net zero emissions by 2050.
- Supporting customers to transition to low emission, resilient business models by 2050.
- Understanding climate-related risk across portfolios and supporting customers to adapt and build resilience.
- Actively reducing emissions across operations and supply chain.

BNZ is a member of the NZBA and is setting its own sector decarbonisation targets to meet its NZBA commitment.

Refer to BNZ's climate reporting at <https://www.bnz.co.nz/about-us/sustainability> for further details.

# Supporting our customers to decarbonise and build resilience

Climate action is everyone's job. We will play our part by working to provide customers with the financing, insights and support they need to transition and achieve their goals.

## Funding customer transition and commercial opportunities

Right across the bank, NAB is actively working to support customers' transitions to a low-carbon economy. We're using our existing products and services and developing new solutions to help them reduce their emissions and build climate resilience. Whether they are small businesses, farmers, large corporations or individuals thinking about their own emissions footprint - we can help.

## Business finance for green equipment

In November 2022, NAB launched business finance for green equipment to support customers in their transition towards a more sustainable future. The largest investments NAB's customers are making in more energy efficient assets include electric vehicles (EV), solar energy generation, electric forklifts, electric trucks and buses, and energy efficient agricultural equipment. NAB is seeing significant customer demand for green equipment finance in the transport sector which, in 2019, accounted for approximately 19% of Australia's carbon emissions<sup>(1)</sup>.

### Case study: CarBon Leasing and Rentals (CarBon)

As EVs become more affordable in Australia, more business owners are choosing to invest in sustainable transport by electrifying their fleet.

In 2023, NAB supported car leasing company CarBon with business finance for green equipment to help it move to a more sustainable commercial transport model. CarBon used the financing to fund a range of commercial EVs to be used as long-term EV leases for customers across a range of sectors, including local government, construction and short distance delivery.

### Case study: Logan Group Investments

Rooftop solar on homes, businesses and buildings is playing an increasingly important role in decarbonising Australia's energy grid and national target of 82 per cent renewable energy by 2030<sup>(2)</sup>.

Logan Group Investments, an Australian manufacturer of timber and aluminium doors and windows, used business finance for green equipment to support the installation of a solar power system across its commercial manufacturing facilities in New South Wales. In addition to helping Logan Group Investments reduce its emissions footprint, installation of the solar equipment is also intended to lower the company's operating and energy costs.

## Supporting agribusiness with NAB Agri Green Loan

First launched in November 2022, we are continuing to develop the NAB Agri Green Loan proposition, a tailored business loan which helps agribusiness customers invest in eligible on-farm practices and technologies that reduce emissions, and/or build resilience against climate-related risk.

The NAB Agri Green Loan is aligned to the independent framework and categories set out under the Climate Bonds Standard Agriculture Criteria<sup>(3)</sup>. It was launched in conjunction with an agribusiness climate banker training program provided by Melbourne Business School to NAB's agribusiness bankers and specialist teams.

### Case study: The Herrmann family

Sustainable agriculture practices have the potential to provide resilience against climate and environmental risks and improve land quality while also increasing productivity.

The Herrmanns are an innovative farming family that produce rice and walnuts, and practice mixed cropping, in addition to running a flock of about 4,000 sheep on their property in the New South Wales Riverina region.

NAB's business finance for green equipment in 2023 supported the Herrmanns to fund an on-farm solar installation. This is already reducing dependence on external energy sources, minimising costs and reducing the Herrmanns' carbon footprint, while allowing them to explore other sustainable practices associated with their operations, such as gravity-fed irrigation systems, on-farm feed production and other land care initiatives.

(1) Available at <https://www.dccceew.gov.au/energy/transport>

(2) Available at [Annual Climate Change Statement 2022](#)

(3) Climate Bonds Standard, Agriculture Criteria 2021 available at [www.climatebonds.net/standard/agriculture](http://www.climatebonds.net/standard/agriculture). DNV Business Assurance Australia Pty Ltd (DNV) has provided a second party opinion to NAB confirming that NAB's framework for NAB Agri Green Loans aligns with the requirements of the Green Loan Principles (February 2021) published by the Asia Pacific Loan Market Association and complies with the Climate Bonds Standard Agriculture Criteria 2021 published by the Climate Bonds Initiative. For further information about DNV see: [www.dnv.com/services/second-party-opinion-service-9427](http://www.dnv.com/services/second-party-opinion-service-9427). Other Sector Criteria published by the Climate Bonds Initiative, including the Climate Bonds Initiative Sector Criteria for Solar (version 2.1), and other factors may also be used by NAB in guiding its eligibility criteria for a NAB Agri Green Loan. Individual loans and projects are not approved or certified by the Climate Bonds Initiative or any other third party.

### Financing sustainable homes

NAB is working on solutions that address cost of living pressures and benefit customers who manage their climate impact. Lower variable rates<sup>(1)</sup> and discounted Lenders Mortgage Insurance were launched in October 2022 to eligible home loan customers on homes that meet energy efficiency criteria. With Australian homes contributing more than 10% of Australia's total emissions<sup>(2)</sup>, this initiative aims to support customers who are reducing their emissions.

### Bushfire resilience

NAB continues to support the Bushfire Resilience Rating system, which aims to help households adapt their homes to make them more resilient to bushfire. In 2023, NAB supported the Bushfire Resilience Ratings Retrofit Pilot in bushfire-impacted areas of New South Wales and Victoria. NAB is offering discounted lending<sup>(3)</sup> to participating households who are investing in the resilience of their property. Following successful completion of the pilot, the Bushfire Resilience Ratings app, funded by the National Emergency Management Agency, launched in October 2023.

### Sustainable financing

NAB is developing products to provide corporate and institutional customers with solutions that assist them in achieving their sustainability objectives, including environmental outcomes. NAB's environmental financing activities<sup>(4)</sup> in 2023 include:

- **\$2.6 billion** in new lending drawn amounts for green lending, green CRE (REIT) lending, sustainability-linked lending and securitisation activity.
- **\$1.9 billion** in new activity for underwriting and arranging activities.

Refer to the *Environmental financing section* on page 55 for further details.

Furthermore, NAB is recognised as the #1 Australian bank provider of project finance to the global renewable energy sector<sup>(5)</sup>.

### Case study: Squadron Energy (Squadron)

Accelerating the development of renewable energy is critical to establishing a decarbonised economy.

Squadron is an Australian-owned and operated renewable energy company that develops, operates and owns renewable energy assets in Australia. In 2023, NAB participated in a portfolio financing to support Squadron in its acquisition of CWP Renewables. NAB is supporting Squadron as it accelerates the development of renewable energy, while creating direct and indirect job opportunities at the scale and pace that the economy requires.

Squadron's portfolio encompasses 1.1 GW of operating wind farms, and an Australian development pipeline of 20GW. Squadron indicates that to date its operations have produced enough renewable electricity to power approximately 1.35 million homes and avoid 6 million tonnes of emissions.

Significant investment is needed in the renewable energy sector to unlock the development pipeline and ensure reliable supply, and the financial sector will continue to play an important part.

(1) When compared to the equivalent base variable lending rate for customers >80% LVR on homes that do not meet energy efficient criteria.

(2) Available at [www.energy.gov.au/government-priorities/buildings/residential-buildings](http://www.energy.gov.au/government-priorities/buildings/residential-buildings)

(3) Discount off our base variable rate product for customers with less than or equal to 80% LVR.

(4) Refer to *Environmental financing methodology* in the supporting information section for further details.

(5) Rankings based on IJGlobal League Table MLA, Renewables, both cumulative data from 1 January 2010 to 30 September 2023 and for the 12 months ending 30 September 2023.

## Connecting customers to carbon markets and sustainable investments

### Carbon markets

Carbon markets can play a key role in helping customers achieve their climate ambitions, particularly for those companies operating in hard-to-abate industries.

In 2023, NAB launched its carbon markets capability providing risk management solutions across domestic and international markets to support customers' carbon and renewable energy needs. Products include Australian Carbon Credit Units (ACCU), Large Scale Generation Certificates (LGC) and European Union Allowances (EUA).

This follows the development of Carbonplace, a carbon credit settlement platform jointly developed by NAB and some of the world's largest financial institutions.

### Sustainable investments

NAB acts as lead manager on green, social and sustainability linked bonds issued by customers, providing sustainable investment opportunities for domestic and international investors.

### Capital markets issuance

NAB continues to support a broad range of global issuers including sovereigns, semi-sovereigns, local governments, financial institutions, corporates, social housing providers and securitisation funders to develop their own sustainable debt issuance programmes and issue into global sustainable debt markets. Over the past 12 months, the Group has supported customers across the United States, the United Kingdom, Europe, Asia, New Zealand and Australia issue in sustainable debt format to support their own climate transition and decarbonisation activities, and provide sustainable investment opportunities for global investors. In 2023, the Group has supported customers to bring a total of 60 labelled Green, social, sustainability and sustainability-linked (GSSS) bond and loan transactions to market, which have raised over \$46 billion.

### NAB Green Bond issuance

NAB has been an Australian market leader in GSSS bond issuance since becoming the first Australian bank issuer of a Certified green bond under the Climate Bond Standard (CBS) in 2014. NAB green bonds provide an opportunity for investors to direct capital towards projects and assets that may contribute towards the objectives of the Paris Agreement or address environmental challenges. As at 30 September 2023, NAB had issued five Climate Bond Initiative (CBI) certified green bonds, two CBI certified green residential mortgage backed securities (RMBS) tranches and one social bond aligned to the International Capital Market Association's (ICMA) Social Bond guidance. Further details on NAB's green bond issuances can be found on NAB's capital and funding website at [capital.nab.com.au/green-and-sri-bonds](https://capital.nab.com.au/green-and-sri-bonds).

### Case study: NBN Co Green Bond Issuance

NBN Co is a Government Business Enterprise tasked by the Federal Government to design, build and operate Australia's broadband access network in support of Australia's digital future.

In 2023, NAB supported NBN Co as Joint Lead Manager to raise \$850 million from its second Australian Green Bond issuance. The net proceeds from the bond issuance will help support NBN Co's transition to net zero by 2050 (or sooner) and emissions reduction targets including through network upgrades, energy efficiency projects and other eligible initiatives in line with NBN Co's Sustainability Bond Framework.

The 2023 Australian Green Bond issuance follows on from NBN Co's inaugural Green Bond issuance in April 2022 which NAB also supported as Joint Lead Manager and Joint Sustainability Coordinator.

### Case study: Australia Post Sustainability Bond Issuance

Australia Post is playing its part in decarbonising Australia's postal and retail sectors.

In 2023, NAB supported Australia Post with its inaugural sustainability bond. The proceeds of the 6-year \$100 million bond will be used to assist Australia Post in delivering on its 2025 Sustainability Roadmap and community strategy, which includes:

- Targeting net zero carbon emissions by 2050.
- Reducing Scope 1, 2 and 3 emissions by 15% by 2025 (FY19 baseline).
- Sourcing 100% renewable electricity by 2025.

NAB acted as Joint Lead Manager and Joint Sustainability Coordinator. Australia Post's sustainability bond is aligned to the ICMA's Green Bond Principles, Social Bond Principles and Sustainability Bond Guidelines.

## Providing measurements, insights and advice to help customers understand their climate transition needs and opportunities to reduce emissions

### Investing in data and technology

To maximise transition benefits for customers, we must be able to measure customer-level GHG emissions and support them to reduce emissions and build climate resilience.

NAB is investing in technology to build capability in both decarbonisation and physical risk management. In 2023, this included leveraging internal and externally acquired datasets to support financed emissions estimates and calculations across customer facing business units. We have also developed a solution to assist in calculating baseline estimates to help inform the development of decarbonisation targets and scenario testing efforts. NAB is continuing to enhance our reporting and monitoring capabilities to allow our business units to track, analyse and forecast financed emissions on a regular basis.

Investment in data and analytics has extended beyond financed emissions into understanding possible impacts of climate change on NAB's diverse customer base. We have completed early-stage experimentation and proof of concept works of initiatives with the potential to support small and medium-sized enterprises, agribusiness and home ownership customers. These have involved collaboration with universities and research bodies, insurers, global banks, key corporate and institutional customers, and early-stage climate tech companies. As our capabilities mature, these insights could be provided to customers to support them with their individual abatement and adaptation efforts.

To support this work, NAB has established a dedicated Climate Data Science and Engineering team. The team is responsible for developing the knowledge and skills required to understand and assess impacts of climate change on NAB and its customers. The team has been working closely with academic, government and commercial stakeholders to accelerate the work and ensure the consistent application of science across the bank.

### The Australian Industry Energy Transitions Initiative (Australian Industry ETI)

In February 2023, the Australian Industry ETI released its Phase 3 Report: *'Pathways to industrial decarbonisation Positioning Australian industry to prosper in a net zero global economy'*.

The Phase 3 Report provides an analysis of net zero opportunities across five of Australia's most significant heavy industry supply chains (iron and steel, aluminium, other metals, chemicals, and liquefied natural gas (LNG)). This analysis was the culmination of three years of extensive consultation and cooperation between industry and research partners to collectively explore and address the challenges of decarbonising the heavy industry sector in Australia.

The Phase 3 Report shows that with strong ambition, coordinated action and government support, industrial emissions from these five sectors could be reduced by up to 92 per cent by 2050, from 2020 levels. NAB continued to support this collaborative industry initiative led by ClimateWorks Centre and Climate-KIC Australia.

## Supporting business customers to decarbonise through insights

NAB is partnering with cleantech start-up, Greener, to support the decarbonisation efforts of small business customers. Partly funded by NAB Ventures, the free 'Greener for Business' platform provides guidance, sustainability insights and a step-by-step climate action plan to help small business users understand and take practical steps aimed at reducing their carbon footprint, while also giving users access to exclusive sustainability offers from leading suppliers to help save on costs. Having conducted a pilot with selected customers earlier in the year, NAB is confident that the Greener for Business platform provides a simple tool that may help small business customers better understand their emissions and take steps to reduce them.

Beyond our partnership with Greener, NAB is developing a tool to support our medium-sized business customers to understand their Scope 1 and Scope 2 operational emissions, as well as provide a view of potential actions a business could take to decarbonise.

The tool will be piloted with a targeted set of NAB customers and business bankers in 2024, and will be supported by the continuing development of NAB's green lending products. We are exploring further expansion options for the tool with a range of local and international partners, including broadening coverage to cater for corporate and agribusiness customers.

## Supporting customers with their transition plans

### Understanding customers' transition maturity

We are building on our efforts to support the economy's largest businesses with their climate transition. Considerable capital is required to help customers decarbonise, and this represents a significant opportunity.

In 2023, NAB completed its work to assess the transition maturity for 100 of our largest GHG-emitting customers using a Transition Maturity Diagnostic (the "Diagnostic"), building on the work commenced in 2021.

The Diagnostic was designed with reference to global frameworks such as the Transition Pathway Initiative, a global asset owners initiative which assesses companies' preparedness to transition to a low-carbon economy. The work enabled NAB to form a view on the transition maturity

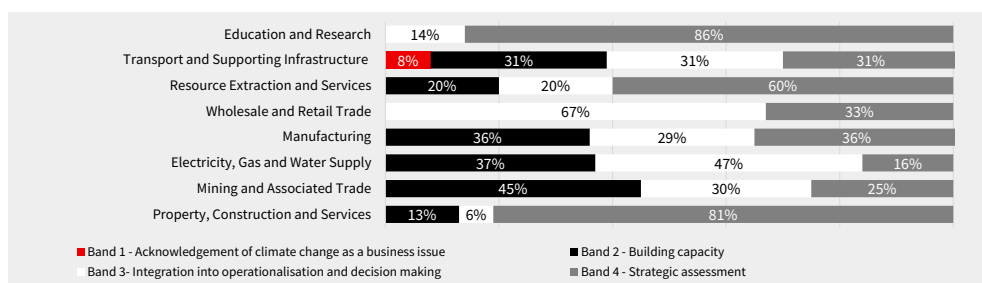
of the assessed high emitting customers and to build our understanding of the transition maturity of different sectors across the economy.

### Key findings

The work shows that 71% of the customers assessed are rated relatively transition mature against the Diagnostic, scoring in the top two bands of the Diagnostic's transition maturity scale. In addition, 100% acknowledge climate change as a business issue while 72% are reporting or have committed to report under the TCFD framework, and 67% have set a goal to be net zero by 2050 or sooner.

Drawing on this initial exercise, NAB has prioritised embedding criteria in decision-making for customers in sectors where NAB has set decarbonisation targets. Refer to *Metrics and targets* on page 40 for details on how these decarbonisation targets are being operationalised.

Figure 2: Transition maturity of 100 of our largest emitting customers by sector<sup>(1)</sup>



(1) The Diagnostic assists in the classification of transition maturity in the following bands: 0 - Unaware of (or not acknowledging) climate change as a business issue, 1 - Acknowledgement of climate change as a business issue, 2 - Building capacity, 3 - Integration into operational decision making, 4 - Strategic assessment. Note, no clients were assessed at the '0' level of maturity. Percentage breakdown per sector may not sum to 100 due to rounding.

### Requirements for transition plans

The transition looks different from customer to customer, sector to sector. Our initial focus is on major customers in fossil fuel sectors served by Corporate and Institutional Banking due to the scale and impact customers in that segment can bring to the transition.

NAB considers climate-related matters for lending, capital markets activity and other transactions in fossil fuel sectors and as part of periodic customer reviews to monitor known risks and identify new or emerging risks.

From 1 October 2025, NAB intends to require a Customer Transition Plan to be in place for new or renewed corporate lending or project-level lending<sup>(1)</sup> for Corporate and Institutional Banking customers in the following sectors<sup>(2)</sup>:

- Power generation, where at time of lending 25% or more of the electricity generated by the customer is from thermal coal.
- Oil and gas<sup>(3)</sup>.
- Metallurgical coal.

As appropriate, the requirement for Customer Transition Plans may be extended to lending in other relevant sectors and customer exposures in other business units as NAB sets and discloses further decarbonisation targets. This will have regard to the expected introduction of Australian Sustainability Reporting Standards and the expected phased approach for mandatory climate-related disclosures, including transition plans.

- (1) This includes lending at a corporate level (for example, general facilities made available to the parent company of a group of companies), or at a project-level (that is on an individual project basis for a specific project purpose), and subject to national energy security considerations.
- (2) Referenced sectors are consistent with sector definitions used for NAB's target setting emissions baseline, although metallurgical coal forms part of the iron and steel sector. Refer to *Supporting information* on page 71 for further details. NAB does not intend to apply this requirement to customers in the thermal coal sector because NAB has set a target to reduce financed emissions for this sector to zero by 2030 (refer to page 44 for further details).
- (3) This requirement for the oil and gas sector was previously communicated in NAB's 2022 Climate Report.

We will develop a framework to assess Customer Transition Plans which we expect will consider elements such as:

- Relevant Scope 1, 2 and 3 emissions disclosures.
- Inclusion of interim and long-term targets and their alignment to scenarios consistent with the Paris Agreement.
- Actions planned to meet their targets, including, where appropriate, considerations around capital expenditure to drive these actions.
- Details about the customer's level of reliance on offsets over time and future technology developments.

In developing an appropriate framework, NAB will consider relevant external guidance and benchmarking and may engage external experts to support this work.

Where we assess a Customer Transition Plan would make it difficult for us to meet our stated sector decarbonisation targets on a portfolio basis, we will engage with the customer to review any areas of concern. If necessary, on application for new or renewed lending, we will consider contractual protections or reduce our exposure.

As government requirements and industry obligations on companies change, NAB will seek to harmonise our expectations on customers, in an effort to reduce complexity and expense. NAB also recognises that its approach may need to evolve over time, to reflect advancements in technology and science, and improvement to the accuracy of data and information provided by customers, on which NAB relies.

# Investing in climate capabilities

We are investing in our capabilities to realise our ambition to be a catalyst for climate action and support efforts to limit global warming to a maximum temperature rise of 1.5°C.

## Investing in colleagues

A key priority as a relationship-led bank is developing banker climate knowledge, skills and capabilities. Our approach is three-fold:

- Providing all colleagues with foundational awareness.
- Providing specialised training to relevant colleagues.
- Building management and Board capability.

### Foundational awareness and training

All colleagues are provided with annual risk awareness training. In 2023, we have completed work to update a climate risk module that was used in 2022. This refreshed module will roll out in 2024 and will provide a case study to help colleagues understand and recognise climate risk (both transition and physical risk) in a customer context. The module will be mandatory for certain risk and customer-facing colleagues and other colleagues may choose to complete the training.

NAB has also invested in additional initiatives to strengthen all colleagues' awareness and understanding of climate change and our role in the transition, and to build engagement with NAB's climate strategy. This includes refreshing climate-related resources on NAB's intranet, sharing a series of short educational videos developed together with ClimateWorks Australia, as well as increased focus on climate change issues on our internal colleague communication platform.

### Specialised training

In 2023, NAB invested in the Institute for the Future of Business partnership with Melbourne University. Through this partnership we are working with Melbourne Business School to co-design, co-develop and co-deliver a series of five climate training programs for NAB colleagues across 2023 and 2024. The training comprises a climate foundations e-learn and webinar series available to all NAB colleagues, in addition to training programs for relevant bankers focusing on key sectors including residential and commercial real estate, agribusiness and transport.

### Working with industry bodies on climate risk capability

Climate change cannot be addressed by NAB alone. In 2023, NAB continued to collaborate and participate in climate risk-related industry activities and projects. These aim to better understand, and implement, methodologies to assess and manage climate risk. This included the following:

- **United Nations Environment Program Finance Initiative (UNEP FI) TCFD programme** - NAB's participation in 2023 included capacity-building for transition plan development, updates from specific regulators on climate stress testing activities, and a working group reviewing a range of physical and transition risk tools and data sets for climate-related risk analysis.
- **Climate Measurement Standards Initiative (CMSI)**
  - In 2023, the CMSI published an Addendum to its Science Report - *Addendum 1.0: Implications of the Intergovernmental Panel on Climate Change 6th Assessment Report for the Climate Measurement Standards Initiative climate science guide*. Work continued on identifying industry technical data that would assist CMSI partners to manage their TCFD-related climate disclosures. NAB has supported this cross-sector industry initiative since it formed in 2020. The CMSI includes representatives from across the banking, insurance and

investment sectors alongside pre-eminent Australian climate scientists working together under the auspices of the National Environmental Science Program, professional services firms and finance sector industry bodies. The objective of the CMSI is to provide open-source voluntary guidance on climate risk.

- **Australian Banking Association (ABA)** - NAB has participated in a range of banking industry-related climate risk capability building activities through ABA working groups. This included:
  - A Climate Risk Working Group - which developed industry guidance on climate risks for member banks.
  - A Financed Emissions Working Group - which developed member guidance on calculating financed emissions for residential mortgage portfolios.
  - A Scenarios Taskforce - which developed the scope for, and commenced work on, bank guidance on scenario analysis for use in climate-related stress testing.
- **Australian Sustainable Finance Institute (ASFI)** - NAB is a founding member of the ASFI, and was a member of its predecessor body, the Australian Sustainable Finance Initiative. In 2023, NAB participated in a number of ASFI working groups and activities. Key areas of focus in 2023 included: (i) preparatory work for development of an Australian sustainable finance taxonomy (NAB participated in the Steering Committee for this preparatory work during 2023 and now NAB colleagues have been appointed to the Taxonomy Technical Expert Group and the Do No Significant Harm' Technical Advisory Group); and (ii) natural capital.

### Targeted capability to support customers

In late 2022, NAB partnered with Melbourne Business School to deliver agribusiness climate banker training to over 350 of our business and private bankers so they can better support the ambitions of our customers.

NAB also established a Corporate and Institutional Banking network of more than 100 sustainability champions who were required to complete a program of formal study through the Chartered Banker Institute's Certificate in Green and Sustainable Finance. The qualification will help colleagues develop their understanding and application of green and sustainable finance principles and practice.

At the end of September 2023, 81% of champions successfully completed the certificate. Champions also participate in a range of internal training courses on climate and sustainable finance topics.

### Management and Board climate capability

Refer to the *Governance* section on page 19 for information on how the Group assesses and is building Board and management climate capability.

# Investing in climate advocacy and partnerships

## Investing in partnerships, research and development

### Partnering for innovation

NAB is working with a range of partners and potential partners including universities, research initiatives, start-ups and other corporates, to understand how to best support Australia's climate transition, reduce emissions and build climate resilience. This includes protecting nature and biodiversity.

In support of NAB's climate strategy, we have established a climate investment capability to provide equity funding in innovative early-stage companies, joint ventures, partnerships and new businesses that can accelerate our climate capability and support our customers to successfully transition. This includes considering investments in:

1. Climate data measurement, reporting and verification.
2. Transition planning, abatement and adaptation.
3. Our ability to provide our customers with access to capital and support carbon markets activity.

### Natural capital partnerships

Since 2019, NAB has been contributing to the ClimateWorks Natural Capital Investment Initiative, which involves developing approaches to measuring natural capital, and climate-related metrics such as on-farm emissions. Building on this work, NAB has recently launched a partnership with Farming for the Future. The research initiative seeks to build the monitoring and reporting frameworks to help farmers understand their natural capital and ultimately the linkages between natural capital, climate resilience and the performance of their farming enterprises. Refer to the climate change and environment section in NAB's [2023 Annual Report](#) for further details.

### Research

In the NAB-commissioned research, *All Systems Go* (available at [news.nab.com.au/wp-content/uploads/2023/08/Deloitte-PoweringAhead-NAB.pdf](https://news.nab.com.au/wp-content/uploads/2023/08/Deloitte-PoweringAhead-NAB.pdf)), Deloitte Access Economics looked at the difference between an Australia that only meets its 2050 net zero targets, versus an Australia that competitively trades in global decarbonisation.

The report finds that what we achieve from now to 2030 is critically important in order to lower the economic cost of transition and set up our economy to capitalise on the potential \$435 billion<sup>(1)</sup> opportunity for Australia if it transforms its industrial base and establishes a clean energy platform to drive export growth in a rapidly decarbonising world. The report suggests that the opportunity can be

realised with the right mix of policy, innovation and investment to trade competitively.

### Climate change advocacy

Through contribution to industry association submissions and statements, participation in industry roundtables and in direct consultation with government and other stakeholders, NAB advocates on important issues related to climate change and the transition to net zero emissions by 2050. This includes issues such as sectoral pathways, sustainable finance, emissions reduction, energy efficiency and electrification, climate disclosure and consistent reporting regimes, managing climate risk, just transition for workers and communities, natural disasters, climate resilience and biodiversity. In 2023, this included activity in relation to:

- The Department of Treasury's consultation papers on climate-related financial disclosures.
- The Climate Change Authority's Issues Paper: Setting, tracking and achieving Australia's emissions reduction targets.
- The Department of Climate Change, Energy, the Environment and Water's (DCCEEW) Position Paper on the Safeguard Mechanism Reforms.
- DCCEEW's consultation on the development of a new National Energy Performance Strategy.
- The Environment and Communications Legislation Committee Inquiry into the Nature Repair Market Bill 2023 and Nature Repair Market (Consequential Amendments) Bill 2023.
- The Independent Review of ACCU.
- The ASFI's December 2022 statement on Accelerating Sustainable Finance and April 2023 statement on energy efficient homes.
- Development of a sustainable finance taxonomy in Australia, including through participation in ASFI's taxonomy steering group.
- The Department of Home Affairs' consultation paper on Alternative Commonwealth Capabilities for Crisis Response looking at long-term capability to better support states and territories when responding to a natural disaster.
- The ABA banking industry climate policy paper 'Banking on Climate Action' and submissions in support of the Australian Treasury's two consultation processes on proposed implementation of mandatory climate-related financial disclosures in Australia.

NAB regularly reviews its major industry associations' policy positions against our positions taken on climate change to ensure broad alignment. Refer to Figure 3 for further details.

Figure 3: NAB's alignment with major industry associations

	Australian Banking Association	Business Council of Australia	Business Council for Sustainable Development Australia	
Commitment to net zero by 2050	●	●	●	
Mandatory climate-related disclosures	●	●	●	
Development of sectoral pathways	●	●	●	
Measures to enhance energy efficiency and electrification	●	●	●	
Role of sustainable finance/sustainable finance taxonomy	●	●	●	
Measures to improve climate resilience and biodiversity	●	●	●	
Supportive of a coordinated, long-term just transition for workers and communities	●	●	●	● Aligned

(1) The \$435 billion opportunity in Power Ahead represents the net present value of the economy's expansion in Gross Domestic Product out to 2050.



## Investing in climate advocacy and partnerships (cont.)

### Supporting a just transition

Supporting a just transition is consistent with our strategic ambition to serve customers well and help our communities prosper. Some of our customers, colleagues and communities, and regions will face greater climate challenges and risks than others. The NAB Ready Together program is designed to assist customers, colleagues and communities experiencing the impacts of more frequent and severe natural disasters. Refer to our [2023 Annual Report](#) for more information about NAB Ready Together.

NAB has been engaging, through its membership of the United Nations Global Compact (UNGC), on developing guidance that businesses can draw on to address these inequalities and create opportunities for decent work, social justice, and transitioning the economy.

Matters of decent work, employee treatment and relations form part of our ESG risk assessment considerations, however we are seeking to build on our over-arching approach to a just and inclusive transition. Some of the key challenges include managing the trade-offs and tensions between different social and environmental objectives and interests in the transition, the need for a multi-stakeholder approach, and a lack of comparable and consistent indicators to assess company approaches.

NAB welcomes the establishment of the Net Zero Authority in Australia to provide guidance to investors and companies on transformation opportunities and coordinate policies and programs to support regions, communities and workers to take advantage of transformation opportunities, and address some of the identified challenges.

NAB will continue to proactively engage customers, our industry associations, investors and relevant community organisations on our approach. Some information on our progress in this regard is set out below.

This work builds on NAB's research in 2020, conducted in collaboration with the UNGC Network Australia and written by the University of Technology Sydney's Institute for Sustainable Futures, which focused on the implications for the corporate sector and financial institutions in Australia. Table 1 below provides an overview of key principles to help guide our role over time in supporting a just and inclusive transition.

**Table 1: NAB's guiding principles for a just and inclusive transition**

Principle	Details
Build awareness and advocate	<ul style="list-style-type: none"> <li>Initiatives and activities to raise awareness and build understanding of the social dimensions in the transition.</li> <li>Identifying opportunities to include considerations around just transition in policy advocacy activities.</li> </ul>
Operationalise just transition	<ul style="list-style-type: none"> <li>Embedding just transition as an important factor of climate strategy.</li> <li>Improving understanding of how just transition considerations can be better embedded in ESG due diligence, decision making and product development processes.</li> <li>Empowering colleagues to raise questions and concerns to better inform the overall approach.</li> </ul>
Engage and develop partnerships	<ul style="list-style-type: none"> <li>Engaging across sectors, customers and governments.</li> <li>Seeking to collaborate through partnerships with key stakeholders to facilitate a cohesive, comprehensive, and inclusive transition.</li> </ul>
Improve transparency	<ul style="list-style-type: none"> <li>Importance of including just transition considerations and social dimension in climate-related reporting.</li> </ul>

### Progress in 2023

- NAB is the only Australian company to participate in the UNGC *Think Lab on Just Transition* and contributed to the development of five key business briefs (available at [www.unglobalcompact.org/take-action/think-labs/just-transition](http://www.unglobalcompact.org/take-action/think-labs/just-transition)). These briefs seek to identify good business practices and advocacy opportunities, address key business challenges and define leadership on critical areas linked to the transition. NAB is drawing on our participation as we continue to build our approach.
- Prepared additional internal resources for colleagues to support their understanding of a just and inclusive transition.
- Participated in a panel on a just transition at 2023 Australian Dialogue on Business and Human Rights.
- Maintained a dedicated human rights grievance mechanism with instructions in multiple languages to enable representation and generate dialogue, including in relation to transition impacts.

# Reducing financed emissions

**NAB is working to reduce the emissions attributable to our financing, with the ultimate goal of reducing emissions in the real economy, aligned with pathways to net zero by 2050.**

Our approach is to:

- Improve our understanding of the emissions attributable to our lending and investment activities.
- Set sector-level decarbonisation targets to achieve an overall reduction in our attributable financed emissions, prioritising emissions-intensive sectors.
- Mobilise investment in colleagues, processes, technology and partnerships that will support us in achieving our targets.

We recognise the most significant impact we can have on emissions reduction is through the finance we provide, and by training our bankers so that they can support customer decarbonisation ambitions.

## Member of Net Zero Banking Alliance

In 2021 NAB joined the NZBA, an industry-led, UN-convened alliance bringing together a group of leading global banks committed to transitioning their lending and investment portfolios to align with pathways to net zero emissions by 2050.

As part of our responsibilities with NZBA, our decarbonisation targets will be reviewed and recast on a minimum 5-year cycle in the lead up to 2050. The decarbonisation targets may be reviewed and recast more frequently where significant circumstances warrant. This approach recognises the inherent uncertainty and complexity in setting medium and long-term targets, and (amongst other things) the dependency the finance sector has on customers progressing their own transition plans.

## Setting decarbonisation targets, prioritising emissions-intensive sectors

NAB has prioritised our target setting activities to the emissions-intensive sectors identified by the NZBA and welcomes the broad alignment of these sectors with the Australian Government's intended sectoral decarbonisation plans for electricity and energy, industry, the built environment, agriculture and land, transport and resources. Refer to pages 39 to 53 for sector overviews and further details on our decarbonisation targets.

# Reducing operational emissions

**Reducing the footprint of our own operations is an important part of our climate strategy. We're working towards targets that align with our ambition and drive accountability throughout NAB.**

The majority of NAB's operational emissions are associated with energy used in buildings, and so we continue to focus on increasing renewable energy purchase as the primary approach to reducing operational emissions, as well as further building energy efficiency initiatives. This includes our target to source 100% renewable electricity to cover our electricity consumption needs by 2025.

As the economy continued its recovery from COVID-19, activity that generates emissions such as increased building occupancy and business travel also continued to increase.

In 2023, we have made some changes to our Scope 1 and 2 (market-based method) science-based GHG emissions reduction target to align its ambition to be net zero by 2050 with the best available science and pathway for a 1.5°C warming scenario above pre-industrial levels by 2100.

Since 2010, the Group has been playing its part by reducing its own operational footprint through emissions avoidance and reduction, and then offsetting its residual emissions. NAB has been certified carbon neutral by Climate Active's Standard for Organisations in Australia since 1 July 2010. BNZ and JBWere NZ are both Toitū net carbonzero organisation certified.

## Our operational environmental performance and targets

Refer to *Metrics and targets* on page 56 for a detailed update on our operational environmental performance and targets.

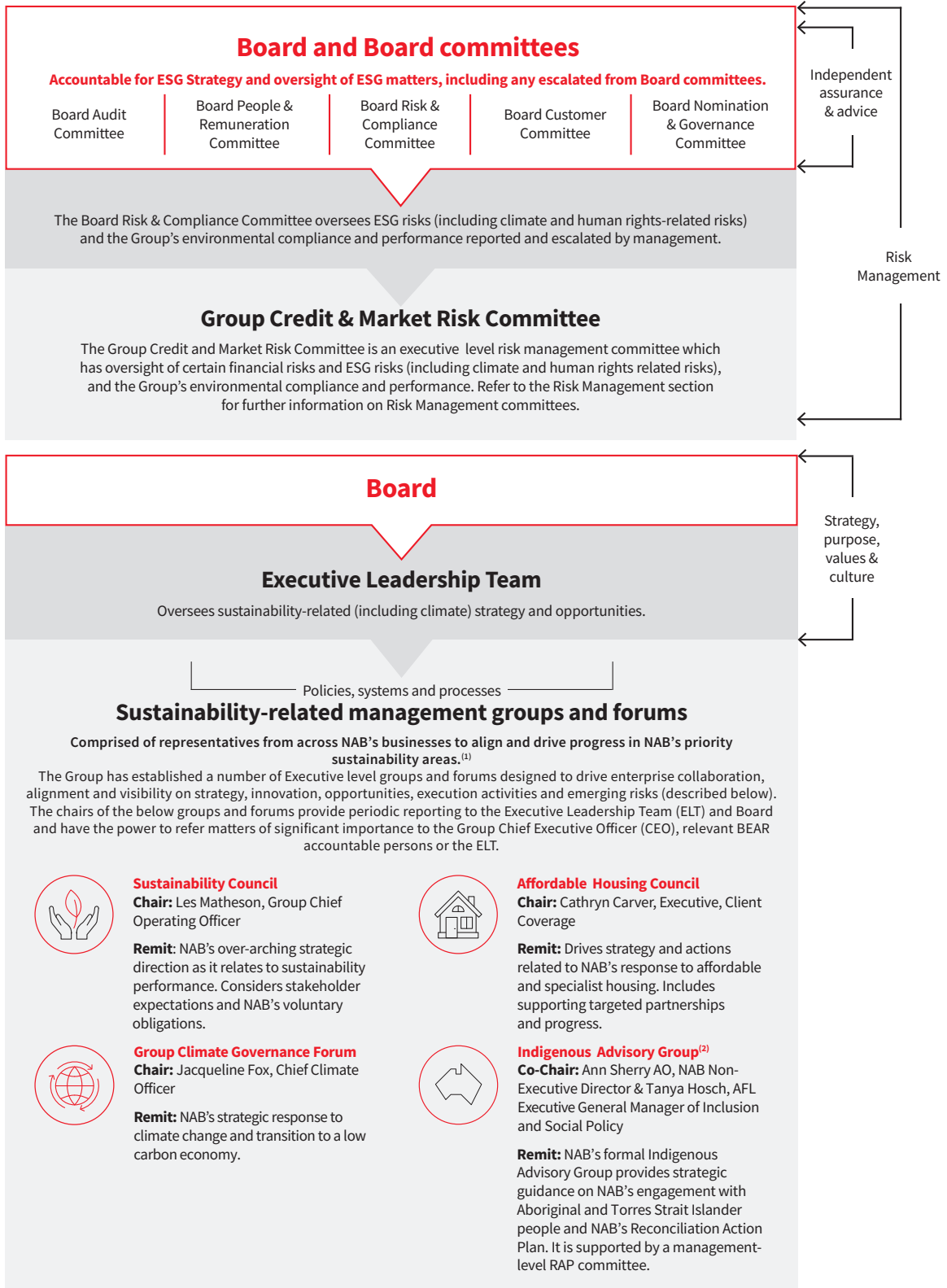
# Governance

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# Governance

The Board oversees sustainability-related matters, including climate-related risks.

Figure 1: Summary of sustainability governance (including climate)



(1) NAB's major subsidiary, BNZ, also has sustainability-related (including climate) management groups and councils. Details on BNZ's approach to relevant governance matters will be available in its climate and sustainability reporting.  
 (2) NAB's Indigenous Advisory Group is comprised of representatives from the Board, Executive Leadership Team and Aboriginal and Torres Strait Islander leaders from outside NAB. First Nations colleagues are members of the RAP committee.

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## Role of the Board and committees

### Board oversight

The Board retains oversight of ESG related matters including climate-related risks and opportunities. ESG considerations are integrated into business strategy, operations and risk management.

The Board is supported by the Board Risk & Compliance Committee (BRCC) which has accountability for oversight of the Group's risk profile and risk management. This includes ESG risk, within the context of Board determined risk appetite, although ultimate responsibility for risk oversight, risk appetite and risk management rests with the Board.

The Group formally incorporates ESG risks, including climate change, as a material risk category called 'Sustainability Risk' in the Group's Risk Management Framework (RMF).

The BRCC refers all matters of significant importance to the Board, making recommendations to the Board concerning the Group's current and future risk appetite, risk management strategy and particular risks or risk management practices, including those related to climate change.

The Board and/or BRCC receive reports on climate-related matters which may include strategy, goals and targets, risks and opportunities, ESG-related policies and appetite settings, environmental operational performance, scenario analysis and stress testing, climate-related regulatory change and reporting submissions and concerns raised by stakeholders. In 2023, key climate-related matters presented to the Board included:

- The 2022 Climate Report and draft climate disclosures for 2023.
- Decarbonisation targets to meet NAB's NZBA commitment and engagement plan to May 2024 in relation to further target setting proposed.
- Risk appetite and related performance.
- Updates on the Group's environmental performance and related regulatory reporting.

NAB's [2023 Annual Report](#) details other ESG and Sustainability matters considered by Board in 2023.

### Board capability

Each year, NAB assesses the skills and experience of each director and the combined capabilities of the Board.

To prepare the skills matrix, each director rates their skills, expertise and experience against several competency areas that are then mapped to the skills matrix. The self-assessment ratings and skills matrix are reviewed and calibrated by the Board Nomination and Governance Committee on behalf of the Board. The current skills matrix is provided in the *'Corporate Governance Statement'* section of NAB's [2023 Annual Report](#). In 2023, the Board assessed its combined skills and capabilities from an environmental and social perspective as strong.

In 2023, the Board Nomination and Governance Committee and Board continued to prioritise increasing the combined capabilities of the Board on ESG topics (including climate change) in its continuing education priorities.

The Board development program included sessions on climate transition (risks, opportunities, target setting methodologies and practices).

The Chair and Group CEO engaged with customers in several sectors where NAB is setting decarbonisation targets. In 2023, this included site visits for customers in the energy generation

sector investing in new storage and distribution technologies, as well as agriculture and cement production including in regional and rural Australia.

### Management's role in assessing and managing climate-related risks and opportunities

Led by the Group CEO, the members of the ELT have a key role in driving the implementation of NAB's climate strategy and in assessing climate-related risks and opportunities. The ELT considers matters relevant to NAB's climate strategy.

The Group Chief Financial Officer (GCFO) is accountable for advising on the execution of NAB's climate strategy (excluding BNZ), key climate-related innovation investment and climate-related goals and targets, including those related to the NZBA.

In December 2022, NAB appointed its inaugural Chief Climate Officer (CCO), who reports to the GCFO. The CCO oversees and aligns NAB's strategic response by working closely with relevant Group Executives on their divisional climate strategies and NZBA sectoral implementation plans to achieve NAB's decarbonisation targets, bringing a co-ordinated approach. The CCO also provides periodic reporting to ELT and Board.

The Group Chief Risk Officer (CRO) is accountable for developing and co-ordinating the implementation of risk management strategies and frameworks for climate risk.

The Group Chief Operating Officer (COO) is Chair of the Sustainability Council, which is responsible for aligning activity across NAB and overseeing progress against NAB's broader sustainability goals and targets. The Group COO provides updates on NAB's sustainability performance to the Board.

The Group Executive, Technology & Enterprise Operations (GETEO), is accountable for NAB's property portfolio, technology operations and supply chain management. This includes managing risks and opportunities associated with capital works and programs that can contribute to NAB's energy efficiency performance and GHG emissions profile. This includes the purchase of large-scale energy generation certificates and power purchase agreements to help the Group meet its operational renewable energy target.

The Group Executive, People and Culture is responsible for overseeing the Group's performance and reward framework. The Board is responsible for determining, assessing and approving the Group Performance Indicators (GPI), that inform the Group Variable Reward Plan outcomes.

### Risk Governance

Refer to the *Risk management* section of this Report and the *Risk management* section of NAB's [2023 Annual Report](#) for further information on risk governance.

## Sustainability and NAB's performance framework

The Group's performance, including that of the Group CEO, is assessed on achievement of financial and non-financial measures as set out in the GPI scorecard. The GPI is linked to the Group's key strategic priorities, and has regard to a qualitative assessment of risk, quality of performance (including consideration of financial, sustainability and customer outcomes and progress made against strategy) and any other matters as determined by the Board.

When determining the GPI outcome, the Board retains discretion to adjust the final outcome based on a consideration of qualitative factors including progress on sustainability matters. This includes climate change, support for customers (including affordable housing, cost of living support and scam and fraud prevention), community initiatives and colleague engagement and gender equality.

As part of our governance process, the GPI outcome may be modified by the Board due to unsatisfactory risk or conduct findings. The Group Risk Performance assessment, undertaken by the Group CRO, reviewed the Group's practices, including through the lens of conduct and risk, with findings presented to the Board and the BRCC.

For specific Group Executives, sustainability related risk and performance measures are included within their individual performance scorecards. Colleagues individual performance measures may also contain sustainability goals and performance indicators where relevant to their roles (for example, within teams focused on executing the Group's climate strategy, including but not limited to, managing ESG risks and decarbonisation targets).

Together with our financial measures, our non-financial performance objectives seek to reinforce the link between individual performance and remuneration outcomes with the delivery of our strategy, and the achievement of sustainable long-term performance that create value for all stakeholders. Our approach has been consistent for an extended period.

### Annual variable reward

Refer to the *'Remuneration Report'* section of NAB's [2023 Annual Report](#) for more detail about how ESG risks are reflected in the GPI and how the annual VR is calculated, together with a qualitative assessment of other factors and individual performance.

# Risk management

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# Risk management

## Managing climate-related risk within our business

Climate-related risks are identified, measured, monitored, reported and overseen in accordance with the RMF, as described in the Group's Risk Management Strategy, and shown in Figure 1. Supporting risk frameworks used to operationalise components of the RMF include the Enterprise Risk Taxonomy, the Risk Appetite Framework, Group Policy Governance Framework, and Risk Management Practice Framework.

Risk profiling and assessment processes are key mechanisms to identify and understand internal and external risks and their causes, including climate change, to operations and strategy execution. Risk profiling aims to identify and understand the root causes that drive change in ESG risks, identify and support early mitigating actions, while risk assessments help to make informed decisions about the risks the Group is willing to accept, reject or mitigate.

Sustainability Risk, which includes consideration of climate-related risks, is a material risk category within the Group's RMF and became effective on 1 October 2021. The Group defines Sustainability Risk as "the risk that ESG events or conditions negatively impact the risk and return profile, value or reputation of the Group or its customers and suppliers". Additionally, consideration of climate-related risk is incorporated within the Group Risk Appetite Statement (RAS). This was reviewed and updated in 2023 as part of the development of the Group's RAS for 2024.

## ESG risk management oversight

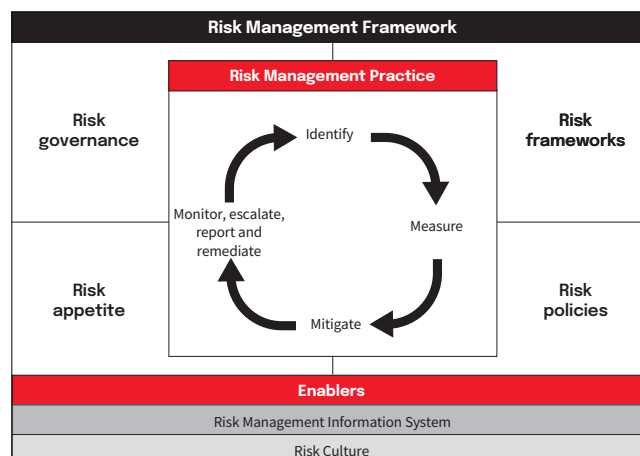
The Group CEO oversees enterprise-wide risk management through the Enterprise Risk & Compliance Committee (ERCC) and its supporting sub-committees, including the Group Credit and Market Risk Committee (GCMRC). The GCMRC supports the ERCC in its oversight of the Group's management of Credit Risk, Market Risk and Sustainability Risk (including climate risk) and related emerging risks. GCMRC's remit includes risk appetite, risk profile, limits, portfolio exposures, policies and compliance with ESG-related obligations (including climate-related regulatory requirements, voluntary initiatives, goals and targets). This includes oversight of: (i) ESG-related policies, including those related to human rights, environment, including climate change, and assessment of customer-related ESG risk; and (ii) ESG risk appetite settings, including those for emissions-intensive, climate sensitive and low-emissions sectors. Matters are escalated by the GCMRC to the ERCC, BRCC and the Board as required. Also see Figure 1 in the *Governance* section for our governance structure.

Where ESG and associated reputation risk is high, ESG matters are escalated by customer-facing teams for discussion and consideration in business units (Business and Private Banking and Corporate and Institutional Banking) or subsidiary forums (BNZ) involving senior management, executive and other key internal stakeholders including Risk and Corporate Affairs. The Business and Private Banking forum was formalised in 2023.

## Processes used to determine material financial impacts

NAB uses a mix of qualitative and quantitative measures, including financial, to manage risk, including climate risk. These measures consider risk likelihood and consequence. The Group's Operational Risk Profiling Standard Operating Procedures provide this information in the form of likelihood and consequence matrices to enable colleagues to assess significance of financial and strategic impacts on the Group, including those arising from climate change.

Figure 1: The Group's Risk Management Strategy and Framework



For example, the consequence of a risk or incident may be defined as substantive/major due to the number of customers or proportion of operations impacted, or due to the size and length of time that the impact occurs. The Group considers climate-related risks, impacts and opportunities on a short, medium, and long-term basis based on environmental scanning and scenario analysis in accordance with the Group's RMF.

A financial or strategic impact arising from climate-related risks would be deemed substantive/major in accordance with the Group's RMF, internal policies and operating procedures if the financial impact was at least \$5 million or the risk had non-financial impacts that may include: an extensive injury; an impact to more than 3,000 customers; over 24 hours interruption to provision of essential banking services/processes; and sanctions including fines, enforceable undertakings or mandatory improvements, imposition of capital requirements and regulatory civil proceedings.

Reputation risk may also be considered substantive based on the number and type of stakeholders raising concerns, impact on reputation benchmarking scores and direct feedback including through NAB's annual ESG materiality process. This engagement process is conducted with internal and external stakeholders to seek their views on material issues facing NAB.

As stated in *Note 19 Financial risk management* in NAB's *2023 Annual Report*, the Group may recognise forward looking adjustments (FLA) to the provision for credit impairment for the impact of adverse climate events. In the 2022 financial year, the Group recognised a FLA of \$14 million for the potential impact of the Lismore floods (30 September 2023: nil).

### NAB's ESG materiality assessment

Refer to NAB's *2023 Annual Report* for detail on NAB's ESG materiality assessment.

### Participation in industry-based climate risk initiatives

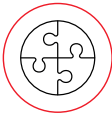
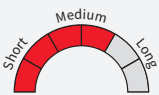

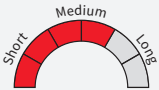

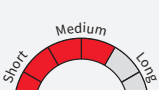



Refer to climate risk-related capability activities undertaken in 2023 in the *Investing in climate capabilities* section on page 13.



### Types of climate risks considered

The following table presents the climate risk types and impacts as follows:

Figure 2: Types of climate risks considered

Climate risk type	Risk driver	Impact	Impact time horizon <sup>(1)</sup>	Impact on Group material risk categories
 <b>Transition risk</b>	Current and emerging regulation	<ul style="list-style-type: none"> <li>Increased reporting obligations and associated costs.</li> <li>Higher operating costs for carbon intensive customers (e.g. carbon tax).</li> <li>Increased potential for non-compliance.</li> <li>Increased potential capital requirements for the financing of emissions intensive sectors.</li> </ul>	 Short to Medium-term	<ul style="list-style-type: none"> <li>Credit</li> <li>Compliance</li> <li>Sustainability</li> </ul>
	Technology	<ul style="list-style-type: none"> <li>Write-offs and early retirement of existing assets due to technology changes.</li> <li>Cost of/investment in transition to less carbon intensive products and services.</li> </ul>	 Medium to Long-term	<ul style="list-style-type: none"> <li>Credit</li> <li>Sustainability</li> </ul>
	Legal	<ul style="list-style-type: none"> <li>Legal action resulting from the misalignment of public commitments and financing decisions.</li> </ul>	 Short to Medium-term	<ul style="list-style-type: none"> <li>Credit</li> <li>Compliance</li> <li>Conduct</li> <li>Sustainability</li> </ul>
	Market	<ul style="list-style-type: none"> <li>Re-pricing of assets or increased market volatility during transition.</li> <li>Reduced demand for products or services due to shift in consumer preferences.</li> <li>Increase in operational costs (e.g. energy).</li> </ul>	 Short to Medium-term	<ul style="list-style-type: none"> <li>Credit</li> <li>Balance sheet &amp; liquidity</li> <li>Market</li> <li>Sustainability</li> </ul>
	Reputation	<ul style="list-style-type: none"> <li>Financing decisions for carbon intensive sectors, or climate policies that reduce emissions do not meet customer and investor expectations.</li> </ul>	 Short to Medium-term	<ul style="list-style-type: none"> <li>Conduct</li> <li>Market</li> <li>Sustainability</li> </ul>
 <b>Physical risk</b>	Acute	Increased severity and frequency of extreme weather events could lead to: <ul style="list-style-type: none"> <li>Impacted supply chains or end customer markets.</li> <li>Increased insurance and capital costs or operational outages.</li> <li>Losses due to physical damage and inability to meet customers' demands due to business interruptions.</li> </ul>	 Short, Medium and Long-term	<ul style="list-style-type: none"> <li>Credit</li> <li>Market</li> <li>Operational</li> <li>Sustainability</li> </ul>
	Chronic	Changes in weather patterns (e.g. temperature, sea levels) could cause: <ul style="list-style-type: none"> <li>Impacts to ecosystems, living and working conditions, agricultural systems and infrastructure.</li> <li>Impacts to existing assets and valuations.</li> </ul>	 Long-term	<ul style="list-style-type: none"> <li>Credit</li> <li>Operational</li> <li>Market</li> <li>Balance sheet &amp; liquidity</li> <li>Strategic</li> <li>Sustainability</li> </ul>

(1) The Group defines short-term as 0-3 years (one business planning cycle), medium-term as 3-6 years (two business planning cycles), and long-term as extending past two business planning cycles (>6 years). The Group considers a longer-term future outside immediate business planning cycles where a variety of uncertain potential scenarios are modelled to assess how risks and opportunities could evolve over longer time horizons.

### ESG risk policy and appetite

The Group regularly reviews its customer-related ESG policies and appetite settings, including those related to its exposure to emissions-intensive, climate sensitive and low-emissions sectors. These reviews consider a range of factors including:

## Risk management (cont.)

- Various climate change scenarios for both transition<sup>(1)</sup> and physical risk<sup>(2)</sup>.
- Customer strategies and plans and their alignment to science-based emissions reduction goals, including net zero by 2050.
- Industry trends.
- Trends in Group exposures to these sectors.

To date, this review process has led to implementation of customer-related ESG policies and risk settings in a number of sectors, which provide qualitative risk appetite descriptions (see Figure 3 for our thermal coal mining and oil and gas ESG-related policies and risk settings) and quantitative tolerances or limits (see Figures 3, 4 and 5) with respect to what the Group will and will not finance to assist in managing climate risk. They are formalised within the Risk Management Strategy and Risk Management Practice Framework through the Group's RAS, our High ESG Risk Sectors and Sensitive Areas List and Divisional credit strategies. Implementation is supported by policy, guidance, processes and controls.

These policies, settings and tolerances guide colleagues' decisions on a day-to-day basis and help ensure that

decisions made, suppliers engaged and customers supported, are within the Group's risk appetite. Regular reporting to senior management, the BRCC and Board supports oversight and monitoring of this.

As a result of NAB's ESG-related policies and risk settings, NAB has reduced its exposure to fossil fuels over time, and now no longer has any corporate lending to thermal coal mining customers or project finance in respect of thermal coal mining assets, assessed against the sector definition for our thermal coal mining settings (see Figure 3, footnote 1).

NAB subsequently set decarbonisation targets for certain sectors in the 2022 Climate Report (including thermal coal, and oil and gas), that were informed by the sector definitions of the *UNEP FI Guidelines for Climate Target Setting for Banks* (UNEP FI Guidelines) endorsed by the NZBA. There are definitional differences between our ESG-related policies and risk settings and the NZBA decarbonisation target setting guidance.

Figure 3: Group coal and oil and gas ESG-related settings

### Coal<sup>(1)</sup>



#### ESG-related settings

- The Group has capped thermal coal mining EAD at 2019 levels, and set a goal to reduce thermal coal mining exposures by 50% by 2026, reducing to effectively zero<sup>(2)</sup> by 2030 apart from residual performance guarantees to rehabilitate existing thermal coal mining assets.
- The Group will not finance new thermal coal mining projects or take on new-to-bank thermal coal mining customers.
- The Group separately reports its thermal coal-related rehabilitation performance guarantees as part of reporting its resources exposures.
- The Group will not finance new or material expansions of coal-fired power generation facilities.
- The Group recognises that currently there are no readily available substitutes for the use of metallurgical coal in steel production. The Group will continue providing finance to its customers in this segment, subject to enhanced due diligence which further considers underlying ESG risks.

#### Lending exposure updates



##### Thermal coal mining

NAB has further reduced exposure to thermal coal and, as at 30 September 2023, NAB no longer has any (a) corporate lending to thermal coal mining customers or (b) project finance in respect of thermal coal mining assets. NAB intends to maintain this position into the future. BNZ is exiting all lending to thermal coal mining by the end of 2025.



##### Coal-fired power generation

NAB has had no direct lending<sup>(3)</sup> to coal-fired power generation assets since March 2022.

### Oil and gas<sup>(4)</sup>



#### ESG-related settings

- The Group has capped oil and gas<sup>(5)</sup> at USD \$2.28 billion and will reduce our exposure from 2026 through to 2050, aligned to the IEA NZE 2050.
- The Group will not directly finance greenfield gas extraction projects outside Australia.
- The Group will only consider directly financing greenfield gas extraction in Australia where it plays a role in underpinning national energy security.
- The Group will continue to support integrated LNG in Australia, New Zealand<sup>(6)</sup>, and Papua New Guinea and selected LNG infrastructure in other regions.
- The Group will not directly finance greenfield oil extraction projects or onboard new customers with a predominant focus on oil extraction.
- The Group will not finance oil and gas extraction, production or pipeline projects within, or impacting, the Arctic National Wildlife Refuge area or any similar Antarctic Refuge.
- The Group will not directly finance oil/tar sands or ultra-deep-water oil and gas extraction projects.

#### Lending exposure updates



##### Oil extraction

NAB has no direct lending to oil extraction projects.

- (1) For the purposes of NAB's ESG-related settings, thermal coal exposure means direct exposure to customers and projects whose primary activity is thermal coal mining, based upon the recorded 1993 ANZSIC codes on a net EAD basis. EAD for these ESG-related settings include lending, derivatives, financial guarantees and performance guarantees for the rehabilitation of existing assets. It excludes metallurgical coal mining, diversified mining customers and transactional banking (including deposit services) that do not give rise to EAD and similar ancillary products and services. NAB's NZBA-aligned thermal coal sector decarbonisation target includes diversified mining customers with revenue >5% from direct sale of thermal coal and excludes metallurgical coal mining customers (who are included in the NZBA-aligned iron and steel decarbonisation target). For completeness, these NZBA EAD targets exclude transactional banking (including deposit services), risk management products and similar ancillary products and services. These products and services are not in scope of accepted approaches for net-zero aligned target setting.
- (2) 'Effectively zero' refers to the fact that NAB may still hold some exposures to thermal coal in 2030, only through residual performance guarantees to rehabilitate existing coal mining assets. These guarantees are excluded from the financed emissions coverage of NAB's thermal coal sector target.
- (3) For the purposes of NAB's ESG-related settings, coal-fired power generation asset exposure is based upon the recorded 1993 ANZSIC codes on a net EAD basis. Excludes exposure to counterparties predominantly involved in transmission and distribution. Vertically integrated retailers are included and categorised as renewable where majority of their generation activities sourced from renewable energy. NAB has no direct lending to coal-fired power generation assets remaining. Note there is indirect exposure to coal-fired power within the Mixed Fuel category as a result of NAB's corporate level exposure impact.
- (4) For the purposes of NAB's ESG-related settings, Oil and gas EAD exposures means oil and gas extraction (upstream); LNG production (not at refineries – downstream LNG); and LNG production at wellhead (integrated LNG), based upon the recorded 1993 ANZSIC codes on a net EAD basis. EAD for these caps includes lending, derivatives and performance guarantees for the rehabilitation of existing assets.
- (5) In 2021, a cap of USD \$2.4 billion was determined giving consideration to the three-year average exposure up to 30 September 2021 due to COVID-19 impacts. USD was used for the purposes of this cap to account for currency movement because the majority of the portfolio is USD denominated. The revised capital framework (RCF) came into effect from 1 January 2023. This resulted in a reduction in EAD due to changes in the calculation of off-balance sheet EAD for certain undrawn commitments. To reflect the impact of the RCF changes, the Group reduced its oil and gas cap to USD \$2.28 billion.
- (6) Support for LNG is not currently provided in the New Zealand market.

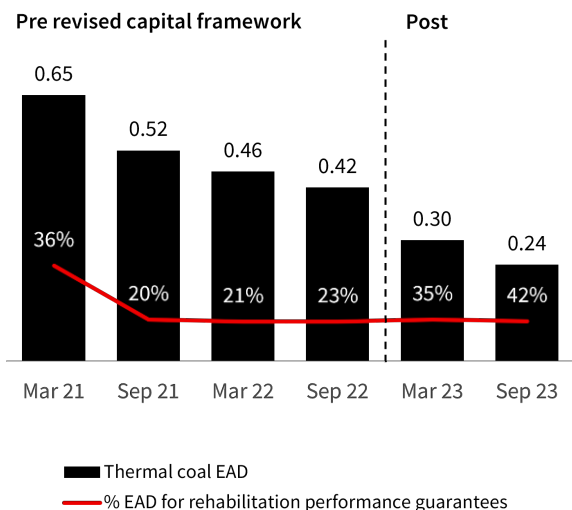
(1) For the purpose of this work, transition risk is defined as the impact of low-carbon policy and transition to low-carbon technology on markets and industries.

(2) For the purpose of this work, physical risk is defined as the risk resulting from climate variability, extreme weather events and longer-term changes in climate patterns.

**Thermal coal mining and oil and gas limits**

The RAS contains quantitative limits which set upper boundaries for how much exposure the Group is willing to have to particular sectors or sub-sectors. Figures 4 and 5 show the Group's thermal coal and oil and gas extraction exposures which are monitored against portfolio limits in accordance with ESG-related policy settings.

**Figure 4: Thermal coal mining (AUD \$bn) exposure as EAD as at 30 September<sup>(1)(2)(3)</sup>**

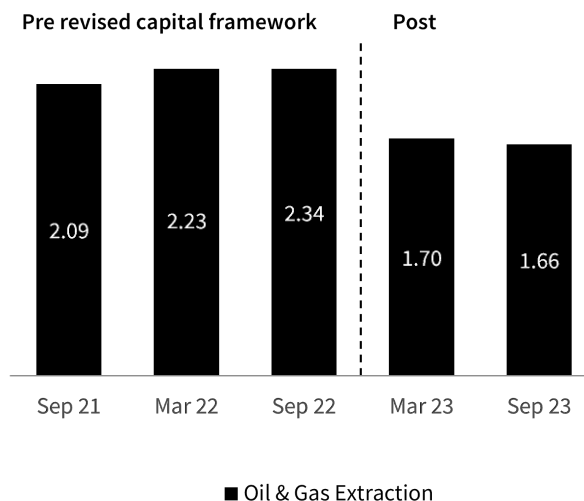


- (1) From 1 January 2023, the revised capital framework. The revised capital framework refers to revisions to APRA's capital adequacy and credit risk capital requirements for ADIs. March and September 2023 'post' numbers are calculated in accordance with APRA's revised capital framework. For more information on the impacts on NAB's reported EAD, see NAB's 1H23 Pillar 3 report.
- (2) EAD for these ESG-related settings includes lending, derivatives, financial guarantees and performance guarantees for the rehabilitation of existing assets. It excludes metallurgical coal mining, diversified mining customers and transactional banking (including deposit services) that do not give rise to EAD and similar ancillary products and services.
- (3) % of thermal coal EAD for performance guarantees to rehabilitate existing assets.

**Decarbonisation targets**

Further details about NAB's decarbonisation targets are provided in the *Metrics and targets* section (refer to pages 39 to 53).

**Figure 5: Oil and Gas Extraction - lending only (USD \$bn) exposure as EAD as at 30 September<sup>(1)(2)</sup>**



- (1) From 1 January 2023, the revised capital framework. The revised capital framework refers to revisions to APRA's capital adequacy and credit risk capital requirements for ADIs. March and September 2023 'post' numbers are calculated in accordance with APRA's revised capital framework. For more information on the impacts on NAB's reported EAD, see NAB's 1H23 Pillar 3 report.
- (2) Relevant exposure conversions based on rates of AUD/USD 0.72115 (Sep 21); AUD/USD 0.74855 (Mar 22); AUD/USD 0.64925 (Sep 22); and AUD/USD 0.67140 (Mar 23).

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# Assessing potential climate risk using scenarios

The Group uses climate-related scenario analysis to help inform its strategy, risk appetite and risk management. The Group's use of scenarios has been two-fold, to:

1. Understand the vulnerability of the Group's lending portfolio and its customers in key high emitting segments to transition and physical risk. This can include stress testing and counterparty sensitivity analysis to climate risk using scenarios. Stress tests assess how banks manage risk in a hypothetical scenario that is severe, but plausible. Prudential regulators use stress tests to understand banks' resilience to extreme shocks and their ability to continue supporting the economy.
2. Understand the sectoral decarbonisation pathways needed to transition to a net zero lending portfolio by 2050, set sector decarbonisation targets and establish sector transition plans to achieve that goal.

**Table 1: Summary of climate scenarios used by NAB in 2023 for climate risk analysis**

	Delayed Transition <sup>(1)</sup>	Current Policies <sup>(1)</sup>
<b>Description</b>	The Delayed Transition scenario assumes global annual emissions do not decrease until 2030. Strong policies are then needed to limit warming to below 2°C. Negative emissions are limited. This scenario assumes new climate policies are not introduced until 2030 and the level of action differs across countries and regions based on currently implemented policies. Australia continues on its current policy direction to 2030, likely achieving its Paris agreement target principally through economic decarbonisation of the electricity system rather than new emissions policies. From 2030, Australian emissions follow a global emissions trajectory towards net zero emissions by 2050, with a single global price for emissions and offsets.  This scenario tests sensitivity and resilience to high transition risk.	The Current Policies scenario assumes that only currently implemented policies are preserved, leading to high physical risks. Emissions grow until 2080 leading to about 3°C of warming and severe physical risks. This includes irreversible changes like higher sea level rise. Australia has no linkage to wider emissions trading schemes, and no national emissions target beyond 2030. The electricity sector continues to evolve based on market outcomes.  This scenario tests sensitivity and resilience to high physical risk.
<b>Scenario used</b>	Network for Greening the Financial System (NGFS) - Delayed Transition	NGFS - Current policies
<b>Scenario application</b>	Used to inform the development of climate risk tools and other climate risk analysis	Used to inform the development of climate risk tools and other climate risk analysis
<b>Global warming by 2100</b>	1.6°C	3°C+
<b>Policy reaction</b>	Delayed	None - current policies
<b>Technology change</b>	Slow/Fast	Slow
<b>Use of carbon dioxide removal</b>	Low-medium use	Low use
<b>Regional policy variation</b>	High variation	Low variation
<b>Physical impacts</b>	Low	High
<b>Carbon price range per tonne CO<sub>2</sub>-e from 2030 to 2050</b>	Portfolio modelling USD \$37-USD \$144 <sup>(2)</sup> . Customer-level analysis USD \$0.63-USD \$497 <sup>(3)</sup>	Portfolio modelling USD \$16-USD \$62 <sup>(2)</sup> . Customer-level analysis USD \$0.63-USD \$2.70 <sup>(2)</sup>
<b>Associated Representative Concentration Pathway (RCP)</b>	RCP 2.6	RCP 8.5

(1) NGFS scenario descriptions are adapted from the NGFS Scenarios Portal: NGFS Scenarios Portal available at [www.ngfs.net/ngfs-scenarios-portal/explore/](http://www.ngfs.net/ngfs-scenarios-portal/explore/)

(2) The forecasted carbon price from a private consultant has been used for portfolio modelling.

(3) The forecasted carbon price from the NGFS REMIND-MAgPIE 2.1-4.2 model has been used for customer-level analysis.

## BNZ's stress test scenario

During 2023, BNZ participated in the Reserve Bank of New Zealand's (RBNZ) 2023 Climate Stress Test (CST). The scenario called 'Too Little, Too Late' (TLTL) incorporates limited and delayed global policy action which is insufficient to prevent significant climate change. The scenario covers the period from 2023 to 2050, with most climate impacts occurring after 2030. The scenario sees global temperatures increasing by 0.8°C from 2020 to 2050, reaching 2°C of warming from pre-industrial levels. A large number of countries only begin to act on reducing GHG emissions in 2036, through a rapid increase in carbon price. Economic growth slows significantly in the decade from 2031 as New Zealand transitions to a lower-emitting economy. Later in the decade, the global slowdown lowers trade and capital flows to New Zealand.

Underlying socioeconomic assumptions, e.g. for population growth, technological progress and productivity growth, are from Shared Socioeconomic Pathway 2 (SSP2) used by Phase III NGFS scenarios<sup>(1)</sup>. For further scenario details see 2023 CST Scenario at [www.rbnz.govt.nz](http://www.rbnz.govt.nz). Macroeconomic, physical climate, transition and global emissions scenario variables made available for use in the CST can be found at [www.rbnz.govt.nz/financial-stability/stress-testing-regulated-entities/climate-stress-test](http://www.rbnz.govt.nz/financial-stability/stress-testing-regulated-entities/climate-stress-test).

(1) A brief explainer of SSPs is provided at [rbnz.govt.nz/hub/-/media/project/sites/rbnz/files/publications/bulletins/2023/rbb-2023-86-02.pdf](http://rbnz.govt.nz/hub/-/media/project/sites/rbnz/files/publications/bulletins/2023/rbb-2023-86-02.pdf) (p. 5). Narratives for the various SSPs are presented by Riahi et al. (2017): "The Shared Socioeconomic Pathways and their energy, land use, and greenhouse gas emissions implications: An overview" [www.sciencedirect.com/science/article/pii/S0959378016300681](http://www.sciencedirect.com/science/article/pii/S0959378016300681)

**Table 2: Summary of climate scenarios used by NAB in 2023 for sectoral decarbonisation target setting**

	Net zero by 2050 <sup>(1)</sup>	Waypoint 2050 <sup>(2)</sup>	International Aluminium Institute (IAI) 1.5°C Scenario
<b>Description</b>	Provides a technology pathway resulting in a clean, dynamic and resilient energy economy dominated by renewables like solar and wind instead of fossil fuels. This scenario requires massive deployment of all available clean energy technologies – such as renewables, electric vehicles and energy efficient building retrofits – between now and 2030.  Most reductions in CO <sub>2</sub> emissions through to 2030 come from technologies available today. But in 2050, almost half the reductions will come from technologies that are currently at the demonstration or prototype phase.	The Aviation Transport Authority Group Waypoint 2050 demonstrates that there are several potential options for the almost complete decarbonisation of air transport. This is shown through a range of measures including technology, energy system and operational measures. The scenario assumes the right level of support from governments, the finance sector, the energy industry and research institutions.  The majority of CO <sub>2</sub> emissions come from innovations in fuel efficiency through new generation aircraft, operational improvements such as air traffic management, deployment of sustainable aviation fuel and investment in out of sector carbon reduction market based measures (offsets).	The International Aluminium Institute's 1.5°C scenario details full life cycle, cradle to grave emissions for aluminium products. This includes processes from mine and end of life product collection to fabrication.  In this scenario, the majority of emissions are reduced through decarbonising the electricity used in the manufacturing of aluminium. Other significant decarbonisation comes from reduction of process emissions and increased aluminium recycling in the smelting process.
<b>Scenario used</b>	IEA NZE 2050	Waypoint 2050	IAI 1.5°C Scenario
<b>Scenario application</b>	Used for sectoral decarbonisation target setting – multiple sectors	Used for sectoral decarbonisation target setting – aviation sector	Used for sectoral decarbonisation target setting – aluminium sector
<b>Global warming by 2100</b>	0.3°C-1.7°C	1.5°C	1.5°C
<b>Policy reaction</b>	High – significant cooperation	High – significant cooperation	Not specified
<b>Technology change</b>	Fast	Fast	Fast
<b>Use of carbon dioxide removal</b>	Medium use	High use	None
<b>Regional policy variation</b>	Low variation	Low variation	Low variation
<b>Physical impacts</b>	Low	Low	Low
<b>Carbon price range per tonne CO<sub>2</sub>-e from 2030 to 2050</b>	USD \$130-USD \$250 <sup>(3)</sup>	Not specified	Not specified
<b>Associated RCP</b>	N/A	N/A	N/A

(1) Description adapted from IEA's NZE 2050 summary available at: Net Zero by 2050 – Analysis – IEA available at [www.iea.org/reports/net-zero-by-2050](http://www.iea.org/reports/net-zero-by-2050)

(2) Description adapted from ATAG Waypoint 2050 summary available at: Waypoint 2050 ([www.aviationbenefits.org](http://www.aviationbenefits.org))

(3) These numbers are based on USD 2019 dollars and relate to advanced economies only. Refer to Table 2.2 in the IEA Net Zero by 2050: A Roadmap for the Global Energy Sector.

### BNZ's use of scenarios for sectoral decarbonisation target setting

BNZ signed up to the NZBA in October 2021 and in May 2023 published the first round of emissions reduction targets for the priority sectors of coal mining, dairy, power generation, and oil and gas.

BNZ chose these sectors because of their emissions intensity, the relative availability of emissions data, and the relative amounts that BNZ lend to these sectors.

The following scenarios were selected for modelling:

- **IEA Net Zero Emissions 2050 scenario (May 2021)** for the oil and gas sector. This aligns with the oil and gas sector target set by NAB. While almost all gas extracted in New Zealand (NZ) is consumed domestically, the oil is primarily exported, making the adoption of the global IEA NZE 2050 scenario appropriate for application to this sector.
- **CCC Demonstration Pathway scenario (May 2021)** for the Dairy sector. This underpins the CCC's advice to the NZ Government on NZ's emissions budgets, meeting NZ's 2050 targets and legislative requirements<sup>(1)</sup>.
- **CCC Tailwinds scenario (May 2021)** for the Power Generation sector. This takes into account NZ's largely renewable power generation mix. BNZ has adopted the CCC's most ambitious scenario with an expectation that the assumptions underpinning it are ambitious but achievable. This is supported by current NZ Government policy, the [recent decarbonisation roadmap prepared by the Boston Consulting Group](#) and BNZ's analysis of the plans and aspirations of its power generation customers.

BNZ will exit all lending to thermal coal mining by the end of 2025 and all remaining lending to coal mining by the end of 2030.

For further details see [BNZ Net Zero Banking Alliance targets disclosure at Environment and climate – BNZ](#).

(1) He Pou a Rangī the Climate Change Commission Ināia tonu nei: [a low emissions future for Aotearoa](#) section 9.5, paragraph 40.

# Using climate-related scenarios

## Reserve Bank of New Zealand Climate Stress Test

The New Zealand economy is experiencing the impacts of climate change as evidenced by extreme weather events in early 2023. These events are expected to increase in frequency and severity over time. Additionally, transition risks may arise as New Zealand and other countries decarbonise. Therefore, from a risk management perspective, it is important to model and understand potential climate risk, both transition and physical, which may impact bank performance and financial stability.

In 2023, the RBNZ commenced a CST involving the five largest banks in New Zealand, including BNZ. The RBNZ 2023 CST uses a severe but plausible scenario which specifies how the New Zealand economy could be impacted by physical climate change and climate policy. The CST requires participating NZ banks to model the impact it could have on profits, balance sheet and capital. The key objectives of the CST are to:

- Improve banks' capability for managing climate-related risks.
- Assess financial stability risks and to identify how banks may mitigate climate risks.

As with the APRA Climate Vulnerability Assessment, completed by NAB in 2022, the CST is complex due to: (i) its long-term nature (2023 to 2050), and (ii) the inclusion of transition and physical risk variables, which are not characteristics of typical bank stress test scenarios. The CST is designed to explore more severe climate risk.

RBNZ's CST scenario 'Too Little, Too Late' (TLTL) is shown in Figure 6 compared to other scenarios in the NGFS scenario framework. The scenario is referred to as TLTL because limited and delayed global policy action to reduce GHG emissions is insufficient to prevent significant climate change. Key characteristics of the scenario are provided in the highlight box on page 26. Further details are available on the RBNZ website at [Climate Stress Test - Reserve Bank of New Zealand - Te Pūtea Matua \(rbnz.govt.nz\)](https://www.rbnz.govt.nz/Climate-Stress-Test-Reserve-Bank-of-New-Zealand-Te-Pūtea-Matua).

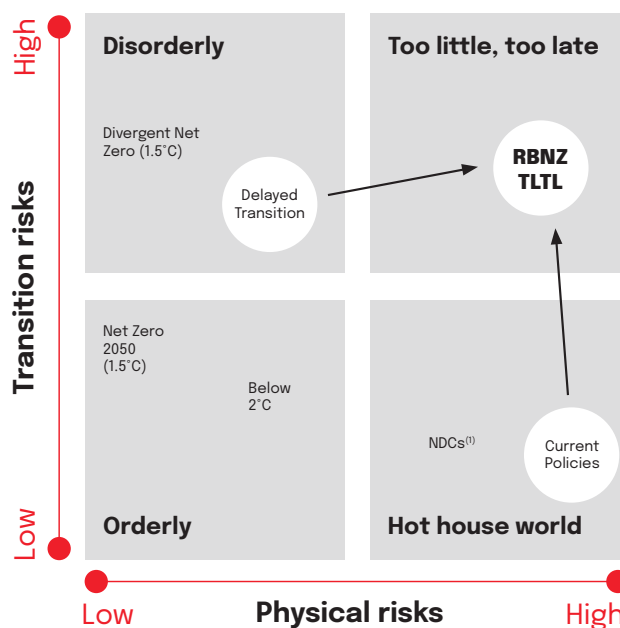
The CST involves analysis of impacts for six key sectors including: agriculture, forestry, transport energy, non-transport energy, industry and buildings (residential and commercial). Banks are due to submit their results to the RBNZ by the end of calendar year 2023. RBNZ is expected to publish a report on the aggregate results in early calendar year 2024.

## Use of scenario analysis outputs

Climate risk-related scenario analysis (both at portfolio and customer level) is complementary to that required for assessing customers transition plans and determining NAB's sectoral portfolio decarbonisation pathways. In 2023, the Group continued to consider and leverage key learnings from its climate risk-related scenario analysis, including the APRA Climate Vulnerability Assessment completed in 2022, in a number of ways, including through:

- Integration within risk appetite and ESG-related policy settings, where appropriate to manage climate-related risks.
- Piloting of new tools, such as HomeID (see case study below) to help colleagues assess and understand climate risk-related physical impacts on the home lending portfolio and FarmID to help agribusiness colleagues understand climate risk-related physical risk impacts on agribusinesses. Building these tools is involving building internal capability for geospatial mapping.

Figure 6: NGFS scenario framework



<sup>(1)</sup> NDCs refers to Nationally Determined Contributions.

Source: Reserve Bank of New Zealand 'Too Little, Too Late' 2023 Climate Stress Test Scenario (adapted by the RBNZ from the NGFS scenarios framework). NGFS scenarios area available from the NGFS Scenarios Portal, available at [www.ngfs.net/ngfs-scenarios-portal/](https://www.ngfs.net/ngfs-scenarios-portal/).

- Incorporating our knowledge and understanding of climate risk into climate-related training for colleagues. Refer to the *Strategy* section on page 13 for further details.
- Integration within credit risk assessment procedures and processes. Refer to pages 22 to 23 for further details.

## Case study on HomeID

During 2023, NAB incorporated key learnings from participating in APRA's Climate Vulnerability Assessment and built a proof-of-concept climate risk tool called HomeID.

The goal of HomeID is to provide access to a data asset for the home lending portfolio so NAB and its customers can make more effective decisions in response to the potential physical risk impacts arising from climate change. HomeID integrates external data sources with NAB's internal data and can be leveraged across a range of potential use cases to help assess and manage impacts from climate hazards such as bushfire, flood and wind. NAB built a proof-of-concept version of the tool focused on seven Australian postcodes, and combined external risk and geospatial data with internal property-specific data, to generate insights based on a 'current state' view of potential physical climate risk exposure. This work has helped build internal capability, external data partnerships and a data asset to support the integration of future climate-risk related data sources.

In 2024, we plan to expand the tool to national coverage, use the data to improve decision making on climate risk, and undertake targeted customer engagement related to insurance adequacy.

# Sector decarbonisation

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# Sector decarbonisation and reducing our financed emissions

NAB is prioritising emissions-intensive sectors in our efforts to reduce our attributable financed emissions. We have set targets to guide emissions reduction across our lending portfolios, aligned to our net zero by 2050 ambition. We are also taking action to support customers as they reduce their emissions.

In this section we focus on those sectors for which we have prioritised target setting in our lending portfolios, and provide an overview of NAB's approach to each sector as we work to support our customers with their own transition efforts. To date we have set seven 2030 sector decarbonisation targets,

with further targets planned to be set in May 2024. Refer to the *Strategy* section for further information on the actions NAB is taking to achieve its strategic ambition to support customers to decarbonise and build climate resilience.

	Metric	Reference scenario	Targets set (Year)	Baseline (Year)	2030 Target	Target reduction (%)	2022	Baseline
<b>Sector specific decarbonisation targets</b>								
Power generation	tCO <sub>2</sub> -e/MWh	IEA NZE 2050	2022	2021	0.14	32	0.18	0.20
Thermal coal	MtCO <sub>2</sub> -e	IEA NZE 2050	2022	2021	0.0	100	2.8	5.1
Oil and gas	MtCO <sub>2</sub> -e	IEA NZE 2050	2022	2021	3.2	21	2.1	4.1
Cement	tCO <sub>2</sub> -e/tCement	IEA NZE 2050	2022	2021	0.46	24	0.57	0.60
Aluminium	tCO <sub>2</sub> -e/tAluminium	IAI GHG	2023	2022	5.0	n/a	1.7	1.7
Iron and steel	MtCO <sub>2</sub> -e	IEA NZE 2050	2023	2022	5.3	22	6.8	6.8
Transport - aviation	gCO <sub>2</sub> -e/pkm	ATAG Waypoint 2050	2023	2019	77	26	120	104
Transport - other								
Commercial Real-Estate								
Residential Real-Estate								
Agriculture								
Further decarbonisation targets planned for 2024								

## Power generation

The phaseout of high-emitting assets and decarbonisation of Australia's electricity grid have a central role to play in Australia meeting its net zero emissions targets. Energy production remains Australia's largest source of emissions, comprising about one third of total emissions<sup>(1)</sup>. The shift to renewable sources of energy - including the deployment of large scale renewables and those for domestic use - will be critical to reducing emissions and Australia achieving net zero by 2050.

### NAB's power generation portfolio

NAB's financed power generation portfolio as at 30 September 2023 is comprised predominantly of renewable energy at 73%<sup>(2)</sup>. As at 30 June 2022, NAB's EAD<sup>(3)</sup> to power generation was \$6.7 billion, representing 11% of our financed emissions<sup>(4)</sup> (refer to *Metrics and targets* on page 42 for further information).

In November 2022, NAB released a 2030 sector decarbonisation target for the power generation sector (refer to *Metrics and targets* on page 42 for further information). NAB has also set a target to source 100% of our own operational electricity consumption from renewable sources by 2025 (refer to *Reducing operational emissions* on page 56 for further information).

## Actions

NAB acknowledges that the move towards renewable energy sources is critical to the decarbonisation of the electricity grid and Australia meeting its emissions reduction goals. NAB is:

- Increasing financing to renewable-powered generation, including large scale renewable energy sources (solar, wind, battery storage, and transmission grid upgrades).
- Seeking to support uptake of distributed energy resources (such as for rooftop solar and battery) through financing for consumers and businesses, and partner offers for consumers.
- Seeking to increase direct financing to the development of new energy sources and technologies.
- Managing NAB's portfolio exposures in line with our power generation sector decarbonisation target of a 32% decrease in emissions intensity by 2030 (refer to *Metrics and targets* on page 42 for further information).
- From 1 October 2025, requiring certain Corporate and Institutional Banking power generation customers to have a Customer Transition Plan in place for new or renewed corporate lending or project-related lending (refer to *Supporting our customers to decarbonise and build resilience* on page 8 for further information).

(1) National Greenhouse Gas Inventory Quarterly Update: March 2023 - DCCEEW

(2) NAB methodology (based upon the 1993 Australian and New Zealand Standard Industrial Classification (ANZSIC) codes) at net Exposure at Default (EAD) basis. Excludes exposure to counterparties predominantly involved in transmission and distribution. Vertically integrated retailers included and categorised as renewable where the majority of their generation activities are sourced from renewable energy. NAB has no direct lending to coal-fired power generation assets remaining, however there is indirect exposure to coal-fired power within the Mixed Fuel category as a result of NAB's corporate level exposure to gentailers, which have a mix of generation assets (including coal, gas and renewables) within their generation portfolio.

(3) The treatment of EAD for use in financed emissions is explained in the *Metrics and targets* section, under *Approach to sector target setting* on page 39. The scope of product, customer and EAD is consistent with the approach followed in the *Metrics and targets* section.

(4) NAB's financed emissions calculations are a percentage of the total estimated financed emissions for the NZBA-defined priority sectors.



## Sector decarbonisation and reducing our financed emissions (cont.)

- Building awareness around the importance of a just transition and consideration of the social dimensions for workers and communities in the transition (refer to *Investing in climate advocacy and partnerships* on page 14 for further information).

Further information on NAB's approach to the power generation sector can be found in the *Metrics and targets* section on page 42.

### Resources (thermal coal)

As one of the world's largest exporters of thermal coal, the global energy transition has significant implications for Australia's future export profile. Future demand will depend on the decarbonisation efforts of Australia's trading partners.

A [consultation paper](#) released in 2023 by the Asia-Pacific Network of the Glasgow Financial Alliance for Net Zero (GFANZ) includes draft guidelines for financial institutions seeking to allocate capital to support the early retirement of regional coal assets. Thermal coal remains a significant source of emissions for power generation both domestically and internationally.

#### NAB's thermal coal portfolio overview

NAB's EAD<sup>(1)</sup> to thermal coal mining as at 30 June 2022 was \$615 million, representing 12% of our financed emissions<sup>(2)</sup> (refer to *Metrics and targets* on page 44). In November 2022, NAB released a 2030 decarbonisation target for the thermal coal sector (refer to *Metrics and targets* on page 44 for further information).

#### Actions

NAB is:

- Managing NAB's portfolio exposures in line with NAB's NZBA-aligned 2030 thermal coal sector decarbonisation target of a 100% decrease in absolute financed emissions.
- Managing NAB's exposures to thermal coal in line with NAB's ESG-related settings (refer to the *Risk management* section on page 23). NAB has further reduced exposure to thermal coal and, as at 30 September 2023, NAB no longer has any (a) corporate lending to thermal coal mining customers or (b) project finance in respect of thermal coal mining assets. NAB intends to maintain this position into the future<sup>(3)</sup>.
- Building awareness around the importance of a just transition and consideration of the social dimensions for workers and communities in the transition (refer to the *Investing in climate advocacy and partnerships* on page 14 for further information).

### Resources (oil and gas)

Australia is one of the world's largest LNG exporters. Reducing emissions across this industry will require significant industry change in Australia and is linked to the transition of other key sectors, such as power generation, where gas currently accounts for about 19% of the Australian electricity generation fuel mix<sup>(4)</sup>, and transport, where petrol and diesel cars represent the significant majority of vehicles.

(1) The treatment of EAD for use in financed emissions is explained in the *Metrics and targets* section, under *Approach to sector target setting* on page 39. The scope of product, customer and EAD is consistent with the approach followed in the *Metrics and targets* section.

(2) NAB's financed emissions calculations are a percentage of the total estimated financed emissions for the NZBA-defined priority sectors.

(3) For the purposes of NAB's ESG-related settings, thermal coal exposure means direct exposure to customers and projects whose primary activity is thermal coal mining, based upon the recorded 1993 ANZSIC codes on a net EAD basis. EAD for these ESG-related settings include lending, derivatives, financial guarantees and performance guarantees for the rehabilitation of existing assets. It excludes metallurgical coal mining, diversified mining customers and transactional banking (including deposit services) that does not give rise to EAD and similar ancillary products and services. NAB's NZBA-aligned thermal coal sector decarbonisation target includes diversified mining customers with revenue >5% from direct sale of thermal coal and excludes metallurgical coal mining customers (who are included in the NZBA-aligned Iron and Steel decarbonisation target). For completeness, these NZBA EAD targets exclude transactional banking (including deposit services), risk management products and similar ancillary products and services. These products and services are not in scope of accepted approaches for net-zero aligned target setting.

(4) [Australian electricity generation - fuel mix | energy.gov.au](#)

#### NAB's oil and gas portfolio

NAB's oil and gas EAD<sup>(1)</sup> as at 30 June 2022 was \$1.3 billion, representing 9% of our financed emissions<sup>(2)</sup>. In November 2022, NAB released a 2030 decarbonisation target for the oil and gas sector (refer to *Metrics and targets* on page 46 for further information).

#### Actions

NAB is:

- Managing NAB's portfolio exposures in line with our oil and gas sector decarbonisation target of a 21% decrease in absolute emissions by 2030 (refer to the *Metrics and targets* section on page 46).
- From 1 October 2025, requiring Corporate and Institutional Banking oil and gas customers to have a Customer Transition Plan in place for new or renewed corporate lending or project-related lending (refer to *Supporting our customers to decarbonise and build resilience* on page 8 for further information).

### Heavy industry (including aluminium, iron and steel and cement production)

NAB acknowledges that heavy industry, while being a material emissions contributor across key industrial supply chains, contributes significantly to Australia's GDP and employment. The sectors outlined in this section are expected to play a role in Australia's energy transition and as such, demand is expected to grow.

NAB recognises that while certain industrial processes are harder-to-abate and face technological and commercial challenges, Australia must keep pace with the development and implementation of technologies in a decarbonised future.

#### Aluminium

NAB considers that decarbonisation of the aluminium sector is largely dependent on the decarbonisation of Australia's electricity supply.

#### NAB's aluminium portfolio

NAB's aluminium EAD<sup>(1)</sup> as at 30 June 2022 was \$70 million, representing 1% of our financed emissions<sup>(2)</sup>.

This year NAB is disclosing a 2030 sector decarbonisation target for aluminium (refer to *Metrics and targets* on page 49 for further information).

#### Actions

NAB is:

- Managing NAB's portfolio exposures in line with our 2030 aluminium sector decarbonisation target (refer to *Metrics and targets* on page 49).
- Supporting selected customers which may include financing emission-reduction activities.

#### Iron and steel

NAB acknowledges that the decarbonisation levers for steel production are likely to be limited prior to 2030. Post 2030,

## Sector decarbonisation and reducing our financed emissions (cont.)

further decarbonisation is dependent on the development and adoption of emerging technologies to reduce emissions from operations.

### NAB's iron and steel portfolio

NAB's iron and steel EAD<sup>(1)</sup> as at 30 June 2022 was \$341 million, representing 28% of our financed emissions<sup>(2)</sup>. This year NAB is disclosing a 2030 sector decarbonisation target for iron and steel (refer to *Metrics and targets* on page 51 for further information).

#### Actions

NAB is:

- Expecting to reduce lending exposure to metallurgical coal extraction over time, as technology matures and demand for metallurgical coal decreases. Financing to customers is subject to enhanced due diligence which further considers underlying environmental, social and governance risks.
- Supporting selected customers which may include financing emission-reduction activities.
- Managing NAB's portfolio exposures in line with our iron and steel sector decarbonisation target of a 22% decrease in absolute emissions by 2030 (refer to *Metrics and targets* on page 51).
- From 1 October 2025, requiring Corporate and Institutional Banking metallurgical coal customers to have a Customer Transition Plan in place for new or renewed corporate lending or project-related lending (refer to *Supporting our customers to decarbonise and build resilience* on page 8 for further information).

### Cement

Cement is one of the most used materials in the world and essential to construction. As no substitute for cement currently exists and with global demand remaining high, it is expected to play an important role in the global transition to net zero through its use in important infrastructure such as wind farms, climate-resilient housing and low-carbon transport.

### NAB's cement portfolio

NAB's cement EAD<sup>(1)</sup> as at 30 June 2022 was \$794 million, representing less than 3% of our financed emissions<sup>(2)</sup>. In November 2022, NAB released a 2030 sector decarbonisation target for cement (refer to *Metrics and targets* on page 48 for further information).

#### Actions

NAB acknowledges the importance of the cement industry to future infrastructure development, the clean energy transition and increasing climate resilience. NAB is:

- Managing our portfolio exposures in line with our sector decarbonisation target for cement production of a 24% decrease in emissions intensity by 2030 (refer to *Metrics and targets* on page 48).
- Supporting selected customers which may include financing emission-reduction activities.

### Transport

The transport sector is critical to the movement of materials, products and people, contributing materially to Australia's GDP and employment. Shifts to the least carbon-intensive travel options and operational and technical energy efficiency measures are required to reduce the carbon intensity of all transport modes to achieve net zero by 2050.

NAB welcomes the Australian Government's National Electric Vehicle Strategy and intention to include transport in its sectoral decarbonisation plans, as well as the announcement of funding for the development of a Transportation and Infrastructure Net Zero Roadmap and Action Plan and *Driving The Nation Fund*.

### NAB's Transport portfolio

NAB's financed transport portfolio extends across Personal Banking, Business and Private Banking, and Corporate and Institutional Banking. NAB's aggregate transport EAD<sup>(1)</sup> as at 30 June 2022 was \$10.9 billion, representing 13% of our financed emissions<sup>(2)</sup>.

NAB recognises some of the challenges in setting 2030 transport sector decarbonisation targets across the different modes of transport due to the range of customer types and challenge of obtaining reliable emissions data. Despite these challenges, this year NAB has set a 2030 decarbonisation target for aviation (refer to *Metrics and targets* on page 53 for further information).

NAB recognises that federal and state government policies and actions to support the decarbonisation of Australia's transport sectors, including – but not limited to – investment in the development of a domestic sustainable aviation fuel industry, will be required to enable transition to net zero by 2050. If this does not occur, it will be very difficult for NAB to achieve reduced transport sector financed emissions in line with 2030 sector decarbonisation targets.

#### Actions

NAB acknowledges the continuing importance of the transport sector, and notes the challenges posed by Australia's vast land mass to the decarbonisation of transport, and long-haul transport in particular, including the lack of a comprehensive national electric vehicle charging network. NAB is:

- Providing business finance for green equipment which includes financing for electric passenger and light vehicles for customers and small to medium corporate businesses, electric buses and trucks, and electric machinery.
- Transitioning our vehicle fleet to lower emissions vehicles and targeting a 50% reduction in fuel usage across Australia and New Zealand by 2025. Refer to *Reducing operational emissions* on page 56 for further information.
- Managing our aviation portfolio exposures over time in line with our 2030 sector decarbonisation target for aviation of a 26% decrease in emissions intensity (refer to *Metrics and targets* on page 53).

(1) The treatment of EAD for use in financed emissions is explained in the *Metrics and targets* section, under *Approach to sector target setting* on page 39. The scope of product, customer and EAD is consistent with the approach followed in the *Metrics and targets* section.

(2) NAB's financed emissions calculations are a percentage of the total estimated financed emissions for the NZBA-defined priority sectors.

### The built environment

The built environment includes the buildings where people live, work, conduct business and enjoy recreational activities. For the purposes of this Report, the built environment includes residential and commercial real estate including homes, apartments, residential investment properties, office, industrial, retail and specialty.

Decarbonising Australia's electricity grid is the primary enabler to reducing emissions across residential and commercial real-estate. Further enablement through the NCC 2022, expansion of Australia's national energy rating schemes, and plans to integrate smart metering capability for all Australian households and small businesses in the National Electricity Market by 2030 is expected to further drive reductions in Australia's built environment emissions.

#### NAB's residential real-estate portfolio

NAB's direct financed residential real-estate portfolio extends across Business and Private Banking and Personal Banking. NAB's residential real estate EAD<sup>(1)</sup> as at 30 June 2022 was \$338 billion, representing 8% of our financed emissions<sup>(2)</sup>.

#### NAB's commercial real-estate portfolio

NAB's direct financed commercial real-estate portfolio extends across Business and Private Banking and Corporate and Institutional Banking. As at 30 June 2022, NAB's commercial real-estate direct lending represented \$5.2 billion of EAD<sup>(1)</sup>. Due to data availability, NAB's financed emissions calculation of its commercial real-estate portfolio only captures NABERS<sup>(3)</sup>-certified properties, which represents approximately 8% by EAD<sup>(1)</sup>. NAB is currently improving its data in advance of releasing a 2030 sector decarbonisation target with expanded coverage.

#### Actions

NAB is:

- Supporting customers to upgrade their homes and/or investment properties to improve energy performance and supporting customers to purchase high energy efficiency homes.
- Supporting owners of commercial real estate via direct financing to upgrade their assets to improve their energy efficiency, water usage and waste management.

### Agriculture and land

The shift to a net zero economy represents both a challenge and opportunity for the agricultural sector, but one where progress has already been made. NAB acknowledges the importance of supporting producers to make the most of emerging opportunities without compromising their long-term ability to inset and achieve carbon neutrality within their operations and supply chains.

#### NAB's agriculture portfolio

NAB's financed agriculture portfolio extends across Business and Private Banking, and Corporate and Institutional Banking. Agriculture aggregate EAD<sup>(1)</sup> as at 30 June 2022 was \$36.4 billion, representing 15% of our financed emissions<sup>(2)</sup>.

NAB welcomes the Federal Government's intention to include agriculture and land in its sectoral decarbonisation plans and looks forward to working with government, together with industry, as it works to develop these.

#### Actions

Through its climate strategy, NAB is:

- Supporting agribusiness customers to invest in eligible on-farm practices and projects that reduce GHG emissions with the NAB Agri Green Loan.
- Supporting customers to invest in energy efficient agricultural equipment and vehicles with NAB's business finance for green equipment.

(1) The treatment of EAD for use in financed emissions is explained in the *Metrics and targets* section, under *Approach to sector target setting* on page 39. The scope of product, customer and EAD is consistent with the approach followed in the *Metrics and targets* section.

(2) NAB's financed emissions calculations are a percentage of the total estimated financed emissions for the NZBA-defined priority sectors.

(3) National Australian Built Environment Rating System.

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# Metrics and targets



# Metrics and targets

This section outlines the metrics and targets the Group uses to assess and manage relevant climate-related risks and opportunities.

## ▶ Climate-related targets

Portfolio alignment target

# Net zero by 2050

7 decarbonisation targets now published

Operational emissions reduction target

# 72%

Target to reduce Scope 1 and 2 (market-based) GHG emissions by 2030 against a 2022 baseline<sup>(1)</sup>

Sourcing renewable energy target

# 100%

Target to source 100% of Group operational electricity from renewables by 2025<sup>(2)</sup>. In 2023, the Group sourced 88.3% of its electricity consumption from renewable energy

### NAB's approach

NAB has developed metrics and targets to track progress against its climate strategy, and to measure and manage its climate-related risks and opportunities. This includes disclosing NAB's exposure to high-emitting sectors, environmental financing provided to help address climate change, and measures to support the reduction of financed and operational emissions.

In developing these metrics and targets, NAB continues to work on and improve methodologies, including adding granularity and updating external customer and industry data as it becomes available over time. Changes to previously disclosed data or methodologies are stated where relevant.

(1) In 2023, the Group updated its Scope 1 and 2 (market-based method) science-based GHG emissions reduction target to align its ambition to be net zero by 2050 with the best available science and pathway for a 1.5°C warming scenario. The Group's new target is for a 72% reduction in Market-based Scope 1 and 2 emissions by 2030 from a 2022 baseline. Refer to page 56 for further details.  
(2) Refers to the end of environmental year 2025 (ending 30 June 2025). Refer to page 56 for further details.

### Supporting the transition to net zero

The Group's assessment of climate-related risks and opportunities has led to targets associated with: (i) decarbonisation of the Group's operations; and (ii) supporting customers through the low-carbon transition. Progress on these targets includes:

#### Decarbonising operations

- Progressing towards the Group's RE100<sup>(1)</sup> target to source 100% of our operational electricity from renewable sources by 30 June 2025. The proportion of renewable electricity sourced increased from 72% in the 2022 environmental reporting year to 88% in the 2023 environmental reporting year. Refer to page 56 for further details.

#### Supporting customers

- Three new 2030 sector decarbonisation targets set, detailed from page 49 to 53.
- Update on sectors for which decarbonisation targets were set in November 2022. Refer to pages 42 to 48 for details.
- Environmental financing provided to customers. Refer to page 55 for details<sup>(2)</sup>.

### Understanding financed emissions

NAB is connected to all parts of the economy through its lending and other banking activities and has an important role to play in financing the net zero transition. In estimating financed emissions, NAB can quantify and monitor the impact it has, through its customers, on the climate transition.

### Reducing financed emissions

The transition looks different from customer to customer, sector to sector. A sector-specific approach to attributable financed emissions enables NAB to consider varying factors such as technological advancement or supply and demand, that will likely impact absolute emissions reduction across the economy.

Customers within sectors will have varied emissions reduction trajectories. NAB's targets should be viewed at a sector portfolio level, rather than at an individual customer level. Customers may have emissions profiles that differ from NAB's sector decarbonisation targets or transition plans that are based on data, reference scenarios, assumptions and methodologies that are different to those used by NAB in setting its targets. NAB may continue lending to such customers if doing so is consistent with NAB's targets at a portfolio level.

Emissions reduction across the lending portfolio is unlikely to be linear. Subject to NAB's ESG risk policy settings and appetite, and stated requirements around Customer Transition Plans, new lending will occur, including to enable and accelerate customer transition plans to achieve net zero.

This may lead to a temporary increase in absolute financed emissions and emissions intensity in some reporting years between now and 2030, however these are intended to decline over time towards NAB's sector decarbonisation targets.

NAB will consider national energy security requirements in relation to the power generation and oil and gas sectors. It is expected that decisions based on national energy security would be by rare exception. Such decisions may impact on NAB's ability to achieve sector decarbonisation targets.

### Attributable financed emissions

Refer to the *Financed emissions methodology* section in *Supporting information* for details on how NAB measures its attributable financed emissions.

NAB views climate transition as both a risk and an opportunity. NAB's sector targets and associated methodologies are aligned to NAB's ambition to be a catalyst for climate action. Refer to pages 39 to 40 for further details.

The Group's customer-related ESG risk policy and risk settings relevant to carbon-intensive sectors complement its sector decarbonisation targets. Refer to page 23 for further details.

NAB's sector targets complement NAB's targets to reduce emissions associated with its own operations (refer to page 56) and our *Environmental financing* activities on page 55.

### Challenges associated with measuring financed emissions and target setting

Measuring financed emissions and setting sector decarbonisation targets involve considerable complexity and uncertainty, particularly given that financial institutions are predicting movements over almost 30 years. Despite the challenges and issues associated with setting such targets, NAB considers that there is still considerable value in doing so as the targets help to guide organisational decisions over time.

Data availability, quality and data reporting periods vary considerably within and across businesses, industries and geographies. Consistency in reporting guidance and frameworks is improving, though reporting is often completed on a voluntary basis and requirements vary across jurisdictions.

Climate science is continuously evolving: methodologies and assumptions underpinning scenarios NAB relies on for setting targets are subject to change and may require targets to be revised. Scenarios may also rely on the development of potentially impactful but largely unproven technologies, with risk that investment in these areas fails to achieve intended outcomes.

Targets have been set with reference to the best science currently available, as detailed in the Reference scenario selection section on page 39. At a minimum, NAB will review its sector targets on a five-yearly basis in alignment with NZBA requirements. NAB may also review and update targets when better data becomes available, to ensure they remain in line with 'best available science', if there are changes to the target-setting guidelines and/or if more relevant or localised reference pathways become available.

We have taken customer transition plans into account in our target setting, as this gives us confidence that a credible pathway exists. Many of the uncertainties described above will also impact our customers' plans and their ability to achieve them.

These challenges impact the ability to accurately and consistently measure attributable financed emissions and to set and achieve appropriate targets to reduce attributable financed emissions.

Further information on challenges associated with attributable financed emissions data and target setting can be found on page 69 of the *Supporting information* section of this Report.

(1) RE100 is a global corporate leadership initiative bringing together businesses committed to 100% renewable electricity.

(2) Refer to *Environmental financing methodology* on page 74 for a further details.

## Metrics and targets (cont.)

Further information on important factors that could impact NAB achieving its climate-related ambitions, including its sector targets, is contained in the *Disclosure on Risk factors*' section discussing sustainability risk in NAB's [2023 Annual Report](#). This includes information on how physical, transitional and nature-related risks may impact NAB, including the relationship between more frequent and acute physical climate events on the value of NAB's collateral assets.

### Updates on sector portfolio emissions

The pace of change in high-emitting sectors is significant. Some challenges as described above will be resolved, and new challenges will emerge as the practicalities of transitioning to a low-carbon economy play out.

As technology, regulation and best practice evolves, so too will Customer Transition Plans, and NAB's approach to supporting the sectors. Reporting on these sectors is intended to give a holistic picture of progress, both of the portfolio emissions and of sector dynamics.

Our response to climate change

Strategy

Governance

Risk management

Sector decarbonisation

Metrics and targets

Supporting information

# Financed emissions performance

Sector	Absolute emissions (MtCO <sub>2</sub> -e) <sup>(1)</sup>						2022 financed emissions as a % of total estimated financed emissions <sup>(2)</sup>	Portfolio update			Data quality			
	2022			2021				Metric <sup>(3)</sup>	2022	Base- line	2022		2021	
	Scope 1 and 2	Scope 3	Total	Scope 1 and 2	Scope 3	Total					Scope 1 and 2	Scope 3	Scope 1 and 2	Scope 3
<b>Sectors with targets set</b>														
Power generation	2.7	-	2.7	3.0	-	3.0	11%	tCO <sub>2</sub> -e/MWh	0.18	0.20	1.3	n/a	1.7	n/a
Thermal coal	0.1	2.8	2.8	0.5	4.6	5.1	12%	MtCO <sub>2</sub> -e	2.8	5.1	1.0	2.0	1.4	2.7
Oil and gas	0.2	2.0	2.1	0.4	3.7	4.1	9%	MtCO <sub>2</sub> -e	2.1	4.1	1.1	1.8	2.1	2.5
Cement <sup>(4)</sup>	0.8	-	0.8	0.7	-	0.7	3%	tCO <sub>2</sub> -e/ tCement	0.57	0.60	2.2	n/a	2.3	n/a
Aluminium	0.2	-	0.2	0.07	-	0.07	1%	tCO <sub>2</sub> -e/ tAluminium	1.7	1.7	1.7	n/a	1.6	n/a
Iron and steel <sup>(5)</sup>	6.8	-	6.8	0.08	-	0.08	28%	MtCO <sub>2</sub> -e	6.8	6.8	2.2	n/a	2.9	n/a
Transport - aviation	1.4	-	1.4	n/a	n/a	n/a	6%	gCO <sub>2</sub> -e/pkm	120	104	2.3	n/a	n/a	n/a
<b>Sectors with target work ongoing</b>														
Transport - other <sup>(6)</sup>	1.7	-	1.7	n/a	n/a	n/a	7%	Further decarbonisation targets planned for 2024			4.3	n/a	4.0	n/a
Commercial real estate <sup>(7)</sup>	0.03	-	0.03	0.03	-	0.03	0%				1.0	n/a	1.0	n/a
Residential real estate	2.0	-	2.0	1.8	-	1.8	8%				5.0	n/a	5.0	n/a
Agriculture	3.6	-	3.6	3.3	-	3.3	15%				5.0	n/a	5.0	n/a

(1) Totals may not sum due to rounding.

(2) Financed emissions coverage estimate as a proportion of estimated total financed emissions attributable to NAB's lending portfolios for 'carbon-intensive' sectors defined by UNEP FI Guidelines.

(3) Where targets have been set, the metric has been selected as either absolute emissions or physical intensity. Where targets are yet to be set, financed emissions have been presented on an intensity basis for estimated tCO<sub>2</sub>-e per \$ million of EAD.

(4) Due to data availability, the cement baseline estimate may include a small amount of rehabilitation bonding, but quantity is not considered significant compared to overall baseline for the sector.

(5) Includes metallurgical coal customers.

(6) Includes road, rail and shipping.

(7) Commercial Real Estate Attributable Financed Emissions represent only 7.5% coverage of the EAD of this sector. Unlike other sectors, NAB has not extrapolated the remainder to estimate our attributable financed emissions to avoid sampling bias in this sector.



# Sector target-setting

## Approach to sector target-setting

In setting these targets, NAB has been informed by the UNEP FI Guidelines and has considered the following factors in its approach and decision making.

### Sector prioritisation

NAB is setting targets for the financed emissions attributable to its lending portfolio for 'carbon-intensive' sectors defined by the UNEP FI Guidelines.<sup>(1)</sup> Target setting efforts have been prioritised in sectors where financed emissions and/or emissions intensity are among the most significant, however data availability and more complex methodologies result in some sectors being published later. Targets have now been set for power generation, thermal coal, oil and gas, cement, aluminium, iron and steel and aviation. Aviation, a sub-sector of transport, was prioritised as a high-intensity sub-sector with relatively good data availability. NAB plans to set targets for additional transport sub-sectors, along with other sector-level targets for carbon-intensive sectors in 2024.

### Reference scenario selection

NAB assessed a range of net zero scenarios aligned to its net zero by 2050 ambition to inform target setting. NAB selected scenarios which have the following characteristics:

- Widely accepted, science-based from credible and well recognised sources.
- Limited reliance on negative emissions technologies and carbon sequestration achieved through nature-based solutions and land use change, and aligned to "no overshoot" or "low-overshoot" scenarios.
- Designed to maximise alignment with other Sustainable Development Goals, where possible.
- Closely aligned to Australian market conditions, including underlying assumptions and scope inclusions.

The science of pathways, new decarbonisation technologies and reference scenarios continue to develop and evolve. NAB will review reference scenario selection (and associated targets) as more relevant, localised or improved scenarios are published. The Australian Government has committed to developing sectoral pathways for key sectors, and NAB intends to support this process, and if appropriate, adopt Australian reference scenarios in the future.

A summary of the selected scenarios are available in the *Target setting baseline methodology* section on page 70. Sector specific scenario assumptions are outlined in the following pages for each sector target. Additional assumptions relevant to the achievability of sector targets are also noted in relation to the relevant sector section below.

Note, NAB also draws on scenario analysis in its risk management and strategic processes, outlined on page 26.

### Absolute or intensity metric selection

NAB has considered whether emissions intensity or absolute emissions reduction metrics are appropriate for each sector.

It is appropriate to adopt absolute emissions reduction targets for fossil fuel industries (including thermal coal and oil and gas), as decline in the use of fossil fuels is a key driver of emissions reductions in the IEA NZE 2050 scenario.

NAB has set an absolute emissions target for the iron and steel sector (see page 51). With the inclusion of metallurgical coal mining in this sector, the selection of an absolute

### Key principles for target-setting

The following principles have guided NAB's approach to sector decarbonisation target setting.

- **Alignment with UNEP FI Guidance** and decarbonisation objectives.
- **Scientifically credible pathway** to achievement, in line with Australian market conditions.
- **Consistency** in decision making across the portfolio where possible; departures only made where the resulting baseline and/or target is more consistent with local market conditions and/or portfolio makeup.
- **Consideration of market practice** and alignment to emerging disclosure regimes.
- **Simplicity in reporting and operationalising** the targets that have been set.

emissions target aligns with the belief that decarbonisation of this sector is linked to the absolute reduction in demand for metallurgical coal.

Note that enterprise value is used in the calculation of absolute financed emissions, and volatility in this value will lead to volatility of reported absolute financed emissions, even if exposure and customer emissions are unchanged. This external driver of emissions change is noted where pertinent in the relevant sector metrics and targets section.

Emissions intensity targets require emissions reductions to outweigh growth in production and are appropriate for sectors expected to grow to support living standards (such as power generation) and transition activities (such as aluminium). Setting emissions intensity targets for these sectors will enable NAB to identify and preferentially allocate capital towards investments and businesses whose activities are in line with its net zero ambitions.

### Scope of emissions

NAB's approach to emissions scope inclusion has been informed by the UNEP FI Guidelines.

NAB's sector targets include Scope 1 and 2 emissions for all sectors, and Scope 3 emissions for fossil fuels, where Scope 3 represents the majority of emissions for that sector. NAB has obtained, or where unavailable estimated, production data and applied emission coefficients to calculate Scope 3 emissions for lending to fossil fuel sectors.

In line with UNEP FI Guidelines, and as part of its periodic target review processes, NAB will look to expand emissions scope inclusions where methodologies and data allow.

NAB prioritises use of emissions data from customer-reported sources, such as compliance reporting required under the *National Greenhouse and Energy Reporting Act 2007* (NGER Act) and assured company reports. Where verified customer emissions data is not available, third-party data sources are relied upon.

NAB has followed the Partnership for Carbon Accounting Financials (PCAF) recommendation to publish scores to illustrate NAB's assessment of the quality of data relied upon and methodology for target setting. These are provided alongside each sector target on pages 42 to 49.

(1) The UNEP FI Guidelines require that, "where data and methodologies allow, targets shall be set for all, or a substantial majority of agriculture; aluminium; cement; coal; commercial and residential real estate; iron and steel; oil and gas; power generation; and transport sectors". Note that NAB has separated commercial and residential real estate into individual sectors in its reporting.

## Sector target-setting (cont.)

### Scope of financing activities

Relevant exposures are identified primarily through ANZSIC codes. Financed emissions baselines and targets have been set using EAD. For the purposes of setting sector targets, this measure covers NAB's lending to relevant customers, including:

- Any on-balance sheet loans and lines of credit with unknown use of proceeds to businesses, non-profits and any other structure of organisation.
- Revolving credit and overdraft facilities and business loans secured by real estate, such as commercial real estate-secured lines of credit.
- Business loans, short-term debt and lines of credit.
- Project finance.
- Financial guarantees.

For the purposes of setting sector targets, references to EAD exclude:

- Off-balance sheet EAD (including performance guarantees to rehabilitate existing thermal coal mining, and oil and gas assets) and markets-related EAD (including derivative exposures).
- Other financial services including transactional banking (including deposit services), risk management products and ancillary products and services, recognising that these activities are not in scope of accepted approaches for net zero-aligned target setting.

Targets do not include debt capital markets activity (i.e. facilitated emissions) recognising there are no currently agreed methodologies for measuring emissions associated with these activities or approaches for net zero-aligned target setting. NAB will review this as guidance and methodologies evolve. AEMO bonds have been excluded as they are a requirement to participate in domestic electricity and gas markets for any entity not regulated by APRA.

### EAD used in financed emissions

APRA's prudential standards for the revised capital framework (RCF) came into effect on 1 January 2023. As part of the regulatory reforms aspects of the methodology for calculating EAD changed. NAB's sector decarbonisation targets set in November 2022 were determined in reference to EAD measured under the prudential requirements for EAD prior to the RCF. The sector decarbonisation targets (and progress reporting) published in this report were calculated as of 30 June 2022 and reference EAD prior to the RCF. This approach aids comparability of 2022 and 2023 reporting of sector decarbonisation targets. In future reporting periods NAB may re-baseline its targets, which may align to EAD under the RCF methodology of EAD, or to another baseline metric considered more appropriate. NAB has not yet determined when this should occur.

Note that EAD figures for sector decarbonisation targets are as at 30 June 2022, to align with publication in February 2023 by the Clean Energy Regulatory of emissions data for the year ending 30 June 2022 for companies reporting under the National Greenhouse and Energy Reporting (NGER) Act. This is consistent with the approach taken in 2022 (where 30 June 2021 EAD was used to align with emissions for the year ending on 30 June 2021 reported in February 2022). The exception to this is that a 2019 baseline year was used for the aviation sector and EAD is as at 30 June 2019. Refer to the *Glossary* term 'EAD used in financed emissions' for further detail on exposure exclusions that are particular to financed emissions reporting.

### UNEP FI Guidelines 5% revenue threshold

The UNEP FI Guidelines outline that any customer with more than 5% of their revenue coming directly from thermal coal mining, and electricity generation activities, shall be included in the scope of targets for these sectors. Significant manual processing and analysis is required to identify diversified companies with greater than 5% of revenue from thermal coal mining and thermal coal-fired power generation within NAB's financed emissions reporting. Further, it is often the case that small, diversified companies do not disclose breakdowns of their revenue or production, making it extremely difficult to identify them for the purposes of the 5% revenue threshold. NAB applied a series of materiality thresholds in performing this analysis, including a \$1 million EAD floor. This has the potential to result in some customers with relatively low absolute EAD, but who derive greater than 5% of their revenues from thermal coal mining or coal-fired power generation, not being identified within NAB's thermal coal target.

Current UNEP FI Guidelines state that banks should include on-balance sheet investments held for the purposes of investment. For NAB, this would include investments made by NAB Ventures, however there are currently no investments held in the sectors covered by sector targets.

### Customer use of offsets

As with NAB's own approach, the expectation of customers is to prioritise investments in avoiding or reducing emissions before relying on offsets. However, NAB recognises that for certain harder-to-abate sectors, offsets have a role to play in the short-to-medium term.

NAB's strategy is focused on supporting our customers to decarbonise and build resilience. The limited role we see for offsets in pursuing sector decarbonisation targets is explained in relation to relevant sector targets below, and more broadly in the development of our Customer Transition Plan assessment framework (refer to *Supporting our customers to decarbonise and build resilience* for further details).

We also support our clients by providing finance for carbon sequestration projects, and access to carbon markets (refer to *Supporting our customers to decarbonise and build resilience* for further details).

### BNZ's NZBA commitment

NAB has prioritised target-setting for its lending portfolio, recognising the most significant impact NAB has on emissions is through the finance it provides. NAB's baselines and targets for its sector decarbonisation targets currently exclude BNZ, which has separately signed up to the NZBA and is setting its own sector decarbonisation targets. Learn more about BNZ's progress in its climate reporting at [www.bnz.co.nz/about-us/sustainability](http://www.bnz.co.nz/about-us/sustainability).

## Operationalising the targets

### Governance, approval and oversight

NAB's sector targets have been reviewed and approved by the ELT and the Board.

The sector decarbonisation targets published to date predominantly impact customers in the Corporate and Institutional Banking division, and efforts to implement these have been focused there. Targets will be embedded in other divisions as targets NAB sets impact those customers. Though existing activities will be leveraged where relevant, processes are likely to differ to reflect the differing nature of the customers and the data and methodologies available.

## Sector target-setting (cont.)

NAB's governance of climate-related risks and opportunities, including sector targets, is discussed further in the *Governance* section from pages 18 to 20 of this Report.

NAB's climate-related obligations, including those related to the NZBA, are recorded and managed in our enterprise risk management tool. Accountabilities are assigned to relevant executives, with associated controls reviewed on an annual basis.

### Integrating sector targets within NAB's processes

NAB has implemented a range of processes to monitor and manage the decarbonisation targets and to assist colleagues in reviewing potential transactions. This includes:

- Regular internal portfolio reporting to inform portfolio steering and decision making.
- A tool to calculate the expected impact of a new or refinancing transaction on NAB's attributable financed emissions and ability to meet its targets.
- Integrated with the tool, guidance to record the existence, details and maturity of Customer Transition Plans and to inform decision making and provide clear approval escalation pathways where required.
- Additional, tailored policy guidance on NAB's status as a signatory to NZBA, NAB's sector targets, and the obligations that flow from them, to support colleagues.
- Updated lending policies and guidance notes to ensure simplicity and consistency with NAB's sector targets.
- Training for colleagues with responsibility for lending decisions within relevant sectors.

NAB is building maturity in its approach to meeting requirements of its participation in the NZBA and is evolving enablers, such as data systems, policy and risk settings, and training and partnerships, required to achieve its strategic ambition.

Key updates this year include:

- Investing in development of a climate data ecosystem to improve the quality of reporting, including the required improvements in data quality to support target setting for further emissions-intensive sectors.
- Building on the steps taken to date to better assess the maturity of Customer Transition Plans, including continuing to work with the NZBA and industry bodies on development and trialing of relevant guidance.
- Development and endorsement of internal sector transition plans for power generation, thermal coal, oil and gas and cement sectors. Plans are aligned to the GFANZ Transition Plan framework and will guide the strategy, portfolio management, decision making and stakeholder engagement within these sectors.

The decarbonisation targets are intended to help guide NAB's decision making over time at a sector portfolio level, rather than being a commitment to specific outcomes at an individual customer level.

### Important note about sector targets

Other sections of this Report include important information that is relevant to NAB's sector targets and which will assist readers in assessing and understanding the targets NAB has set. Please also refer to the following sections of this Report for information relevant to NAB's sector targets:

- *Complexities and limitations in measuring financed emissions and setting targets* on page 68.
- Information relating to financed emissions methodology, target setting methodology and other measures, metrics and methodologies relevant to sector targets in *Supporting information* from page 66.
- *Notes on forward looking statements* on page 80.

## Power generation

### Sector overview

As the primary contributor to global emissions, decarbonising the global electricity supply will be critical to reducing emissions and achieving net zero by 2050. At the same time, demand for electricity will continue to grow globally. In Australia, increased demand is expected through the electrification of industry and transport. Decarbonisation of commercial real estate and residential housing in particular is heavily reliant on the electricity system, further highlighting the critical role this sector will play in the global transition. Given NAB's ambition to be a catalyst in Australia's climate transition, a key challenge and opportunity lies in this sector.

### Sector inclusion

This sector includes electricity generation from fossil fuels and renewable sources. It excludes transmission, distribution and storage due to their immateriality to value chain emissions.

### Decarbonisation target overview

Element	Approach
<b>2021 baseline</b>	0.20 tCO <sub>2</sub> -e/MWh
<b>Metric</b>	Emissions intensity (tCO <sub>2</sub> -e/MWh)
<b>Emissions Scope</b>	Scope 1 and 2
<b>2030 Target</b>	0.14 tCO <sub>2</sub> -e/MWh (32% reduction against 2021 baseline)
<b>Scenario</b>	IEA NZE 2050 (2021)
<b>Data quality score (2022)</b>	Average PCAF score: 1.3 (Scope 1 and 2)

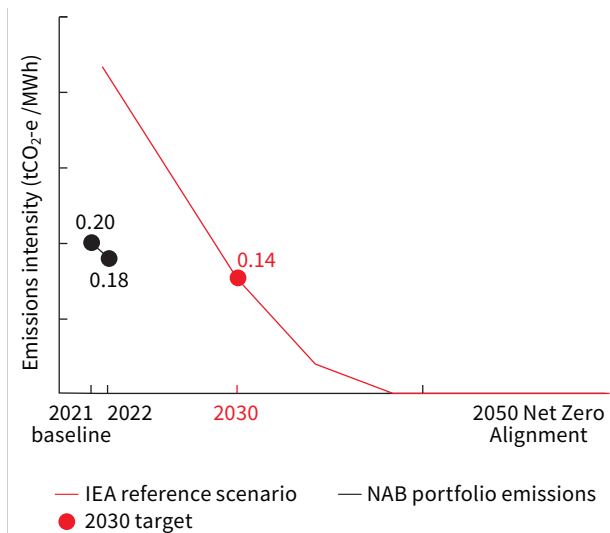
### Portfolio update

NAB's portfolio emissions for power generation is as follows:

	2022	2021 base-line	2030 target
Power generation (tCO <sub>2</sub> -e/MWh)	<b>0.18</b>	0.20	0.14
EAD (\$bn) <sup>(1)(2)</sup>	<b>6.7</b>	5.8	n/a
EAD as % of total EAD (%) <sup>(1)(2)</sup>	<b>0.66</b>	0.67	n/a

(1) Excluding off-balance sheet and markets-related EAD including derivatives and AEMO performance guarantees (refer to page 40 for scope of financing).  
 (2) EAD for the purposes of setting targets is as at 30 June 2022, to align with the regulatory reporting period for the NGER Act and currently excludes BNZ.

Figure 1: Power generation sector target and IEA NZE 2050



NAB's sector target for power generation is a 32% decrease in emissions intensity (tCO<sub>2</sub>-e/MWh) by 2030, against a 2021 baseline. In 2022, the emissions intensity reduced to 0.18 tCO<sub>2</sub>-e/MWh, a decrease of 10% against the 2021 baseline and exposure increased from \$5.8 billion to \$6.7 billion EAD, an increase of 16%.

The focus of customer engagement in this sector is with the Australian integrated generator/retail customers, who have made public commitments to transitioning their businesses but note challenges to be overcome including government guidance for timing of plant closure and increasing risk of blackouts.

The reduction in portfolio emissions intensity is due to both an increase in the funding of renewables projects and the increased renewables capacity that came online during the period. Note that we may see this metric fluctuate between now and 2030, depending on the flow of capital to renewables and the ongoing need for working capital to integrated generator/retail customers.

### NAB's approach

NAB has identified three broad avenues of action to achieve the targeted reduction:

- Supporting customers to accelerate the decommissioning of coal and gas-powered assets.
- Increasing financing to renewable power generation.
- If necessary, on application for new or renewed lending, considering contractual protections or reduction of our exposure.

From 1 October 2025, new or renewed corporate lending or project-related lending for in-scope Corporate and Institutional Banking customers in the power generation

## Sectors (cont.)

sector will require a Customer Transition Plan in place (refer to *Requirements for transition plans* on page 12 for further details).

NAB's thermal coal sector risk policy settings (set out in the *Risk management* section on page 23) are also expected to help NAB meet this target. These settings include not financing new, or material expansions of, coal-fired power generation facilities.

While NAB has selected a global reference scenario to inform its power generation target, NAB has given specific consideration to the Australian energy market dynamic, including government and market operator plans<sup>(1)</sup>.

The need to manage the phase out of high-emitting power generation assets over time will require continued investment. As NAB provides lending to support this transition, including to support investment in emissions reduction activities, financed emissions to power generation will likely increase in the short-term. NAB does not anticipate a linear pathway between now and achieving its 2030 target. NAB selected an emissions intensity measure (tCO<sub>2</sub>-e /MWh) recognising the underlying scenario anticipates increase in energy demand.

Reporting on this sector target in future periods may consider the application of specific managed phase-out frameworks as developed by the GFANZ.

NAB will consider national energy security requirements in relation to the power generation sector. It is expected that decisions based on national energy security would be by rare exception. Such decisions may impact on NAB's ability to achieve financed emission reduction targets.

### Key scenario assumptions

#### IEA NZE 2050 assumptions<sup>(1)</sup>

To achieve net zero emissions by 2050, the IEA NZE 2050 scenario requires the emissions intensity of the power generation sector to decrease to 0.14 tCO<sub>2</sub>-e/MWh in 2030. Key assumptions<sup>(1)</sup> which underpin this reduction include:

- Emissions fall by 57% between 2020 – 2030 and carbon intensity decreases by 68% in the same period.
- Renewables growth is initially driven by additional solar PV capacity, followed closely by wind before 2030.
- Generation from coal drops to 9% in 2030, with 9% of coal-fired generation coming from plants fitted with carbon capture utilisation and storage (CCUS) technology.
- Unabated natural gas-fired generation peaks by 2030.
- Unabated coal-fired generation is phased out in advanced economies by 2030.
- Coal-fired plants are retrofitted to cofire with ammonia and gas turbines with hydrogen by 2025.

#### Additional NAB assumptions

NAB's modelling of the achievability of meeting its sector decarbonisation targets for power generation also depends on the following additional assumptions:

- NAB's forecast for its financed emissions in power generation assumes that customers' existing asset retirement plans remain the same (or are accelerated).
- When non-renewable generation capacity is retired, it is replaced with renewable generation (i.e. no new non-renewable power generation assets).

- Government policies and incentives, along with market economics, support an orderly transition to renewable forms of power generation at the levels and within the time frames anticipated by those plans.

If the above assumptions do not occur as anticipated, NAB's sector target for power generation is a stretch target that will be difficult to achieve without some other government action and/or technological improvements in the sector.

### Sourcing sector data

NAB has assessed its lending portfolio to identify customers outside of the power generation sector that generate more than 5% of their revenue directly from sale of thermal coal-fired electricity. NAB has not identified any such customers in its portfolio as at 30 June 2022. Note this information has been sourced from public sources of coal generation assets, alongside company production information and revenue data where available. Particular challenges associated with identifying diversified companies for this purpose and potential gaps in emissions capture resulting from those challenges are described on pages 69 and 70.

NAB has a relatively high level of confidence in the data, with 96% of emissions production data sourced from national government inventories across Australia (NGERS) and the United States (EPA), and direct company disclosures (United Kingdom). The remaining 4% is sourced from third-party sources (United States - EIA). See the 'Data Quality Scores' section in the Financed Emissions Methodology section for detail on data quality scores and limitations.

(1) This target and assumptions are based on the 2021 version of the reference pathway. NAB's consideration of key assumptions from the IEA NZE 2050 (2021) relevant to power generation. This list is not exhaustive. This target and assumptions are based on the 2021 version of the reference pathway - [IEA Net Zero by 2050 – A road map for the global energy sector](#).

## Thermal coal

### Sector overview

Reducing reliance on thermal coal will be critical in Australia's transition to a net zero economy. Thermal coal mining currently contributes over 7% of Australia's total Scope 1 emissions, and is a significant source of emissions for power generation domestically and internationally. Emissions reduction will be achieved through substituting coal-fired power with renewable energy and curbing exports of thermal coal.

### Sector inclusions

Mining of black coal, brown coal and lignite. Including diversified companies where these activities make up greater than 5% of their revenues. Excludes emissions associated with metallurgical coal mining customers, including those with more than 5% revenue from thermal coal sales, as these are captured within the *Iron and steel* sector emissions per UNEP FI Guidelines (refer to page 51).

### Decarbonisation target overview

Element	Approach
<b>2021 baseline</b>	5.1 MtCO <sub>2</sub> -e
<b>Metric</b>	Absolute emissions (MtCO <sub>2</sub> -e)
<b>Emissions Scope</b>	Scope 1, 2 and 3
<b>2030 Target</b>	0.0 MtCO <sub>2</sub> -e (100% reduction against 2021 baseline)
<b>Scenario</b>	IEA NZE 2050 (2021)
<b>Data quality score (2022)</b>	Average PCAF score: 1.0 (Scope 1 and 2), 2.0 (Scope 3)

### Portfolio update

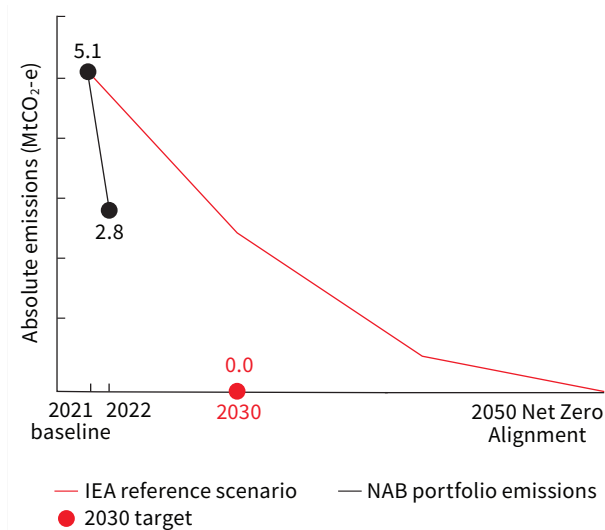
NAB's portfolio emissions for thermal coal is as follows:

	2022	2021 base-line	2030 target
Thermal coal (MtCO <sub>2</sub> -e)	2.8	5.1	0.0
EAD (\$bn) <sup>(1)(2)</sup>	0.6	0.7	n/a
EAD as % of total EAD (%) <sup>(1)(2)</sup>	0.06	0.09	n/a

(1) Excluding off-balance sheet and markets-related EAD including derivatives and performance guarantees to rehabilitate existing thermal coal mining assets (refer to page 40 for scope of financing).

(2) EAD for the purposes of setting targets is as at 30 June 2022, to align with the regulatory reporting period for the NGER Act and currently excludes BNZ.

Figure 2: Thermal coal sector target and IEA NZE 2050



NAB's sector target for thermal coal is a 100% decrease in absolute emissions by 2030, against a 2021 baseline. In 2022, the absolute emissions reduced to 2.8 MtCO<sub>2</sub>-e, a decrease of 45% against the 2021 baseline, and exposure reduced from \$0.7 billion to \$0.6 billion EAD, a decrease of 14%.

The financed emissions in this sector decreased disproportionately to reduction in exposure due to significant increases in some customer valuations over this period. For absolute emissions calculations, financed emissions are apportioned based on enterprise value. Volatility of enterprise value, particularly in portfolios with a small number of customers, may lead to volatility of attributed emissions.

### NAB's approach

Achieving this target will require reducing exposure to customers that are not transitioning their operations in line with NAB's sector target.

NAB's ESG-related thermal coal sector policy settings (set out in the *Risk management* section on page 23) are also expected to help NAB meet this target. These settings include not financing new thermal coal mining projects, or taking on new to bank thermal coal mining customers.<sup>(1)</sup>

Under NAB's ESG-related settings, NAB has capped thermal coal mining<sup>(1)</sup> exposures at 2019 levels, intends to reduce these exposures by 50% by 2026, and to be effectively zero<sup>(2)</sup> by 2030. Since 30 June 2022, NAB has further reduced exposure to thermal coal and, as at 30 September 2023, NAB no longer has any (a) corporate lending to thermal coal mining customers or (b) project finance in respect of thermal coal mining assets. NAB intends to maintain this position into the future. This is an important milestone as we continue to progress on our target to reduce financed emissions for this sector to zero by 2030.

(1) For the purposes of NAB's ESG-related settings, thermal coal exposure means direct exposure to customers and projects whose primary activity is thermal coal mining, based upon the recorded 1993 ANZSIC codes on a net EAD basis. EAD for these ESG-related settings include lending, derivatives, financial guarantees and performance guarantees for the rehabilitation of existing assets. It excludes metallurgical coal mining, diversified mining customers and transactional banking (including deposit services) that does not give rise to EAD and similar ancillary products and services. NAB's NZBA-aligned thermal coal sector decarbonisation target includes diversified mining customers with revenue >5% from direct sale of thermal coal and excludes metallurgical coal mining customers (who are included in the NZBA-aligned Iron and Steel decarbonisation target). For completeness, these NZBA EAD targets exclude transactional banking (including deposit services), risk management products and similar ancillary products and services. These products and services are not in scope of accepted approaches for net-zero aligned target setting.

(2) 'Effectively zero' refers to the fact that NAB may still hold some exposures to thermal coal in 2030, only through residual performance guarantees to rehabilitate existing coal mining assets. These guarantees are excluded from the financed emissions coverage of NAB's thermal coal sector target.

**Key scenario assumptions**

**IEA NZE 2050 scenario assumptions**

To achieve net zero emissions by 2050, the IEA NZE 2050 scenario requires absolute emissions in the coal sector<sup>1</sup> to reduce to zero unabated emissions within advanced economies. Key assumptions<sup>2</sup> which underpin the reduction include:

- Global emissions from thermal coal decline by 55% by 2030 from 2021.
- No new coal mines or extensions are required beyond those already committed.

**Sourcing sector data**

To identify and include emissions from companies with greater than 5% of revenue generated directly from thermal coal mining, NAB has matched a global database of coal mines to its customer list to identify customers with associated coal-based assets and revenues.

There are particular challenges associated with identifying diversified companies for this purpose as described on page 69, involving significant manual processing and analysis. It is often the case that small, diversified mining companies do not disclose breakdowns of their revenue or production, making it extremely difficult to identify them for the purposes of the 5% revenue threshold. NAB applied a series of materiality thresholds in performing this analysis, including a \$1 million EAD floor. This has the potential to result in some customers with relatively low absolute EAD, but who derive greater than 5% of their revenues from thermal coal mining, not being identified within NAB's thermal coal target. NAB has identified one customer outside of the thermal coal sector that has been captured in the thermal coal target per UNEP FI Guidelines. Refer to Table 5 in the *Supporting information* section for further details.

100% of company Scope 1 and 2 emissions have been sourced from customer-reported sources (e.g. Company reporting, NGER reporting). 50% of Scope 3 emissions have been sourced from customer-reported sources, with 50% from production estimates completed by NAB.

(1) In IEA NZE 2050 (2021), coal includes both primary coal (including lignite, coking and steam coal) and derived fuels (including patent fuel, brown-coal briquettes, coke-oven coke, gas coke, gas-works gas, coke-oven gas, blast furnace gas and oxygen steel furnace gas). Peat is also included.  
 (2) NAB's consideration of key assumptions from the IEA NZE 2050 (2021) relevant to thermal coal. This list is not exhaustive. This target and assumptions are based on the 2021 version of the reference pathway - [IEA Net Zero by 2050 – A road map for the global energy sector](#).

## Oil and gas

### Sector overview

Reducing emissions across oil and gas extraction and production will require significant industry change in Australia, accounting for almost 10% of domestic Scope 1 emissions. Reducing demand for oil and gas is linked to the transition of other key sectors, such as power generation, where gas currently accounts for about 19% of the Australian electricity generation fuel mix, and transport, where petrol and diesel cars represent the significant majority of vehicles.

### Sector inclusions

Extraction and production of natural gas, LNG, liquefied petroleum gas (LPG) and oil (i.e. upstream oil activities). Excludes exploration activities due to immateriality of emissions associated with exploration.

### Decarbonisation target overview

Element	Approach
<b>2021 baseline</b>	4.1 MtCO <sub>2</sub> -e
<b>Metric</b>	Absolute emissions (MtCO <sub>2</sub> -e)
<b>Emissions Scope</b>	Scope 1, 2 and 3
<b>2030 Target</b>	3.2 MtCO <sub>2</sub> -e (21% reduction against baseline)
<b>Scenario</b>	IEA NZE 2050 (2021)
<b>Data quality score (2022)</b>	Average PCAF score: 1.1 (Scope 1 and 2), 1.8 (Scope 3)

### Portfolio update

NAB's portfolio emissions for oil and gas is as follows:

	2022	2021 base-line	2030 target
Oil and gas (MtCO <sub>2</sub> -e)	2.1	4.1	3.2
EAD (\$bn) <sup>(1)(2)</sup>	1.3	1.9	n/a
EAD as % of total EAD (%) <sup>(1)(2)</sup>	0.13	0.22	n/a

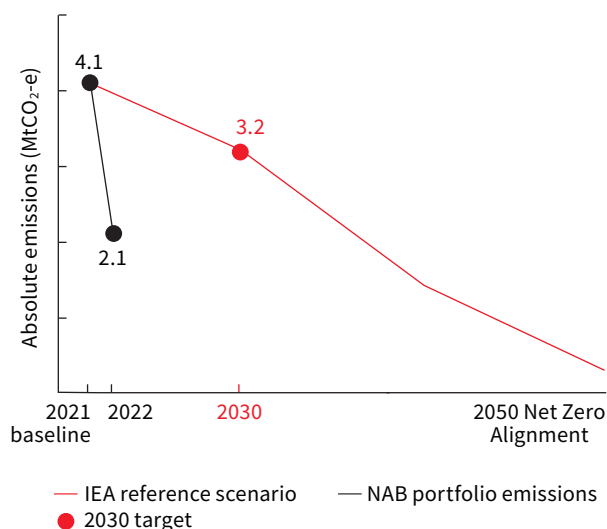
(1) Excluding off-balance sheet and markets-related EAD including derivatives and performance guarantees to rehabilitate existing oil and gas assets (refer to page 40 for scope of financing).

(2) EAD for the purposes of setting targets is as at 30 June 2022, to align with the regulatory reporting period for the NGER Act and currently excludes BNZ.

NAB's sector target for oil and gas is a 21% decrease in absolute emissions to 3.2 MtCO<sub>2</sub>-e by 2030, against a 2021 baseline. In 2022, the absolute financed emissions reduced to 2.1 MtCO<sub>2</sub>-e, a decrease of 49% against the 2021 baseline and exposure reduced from \$1.9 billion to \$1.3 billion EAD, a decrease of 31%.

Across the sector, we see customers increasingly disclosing transition plans. In general, these plans include reduced fuel, flare and fugitive emissions, co-located renewable development, and carbon capture and storage and/or afforestation/biodiversity projects. Our customers, and their progress against their transition plans, are being challenged by evolving government energy policies and ongoing considerations around the role of gas as a transition fuel.

Figure 3: Oil and gas sector target and IEA NZE 2050



Emissions reduction in this sector was driven by a reduction in exposure coupled with increased enterprise valuations for many customers. When valuations increase, the relative proportion of their emissions attributed to NAB financing decreases. The portfolio emissions are currently under the 2030 target, however future volatility in customer market valuation (driven, for example, by commodity price fluctuations), will drive 'passive' fluctuations of portfolio emissions.

### NAB's approach

NAB has identified a number of core strategies to assist it to meet its target, and that it will seek to deploy in combination, depending on the progressive rate of decarbonisation within its oil and gas lending portfolio. This includes supporting customers with financing to reduce their Scope 1 and 2 emissions by decarbonising their extraction operations, such as through the reduction of methane leaks and flaring, and diversifying their businesses into low or zero carbon activities. NAB's oil and gas sector risk policy settings (refer to page 23) are also expected to assist NAB to meet this target.

From 1 October 2025, new or renewed corporate lending or project-related lending for Corporate and Institutional Banking customers in the oil and gas sector will require a Customer Transition Plan in place (refer to *Requirements for transition plans* on page 12 for further details).

NAB's oil and gas sector target relates to NAB's financed emissions, set at a portfolio level, and does not assume that all customers within that sector will adopt transition plans or business activities based on the same data, reference scenarios, assumptions and methodologies used by NAB for this purpose.

NAB will consider national energy security requirements in relation to the oil and gas sector. It is expected that decisions based on national energy security would be by rare exception. Such decisions may impact on NAB's ability to achieve financed emission reduction targets.



## Sectors (cont.)

### Key scenario assumptions

#### IEA NZE 2050 scenario assumptions<sup>(1)</sup>

Key assumptions which underpin the IEA NZE 2050 scenario pathway include:

- No exploration is required and no new oil or gas fields are needed beyond those that have already been approved for development from 2021.
- Demand for oil and gas declines by 14% from 2020 to 2030, with an anticipated price of \$US130 per tCO<sub>2</sub>-e in 2030 in advanced economies making a large portion of production not economically viable, therefore putting downward pressure on production.
- Reductions in operational emissions via:
  - Ending flaring and methane leaks from oil and gas supply chains.
  - Using CCUS with centralised sources of emissions.
  - Electrification of upstream operations.
- 75% decrease from 2020-2030 in methane emissions using emissions reduction measures and technologies.

NAB also notes the IEA NZE 2050 scenario assumes adoption of CCUS technologies to capture Scope 3 emissions. NAB will support action in this space by financing end-users such as gas-fired power stations and heavy industries to adopt CCUS where credible and appropriate.

#### Sourcing sector data

NAB has calculated its attributable financed emissions from oil and gas extraction and production based on Scope 1, 2 and 3 emissions relative to its customers EAD.

95% of customer Scope 1 and 2 emissions have been sourced from company reports, with the remaining sourced from third party reports, or calculated using equity-based estimates. 62% of Scope 3 emissions are derived from production-based estimates, with the remainder sourced from company reports.

Our response to climate change

Strategy

Governance

Risk management

Sector decarbonisation

Metrics and targets

Supporting information

(1) NAB's consideration of key assumptions from the IEA NZE 2050 (2021) relevant to oil and gas. This list is not exhaustive. This target and assumptions are based on the 2021 version of the reference pathway - [IEA Net Zero by 2050 - A road map for the global energy sector](#).

## Cement

### Sector overview

As a key component of concrete, cement is one of the most used materials in the world. Its demand is expected to grow as it is expected to play an important role in the global transition to net zero through its use in important infrastructure such as wind farms, climate-resilient housing and low-carbon transport. However, the cement sector is also a large source of global GHG emissions, contributing to around 1% of Australia's Scope 1 emissions, and about 7% of global emissions.

### Sector inclusions

Portland and hydraulic cement manufacturing. Excludes concrete and lime manufacturing.

### Decarbonisation target overview

Element	Approach
2021 baseline	0.60 tCO <sub>2</sub> -e /t
Metric	Emissions intensity (tCO <sub>2</sub> -e /t)
Emissions Scope	Scope 1 and 2
2030 Target	0.46 tCO <sub>2</sub> -e /tCement (24% reduction against 2021 baseline)
Scenario	IEA NZE 2050 (2021)
Data quality score (2022)	Average PCAF score: 2.2

### Portfolio update

NAB's portfolio emissions for the cement sector is as follows:

	2022	2021 base-line	2030 target
Cement (tCO <sub>2</sub> -e/tCement)	0.57	0.60	0.46
EAD (\$bn) <sup>(1)(2)</sup>	0.79	0.80	n/a
EAD as % of total EAD (%) <sup>(1)(2)</sup>	0.08	0.09	n/a

(1) EAD excluding derivatives (refer to page 40 for scope of financing).

(2) EAD for the purposes of setting targets is as at 30 June 2022, to align with the regulatory reporting period for the NGER Act and currently excludes BNZ.

NAB's sector target for cement is a 24% decrease in emissions intensity (tCO<sub>2</sub>-e/tonne cement produced) by 2030, against a 2021 baseline. In 2022, the emissions intensity reduced to 0.57 tCO<sub>2</sub>-e/tCement, a decrease of 5% against the 2021 baseline.

The majority of customers in NAB's cement portfolio (by EAD) have published transition plans and are also captured by the updated Safeguard Mechanism. The customers investing in low-carbon cement note that a big challenge comes from cheap (high emissions) imports, making Australian cement less competitive.

The decrease in emissions intensity since the 2021 baseline was driven by a slight tilt towards the lower-emitting customers and a slight reduction in emissions across all customers.

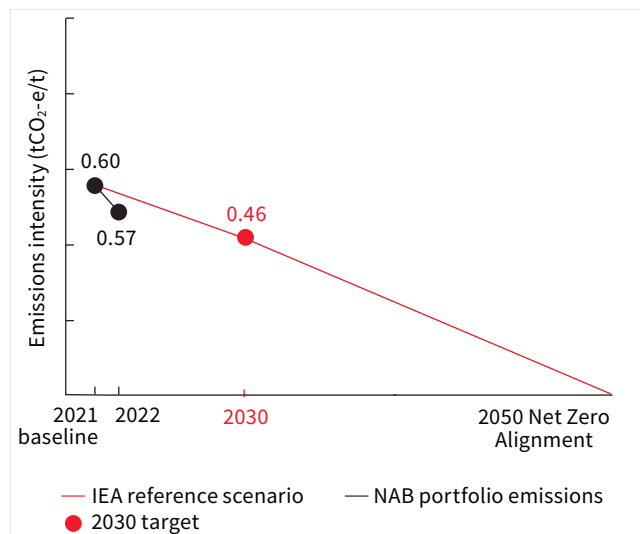
### NAB's approach

NAB considers that actively supporting customers with finance to decarbonise their operations is a credible action to achieve emissions reduction and our cement sector target.

(1) NAB's consideration of key assumptions from the IEA NZE 2050 (2021) relevant to cement. This list is not exhaustive. The targets and assumptions are based on the 2021 version of the reference pathway - [IEA Net Zero by 2050 - A road map for the global energy sector](#).

(2) Estimated through calculation from revenue and average cement price data and supplemented with PACTA data.

Figure 4: Cement sector target and IEA NZE 2050



NAB may consider selectively reducing its exposure to customers that do not have a Customer Transition Plan in place.

NAB's lending exposure to the cement industry is concentrated across a small number of customers. Any change in the composition of NAB's lending exposure to the cement industry could significantly impact NAB's progress toward achieving its target for the cement sector.

### Key scenario assumptions

#### IEA NZE 2050 assumptions<sup>(1)</sup>

To achieve net zero emissions by 2050, the IEA NZE 2050 scenario requires the emissions intensity of the cement sector to decrease to 0.46 tCO<sub>2</sub>-e /tCement in 2030. Key assumptions which underpin that scenario pathway include:

- Globally, cement production increases by 5% by 2030, while emissions decline by about 19%.
- Increased blending of alternative materials into cement to replace a portion of clinker, and energy efficiency measures deliver around 40% of emissions reductions by 2030.
- The clinker-to-cement ratio declines by about 0.8% per year, leading to a global average ratio of 0.65 by 2030.
- CCUS technologies in cement production are commercialised by 2030.

### Sourcing sector data

NAB has calculated its attributable financed emissions from cement manufacturing based on Scope 1 and 2 emissions relative to its customers' EAD. Scope 3 emissions have been excluded from this stage of target-setting due to data availability issues, as NAB has found Scope 3 emissions are currently rarely reported by customers in the cement sector.

67% of company emissions data was sourced directly from customer-reported sources, with the remainder estimated using sector wide emissions intensity ratio, as production data is not readily accessible for cement companies<sup>(2)</sup>.

## Aluminium

### Sector overview

Aluminium is an important input to several technologies critical to the energy transition, but the sector is also a significant source of GHG emissions, emitting ~1.1B tCO<sub>2</sub>e per year globally (~3% of total global emissions)<sup>(1)</sup>. Demand is forecast to increase by up to 80% by 2050<sup>(1)</sup>. The aluminium supply chain comprises three components: bauxite mining, alumina refining and aluminium smelting.

The Australian aluminium industry is heavily skewed to the extractive end of this value chain, with the majority of local companies focused on bauxite extraction and alumina refining.

### Sector inclusions

Includes bauxite mining, alumina refining, aluminium smelting

### Decarbonisation target overview

Element	Approach
<b>2022 Baseline</b>	1.7 tCO <sub>2</sub> -e/tAluminium
<b>Metric</b>	Total emissions intensity represents the average emissions intensity of customers in our portfolio (whether they engage in extraction, refining and/or smelting) indexed to metric tonnes of primary aluminium production. This impacts comparability against both the Reference Scenario metric, and with peers with differing portfolio mix. Please see below for further details.
<b>Emissions Scope</b>	Scope 1 and 2
<b>2030 Target</b>	5.0 tCO <sub>2</sub> -e/tAluminium (upper bound)
<b>Scenario</b>	International Aluminium Institute Greenhouse Gas Pathway (IAI GHG)
<b>Data quality score</b>	Average PCAF score: 1.7

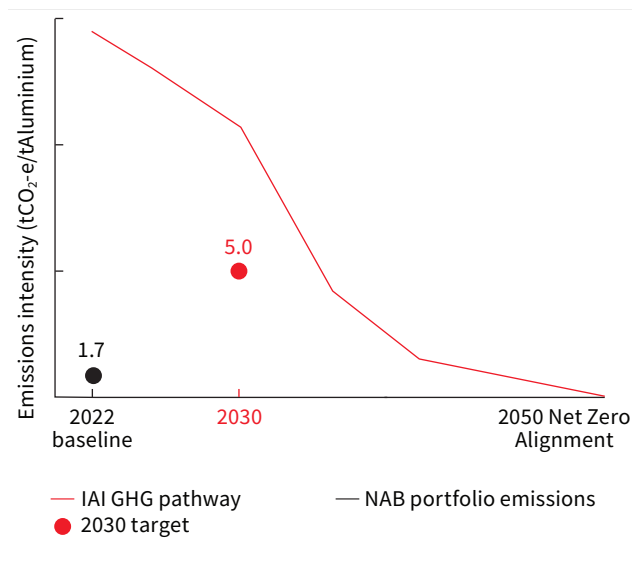
NAB's lending (EAD) to the aluminium sector totals \$0.07 billion, <0.01% of total EAD.

NAB's sector target for aluminium represents an appetite to increase emissions against a 2022 baseline under certain circumstances in recognition of the role that aluminium has in the energy transition. It does not reflect an intention to support existing customers to increase the emissions intensity of their production. Rather, NAB seeks to support customers to reduce their emissions intensity. NAB's appetite to increase emissions against a 2022 baseline acknowledges that the relative composition of NAB's aluminium sector portfolio may change over the period, from its current skew towards customers in lower-emissions mining and refining activities, to potentially include more customers involved in higher-emissions smelting activities. Although direct comparison is difficult, the 2030 intensity target remains well within the 11.5 t CO<sub>2</sub>-e/tAluminium value-chain target in the IAI GHG reference scenario.

### NAB's approach

NAB has selected the IAI GHG 2050 pathway, which is aligned to, but gives more granularity than, IEA NZE 2050. The pathway includes bauxite mining, alumina refining and aluminium

Figure 5: Aluminium sector target and IAI GHG pathway



smelting, and therefore captures a complete view of the sector value chain.

Note NAB's 2022 baseline emissions intensity data and 2030 (upper bound) target do not reflect an emissions intensity figure equivalent to the full value chain metric applied by the IAI GHG. This is because:

- NAB's sectoral lending book reflects the skew of the Australian aluminium industry to upstream activities, in bauxite mining and alumina refining (the lower-emissions intensity activities within the value chain).
- NAB's reporting and target boundary excludes Scope 3 emissions.

NAB has utilised publicly available industry conversion metrics to convert bauxite and alumina volumes to aluminum tonnes (for the purposes of estimating the emissions intensity (tCO<sub>2</sub>-e /tAluminium)).

Inclusion of Scope 3 emissions from bauxite and alumina customers would help to provide value chain equivalency, however significant data challenges exist in the estimation of the downstream (scope 3) smelting emissions associated with those upstream activities. This is due to the wide variation in emissions depending on the country and facility in which that smelting occurs, such that 'averages' do not provide a valid proxy.

A portfolio which is more heavily weighted to smelting customers will likely have a higher emissions intensity, simply due to customer mix. This means that comparison across portfolios of different compositions is difficult. NAB will look for opportunities to refine its aluminium sector intensity methodologies to incorporate downstream scope 3 (smelting) emissions of upstream customers, as data and methodologies improve.

As an interim metric, based on our current methodology that incorporates only scope 1 and 2 emissions for upstream customers, the upper bound for portfolio intensity is 5.0 tCO<sub>2</sub>-e /tAluminium. This is intended to provide NAB with the option to increase exposure to support smelting customers, whilst remaining significantly below the 11.5 tCO<sub>2</sub>-e /tAluminium 2030 full value chain threshold indicated under the IAI GHG. Given aluminium is a critical material required in the transition to a net zero economy, this is consistent with NAB's ambition to catalyse the economy's decarbonisation .

(1) IAI GHG Pathways Position Paper.

## Sectors (cont.)

As with other small sector portfolios, a change in the composition of NAB's customers or lending exposure could impact the reported emissions in subsequent reporting years.

### Key scenario assumptions

#### IAI GHG Pathways to 2050

Key assumptions for this reference scenario include<sup>(1)</sup>:

- Carbon intensity of direct emissions reduces by 93% by 2050 compared to 2018 levels, with thermal energy emissions decreasing 94%. Total carbon intensity will need to reduce by 98%.
- Aluminium primary production is expected to grow from its current 64 million tonnes to 68 million tonnes in 2050, with recycled production growing from 19 million tonnes to 81 million tonnes.
- The majority of emissions reductions are expected to come from the switch to renewable energy.

#### Additional NAB assumptions

The upper bound target for this sector has been set noting that the current portfolio is not reflective of the full value chain and with the assumption that the makeup of the Australian aluminium market, and the relative need for investment, stays weighted to bauxite and alumina through to 2030.

Australia's alumina refiners are well progressed with their decarbonisation plans: the 2030 alumina target implied by the IAI GHG pathway is 2.1 tCO<sub>2</sub>e/tAluminium and further emissions reductions are likely to be minimal. Those reductions are still likely to be driven by electrification and decarbonisation of the power grid. In modelling portfolio trajectory, we have assumed that the electricity grid decarbonises in line with Federal Government policy (82% electricity from renewable sources by 2030). If this economy-level ambition is not achieved, it will be difficult for customers to achieve emissions reductions.

#### Sourcing sector data

NAB has calculated our attributable financed emissions based on customers' Scope 1 and 2 emissions. 100% of company emissions data was sourced directly from customer reported sources.

(1) NAB's consideration of key assumptions from the IAI GHG Pathways to 2050 scenario. This list is not exhaustive. Refer to [Aluminium Sector Greenhouse Gas Pathways to 2050](#) for details.

## Iron and steel

### Sector overview

The iron and steel sector is both a critical enabler of climate transition and a key contributor of carbon dioxide (CO<sub>2</sub>), emitting 3.1GtCO<sub>2</sub>e globally (7% of total) annually. Global steel demand is forecast to grow by over 30% by 2050. Steel production's large share of emissions is due to the role of fossil fuels for energy and as a reductant during production. For every tonne of crude steel produced, 1.4 tonnes of direct CO<sub>2</sub> emissions and 0.6 tonnes of indirect CO<sub>2</sub> emissions are released on a sectoral average basis.

The decarbonisation levers for iron and steel are limited, especially in the near term. There are currently no viable substitutes for metallurgical coal in the primary steel-making process, at commercial scale, and electrification of the furnace (Electric Arc Furnace, or EAF) is not viable in Australia due to limited access to scrap. Longer term, Direct Reduction Iron (DRI) technologies are likely to be commercialised, allowing for the reduction of metallurgical coal used in the smelting process. Given the size of the existing Australian steelmaking facilities, the transition will not be gradual or linear with several large investment decisions around retrofit, replacement and additional capacity to support demand being required.

### Sector inclusions

Includes steel smelting and metallurgical coal mining. Excludes iron ore mining and steel fabricators due to their immateriality to value chain emissions<sup>(1)</sup>.

### Decarbonisation target overview

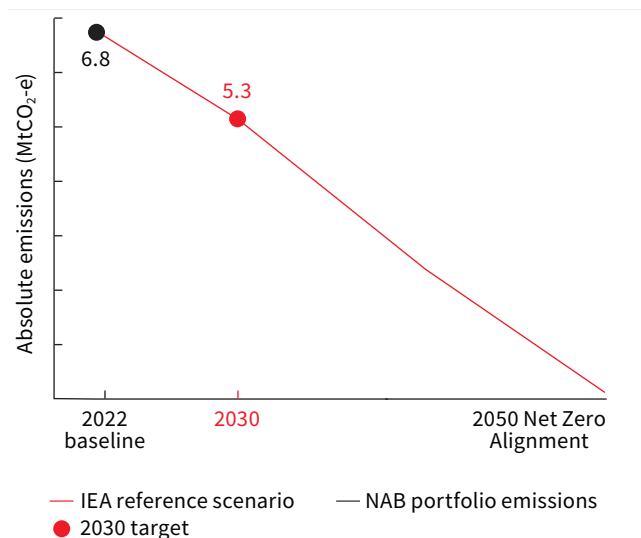
Element	Approach
<b>2022 baseline</b>	6.8 MtCO <sub>2</sub> -e
<b>Metric</b>	Absolute emissions (MtCO <sub>2</sub> -e)
<b>Emissions Scope</b>	Scope 1, 2 and 3 for metallurgical coal Scope 1 and 2 only for steel smelters  This treatment accounts for the fact that the majority of emissions are generated during the smelting process, which is Scope 1 for smelters and Scope 3 for miners.
<b>2030 Target</b>	5.3 MtCO <sub>2</sub> -e (22% reduction against 2022 baseline)
<b>Scenario</b>	IEA NZE 2050 (2022)
<b>Data quality score</b>	Average PCAF score: 2.2

NAB's sector target for iron and steel is a 22% decrease in absolute emissions by 2030, against a 2022 baseline. NAB's lending (EAD) to the iron and steel sector totals \$0.34 billion, 0.03% of total EAD.

### NAB's approach

NAB has chosen to align its iron and steel portfolio to the IEA NZE 2050 reference scenario. This is a global scenario, and while NAB's customers are concentrated in Australia, they do export the majority of their production.

Figure 6: Iron and steel sector target and IEA NZE 2050



NAB has included metallurgical coal mining in the iron and steel sector scope due to its key role in the steel value chain. NAB's iron and steel portfolio (and sector emissions profile) is currently reflective of the Australian market: skewed towards metallurgical coal mining, rather than smelting customers. As technology in this sector matures, it is expected that demand for metallurgical coal and associated emissions will decrease.

Given NAB's portfolio composition and the limited abatement options for this sector, it is expected that some reduction of exposure to this sector will be necessary to achieve the decarbonisation target.

NAB's lending exposure to the iron and steel sector is concentrated across a small number of customers and so any change in the composition of the portfolio could impact NAB's progress toward achieving its target for the sector. As with all absolute targets, changes to customer enterprise values may result in volatility in financed emissions calculations.

From 1 October 2025, new or renewed corporate lending or project-related lending for Corporate and Institutional Banking metallurgical coal customers will require a Customer Transition Plan in place (refer to *Supporting our customers to decarbonise and build resilience* for further details).

### Key scenario assumptions

#### IEA NZE 2050 assumptions

Key assumptions for this reference pathway include<sup>(2)</sup>:

- Emissions fall from 2.4 Gt in 2020 to 1.8 Gt in 2030 to 0.2 Gt in 2050, with fossil fuel share of overall fuel mix dropping from 85% in 2020 to just over 30% in 2050.
- Technologies currently on the market deliver 85% of the emissions savings in steel production to 2030.
- Share of steel production using an electric arc furnace grows from 24% in 2020 to 37% in 2030 and 53% in 2050.
- Technology shift features prominently in the scenario, with electricity and other non-fossil fuels accounting for 70% of final energy demand in the sector, up from just 15% in 2020. This shift is driven by technologies such as scrap-based electric arc furnaces, hydrogen based DRI facilities, iron ore electrolysis and the electrification of ancillary equipment.

(1) Iron ore mining represents <1% of value chain emissions and steel fabricators emissions are negligible.

(2) NAB's consideration of key assumptions from the IEA NZE 2050 (2022) relevant to iron ore. This list is not exhaustive. This target and assumptions are based on the 2022 version of the reference pathway - *IEA Net Zero by 2050 - A road map for the global energy sector*.

## Sectors (cont.)

### Additional NAB assumptions

NAB has assumed that limited decarbonisation of this sector will occur between now and 2030, given the lack of input (scrap) availability in this market and the ongoing demand for metallurgical coal (especially overseas). It is expected that some emissions reductions will be achieved by smelting customers (largely via optimising existing assets and processes) and by metallurgical coal miners' reduction of operational emissions.

### Sourcing sector data

NAB has calculated its attributable financed emissions based on steel smelting customers' Scope 1 and 2 emissions and metallurgical coal mining customers' Scope 1, 2 and 3 emissions. 38% of company emissions data was sourced directly from customer-reported sources, with the remainder estimated using sector wide emissions factors based on production<sup>(1)</sup>.

(1) Emissions factors sourced from the National Greenhouse Accounts Factors.

## Transport - aviation

### Sector overview

Globally, the aviation sector contributes 720 MtCO<sub>2</sub>-e (2% of total) annually and demand is forecast to grow. In Australia, the sector is responsible for 6 MtCO<sub>2</sub>-e (7% of total) per annum. The International Civil Aviation Organisation (ICAO) is a United Nations agency, established to support technical, legal, and administrative cooperation amongst airlines. ICAO has implemented the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), which will mandate the use of at least 10% blend of Sustainable Aviation Fuel (SAF) by 2027. Most corporate airlines have made ambitious public commitments to decarbonise. Beyond SAF usage, decarbonisation of the aviation sector will rely on engine and aircraft efficiencies (e.g., improved aerodynamics and reduction in weight) and carbon offsets. Longer-term, hydrogen-fueled aircraft are likely to support decarbonisation of the sector.

### Sector inclusions

Includes scheduled passenger aviation (both domestic and international). Excludes freight and business jets.

### Decarbonisation target overview

Element	Approach
2019 baseline	104 gCO <sub>2</sub> -e/passenger kilometres (pkm)
Metric	Emissions intensity gCO <sub>2</sub> -e/pkm
Emissions Scope	Scope 1 and 2 for aircraft operators
2030 Target	77 gCO <sub>2</sub> -e/passenger kilometres (pkm) (26% reduction against 2019 baseline)
Scenario	ATAG Waypoint 2050
Data quality score	Average PCAF score: 2.3

NAB's sector target for aviation is a 26% emissions intensity decrease by 2030, against a 2019 baseline. NAB's lending (EAD) to the aviation sector totalled \$6.9 billion in 2019. In 2022 portfolio emissions intensity was 120 gCO<sub>2</sub>-e/pkm (higher than 2019 baseline as some customers' metrics are still impacted by COVID) and EAD was \$3.2 billion, 0.3% of total EAD.

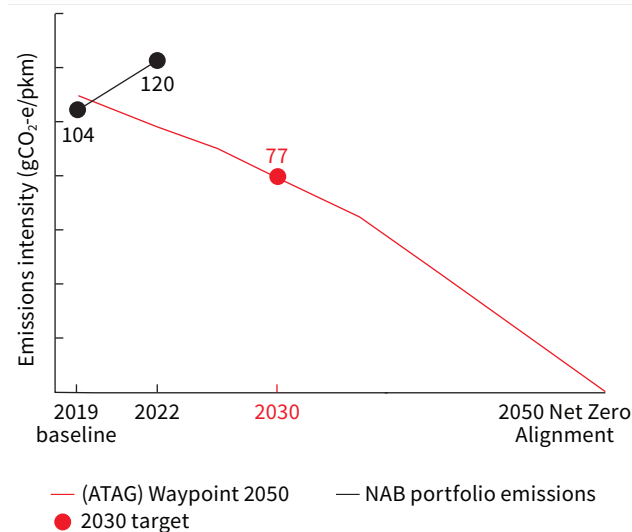
### NAB's approach

The aviation sector experienced severe disruption during the COVID-19 pandemic: overall emissions decreased due to reduced flight numbers but emissions intensity increased due to social distancing requirements. This resulted in non-representative emissions metrics across the sector in 2020 - 2022. For this reason, we have used 2019 as a more representative baseline year for this sector, enabling better comparison over time.

Air freight has been excluded from this target as it relatively immaterial (represents <1% of the sector portfolio), and business jets as they are not directly financed.

The ATAG Waypoint 2050 reference pathway was selected because it was developed by an industry body with contributors across the value chain and takes into account the impact of the pandemic on the industry's emissions and trajectory.

Figure 7: Transport - aviation sector target and ATAG Waypoint 2050



NAB's aviation portfolio is a mix of corporate lending to airlines and asset financing to aircraft lessors. The primary lever to decarbonise NAB's aviation portfolio is to preferentially allocate capital to corporate airlines with 2030 decarbonisation commitments, and provide finance for efficient aircraft with emissions intensity in line with NAB's target.

UNEP FI guidelines state that offsetting can play a role that is supplemental to sectoral and economy-wide decarbonisation, and that use in target setting should be aligned with climate science-based net zero scenarios. ATAG notes that offsets will be required to decarbonise residual emissions in this hard-to-abate sector in the short-to-medium term, given the limited viability of other alternatives to reduce emissions. NAB will accept the use of certified, additional carbon credits purchased by its aviation customers while viable alternatives to reduce their operational emissions do not exist.

### Key scenario assumptions

#### ATAG 2050 (Waypoint) assumptions<sup>(1)</sup>

ATAG's Waypoint scenario takes the impact of COVID-19 into account (the pandemic reduced technology and infrastructure investment and reduced passenger volumes and therefore efficiency). ATAG assumes that improvements in aircraft technology, operations and infrastructure efficiency and increased usage of SAF will all contribute to decarbonisation of the sector, but notes that offsetting mechanisms will play a major role, especially through to 2030. Of the emissions reduction required, ATAG expects SAF to reduce emissions intensity by ~7%, operational emissions to reduce by a further ~7% and the remainder of the reduction (~20%) to come from offsets.

#### Additional NAB assumptions

In assessing NAB's portfolio trajectory, we have made two key assumptions which underpin NAB's ability to achieve the target for this sector, regarding the activities and emissions of customers and operators of leased aircraft:

- Those portfolio companies with public 2030 decarbonisation commitments achieve them.

(1) NAB's consideration of key assumption from the ATAG 2050 (Waypoint) scenario. This list is not exhaustive. The target and assumptions are based on [Waypoint 2050 - An air transport action group project](#).

## Sectors (cont.)

- All portfolio companies (even those without public commitments) comply with the ICAO's CORSIA mandate, which requires airlines in almost all jurisdictions (125 member states) adopt at least 10% SAF.

### Sourcing sector data

NAB has calculated its attributable financed emissions for the aviation sector based on operators' Scope 1 and 2. Where the customer is not the operator of the aircraft (i.e., for aircraft lessors), the average emissions of the operating companies has been used. 61% of company emissions data was sourced directly from operator-reported sources, with the remainder assumed to be in line with the portfolio average.

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# Environmental financing

NAB has continued to provide financing activities that can support customers improve environmental outcomes. This includes \$4.5 billion of new green lending, green CRE (REIT) lending, securitisation, and underwriting and arranging activities of new green customer securities in 2023.

From 2015 to 2022, a key measure of progress was our environmental financing target to provide \$70 billion in financing activities to help address climate change and support the transition to a low carbon economy. We reached a cumulative total of \$70.8 billion in 2022, exceeding the target three years ahead of schedule. NAB has retired the previous target methodology.

This year, recognising evolving market and regulatory expectations such as the ASFI Australian Green Taxonomy and adoption of the National Construction Code (2022), we are taking time to carefully consider a suitable forward-looking ambition expected to be communicated in 2024.

This year's environmental financing data presented in the table below are based on "green labelled" products. See the *Environmental financing methodology* section on page 74 for more information on how environmental financing is defined and calculated.

	2023
	\$m
<b>New 2023 lending drawn amounts as at 30 September</b>	
<b>Green lending, green CRE (REIT) lending, sustainability-linked lending and securitisation activity<sup>(1)(2)</sup></b>	
New 2023 green lending and green CRE (REIT) lending	1,926
New 2023 securitisation activity	92
New 2023 sustainability linked-lending <sup>(3)</sup>	601
<b>Total</b>	<b>2,619</b>
<p>(1) This includes CBI compliant lending and Green Bond Principles (GBP) aligned lending associated with NAB's Green Bond Framework including renewables, green CRE (REIT), low carbon transport, water infrastructure, electrical grids and storage and forestry, land conservation and restoration.</p> <p>(2) In the 2023 financial year, the reported figure excludes green RMBS assets and other green labelled mortgage assets as the benchmark for these is being updated according to the National Construction Code (NCC) 2022 with uplift to NatHERS 7 Star as at 1 October 2023.</p> <p>(3) Drawn amount of NAB's full year 2023 sustainability-linked loan lending, based on proportion of KPIs that are environmentally related.</p>	
<b>Drawn amounts as at 30 September</b>	
<b>Green agriculture and green asset finance lending activity</b>	
Total green agriculture and asset finance	82
<b>New 2023 activity as at 30 September</b>	
<b>Underwriting and arranging activities</b>	
Total underwriting and arranging activities <sup>(1)</sup>	1,894
<p>(1) Includes NAB's proportional share of debt market instruments across all Joint Lead Managers where applicable. Includes bonds and asset-backed securities.</p>	
<b>Outstanding amounts as at 30 September</b>	
<b>Debt market activity</b>	
Total green bonds <sup>(1)</sup>	2,003
<p>(1) Includes outstanding NAB's Green Bonds and Green tranche RMBS issuances. Further detail on NAB's Green Bonds can be found at <a href="https://capital.nab.com.au/green-and-sri-bonds">capital.nab.com.au/green-and-sri-bonds</a></p>	

# Reducing operational emissions

NAB is reducing its own footprint through emissions avoidance and reduction, before offsetting residual emissions.

## Reducing operational emissions and environmental impact

Our approach to reducing operational emissions includes identifying significant sources of emissions and taking meaningful actions to reduce these.

The Group has adopted the 'operational control' approach to establishing its operational emissions reporting boundary as defined in the GHG Protocol Corporate Accounting and Reporting Standard and used in the NGER Act 2007.

The Group's operational GHG inventory includes:

- Scope 1 (Direct): For example, emissions from our vehicle fleet, our fuel combustion in buildings.
- Scope 2 (Indirect): Purchase of energy to operate our facilities including corporate offices, branches and business banking centres, data centres and ATMs.
- Scope 3 (Indirect): For example, emissions associated with colleagues working from home and business-required travel.

As defined in the Glossary, all references to NAB's operational emissions are referring to the NAB environmental reporting year (1 July - 30 June).

## Scope 1 and 2 operational emissions

The Group first set a Scope 1 and 2 (market-based method) science-based GHG emissions reduction target in 2020, to reduce its combined Scope 1 and 2 emissions by 51% by 2025, against a 2015 baseline. In 2023, the Group has updated this target to align with pathways that limit warming to 1.5°C.

The Group's new target is for a 72% reduction in market-based Scope 1 and 2 emissions by 2030 from a 2022 baseline<sup>(1)</sup>.

NAB's actions to achieve further emissions reductions in Scope 1 and 2 emissions to 2030 are unchanged:

- Implementation of energy efficiency initiatives. The Group monitors its energy consumption to identify opportunities for further reduction in energy usage through building-based emissions reduction, including energy efficiency initiatives.
- Purchase of renewable energy in line with the Group's target to source 100% of its electricity from renewable energy sources by 2025. With Scope 2 emissions (electricity consumption) representing 50% of NAB's total Scope 1 and 2 emissions in 2023, the continued purchase of renewable energy is crucial to NAB's ability to meet the target (refer to page 57 for more information).

In 2024, NAB intends to further consider its plan to transition its vehicle fleet to lower emissions vehicles, including electric vehicles. Currently, the vehicle fleet is made up of:

- NAB: 63% hybrid.
- BNZ: 61% hybrid, 8% electric vehicles.

This transition contributed to a 37% reduction in energy from fuel usage from 2019 to 2023 in Australia and New Zealand, against the target of a 50% reduction by 2025. Progress to date has been slower than originally forecast, as fleet transition was de-prioritised during COVID-19.

## Scope 3 operational emissions

As the Group reduces its Scope 1 and 2 operational emissions through efficiency initiatives, the purchase of renewable energy and transitioning its vehicle fleet, the relative size of the Group's Scope 3 operational emissions is increasing.

In 2023, Scope 3 emissions increased to 49,525 tCO<sub>2</sub>-e from 37,811<sup>(2)</sup> tCO<sub>2</sub>-e. This was primarily driven by business travel activity returning to pre-COVID-19 levels.

The Group will continue to identify opportunities to influence emissions reduction across its operational value chain.

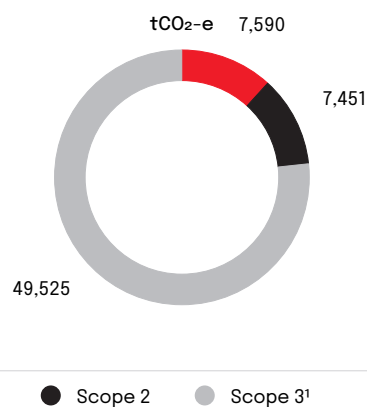
## Operational emissions boundary

NAB assesses the relevance of Scope 3 emissions associated with its direct operations. Information on the Scope 3 categories included and excluded from NAB's operational emissions boundary is available in the *Supporting information* section on page 70 of this report.

In NAB's 2020 Climate Active Public Disclosure Statement, NAB set an intention to accurately quantify and include emissions associated with *Couriers, postage and freight* within its emissions boundary by 2024. NAB has achieved sufficient data availability and quality this year, and this emissions source is now quantified and included within NAB's emissions boundary.

NAB has assessed its ability to accurately measure emissions associated with *Employee commuting* in 2023 as limited. NAB is currently compiling data and developing its methodology to estimate emissions associated with *Employee commuting* and will engage with stakeholders on this work in 2024 to better understand the relevance and importance of this emissions inventory source to stakeholders. NAB's influence on its employees' commuting is limited but changing, as hybrid working behaviours and expectations are developed and embedded. NAB offers end-of-trip facilities at many of its locations though this does not materially influence emissions reduction associated with employee commuting.

Chart 1: NAB's market-based operational emissions by scope



- (1) Scope 3 emissions for NAB's operational footprint excludes financed emissions. For detail on how NAB is assessing Scope 3 emissions attributable to its financing, refer to pages 66 to 72.

(1) This target includes all direct GHG emissions (Scope 1) and indirect GHG emissions from consumption of purchased electricity (Scope 2) across all GHGs required under the GHG Protocol Corporate Standard. The target has been prepared in accordance with the Sectoral Decarbonisation Approach (SDA) 'Services Buildings' methodology published by the Science Based Targets initiative (SBTi) and SBTi target setting tool, v2.1.2. It aligns with a well-below 1.5°C scenario.

(2) NAB has restated its 2022 market-based emissions. Please refer to page 57 for more details.

## Reducing operational emissions (cont.)

### Progress towards RE100 target

The Group continues to make progress in relation to its RE100<sup>(1)</sup> target to source 100% of its electricity from renewable sources by 30 June 2025. This includes using on-site solar generation at our main data centre, as well as power purchase agreements and contracts for renewable energy certificates. The proportion of the Group's electricity consumption that was sourced from renewable electricity increased from 72.4% in the 2022 environmental reporting year to 88.3% in the 2023 environmental reporting year.

### Approach to carbon neutral operations

The Group defines 'carbon neutral in operations' as first avoiding and reducing greenhouse gas emissions associated with NAB's operational Scope 1, 2 and 3 emissions (excluding financed emissions) and then retiring carbon offsets for residual emissions. The Group retired and allocated 64,566 offsets for its 2023 emissions liability. The Group retired an additional 76 offsets to account for a restatement of BNZ's 2022 electricity emissions due to updated emissions factor guidance. KPMG conducts limited assurance procedures over our global carbon inventory, and its assurance statement is available on [NAB's sustainability performance and reporting website](#).

The Group has selected a market-based approach as its primary electricity accounting method in 2023, having previously used a location-based methodology. This change was made to better reflect the real impact of the increased proportion of LGCs in the Group's electricity consumption.

In 2023, NAB has updated its methodology for calculating market-based emissions to more closely align with the Department of Climate Change, Energy, the Environment and Water (DCCEEW) in its Australian National Greenhouse Accounts Factors August 2023 manual. Based on the change to a market-based approach, NAB has restated its 2022 market-based emissions number from 77,236 to 60,829 tCO<sub>2</sub>-e. Figures prior to 2022 have not been restated.

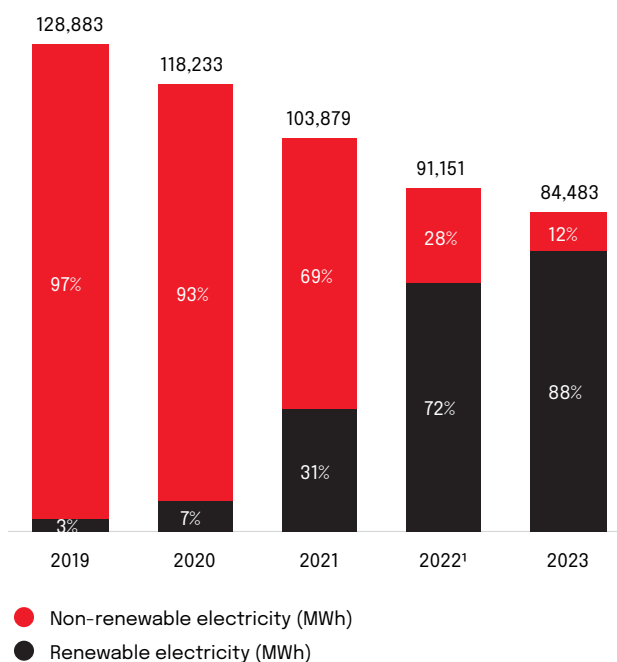
Market-based figures vary from Climate Active reporting as the Climate Active methodology for calculating market-based emissions incorporates the renewables applicable to the Large-scale Renewable Energy Target (LRET) for the reporting period. The renewable energy applicable to the LRET is not included in NAB's other publicly reported market-based emissions calculations due to applicable emissions accounting requirements.

NAB's Australian operations are certified carbon neutral under the Climate Active Standard for Organisations. BNZ and JBWere NZ are both Toitū net carbonzero organisation certified.

The Group purchases quality accredited carbon offsets to neutralise remaining emissions. NAB maintains a [Group Environmental Reporting and Offset Management Policy](#), to guide the purchasing and retirement of offsets, which are also disclosed annually in NAB's [Climate Active Public Disclosure Statement](#) available at [www.climateactive.org.au/buy-climate-active/certified-members/national-australia-bank](http://www.climateactive.org.au/buy-climate-active/certified-members/national-australia-bank), as part of carbon neutral certification.

While NAB has previously purchased and maintains a bank of Verified Carbon Standard and Gold Standard international offsets, between 2020 and 2023 NAB has only purchased ACCU from Australian sources, with a focus on Indigenous-led savanna burning projects which utilise traditional Indigenous land-practices. NAB intends to continue to prioritise projects that deliver social value co-benefits.

Chart 2: Group electricity consumption (MWh) by fuel source type



(1) There is a minor reduction in BNZ's 2022 electricity consumption following the reversal of accruals to account for actual consumption.

(1) RE100 is a global corporate leadership initiative bringing together businesses committed to 100% renewable electricity.

## Reducing operational emissions (cont.)

### Decarbonising the Group's supply chain

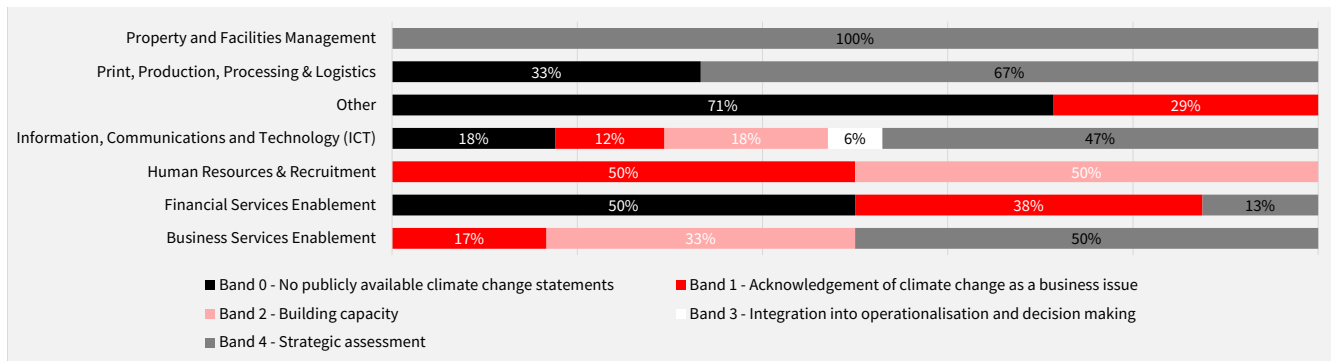
Working with suppliers and understanding their relevant climate policies, targets and actions will support the Group achieving its own targets. This year, the Group:

- Reviewed its third party risk management module which was introduced last year, to uplift and embed the Group's ability to understand supplier climate and environment-related policies and practices.
- Commenced transition maturity assessment for 46 suppliers making up the top 50% of NAB's supplier spend in Australia. This assessment was completed with reference to the Transition Maturity Diagnostic adopted for 100 of our largest GHG emitting customers (refer to *Supporting our customers to decarbonise and build resilience* for further details).

### Supplier transition maturity assessment

- 72% of suppliers have acknowledged climate change as a business issue.
- 70% have set a goal to be net zero by 2050 or sooner.
- 33% have publicly available climate action or decarbonisation strategies to achieve their net zero targets.
- Transition maturity varies across industries and within industries, particularly for smaller sized companies.
- The next step is to draw on this exercise to seek further integration of supplier transition planning and assessment in existing procurement processes and to inform engagement activities with suppliers in 2024.

Figure 8: Transition maturity of suppliers accounting for 50% supplier spend by sector



## Reducing operational emissions (cont.)

### Environmental operational targets summary

The Group has a number of environmental operational targets which contribute to operational efficiency and emissions reduction. In 2023, the Group updated its Scope 1 and 2 (market-based method) science-based GHG emissions reduction target to align its ambition to be net zero by 2050 with the best available science and pathway for a 1.5°C warming scenario. For more information on the new target and actions being taken to reduce Scope 1 and 2 emissions, refer to page 56.

In previous years, the Group's 2020-25 environmental performance targets have included a BNZ only target for staff air travel - which was to reduce air travel emissions by 70% by 30 June 2025 from a 2019 baseline. In 2023, BNZ has achieved a 53% reduction, against its 70% air travel emissions reduction target, while reconnecting with customers post COVID-19, and in particular, helping customers respond to the devastation caused by extreme weather events in New Zealand. BNZ has decided to maintain its 2023 level of air travel to continue to support its customers, and to retire its 70% air travel emissions target. BNZ will continue to manage air travel but focus on other ways to reduce its overall operational emissions by 2025.

### Regulatory and voluntary operational environmental reporting

The Group's operations are subject to the NGER Act. This is part of Australia's legislative response to climate change. The NGER Act requires the Group to report on the environmental reporting year. For further detail on this, see the 2023 Annual Report.

The Group is voluntarily reporting data required for the Streamlined Energy and Carbon Reporting (SECR) requirements which are implemented through the *Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018* (United Kingdom) in this 2023 Climate

Report. The Group's United Kingdom-based (London Branch) energy use reported, and aligned to the SECR for the 2023 environmental reporting year was 543,941 kWh (2022: 506,076 kWh). The associated total gross GHG emissions from fuel combustion (Scope 1) and from electricity use (Scope 2) were 111 tCO<sub>2</sub>-e (2022: 97 tCO<sub>2</sub>-e). This equates to 218 kWh and 0.04 tCO<sub>2</sub>-e per metre squared of property space occupied by the Group's London Branch. Further London Branch and Group energy and GHG emissions data is provided in Table 2 to satisfy SECR requirements. Refer to Table 2 for further information.

In 2014, the Group's United Kingdom-based operations became subject to the ESOS, introduced by the United Kingdom ESOS Regulations 2014. The ESOS requires mandatory energy assessments (audits) of organisations' buildings and transport to be conducted every four years. The Group's London Branch has completed its ESOS energy efficiency assessment in 2023 as part of preparation for its ESOS submission. However, due to having moved our London office into a new energy efficient commercial building in July 2019, only four small energy efficiency opportunities were identified. The Group fulfilled its most recent ESOS obligation in December 2019 and will resubmit again as required by 5 June 2024.

#### Sustainability Data Pack

Additional detail on NAB's environmental and climate-related performance is provided in the 2023 Sustainability Data Pack available at [nab.com.au/annualreports](http://nab.com.au/annualreports).

**Table 1: Progress on 2030 environmental operational targets**

Indicator	2023	2022 <sup>(1)</sup>	2019 / 2022 baseline <sup>(2)(3)(4)</sup>	Target (%)	Target date	2023 reduction (%)
Scope 1 and 2 (market-based method) science-based GHG emissions <sup>(2)</sup>	<b>15,041</b>	23,018	23,018	▼72	2030	(35%)
Gross Energy use (GJ)	<b>401,137</b>	405,527	759,096	▼30	2025	(47%)
Office paper (A3, A4 and A5) (tonnes)	<b>188</b>	168	514	▼20	2025	(63%)
Customer eStatements (proportion online only - Aus and BNZ only) (%)	<b>74%</b>	70	64	▲ to 80	2025	n/a
Water use (potable water withdrawal) (kL)	<b>181,331</b>	163,659	385,005	▼5	2025	(53%)
Waste to landfill (tonnes)	<b>620</b>	626	1,871	▼10	2025	(67%)
Vehicle fuels (GJ) (Aus and BNZ only)	<b>76,085</b>	49,265	120,686	▼50	2025	(37%)

(1) BNZ's 2022 emissions were restated to reflect minor changes. BNZ's Scope 2 emissions increased by 147 tCO<sub>2</sub>-e and Scope 3 emissions increased by 41 tCO<sub>2</sub>-e to account for a change in the electricity emissions factor due to MfE's August 2022 release of 'Measuring emissions: A guide for organisations: 2022 summary of emission factors' and improved accuracy of water data in 2023 following release of 2022 accruals. The net change in total BNZ GHG emissions after accounting for renewable energy is 76 tCO<sub>2</sub>-e.

(2) In 2023, the Group updated its operational science-based Scope 1 and 2 (market-based method) GHG emissions reduction target to align its ambition to be net zero by 2050 with the best available science and pathway for a 1.5°C warming scenario. The Group's new target of 6,366 tCO<sub>2</sub>-e is for a 72% reduction in market-based Scope 1 and 2 emissions by 2030 from a 2022 baseline of 23,018 tCO<sub>2</sub>-e, and includes all direct GHG emissions (Scope 1) and indirect GHG emissions from consumption of purchased electricity (Scope 2) across all GHGs required under the GHG Protocol Corporate Standard. The target has been prepared in accordance with the Sectoral Decarbonisation Approach (SDA) 'Services Buildings' methodology published by the Science Based Target initiative and uses the Science-Based Target Initiative (SBTI) target setting tool, v2.1.2. It aligns with a well-below 1.5°C scenario.

(3) NAB has changed its methodology for calculating market-based emissions to more closely align with the Department of Climate Change, Energy, the Environment and Water (DCCEEW) in its Australian National Greenhouse Accounts Factors August 2023 manual. NAB has restated its 2022 market based emissions number from 77,236 to 60,829 tCO<sub>2</sub>-e. Market-based figures vary from Climate Active reporting as the Climate Active methodology for calculating market-based emissions incorporates the renewables applicable to the Large-scale Renewable Energy Target (LRET) for the reporting period. The renewables applicable to the LRET is not included in NAB's other publicly reported market-based emissions calculations due to applicable emissions accounting requirements.

(4) Except for Scope 1 and 2 (market-based method) science-based GHG emissions reduction target, other environmental performance targets have not been re-baselined. Other environmental performance targets baseline figures include data from MLC Wealth operations as NAB had operational control at the time of calculation. As the divestment from MLC Wealth did not have a material impact on the baseline figures (<5%), these have not been restated.

## Reducing operational emissions (cont.)

### SECR disclosure

Key GHG emissions and energy use from 1 July 2022 to 30 June 2023.

**Table 2: GHG emissions and energy use**

	London Branch		Group (excluding London Branch)		Group Total <sup>(1)</sup>	
	2023	2022	2023	2022 <sup>(2)</sup>	2023	2022 <sup>(2)</sup> <sup>(3)</sup>
<b>GHG emissions and energy use</b>						
Energy from gas consumption (KWh)	65,360	45,312	3,190,641	2,764,836	3,256,001	2,810,148
Energy from vehicle fleet fuel use (KWh)	0	0	21,233,027	18,347,741	21,233,027	18,347,741
Energy from electricity consumption (KWh)	478,581	460,764	84,004,737	88,340,818	84,483,318	88,801,582
Total energy for SECR reporting (KWh) <sup>(4)</sup>	543,941	506,076	108,428,405	109,453,395	108,972,346	109,959,471
GHG emissions from energy use (Scope 1 - Gas) (tCO <sub>2</sub> -e)	12	8	598	532	610	541
GHG emissions from vehicle fleet (Scope 1) (tCO <sub>2</sub> -e)	0	0	5,293	4,582	5,293	4,582
GHG emissions from energy use (Scope 2, location-based - electricity) (tCO <sub>2</sub> -e)	99	89	57,221	68,926	57,320	69,015
Total gross Scope 1 and 2 GHG emissions for SECR reporting (tCO <sub>2</sub> -e) <sup>(4)</sup>	111	97	63,111	74,040	63,222	74,138
Total gross Scope 3 emissions (tCO <sub>2</sub> -e)	937	587	53,141	42,433	54,078	43,020
Intensity ratio: Energy (KWh)/\$ Financial metric <sup>(5)</sup>	0.002	0.003	0.010	0.011	0.009	0.011
Intensity ratio: Gross Scope 1 and 2 GHG (tCO <sub>2</sub> -e)/ \$ Financial Metric <sup>(5)</sup>	0.0000004	0.0000010	0.0000056	0.0000075	0.0000054	0.0000074
Intensity ratio: Energy (KWh)/ m <sup>2</sup>	218	198	188	181	188	181
Intensity ratio: GHG (tCO <sub>2</sub> -e)/ m <sup>2</sup>	0.04	0.04	0.11	0.12	0.11	0.12
Intensity ratio: Energy (KWh)/ FTE	1,895	1,718	2,987	3,338	2,979	3,324
Intensity ratio: GHG (tCO <sub>2</sub> -e)/ FTE	0.39	0.33	1.74	2.26	1.73	2.24
Emissions from electricity use (Scope 2, market-based - electricity) (tCO <sub>2</sub> -e)	0	0	7,451	16,399	7,451	16,399
Total net location-based Scope 1, 2 and 3 GHG emissions (after UK and Australian renewable energy) <sup>(4)</sup>	859	485	95,028	77,171	95,887	77,656
Total net market-based Scope 1, 2 and 3 GHG emissions (after UK and Australian renewable energy)	908	543	63,658	60,286	64,566	60,829
Carbon offsets retired <sup>(6)</sup>	908	485	63,658	77,171	64,566	77,656
Net carbon emissions (carbon neutral)	0	0	0	0	0	0

- (1) This data is an extract of the Group's full energy and GHG emissions inventory data to satisfy SECR requirements. A full set of the Group's assured energy use and emissions data is available in the Group's 2023 Sustainability Data Pack.
- (2) BNZ's 2022 emissions were restated to reflect minor changes. BNZ's Scope 2 emissions increased by 147 tCO<sub>2</sub>-e and Scope 3 emissions increased by 41 tCO<sub>2</sub>-e to account for a change in the electricity emissions factor due to MFE's August 2022 release of 'Measuring emissions: A guide for organisations: 2022 summary of emission factors' and improved accuracy of water data in 2023 following release of 2022 accruals. The net change in total BNZ GHG emissions after accounting for renewable energy is 76 tCO<sub>2</sub>-e.
- (3) NAB has changed its methodology for calculating market-based emissions to more closely align with the Department of Climate Change, Energy, the Environment and Water (DCCEEW) in its Australian National Greenhouse Accounts Factors August 2023 manual. NAB has restated its 2022 market based emissions number from 77,236 to 60,829 tCO<sub>2</sub>-e. Market-based figures vary from Climate Active reporting as the Climate Active methodology for calculating market-based emissions incorporates the renewables applicable to the Large-scale Renewable Energy Target (LRET) for the reporting period. The renewables applicable to the LRET is not included in NAB's other publicly reported market-based emissions calculations due to applicable emissions accounting requirements.
- (4) London Branch operations consume no Scope 1 diesel for stationary energy purposes (backup generators). The Group (excluding London Branch) figures include diesel used for backup generators (2022: KWh 294,722 and tCO<sub>2</sub>-e - 74; 2023: KWh 268,024 and tCO<sub>2</sub>-e - 68). The Total net Scope 1, 2 and 3 GHG emissions (after accounting for UK and Australian renewable energy) figures also includes Scope 1 refrigerant gases from Australian and New Zealand vehicle fleets and heating, ventilation, and air conditioning systems and domestic refrigeration in offices and branches.
- (5) The Group has used 'Underlying profit' as a financial metric (rather than other financial measures of profit or economic activity) for normalisation of its environmental performance as this allows for meaningful comparison to prior years' data and to financial intensity measures used in the Group's Sustainability Data Pack and CDP disclosures due to the nature of its underlying business activities.
- (6) In 2023, the Group has selected a market-based approach as its primary electricity accounting method, having previously used a location-based methodology. The Group has retired offsets to achieve its carbon neutrality based on its market-based position.

## Reducing operational emissions (cont.)

### Methodology

The Group reports its energy and GHG data based on operational control. Energy consumption data is captured through utility billing including meter reads or estimates.

Emissions sources included in the Group's 2023 Carbon inventory are shown along with the relevance tests applied to emissions sources in *Carbon inventory and exclusions for operational emissions*.

The Group has applied the latest emission factors available at the time of reporting to the current year. Refer to methodology documents on NAB's climate change page at [nab.com.au/about-us/sustainability/environment/climate-change](http://nab.com.au/about-us/sustainability/environment/climate-change) for a full list of the emissions factor sources. Prior year figures reflect the emissions reported in that year, unless otherwise stated.

Intensity ratio calculations in the *SECR reporting* on page 60 have been calculated using location-based emission factors.

The financial intensity metrics in the *SECR reporting* on page 60 use an activity data numerator which is reported for the Group's environmental reporting year (1 July – 30 June) and a financial metric denominator which is reported for the Group's financial year (1 October– 30 September). This is to ensure that the Group uses metrics which are publicly available as much as possible and because of the difference in the Group's environmental reporting and financial years.

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# Supporting information





# TCFD content index and NZBA summary index

## TCFD - content index

TCFD recommendation	Reference
<b>Governance</b>	
a) Board's oversight of climate-related risks and opportunities.	<ul style="list-style-type: none"> <li>Board's role and capability is on page 19. Further detail is available in the <i>Corporate Governance Statement</i> section of NAB's <a href="#">2023 Annual Report</a>.</li> </ul>
b) Management's role in assessing and managing climate-related risks and opportunities.	<ul style="list-style-type: none"> <li>Management's role is on page 19.</li> </ul>
<b>Strategy</b>	
a) Climate-related risks and opportunities the organisation has identified over the short, medium, and long term. Banks should describe significant concentrations of credit exposure to carbon-related assets.  Additionally, banks should consider disclosing their climate-related risks (transition and physical) in their lending.	<ul style="list-style-type: none"> <li>Processes to integrate climate-related risks is on page 22.</li> <li>Credit exposures to carbon-related assets on page 76.</li> <li>Climate-related risks are considered in the context of other risk categories on page 23.</li> </ul>
b) Impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	<ul style="list-style-type: none"> <li>Potential impacts of risks are identified on page 23.</li> </ul>
c) The resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	<ul style="list-style-type: none"> <li>Consideration of resilience to different climate-related scenarios on pages 26 to 28.</li> </ul>
<b>Risk management</b>	
a) The organisation's processes for identifying and assessing climate-related risks. Banks should consider characterizing their climate-related risks in the context of traditional banking industry risk categories such as credit risk, market risk, liquidity risk, and operational risk.  Banks should also consider describing any risk classification frameworks used.	<ul style="list-style-type: none"> <li>Processes for identifying and assessing climate-related risks on page 22.</li> <li>Climate-related risks are considered in the context of other risk categories on page 23.</li> </ul>
b) The organisation's processes for managing climate-related risks.	<ul style="list-style-type: none"> <li>Processes for managing climate-related risks detailed on page 23.</li> </ul>
c) How the processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	<ul style="list-style-type: none"> <li>Processes to integrate climate-related risks are described on pages 22 to 28.</li> </ul>
<b>Metrics and targets</b>	
a) Disclose metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process. Banks should provide the metrics used to assess the impact of (transition and physical) climate-related risks on their lending business activities in the short, medium, and long term. Banks should also provide the amount and percentage of carbon-related assets relative to total assets as well as the amount of lending and other financing connected with climate-related opportunities. Banks should describe the extent to which their lending and other financial intermediary business activities, where relevant, are aligned with a well below 2°C scenario, using whichever approach or metrics best suit their organizational context or capabilities. Banks should also indicate which financial intermediary business activities (e.g. loans to specific sectors or industries) are included.	<ul style="list-style-type: none"> <li>Metrics are disclosed on pages 35 to 61, and cover financed and operational emissions, exposure to emissions-intensive or sensitive sectors and finance intended to drive positive impact.</li> <li>Financing of climate-related opportunities is on page 55.</li> <li>Credit exposures to carbon-related assets is on pages 76.</li> </ul>
b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions, and the related risks. Banks should disclose GHG emissions for their lending and other financial intermediary business activities where data and methodologies allow.	<ul style="list-style-type: none"> <li>The Group's Scope 1, 2, and, where relevant, Scope 3 operational emissions on pages 59 to 61.</li> <li>NAB's Scope 3 financed emissions are available on page 38.</li> </ul>
c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	<ul style="list-style-type: none"> <li>The targets that have been set by NAB on pages 35 to 56.</li> </ul>

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## NZBA – requirements summary index

NZBA Requirements	Action taken	Reference
Transition the operational and attributable GHG emissions from lending and investment portfolios to align with pathways to net zero by 2050 or sooner.	<ul style="list-style-type: none"> <li>Updated Scope 1 and 2 (market-based method) science-based GHG emissions reduction target to align ambition to be net zero by 2050 with the best available science and pathway for a 1.5°C warming scenario.</li> <li>Reducing operational footprint through emissions avoidance and reduction, and offsetting residual emissions.</li> <li>Goal set to align to net zero for lending by 2050.</li> </ul>	<ul style="list-style-type: none"> <li>Page 56</li> <li>Page 36</li> </ul>
Within 18 months of joining, set 2030 targets (or sooner) and a 2050 target, with intermediary targets to be set every 5 years from 2030 onwards.	<ul style="list-style-type: none"> <li>Decarbonisation targets have been set for power generation, thermal coal, oil and gas, cement, aluminium, iron and steel and transport – aviation.</li> </ul>	<ul style="list-style-type: none"> <li>Pages 35 to 53</li> </ul>
Banks' first 2030 targets will focus on priority sectors where the bank can have the most significant impact, i.e. the most GHG-intensive sectors within their portfolios, with further sector targets to be set within 36 months.	<ul style="list-style-type: none"> <li>Initial target-setting has covered the most emissions-intensive sectors where NAB has sufficient quality data.</li> <li>Further decarbonisation targets planned to be set in May 2024 in line with NZBA requirements.</li> </ul>	<ul style="list-style-type: none"> <li>Pages 35 to 53</li> </ul>
Annually publish absolute emissions and emissions intensity in line with best practice and within a year of setting targets, disclose progress against a board-level reviewed transition strategy setting out proposed actions and climate-related sectoral policies.	<ul style="list-style-type: none"> <li>Published financed emissions attributable to lending portfolio since 2020.</li> <li>Refreshed climate strategy.</li> </ul>	<ul style="list-style-type: none"> <li>Page 39</li> <li>Page 7</li> </ul>
Take a robust approach to the role of offsets in transition plans.	<ul style="list-style-type: none"> <li>NAB's approach to achieving carbon neutrality prioritises the avoidance and reduction of emissions, with offsets purchased for emissions that remain.</li> <li>Work is under way to further develop NAB's ability to assess customers' transition plans, including their approach to offsets.</li> </ul>	<ul style="list-style-type: none"> <li>Page 56</li> <li>Page 40</li> </ul>

# Transition plan – TCFD table of equivalence

NAB has incorporated elements of a transition plan within this Report following the guidelines and recommendations for financial institutions published by the Glasgow Financial Alliance for Net Zero (GFANZ).

A table of equivalences between both is as follows:

GFANZ financial institution net zero transition plan framework	Component	TCFD	Page reference
Foundations	Objectives and priorities	Our response to climate change	3
	Implementation Strategy	Products and services	Metrics and targets
Activities and decision-making		Strategy	6
		Governance	17
		Risk management	21
		Sector decarbonisation	29
Policies and conditions		Risk management	21
		Metrics and targets	34
Engagement Strategy		Engagement with customers and portfolio companies	Strategy
	Sector decarbonisation		29
	Engagement with industry	Strategy	6
		Sector decarbonisation	29
	Engagement with government and public sector	Strategy	6
		Sector decarbonisation	29
Metrics and Targets	Metrics and Targets	Strategy	6
		Risk management	21
		Sector decarbonisation	29
		Metrics and targets	34
Governance	Roles, responsibilities, and remuneration	Governance	17
	Skills and culture	Strategy	13

# Financed emissions methodology

## NAB's approach to financed emissions

NAB estimates attributable financed emissions for 10 key sectors of its Australian lending portfolio: power generation, thermal coal, oil and gas, cement, aluminium, iron and steel, transport, commercial real estate, residential real estate and agriculture. These sectors align with the NZBA priority sectors. Emissions were attributed to NAB in accordance with PCAF GHG accounting methodologies, as outlined in the first edition of *PCAF's Global GHG Accounting and Reporting Standard for the Financial Industry* (PCAF Standard)<sup>(1)</sup>. Note that NAB has aligned the dates used for its 2023 financed emissions estimate to 30 June 2022. This does result in a lag between the date of NAB's reporting period end (30 September 2023) and the relevant reporting period of customer emissions data (30 June 2022). NAB will continue to work with customers, industry, government and partners to improve the quality and timeliness of emissions data over time.

**Table 1: Geographic boundary and Scope inclusions for NAB's attributable financed emissions estimate**

Sector	EAD (\$bn)	EAD (% of NAB's total EAD)	Geographic boundary <sup>(1)</sup>	Operational boundary
Power generation	6.7	0.66	Global	Scope 1 and 2
Thermal coal	0.6	0.06	Global	Scope 1, 2 and 3
Oil and gas	1.3	0.13	Global	Scope 1, 2 and 3
Cement	0.8	0.08	Global	Scope 1 and 2
Aluminium	0.07	0.01	Global	Scope 1 and 2
Iron and steel	0.3	0.03	Global	Scope 1, 2 and Scope 3 for metallurgical coal
Transport - aviation	3.2	0.3	Global	Scope 1 and 2
Transport - other	7.7	0.8	Global	Scope 1 and 2
Commercial real estate (office and retail)	5.2	0.5	Australia	Scope 1 and 2
Residential real estate	338.0	33.2	Australia	Scope 1 and 2
Agriculture	36.4	3.6	Australia	Scope 1 and 2

(1) Global exposures include NAB's exposures outside of Australia, excluding exposures of NAB's New Zealand banking subsidiary, BNZ, which has separately signed up to the NZBA.

## EAD used in financed emissions

NAB's estimation of financed emissions were determined with reference to EAD measured prior to APRA's revised capital framework. Refer to the *Sector target setting* section on page 39 and the *Glossary* term 'EAD used in finance emissions' for further detail on exposure exclusions that are particular to financed emissions reporting.

## Partnership for Carbon Accounting Financials alignment

NAB's financed emissions calculations are aligned with the PCAF methodology with the following exceptions<sup>2</sup>.

Whereas PCAF's definition of lending encompasses on-balance sheet loans and lines of credit only<sup>(3)</sup>, NAB has expanded its definition to include:

- Any on-balance sheet loans and lines of credit with unknown use of proceeds to businesses, non-profits, and any other structure of organisation.
- Revolving credit and overdraft facilities, and business loans secured by real estate, such as commercial real estate-secured lines of credit.
- Business loans, short-term debt and lines of credit.
- Financial guarantees.

NAB's financed emissions reporting excludes:

- Derivatives (excluded as movement in foreign exchange or commodity prices are not related to underlying lending).
- Rehabilitation performance guarantees for thermal coal, and oil and gas.
- AEMO bonds for power generation.

This is a conservative approach to cover the broader exposures of the bank, not only limited to cash flows.

Rehabilitation performance guarantees have been excluded

as they are not directly linked to any emissions-generating activities, given they are to be used for the rehabilitation of existing thermal coal mining, and oil and gas assets. AEMO bonds have been excluded as they are for energy security purposes. That is, AEMO requires credit support for any entity not regulated by APRA in order to approve their participation in domestic electricity and gas markets.

NAB's financed emissions baselines and sector targets currently exclude Business and Personal Banking exposures in sectors where it accounts for less than 5% sector EAD, as well as NAB's New Zealand banking subsidiary BNZ, which has separately signed up to the NZBA. Refer to BNZ's climate and sustainability reporting for more details about BNZ's progress.

Investment activities are excluded from NAB's financed emissions estimate, due to immateriality.

Page 66 of the PCAF Standard outlines financed emissions calculation methodologies by asset class, (e.g. business loans and unlisted equity etc.) however, NAB has reported its financed emissions at a more granular industry sector level as NAB considers this provides a more detailed and meaningful representation of its lending portfolio.

NAB has not applied any inflation adjustments to enterprise value including cash for any of its valuations.

## Estimation approaches

NAB applies two approaches to estimating financed emissions based on the availability of data:

1. A bottom-up approach – based on individual company emissions data.
2. A top-down approach – based on industry level data where bottom-up information was unavailable.

These approaches are detailed below.

(1) Available at: [www.carbonaccountingfinancials.com/files/downloads/PCAF-Global-GHG-Standard.pdf](http://www.carbonaccountingfinancials.com/files/downloads/PCAF-Global-GHG-Standard.pdf)

(2) NAB's policy is to rebase where emissions have exceeded a 5% variance based on new or more accurate data.

(3) Page 47 of the PCAF Standard, available at: [www.carbonaccountingfinancials.com/files/downloads/PCAF-Global-GHG-Standard.pdf](http://www.carbonaccountingfinancials.com/files/downloads/PCAF-Global-GHG-Standard.pdf)

## Financed emissions methodology (cont.)

### Bottom-up approach

The bottom-up approach was applied to sectors where individual company emissions data was available. As a first priority, emissions data was sourced from customer-reported sources. If individual company data was not available, the PCAF data hierarchy, as documented in the PCAF Standard, was followed to complement and complete the data set. The hierarchy specifies that if reported emissions are not available, emissions should be calculated using production-based estimates. If production information is not available, emissions should be calculated using revenue-based estimates, if revenue-based estimates are not available or feasible sector wide averages are to be used. NAB will continue to refine this methodology and attempt to expand its coverage using primary data sources in future years.

The bottom-up approach was applied to exposures in the below sectors:

- Power generation
- Thermal coal
- Oil and gas
- Cement
- Commercial real estate
- Iron and steel
- Transport (Road, Rail and Shipping)
- Aluminium
- Aviation

### Top-down, intensity measure approach

A top-down approach using industry-level emissions intensity data was applied to estimate NAB's financed emissions for the below sectors:

- Residential mortgages
- Agriculture

NAB has applied its own emissions estimation methodologies for residential real estate and agriculture. We are monitoring the development of methodologies by industry initiatives for attributable financed emissions estimation and portfolio temperature alignment for these sectors in order to refine our measurement methodology going forward.

A more detailed description of the methodologies used to estimate NAB's attributable financed emissions for each sector is provided over the following pages.

## Financed emissions methodology by sector

### Power generation, thermal coal, oil and gas, cement, aluminium, iron and steel and transport (including aviation)

For these sectors, we applied the bottom-up approach to estimating financed emissions. As a first priority, NAB estimated attributable emissions for these sectors using data from customer-reported sources, including:

- NGER data sourced from the Clean Energy Regulator's website - Australia only.

- United States Environmental Protection Agency (EPA) Greenhouse Gas Reporting Program data sourced from the US EPA website - United States only.
- Disclosures published under CDP.
- Customer reports such as annual reports, climate reports and sustainability reports.

If individual company data was not available, we followed the PCAF data hierarchy, as documented in the PCAF Standard, to complement and complete the dataset. This involved calculating customer emissions using production-based estimates<sup>(1)</sup> and revenue-based estimates, and GHG emissions factors. We applied emissions factors according to the country the asset was operating in. Where we could not source an emissions factor, we used factors from the nearest country for which NAB had data. We sourced relevant emissions factors and intensity figures from:

- The NGER Determination applicable to the 2021-2022 reporting period - Australia.
- The National Greenhouse Accounts Factors (August 2022) - Australia.
- Emissions Factors for Greenhouse Gas Inventories - United States.
- International Energy Agency Net Zero by 2050 scenario global cement pathway (due to regional factors not being available).
- Environmental impact assessments<sup>(2)</sup>.

Where 2022 emissions data was not available, we used data from the closest available year. This included 2021 emissions (or earlier years), or approximate sector-wide emissions intensities and ratios.

Once we applied the above approach, if there was still a gap to 100% coverage due to some customers having no data available, we estimated the remaining emissions. To reach full coverage, we extrapolated emissions totals from known datasets using ANZSIC<sup>(3)</sup> groupings on a tCO<sub>2</sub>-e/\$EAD or tCO<sub>2</sub>-e/tonne of production basis to complete an emissions estimate for the remaining customers in the sample.

We then attributed emissions to NAB in proportion to NAB's EAD as at 30 June 2022 to the customer, as a percentage of the customer's enterprise value as at 30 June 2022. For publicly listed customers, we sourced the enterprise value as at 30 June 2022 from company reports, Refinitiv and Bloomberg.

For unlisted companies or special purpose vehicles, we estimated valuations within NAB as at 30 June 2022, and used them to attribute the proportion of financed emissions to NAB. This process aligns to pages 67 to 71 of the PCAF Standard for corporate finance and pages 80 to 83 for project finance with the exceptions noted in the *PCAF alignment* section<sup>(4)</sup>.

### Commercial real estate

We used the bottom-up approach for commercial real estate. NAB calculated emissions for this sector are based upon actual reported emissions under the Commercial Building Disclosure Program<sup>(5)</sup> for the period ended 30 June 2022. Valuations corresponded to this period and were derived from external and independent valuations.

(1) Production based estimates were used to estimate Scope 3 emissions in the oil and gas and coal sectors

(2) An environmental impact assessment is the process of assessing the likely or possible environmental impacts of a proposed project or development, before a decision is made as to whether the project should proceed or not, and if so, under what conditions.

(3) The transport - other scope is defined by 93 ANZSICs 6110, 6200, 6301

(4) We have used net operating assets for one particular Aluminium client as it provided a more accurate representation of the size of the operations on which to calculate NAB's attribution factor.

(5) The Commercial Building Disclosure Program is managed by the Australian Government Department of Climate Change, Energy, the Environment and Water. It aims to improve the energy efficiency of Australia's largest office buildings, by requiring energy efficiency information, including emissions data, to be provided in most cases where commercial office space of 1,000 square metres or more is offered for sale or lease.

## Financed emissions methodology (cont.)

We then attributed emissions to NAB in proportion to NAB's EAD as a share of the known valuation of each building as at 30 June 2022. Where emissions were not available for financed buildings, but floor area was, we sourced an average State emissions intensity factor per square metre from the National Australian Built Environment Rating System (NABERS), and used it to estimate emissions based on floor area. This process aligns to pages 89-91 of the PCAF Standard for commercial real estate. NAB's assessment of data quality for this sector, in accordance with the PCAF Standard, is provided in the data quality assessment table on page 73.

We did not apply extrapolation to Commercial Real Estate to avoid sampling bias as only NAB's green bond commercial real-estate portfolio has been estimated<sup>(1)</sup> using the above methodology, at present<sup>(2)</sup>. We will seek to increase coverage in the future.

### Residential real estate

We adopted the top-down intensity measure estimation approach for the residential real estate sector. NAB estimated the absolute attributable emissions for residential real estate for all States and Territories in Australia by applying an average GHG intensity factor per dwelling to the number of dwellings financed by NAB in each State and Territory. We applied a loan to valuation at time of origination ratio (LVR) in alignment with the methodology described on page 92 of the PCAF Standard.

The steps we took to estimate attributable emissions associated with residential real estate were as follows:

- Sourcing total state-based residential energy consumption figures (gas and electricity) for the residential sector in each State and Territory as disclosed in Table F of the [Australian Energy Statistics – Australian Energy Update 2023](#).
- Sourcing State and Territory electricity and natural gas emissions factors from the [National Greenhouse Accounts Factors \(2022\)](#) and the [National Greenhouse and Energy Reporting \(Measurement\) Determination 2008](#).
- Calculating total state-based residential GHG emissions by applying the emissions factors to total residential energy consumption.
- Sourcing the total number of dwellings in the 2022 period ending 30 June 2022 from the number of dwellings reported by the Australian Bureau of Statistics (ABS) from the [2022 Dwelling Counts Catalogue](#).
- Dividing the total emissions for each State and Territory by the estimated number of dwellings per State and Territory to provide an estimated emissions per dwelling figure for each State and Territory.
- Multiplying the emissions per dwelling for each State and Territory by the LVR ratio, then by the total number of NAB mortgages for each State and Territory, to estimate the attributable financed emissions relevant to NAB's Australian residential mortgages by State or Territory.
- Aggregating the State and Territory dwelling-related GHG emissions totals attributable to NAB's financing to provide a total figure attributable to NAB's Australian mortgage portfolio.

This approach allowed NAB to achieve a coverage of 100% for emissions from residential real estate. This process aligns to pages 95 to 96 of the PCAF Standard for mortgages. NAB's assessment of data quality for this sector, in accordance

with the PCAF Standard, is provided in data quality assessment table on page 73.

### Agriculture

NAB used a top-down approach to estimating its attributable financed emissions from the agriculture sector. This involved estimating a share of emissions associated with our agribusiness customers based on total agribusiness<sup>(3)</sup> EAD by attributing a share of 2022 total emissions disclosed in the [Australia's National Greenhouse Accounts inventory](#) relative to NAB's market share for agriculture.

To support this approach, NAB applied an average debt-to-equity ratio provided in the 2022 survey data published under the [Australian Bureau of Agricultural and Resource Economics and Sciences Farm Data Portal](#)<sup>(4)</sup> to attribute NAB's share of total sectoral-based emissions relative to EAD. We estimated financed emissions for the following Australian agricultural sub-sectors: aquaculture, livestock (sheep, beef, poultry, pigs, and dairy), grains, cotton, cropping, horticulture and sugarcane.

As there was some uncertainty with respect to the estimation of dairy emissions, NAB took a conservative approach and uplifted total emissions by 44% to ensure adequate coverage of dairy sector emissions. We used this uplift as it is NAB's view that the national equity ratio was underrepresenting the dairy sector, therefore we used a secondary source – the Dairy Farm Monitoring Project (DFMP) and the equity ratio contained within – to calculate the uplift to emissions. NAB's attributable emissions estimate associated with the dairy sub-sector EAD was based on the following approach:

- Identifying average emissions per dairy farm based on [Dairy Australia's DFMP Annual Report 2021-22 for Victoria](#)<sup>(5)</sup> available at [www.dairyaustralia.com.au](http://www.dairyaustralia.com.au) (given 74% of NAB's dairy customers in this period were located in Victoria).
- Multiplying the average emissions per farm by the average debt based on [Dairy Australia's DFMP Annual Report 2021-22 for Victoria](#)<sup>(6)</sup>.
- Multiplying the per dairy farm emissions figure by the number of dairy customers with lending provided by NAB.

Using the methodology outlined above, the coverage achieved for NAB's attributable share of Australian agricultural emissions is 100%. NAB will continue to refine this methodology for future estimates as data availability and quality improves. NAB's assessment of data quality for this sector, in accordance with the PCAF Standard, is provided in the data quality assessment table on page 73.

### Complexities and limitations in measuring financed emissions and setting targets

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 NAB's understanding of the main challenges associated with climate-related data, methodology and metrics follows. This is a non-exhaustive thematic summary of certain key risks that are relevant to consider in relation to

(1) Commercial Real Estate scope is defined by the 93 ANZSIC 7712

(2) CRE emissions currently only cover 7.5% of NAB's portfolio.

(3) The Agriculture scope is defined by 93 ANZSIC 01xx

(4) Data provided under equity ratio as at 30 June for all farm types.

(5) Refer Table 1 for net emissions per farm (21-22 figure used).

(6) Refer Table A6 'Capital Structure – Statewide.'

## Financed emissions methodology (cont.)

climate related metrics and information, but they are not the only risks, and each thematic risk will in turn involve a range of particular and specific risks that impact the quality, utility and effectiveness of climate-related information:

- Data availability, quality and timeliness vary considerably within and across businesses, industries and geographies. This impacts both the ability to measure existing financed emissions and to set appropriate targets to reduce financed emissions. Measurement of financed emissions is, in many cases, based on estimates, and relies on data that NAB does not generate or control. The methodologies for estimating and calculating GHG emissions or emissions intensities and other climate-related metrics vary widely in their approaches. This may result in under or overestimates of climate-related risks or performance and/or financed emissions.
- While there has been improvement, there is a lack of common definitions and standards for reporting climate-related information, which may impact on the accuracy of estimates of financed emissions and targets based on existing estimates. In particular, climate metrics, measurement, other methodologies and reporting are not supported by a globally accepted framework or standard that facilitates efficiency, comparability and transparency. Frameworks and methodologies are often voluntary and a range of frameworks and methodologies are used by corporate organisations reporting on climate related information and metrics. This makes comparison by investors and others evaluating the climate performance of corporate organisations difficult.
- Estimating financed emissions is complex and requires significant methodological choices, judgements and assumptions. Methodologies to estimate financed emissions are evolving as understanding increases and data availability changes. This means methodologies used to estimate financed emissions are likely to change over time, impacting existing estimates, and targets based on existing estimates.
- When setting targets for reducing financed emissions, the inherent uncertainty in estimating financed emissions is exacerbated by the long time periods involved, for example, to set targets aligning to net zero by 2050.
- Climate science, and the decarbonisation trajectory that it implies, is continually evolving. Climate scenarios are inherently uncertain, and there are limitations of climate modelling, including climate scenario modelling. 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.
- Many factors relating to the achievement of financed emissions sector decarbonisation targets are outside the control of NAB.
- NAB's customer-base is not fixed. Changes to NAB's customer base over time can alter both the absolute level of financed emissions and the intensity of financed emissions. In addition, revenue and production for individual customers is volatile and subject to variation year-on-year.
- The reliance on customer data can lead to significant lags between the time of the emissions being generated, and the publishing of NAB's financed emissions reporting. For example, financed emissions data published in NAB's 2023 Climate Report is based on emissions data, and in order to match this timing, EAD, as at 30 June 2022.
- Scenarios, and customers' transition plans, 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 targets may impact NAB's assessment of those transition plans.

These challenges reduce the accuracy of estimated financed emissions, and mean that targets may not always be achieved despite NAB using best efforts to pursue its targets.

### Challenges in allocating emissions to sectors

#### ANZSIC codes

When a lending transaction is created in NAB's systems, for most loans, the relevant customer is assigned an ANZSIC code based on their primary business activity. It is not NAB's current practice, and NAB does not consider it to have been historic common industry practice, to assign or otherwise record secondary ANZSIC codes for customers with diversified business activities.

As such, under NAB's current methodology, estimated customer emissions and sector-specific emissions estimates are applied to each customer's EAD with the assumption that the emissions are 100% attributable to the assigned primary business activity. Accordingly, if a customer is diversified across business activities, the estimate of their emissions may be under or overstated in sectors for which they have secondary operations.

Further limitations associated with reliance on ANZSIC codes to identify financed emissions, which could impact the accuracy of the sector under which financed emissions are captured and/or the accuracy of total financed emissions captured, include:

- The possibility of manual processing error in ANZSIC coding at the time of loan origination and/or renewal.
- Any changes in customer activities between origination and renewal.
- Any lending undertaken by NAB without an ANZSIC code being recorded for the borrower. Manual efforts to identify all such lending may not have been successful.

#### UNEP FI Guidelines 5% revenue threshold

The UNEP FI Guidelines outline that any bank customer with more than 5% of its revenue coming directly from thermal coal mining, and electricity generation activities, shall be included in the scope of targets.

To identify and include emissions from companies with greater than 5% of revenue generated directly from thermal coal mining or coal-fired electricity generation, NAB has matched a global database of coal mines and coal generation assets to its customer list to identify customers with associated coal-based assets and revenues.

There are particular challenges associated with identifying diversified companies for this purpose, involving significant manual processing and analysis. It is often the case that small, diversified mining companies do not disclose breakdowns of their revenue or production, making it extremely difficult to identify them for the purposes of the 5% revenue threshold. To address this, NAB applied a series of materiality thresholds in performing this analysis, including a \$1 million EAD floor. This has the potential to result in some customers, who are classified outside the power generation or thermal coal mining sector, with relatively low absolute EAD, but who derive greater than 5% of revenues from thermal coal

## Financed emissions methodology (cont.)

mining, not being identified within NAB's thermal coal or power generation targets.

For more details on NAB's methodology, refer to Table 5 on page 73.

Actual emissions and emissions intensity values are inclusive of both Scope 1 and Scope 2 emissions for all sectors, as well as Scope 3 emissions for thermal coal, oil and gas, and the metallurgical coal portion of Iron and Steel. The Scope 1 emissions created by the power generation sector are included in the total Scope 2 emissions for all other sectors. In order to fairly present emissions arising within each sector, NAB has included this 'double-count' within its attributable emissions estimate.

### IEA NZE 2050: Scenario summary

**Table 2: Details on IEA NZE 2050 (2021 and 2022)**

Theme	Summary of key points
<b>Temperature alignment</b>	<ul style="list-style-type: none"> <li>1.5°C</li> </ul>
<b>Key scenario assumptions</b>	<ul style="list-style-type: none"> <li>Fast policy and technological change.</li> <li>No new oil or gas developments beyond those with approvals in place as at 2021.</li> <li>88% share of renewables in electricity generation by 2050.</li> <li>Limited use of carbon removals.</li> <li>Universal access to affordable, reliable, sustainable and modern energy services by 2030.</li> <li>International co-operation and recovery plans.</li> <li>Does not rely on emissions reductions from outside the energy sector.</li> <li>Carbon price is adopted in all regions, with an assumed price of USD100 by 2030 in advanced economies.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>Not derived from Intergovernmental Panel on Climate Change models.</li> <li>Trajectories lack granular local context: Australia is not currently designated as its own region.</li> <li>Only covers CO<sub>2</sub> not CO<sub>2</sub>e.</li> <li>Significant reliance on technological improvements.</li> </ul>
<b>Rationale for selection</b>	<ul style="list-style-type: none"> <li>High sectoral granularity.</li> <li>Global coverage – enabling the inclusion of offshore exposures.</li> <li>Well accepted and understood by customers, investors and peers.</li> </ul>

### Coverage and boundaries associated with NAB's 2030 decarbonisation targets

**Table 3: Coverage and boundaries**

Sector	EAD (\$bn)	EAD (% of NAB's total EAD)	Operational boundary	Geographic boundary <sup>(1)</sup>	Metric
Power generation	6.7	0.66	Scope 1 and 2	Global	tCO <sub>2</sub> -e/MWh
Thermal coal	0.6	0.06	Scope 1, 2 and 3	Global	MtCO <sub>2</sub> -e
Oil and gas	1.3	0.13	Scope 1, 2 and 3	Global	MtCO <sub>2</sub> -e
Cement	0.8	0.08	Scope 1 and 2	Global	tCO <sub>2</sub> -e/t
Aluminium	0.07	0.01	Scope 1 and 2	Global	tCO <sub>2</sub> -e/t
Iron and steel	0.3	0.03	Scope 1, 2 and Scope 3 for metallurgical coal	Global	MtCO <sub>2</sub> -e
Transport - aviation	3.2	0.3	Scope 1 and 2	Global	gCO <sub>2</sub> -e/pkm

(1) Global excludes BNZ exposures.

## Target setting baseline methodology

### Target scope and boundaries

In line with the UNEP FI Guidelines, further decarbonisation targets for NZBA's nominated carbon-intensive sectors are planned to be set in May 2024. These sectors are: power generation, thermal coal, oil and gas, cement, iron and steel, transport, aluminium, commercial real estate, residential real estate, and agriculture.

An overview of the coverage, scope and boundaries of NAB's decarbonisation targets is provided in Table 3.



## Financed emissions methodology (cont.)

### Sector definitions

We have used the following subsector definitions and categories to capture all Corporate and Institutional Banking exposures in the emissions baselines for NAB's targets. In line with UNEP FI Guidelines, NAB has defined its sectors in accordance with nationally and internationally recognised sector classification codes, ANZSIC 1993 and 2006, and International Standard Industrial Classification of All Economic Activities (ISIC) Rev. 4.

**Table 4: Sector definitions for NAB's target setting emissions baseline**

Sector	NAB definition <sup>(1)</sup>	ANZSIC (1993)	ANZSIC (2006)	ISIC (Rev. 4)
<b>Power generation</b>	Electricity Generation	3610	261	3510
	Electricity Generation Using Coal	3610	2611	3510
	Electricity Generation Using Gas	3610	2611	3510
	Hydro-Electric Power Generation	3610	2612	3510
	Renewable Energy	3610	2619	3510
	Wind Farms	3610	2619	3510
<b>Thermal coal</b>	Black Coal Mining - Steaming	1101	0600	0510
	Brown Coal Mining	1102	0600	0510
	Brown Coal Mining Not Elsewhere Classified (NEC)	1102	0600	0510
	Lignite Mining	1102	0600	0520
<b>Oil and gas</b>	Gas, Natural Extraction	1200	0700	0620
	L.N.G. Production At Wellhead	1200	0700	0620
	Liquefied Petroleum Gas Production	1200	0700	0620
	Natural Gas Separation At The Wellhead	1200	0700	0620
	Oil Shale Mining	1200	0700	0610
	Oil and Gas Extraction NEC	1200	0700	0610, 0620
<b>Cement</b>	Cement Mfg (Except Adhesive Or Refractory)	2631	2031	2394
	Hydraulic Cement Mfg	2631	2031	2394
	Portland Cement Mfg	2631	2031	2394
	Other Cement and Lime Manufacturing NEC	2631	2031	2394
<b>Aluminium</b>	Bauxite mining	1312	0802	0729
	Alumina refining	2721	2131	2420
	Aluminium manufacturing	2721	2131	2420
	Aluminium smelting	2722	2132	2420
<b>Iron and steel</b>	Black Coal Mining - Coking	1101	0600	0510
	Flat-Rolled Products, Iron or Steel Manufacturing	2711	2110	2410
<b>Transport - aviation<sup>(2)</sup></b>	Assets have been captured from an internal asset register which captures our aviation exposures	n/a	n/a	n/a

(1) NAB has used an internal classification system that provides greater granularity than ANZSIC 4 digit. The names of sectors included in NAB's targets and the concordance to ANZSIC 4 digit 1993 and 2006 are found within the table.

(2) Aviation exposures have been extracted from the system selectively using an alternative database within NAB based on asset type.

Companies with significant operations in one of the categories specified above, but which are classified under a different sector, have been included on the advice of NAB's banking team. This provides NAB with a more comprehensive view of its attributable financed emissions that may not have been captured under a stricter use of the classification.

### Target metrics

NAB has set physical emissions intensity targets for power generation, cement, aviation and aluminium, and absolute emissions reduction targets for thermal coal, oil and gas, and iron and steel. NAB considers physical intensity metrics appropriate for sectors that will require growth to support living standards and expected population increases. In alignment with NAB's chosen reference scenarios, physical intensity targets will require emissions reductions to outweigh growth in output, ultimately supporting real world emissions decreases. Key scenario assumptions and limitations are shown in Table 2.

Setting absolute targets for fossil fuel dominated sectors is designed to achieve an absolute reduction in lending over time to these sectors. NAB considers it appropriate to adopt

absolute targets for fossil fuel industries, as decline in the use of fossil fuels is a key driver of emissions reductions for the economy.

## Financed emissions methodology (cont.)

### Establishing a baseline

#### Calculation methodologies

For sectors where we have set absolute emissions targets, we have calculated the baselines using the approaches illustrated in Figures 1 and 2 below.

Figure 1: Absolute emissions baseline calculation methodology for business loans and unlisted equity

For business loans and equity investments to/in private companies:

$$\text{Financed emissions} = \sum_c \frac{\text{Outstanding amount}_c}{\text{Total equity} + \text{debt}_c} \times \text{Company emissions}_c$$

For business loans to listed companies:

$$\text{Financed emissions} = \sum_c \frac{\text{Outstanding amount}_c}{\text{Enterprise Value Including Cash}_c} \times \text{Company emissions}_c$$

(with  $c = \text{borrower or investee company}$ )

Source: PCAF Standard, page 71.

For sectors where we have set emissions intensity targets, we have calculated the baselines using the approach illustrated in Figure 2 below. This approach, known as the weighted average method, involves weighting company-level emissions intensities by the outstanding loan amount for each customer. This approach is consistent with global peers<sup>(1)</sup> and removes the need to use company valuations in financed emissions estimations when calculating emissions intensity.

Figure 2: Emissions intensity baseline calculation methodology

$$\frac{\sum_{\text{Customer}} \left( \frac{\text{Emissions}}{\text{Production}} \times \text{Outstanding loan amount} \right)}{\sum_{\text{Customer}} \text{Outstanding loan amount}}$$

#### Baseline calculation for aviation

Where NAB finances lessors of an aircraft, and the operator is known, the average intensity of the aircraft operator has been applied. Where EAD was not easily allocated to an individual airline or where the operator of an aircraft was not known, we have used a portfolio average (relevant to the year) to estimate the emissions intensity.

#### Treatment of lending for project finance and corporate entities

Lending can occur at a corporate level (for example, general facilities made available to the parent company of a group of companies), or at a project finance level, that is on an individual project basis for a specific project purpose.

EAD has been assigned to the entity it was lent to, or the operator of a particular asset. This may mean that NAB has separate line items for project finance and then the corporate entity that controls the project. NAB has kept these separate so as to preserve the valuation to EAD dynamics and apportion emissions as per the PCAF standard. Emissions have been captured at the level of the corresponding counterparty where possible.

Figure 3: Absolute emissions baseline calculation methodology for project finance

$$\text{Financed emissions} = \sum_p \frac{\text{Outstanding amount}_p}{\text{Total equity} + \text{debt}_p} \times \text{Project emissions}_p$$

(with  $p = \text{project}$ )

Source: PCAF Standard, page 82.

#### Treatment of lending for project finance and corporate entities

For Aviation, where data was not easily allocated to an individual airline or the operator of an aircraft was not known, we have used a portfolio average relevant to the year to estimate the emissions intensity to use in the calculation above.

#### Data collection

##### Emissions

NAB's collection of emissions data is detailed in Financed emissions methodology by sector, above.

##### Production

In addition to emissions data, production data was required for each customer to derive emissions intensity figures. We obtained these production figures from a variety of sources, including:

- Customer reports that state production levels or capacity figures.
- Operator data that states production levels.
- Publicly available third-party and industry reports that provide production level data.
- Revenue-based estimates that have used an assumed price for the particular commodity in question combined with company revenue to derive an estimate of production.

##### Valuation

We sourced customers' enterprise value as at 30 June 2022 for public companies from Bloomberg, Refinitiv and company statements. For unlisted companies or special purpose vehicles, we used valuations as at 30 June 2022 which we sought internally within NAB to attribute the proportion of financed emissions. This process aligns to pages 67-78 of the PCAF Standard for business loans and unlisted equity and pages 80-83 for project finance.

(1) We undertook a benchmarking exercise to assess how global and local peers have calculated intensity measures. We found this method to be commonly used across multiple peer banks.

**NAB's 5% revenue threshold**

**Table 5: Methodology of NAB's % revenue threshold**

Customer grouping	Step	Resulting customers
<b>NAB Corporate and Institutional Banking and Business and Private Banking customers</b>	Compiled list of Corporate and Institutional Banking and Business and Private Banking customers, including primary ANZSIC classification and EAD.	250,000+
<b>Customers with coal/power asset ownership</b>	Used a Jaccard index <sup>(1)</sup> for customer names to asset owners in a global data base of 20,000 power stations and 3,000 coal mines. Filtered out customers with <\$1 million EAD, <sup>(2)</sup> <90% customer-owned name match confidence or with correct sector already assigned	51+
<b>Customers not in existing sector analysis</b>	Manually reviewed list to filter out customers where prior analysis has already reclassified into the correct sector	3
<b>Additional customers added to sector</b>	Compared revenue from thermal coal/electricity sales to customer total revenue <sup>(3)</sup>  Where revenue was not available, estimates of revenue were based on production, this was particularly relevant in the case of thermal coal mining  Majority of customers either used the coal/electricity for their own operations (not sold) or sales constituted <5% of total revenue  One customer was found to have >5% of revenues from thermal coal sales	1

(1) Jaccard index compares two sets of names to see which characters are used in both. It is used to gauge the similarity between two datasets, in this case databases of names, to identify similar matches.  
 (2) Refer to explanation of materiality thresholds for the 5% revenue threshold requirement on page 73.  
 (3) 2021 revenue figures were used.

**Data quality assessment**

NAB's assessment of data quality in accordance with the PCAF Standard is shown below, where a score of 1 equals highest data quality and a score of 5 equals lowest data quality. Refer to *Partnership for Carbon Accounting Financials alignment* for further details.

**Table 6: Sector data quality**

Sector	2022	
	Scope 1 and 2	Scope 3
<b>Sectors with targets set</b>		
Power generation	1.3	n/a
Thermal coal	1.0	2
Oil and gas	1.1	1.8
Cement	2.2	n/a
Aluminium	1.7	n/a
Iron and steel	2.2	n/a
Transport - aviation	2.3	n/a
Transport - other	4.3	n/a
Commercial real estate	1.0	n/a
Residential real estate	5.0	n/a
Agriculture	5.0	n/a

# Environmental financing methodology

Building on the NAB SDG Green Bond Framework<sup>(1)</sup> and the NAB Business Bank Green Lending Framework, this section summarises the environmental financing as disclosed on page 55.

## Green lending, green CRE (REIT) lending, sustainability-linked lending and securitisation activity

This category of environmental financing refers to the drawn amounts as at 30 September of new 2023 financing activities undertaken within Corporate and Institutional Banking. It is aimed at supporting customers to deploy investments in projects, assets and activities focused on mitigating GHG emissions, adapting to the effects of climate change, and climate resilience.

NAB's lending is targeted towards sectors and technologies consistent with the Climate Bonds Taxonomy<sup>(2)</sup>, and leverages the Climate Bonds Standard Sector Criteria<sup>(3)</sup> to screen and select "use of proceeds" consistent with a pathway to net zero by 2050 and a maximum temperature rise of 1.5°C.

Financing activities in this section include green lending, green CRE (REIT) lending, green securitisation and sustainability linked lending for new 2023 activity drawn amounts, and new 2023 underwriting and arranging activities, selected using the Climate Bonds Standard Sector Criteria or Green Bond Principles.

### Green lending

Use of proceeds lending and finance under this category refers to Climate Bonds Standard Sector Criteria compliant use of proceeds that have been tagged and screened under the NAB SDG Green Bond Framework.

### Green CRE (REIT)<sup>(4)</sup>

This category of environmental finance includes financing or re-financing of commercial property within NAB's real estate investment trust (REIT) customer base within the NAB Corporate and Institutional Bank. The basis for reporting is drawn amounts for new 2023 lending.

The amount of financing included for the respective REIT customer, where financing has occurred, is in proportion to the percentage of commercial property that sits within the top 15% of emissions intensity in the marketplace for the specific REITs portfolio. This is consistent with the Climate Bonds Standard Sector criteria for Buildings<sup>(5)</sup> and the associated proxies<sup>(6)</sup> for Australian capital cities.

### Green securitisation

Use of proceeds finance under this category refers to CBS Sector Criteria certified securitisation finance.

### Sustainability-linked lending

NAB offers sustainability-linked loans and sustainability-linked bonds to customers, which are any type of debt instrument

and/or contingent facilities (such as bonding lines, guarantee lines or letters of credit) which incentivise the customer's achievement of predetermined sustainability performance objectives as set out under the Sustainability-Linked Loan Principles 2023<sup>(7)</sup>. In financing these activities NAB is able to help customers' sustainability performance improvements, including decarbonisation and energy transition within their businesses.

NAB's share of Sustainability-linked loan activity, is proportioned for the share of each sustainability-linked loan for which the KPI is environmentally related.

## Green agriculture and green asset finance lending activity

This category of environmental financing refers to the drawn amounts as at 30 September 2023 of financing activities undertaken within Business and Private Banking.

### Green agriculture

Lending activity aimed at supporting customers who are working towards making their agricultural investments and land-use more sustainable and resilient. Customer investments supported by the NAB Agri Green Loan are governed by the NAB Agri Green Lending Framework which details NAB's approach to identifying projects that are consistent with the Climate Bonds Standard Agriculture sector criteria<sup>(8)</sup>. Sustainable Forestry projects are consistent with the Climate Bonds Standard Forestry, Land Conservation and Restoration sector criteria<sup>(9)</sup>.

### Green equipment finance

NAB is playing an important role in helping Australian businesses transition towards a more sustainable future through support for customer investment into specific green equipment asset categories<sup>(10)</sup>. These uses of proceeds have been externally reviewed and confirmed to align with the Use of Proceeds categories set out under the Green Loan Principles<sup>(11)</sup>.

## Underwriting and arranging activities

NAB includes the value of financing and bond issuances where it is undertaking the arranging or underwriting activity, provided that the activities meet the definitions of green financing as per NAB SDG Green Bond Framework. If NAB is not the sole advisor, arranger or underwriter, then NAB only includes its proportion of the advisory, arranging or underwriting activity. It is noted that for the reporting period this includes all underwriting and arranging activity for Corporate and Institutional Banking customers where a bond or securitisation has been issued in 2023 utilising the Green Bond Principles<sup>(12)</sup> or Climate Bonds Standard<sup>(14)</sup>. The reported values include NAB's proportionate share of the issuance amount where there are multiple joint lead managers or arrangers.

(1) <https://capital.nab.com.au/green-and-sri-bonds>

(2) <https://www.climatebonds.net/standard/taxonomy>

(3) <https://www.climatebonds.net/standard/sector-criteria>

(4) Green commercial property was originally defined as a commercial building with a minimum 6-star certified NABERS rating. This methodology was updated in 2019. The current methodology includes commercial property in the top 15% of NABERS ratings as defined by the Climate Bonds Initiative hurdle rates.

(5) <https://www.climatebonds.net/standard/buildings>

(6) <https://www.climatebonds.net/standard/buildings/commercial/calculator#calculator>

(7) <https://www.lsta.org/content/sustainability-linked-loan-principles-sllp/>

(8) <https://www.climatebonds.net/standard/agriculture>

(9) <https://www.climatebonds.net/standard/forestry>

(10) <https://www.nab.com.au/business/loans-and-finance/vehicle-or-equipment/green-equipment-finance/asset-eligibility>

(11) It also includes energy efficient tractors with fuel efficiency in the top 20% of tractors available in Australia based on Nebraska & OECD tractor test data.

(12) <https://www.lsta.org/content/green-loan-principles/>

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

(14) <https://www.climatebonds.net/standard/the-standard>

### Debt market activity

NAB issued green bond funding is included towards our environmental financing target where the underlying activity funded is eligible under NAB's SDG Green Bond Framework. If NAB is responsible for 100% of the issuance, then 100% of the bond issuance value is counted towards the environmental financing disclosure. If NAB is arranging or managing the issuance for another non-NAB entity then NAB only allocates NAB's proportion towards the target. If NAB is a sole arranger of the issuance, NAB includes the full issuance. Proceeds of green bonds issued by NAB are used for investments. For the 2023 period NAB has reported the outstanding value of its debt market activity.

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Our response to climate change

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# Exposure to high-emitting sectors

The Group monitors its exposure to high-emitting sectors, climate sensitive and low carbon sectors in order to understand our potential exposure to transition and physical risk through our customers.

The Group's exposure to key high-emitting sectors, with potentially high levels of transition risk, are shown in Charts 1, 2 and 3 below. The values included in these Charts are based on the EAD as at 30 September 2023.

Chart 1: Group energy generation EAD by fuel source<sup>(1)</sup> (AUD\$bn)

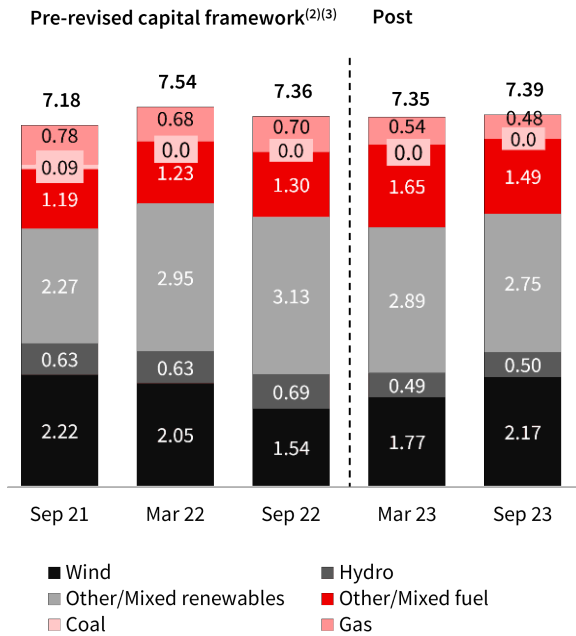
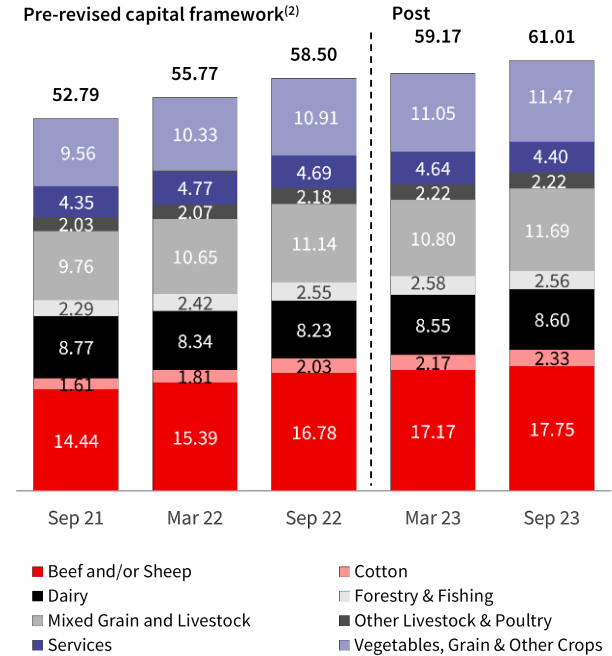


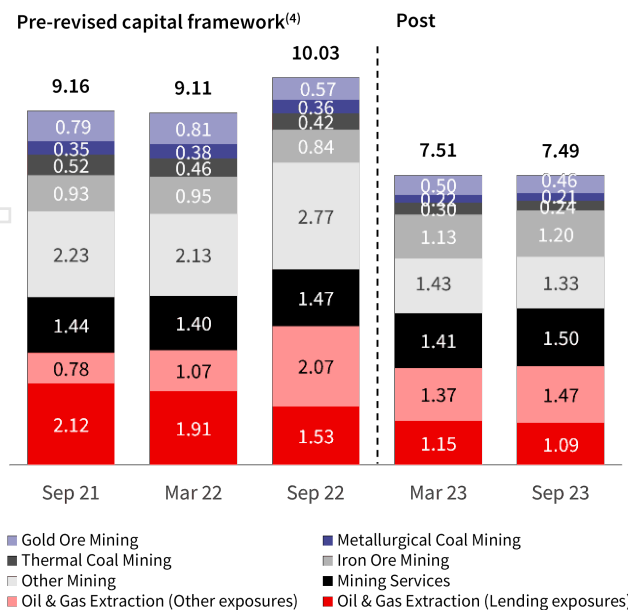
Chart 3: Group agriculture, forestry & fishing exposures<sup>(1)</sup> (AUD\$bn)



(1) Totals presented in chart may not sum due to rounding.  
 (2) NAB methodology (based upon the 1993 ANZSIC codes) at net EAD basis. Excludes exposure to counterparties predominantly involved in transmission and distribution. Vertically integrated retailers included and categorised as renewable where majority of their generation activities sourced from renewable energy. NAB has no direct lending to coal-fired power generation assets remaining. Note there is indirect exposure to coal-fired power within the Mixed Fuel category as result of NAB's corporate level exposure impact.  
 (3) March and September 2023 'post' numbers are calculated in accordance with APRA's revised capital framework which came into effect on 1 January 2023.

(1) Totals presented in chart may not sum due to rounding.  
 (2) March and September 2023 'post' numbers are calculated in accordance with APRA's revised capital framework which came into effect on 1 January 2023.

Chart 2: Group resources EAD by sub-sector<sup>(1)(2)(3)</sup> (AUD\$bn)



(1) Totals presented in chart may not sum due to rounding.  
 (2) Oil and gas extraction exposures includes lending (e.g. revolving/term lending and guarantees) and other markets-related exposures (e.g. derivatives, foreign exchange, repurchase agreements).  
 (3) Thermal coal exposures includes direct exposure (including lending and guarantees) to customers whose primary activity is thermal coal mining. Includes performance guarantees for the rehabilitation of existing coal mining assets. Excludes metallurgical coal mining and diversified mining customers.  
 (4) March and September 2023 'post' numbers are calculated in accordance with APRA's revised capital framework which came into effect on 1 January 2023.

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## Exposure to high-emitting sectors (cont.)

Exposures to other high-emitting sectors are outlined below and are based on Group EAD as at 30 September 2023. These additional sectors align with the TCFD supplemental guidance provided for Financial Disclosures<sup>(1)</sup> which describes non-financial groups with the highest likelihood of climate-related financial impacts.

**Table 7: Other exposures to high-emitting sectors aligned to TCFD**

TCFD Non-financial group <sup>(1)</sup>	Industry / sub-industry	EAD (% of Group's total EAD)
<b>Transportation</b>	Air	0.2
	Shipping	0.3
	Road	0.5
	Rail	0.2
<b>Food and forest products<sup>(2)</sup></b>	Beverages	0.2
	Packaged food and meats	0.5
	Paper and forest products <sup>(3)</sup>	0.2
<b>Materials and buildings<sup>(4)</sup></b>	Chemicals <sup>(5)</sup>	0.2
	Construction materials <sup>(6)</sup>	1.4
	Capital goods <sup>(7)</sup>	0.6
	Real estate management and development <sup>(8)</sup>	10.0
<b>Residential mortgages<sup>(9)</sup></b>		42.7
<b>Commercial property<sup>(9)</sup></b>		7.3

(1) The TCFD non-financial groups have been mapped against ANZSIC codes for the purposes of this reporting. "Energy" has been excluded from this table as it is reported separately in this section (see Chart 1: Group energy generation EAD by fuel source).

(2) The TCFD non-financial group "Agriculture, Food, And Forest Products" has been amended to exclude agriculture which is reported separately in this section (see Chart 3: Group agriculture, forestry and fishing exposures).

(3) Includes wood and paper product manufacturing, excludes printing and publishing.

(4) The TCFD non-financial group "Materials and Buildings" has been amended to exclude "Metals and Mining" which is reported separately in this section (see Chart 2: Group resources EAD by sub-sector).

(5) Includes petroleum, coal, chemical, plastic and rubber-related manufacturing.

(6) Includes building construction and construction trade services.

(7) Includes machinery and equipment manufacturing (including manufacture of aircraft, cars, ships, trains, as opposed to the operation of these products - see the Transportation non-financial group for vehicle operators), metal product manufacturing, and non-metallic mineral product manufacturing (e.g. concrete, cement, glass, ceramics, bricks).

(8) Includes commercial and residential property developers and operators, real estate agents and property services, excludes plant hire, transport leasing or non-financial asset investors.

(9) Residential mortgages and commercial property are not specified as sectors in the TCFD supplemental guidance for reporting but have been included due to their proportion of Group EAD they represent. Data for these two sectors can be found in NAB's September 2023 Pillar 3 report.

(1) Refer to the *Task Force on Climate-Related Financial Disclosures: Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures*, October 2021 page 56 Table 4 at [www.fsb-tcfid.org/publications/](http://www.fsb-tcfid.org/publications/)

# Carbon inventory and exclusions for operational emissions

Emissions sources included in the Group's 2023 Carbon inventory for operational emissions are as follows:

Scope	GHG protocol category	Emissions source	Australia	New Zealand	Asia	United Kingdom	Europe	United States
1	Stationary combustion	Stationary energy - diesel	X	X				
		Stationary energy - gas	X	X		X		
	Fugitive emissions	Building-based refrigerants - in HVAC and refrigerators	X	X	X	X		X
		Business travel - work use vehicle fleet (air conditioning refrigerant)	X	X				
	Mobile combustion	Business travel - work use vehicle fleet (fuel consumption emission)	X	X				
2	Purchased energy	Stationary energy - electricity	X	X	X	X	X	X
Purchased goods and services	A3 and A4 paper purchased for office use	X	X	X	X	X	X	X
	Customer statements purchased paper		X					
	Courier, freight and postage <sup>(1)</sup>	X	X					
	Water	X	X	X	X	X		
Fuel- and energy-related activities	Stationary energy - Transmission and distribution losses / Well-to-tank - electricity <sup>(2)</sup>	X	X	X	X	X	X	X
	Stationary energy - Transmission and distribution losses / Well-to-tank - diesel	X	X					
	Stationary energy - Transmission and distribution losses / Well-to-tank - gas	X	X		X			
Waste generated in operations	Waste - Landfill	X	X	X			X	X
	Waste - Compost		X					
	Waste - Incineration			X	X			
	Wastewater		X					
	Materials recycled		X					
3	Business travel	Business travel - air	X	X	X	X	X	X
		Business travel - employee claims for use of personal vehicles for work purposes	X	X				
		Business travel - hotel stays	X	X	X	X	X	X
		Business travel - rail			X	X	X	X
		Business travel - rental cars	X	X	X		X	
		Business travel - taxi use	X	X	X	X	X	X
		Business travel - work use vehicle fleet (electricity)		X				
		Business travel - work use vehicle fleet (Transmission and distribution losses / Well-to-tank)	X	X				
Employee commuting	Working from home	X	X	X	X	X	X	
Upstream leased assets	Base-building / Offsite energy use - electricity not under NAB's operational control	X	X					
	Base-building / Offsite energy use - gas not under NAB's operational control	X						
	Base-building / Offsite energy use - Transmission and distribution losses / Well-to-tank - electricity not under NAB's operational control	X	X					
	Base-building / Offsite energy use - Transmission and distribution losses / Well-to-tank - gas not under NAB's operational control	X						

(1) Courier, freight and postage services have been included under Purchased goods and services, not under the categories of Upstream transportation and distribution and Downstream transportation and distribution.

(2) Includes offsite electricity for New Zealand and the United Kingdom.



## Carbon inventory and exclusions for operational emissions (cont.)

The below emission sources have been excluded from the Group's 2023 Carbon inventory for operational emissions as they are either not applicable to the Group's business model or have not passed two or more criteria of the relevance test as outlined in the table below. Scope 3 'financed emissions' are outside NAB's operational emissions boundary and are not included in NAB's carbon neutrality claims. However, NAB separately reports financed emissions attributable to its lending in emissions-intensive sectors associated with its goal to align with pathways to net zero by 2050 and its NZBA membership. Detail on this approach is available in *Sector decarbonisation* on page 30.

Emission sources tested for relevance <sup>(1)</sup>	(1) Size	(2) Influence	(3) Risk	(4) Stakeholders	(5) Outsourcing	Included in boundary
Purchased goods and services	No	No	No	No	No	Yes
<p>NAB has answered 'Yes' to this emissions category based on inclusion of the following sub-categories in our operational emissions boundary; <i>A3, A4 and A5 paper purchased, customer statement purchased paper, courier, freight, and postage</i>. We have disclosed the 'Purchased goods and services' category as part of this exclusions table as there are two sub-categories, <i>Food and catering and Cleaning services</i>, that NAB test for relevance. <i>Food and catering and Cleaning services</i> are excluded from NAB's operational emissions boundary as both are assessed as not relevant. Both <i>Food and catering and Cleaning services</i> are not large emission sources relative to NAB's total emissions, do not contribute to significant GHG risk exposure, are not deemed relevant by key stakeholders, and are not activities NAB has previously undertaken within its boundary. The potential to influence the reduction of carbon emissions is limited to on-site food catering only.</p>						
Capital goods	No	No	No	No	No	No
<p>NAB Group as a financial services provider, is not a significant purchaser of capital goods that have material climate change impacts compared to other sectors. NAB leases some capital goods it uses such as buildings, cars and photocopiers. The GHG emissions arising from the use of these capital goods are generally accounted for in the calculation of other sources of Scope 1, 2 and 3 GHG emissions that NAB Group currently reports.</p>						
Upstream transportation and distribution <sup>(2)</sup>	No	No	No	No	No	No
<p>Due to the intangible nature of financial products and services we do not require upstream transportation and distribution of a physical product. Accordingly, we have assessed this source of emissions as being not relevant to our industry sector and business.</p>						
Employee commuting	Yes	No	No	No	No	No
<p>The 'Employee commuting' category refers to emissions associated with employees travelling to and from their place of work and emissions associated with colleagues working from home. Emissions associated with colleagues working from home are included in the Group's emissions boundary, but emissions associated with employee commuting are excluded from the Group's emissions boundary.</p> <p>For employee commuting in environmental year 2023, NAB assessed 'Size' as the only criteria to be passed under the relevance test. NAB's influence on its employees' commuting decisions is limited but changing, as hybrid working behaviours and expectations are developed and embedded. NAB offers end-of-trip facilities at many of its locations, though this intervention does not materially influence emissions reduction associated with employee commuting. NAB intends to further engage with stakeholders directly on this emissions source in 2024. While NAB has estimated emissions associated with employee commuting in 2023, its ability to accurately measure this source is limited. NAB is currently compiling data and developing its methodology to improve data quality. BNZ has commenced quantifying and disclosing emissions associated with employee commuting as part of its emissions boundary for Toitū net carbonzero certification. Offsetting requirement under the Toitū programme is for a minimum inventory which does not include employee commuting.</p>						
Downstream transportation and distribution <sup>(2)</sup>	No	No	No	No	No	No
<p>Due to the intangible nature of financial products and services we do not require downstream transportation and distribution of a physical product. Accordingly, we have assessed this source of emissions as being not relevant to our industry sector and business.</p>						
Processing of sold products	No	No	No	No	No	No
<p>Due to the intangible nature of financial products and services we do not require downstream transportation and distribution of a physical product. Accordingly, we have assessed this source of emissions as being not relevant to our industry sector and business.</p>						
Use of sold products	No	No	No	No	No	No
<p>NAB Group as a financial services provider, is not a significant purchaser of capital goods that have material climate change impacts compared to other sectors. NAB leases some capital goods it uses such as buildings, cars and photocopiers. The GHG emissions arising from the use of these capital goods are generally accounted for in the calculation of other sources of Scope 1, 2 and 3 GHG emissions that NAB Group currently reports.</p>						
End-of-life treatment of sold products	No	No	No	No	No	No
<p>NAB Group as a financial services provider, is not a significant purchaser of capital goods that have material climate change impacts compared to other sectors. NAB leases some capital goods it uses such as buildings, cars and photocopiers. The GHG emissions arising from the use of these capital goods are generally accounted for in the calculation of other sources of Scope 1, 2 and 3 GHG emissions that NAB Group currently reports.</p>						
Downstream leased assets	No	No	No	No	No	No
<p>NAB has an immaterial number of downstream leased assets in the form of a small number of buildings that are owned and leased to tenants. The tenancy agreements for these assets give the tenant operational control of the energy use of the asset and the tenant pays the energy bills. Emissions from downstream leased assets are not large relative to NAB's total emissions, do not contribute to significant GHG risk exposure, are not deemed relevant by key stakeholders, and are not activities NAB has previously undertaken within its boundary. NAB has limited ability to influence emissions from this source.</p> <p>Accordingly, for the purposes of our carbon inventory the GHG emissions from these downstream assets are not considered relevant.</p>						
Franchises	No	No	No	No	No	No
<p>NAB Group does not have franchises, therefore this emissions source is not relevant.</p>						

(1) The relevance test applied by the Group is adapted from the GHG Protocol – Corporate Standard (WBCSD and WRI, 2004). An emissions category is considered relevant if it meets two or more of the five relevance criteria, as outlined in the table above.

(2) Courier, freight and postage services have been included under *Purchased goods and services*.

# Additional information

## Assurance

The Group has sought assurance from KPMG over a selection of measures and disclosures presented in the 2023 Climate Report.

### KPMG has provided reasonable assurance over:

- Australian National Greenhouse and Energy Reporting (NGER) data (Scope 1 and 2 GHG emissions), as at 30 June 2023.

### KPMG also provide limited assurance over:

- Consolidated Scope 1, Scope 2 (market-based method) and selected Scope 3 net GHG emissions and offset data relating to the Group, as at 30 June 2023
- Progress reporting against the Group's science based target to reduce Scope 1 and 2 (market-based method) GHG emissions from operations by 72% by 2030 from a 2022 baseline, as at 30 June 2023.
- Selected GHG emissions and energy use data prepared to meet the requirements of the SECR, which are implemented through the Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018 (UK), as at 30 June 2023.
- Renewable energy generation as a proportion (%) of the Group's exposure to the power generation sector, expressed as EAD, as at 30 September 2023.
- Environmental financing activities as at 30 September 2023.
- Financed emissions data, including baselines for NAB's interim sector-specific decarbonisation targets, as at 30 June 2022.

### KPMG's assurance statements

[nab.com.au/about-us/social-impact/shareholders/performance-and-reporting](http://nab.com.au/about-us/social-impact/shareholders/performance-and-reporting)

## Understanding this report

This document is not a concise report prepared under section 314(2) of the *Corporations Act 2001* (Cth). NAB has not prepared a concise report for the 2023 financial year. All figures quoted are in Australian dollars unless otherwise stated. A reference to '\$' is to an amount in Australian dollars. References to 'NAB' or the 'Company' are to National Australia Bank Limited ABN 12 004 044 937. The 'Group' refers to NAB and its controlled entities.

The Group's financial year ends on 30 September. The financial year ended 30 September 2023 is referred to as 2023 and other financial years are referred to in a corresponding manner. References in this document to the year ended September 2023 are references to the twelve months ended 30 September 2023. References in this document to the environmental reporting year are references to the twelve months ended 30 June 2023.

Data for NAB's 'financed emissions' is based on the year from 1 July 2021 to 30 June 2022 as this aligns with customers' emissions data availability, reported in alignment with the National Greenhouse and Energy Reporting Scheme Act.

Further information on non-financial information boundaries is available in the NAB's 2023 Sustainability Data Pack. Any references to changes (including an increase or decrease) relate to the previous year, unless otherwise stated. Unless otherwise stated, information in this document is presented on a cash earnings basis. Cash earnings is a non-IFRS

key financial performance measure used by NAB and the investment community.

## Note on forward looking statements

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. Indications of, and guidance on, future earnings and financial position and performance are also forward looking statements. The NZBA 2030 interim sectoral decarbonisation targets set out on page 38, and the various targets relating to operational emissions reduction set out on pages 56 to 61 are all forward looking statements.

As at the date of this report (9 November 2023), NAB considers there to be a reasonable basis for making the forward looking statements contained in this report. However, you are cautioned not to place undue reliance on such forward looking statements. The measures and forward looking statements in this report reflect best estimates, assumptions and judgements (including in relation to customer and other third party data over which the Group has no control) as at the date of the report. There is a risk that these judgements, estimates or assumptions may subsequently prove to be incorrect.

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 NAB. This may cause actual results to differ materially from those expressed or implied in such statements.

There are a number of other important factors that could cause actual results to differ materially from those projected in such statements, including (without limitation) a significant change in NAB's financial performance or operating environment; a material change to law or regulation or changes to regulatory policy or interpretation; and risks and uncertainties associated with the ongoing impacts of the COVID-19 pandemic, the conflict between Russia and Ukraine, conflict in the Middle East, the Australian and global economic environment and capital market conditions.

Forward looking statements may also be made – verbally and in writing – by the Group's directors or management in connection to this document. Such statements are subject to the same limitations, qualifications and assumptions set out in this document.

Subject to applicable disclosure requirements, NAB expressly disclaims any obligation to update or revise the information, measures, or forward-looking statements contained in this document, whether to reflect any change in its expectations regarding those forward- looking statements, any change in events, conditions or circumstances on which any statement is based, or otherwise.

# Glossary

## ABA

Australian Banking Association.

## ACCU

Australian Carbon Credit Units

## ANZSIC

Australian and New Zealand Standard Industrial Classification (2013).

## APLMA

Asia Pacific Loan Market Association.

## APRA

Australian Prudential Regulation Authority.

## BNZ

Bank of New Zealand, a subsidiary of National Australia Bank Group.

## Carbon neutral in operations

Refers to the process the Group follows to first avoid and reduce greenhouse gas emissions associated with NAB's operational Scope 1, 2 and 3 emissions (excluding financed emissions) and then to retire carbon offsets for residual emissions. NAB's Australian operations are certified carbon neutral under the Climate Active Standard for Organisations. BNZ and JBWere NZ are Toitū net carbonzero organisation certified.

## CCCA

Collective Commitment to Climate Action.

## CDP (formerly Carbon Disclosure Project)

Not-for-profit organisation that runs a global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts. It provides a dataset of environmental and climate metrics.

## Climate Vulnerability Assessment (CVA)

The Climate Vulnerability Assessment (CVA), a Council of Financial Regulators (CFR) initiative led by APRA, was an exercise adopting scenario analysis to assess the nature and extent of the financial risks that large banks in Australia may face due to climate change.

## Climate-related opportunities

Refers to the potential positive impacts related to climate change on an organisation. Efforts to mitigate and adapt to climate change can produce opportunities for organisations, such as through resource efficiency and cost savings, the adoption and utilisation of low-emission energy sources, the development of new products and services, and building resilience along the supply chain. Climate-related opportunities will vary depending on the region, market and industry in which an organisation operates.

## Climate-related risks

Refers to the potential negative impacts of climate change on an organisation. Physical risks emanating from climate change can be event-driven (acute) such as increased severity of extreme weather events (e.g. cyclones, droughts, floods, and fires). They can also relate to longer-term shifts (chronic) in precipitation and temperature and increased variability in weather patterns (e.g. sea level rise). Climate-related risks can also be associated with the transition to a lower-carbon global economy, the most common of which relate to policy and legal actions, technology changes, market responses and reputational considerations.

## CO<sub>2</sub>-e

Carbon dioxide equivalent (CO<sub>2</sub>-e) is a measurement used to compare emissions from various GHG emissions based on their global warming potential. Other gas amounts are converted into the equivalent amount of carbon dioxide to provide a single emissions metric. Conversion factors vary based on the underlying assumptions.

## Customer Transition Plan

A customer's time-bound decarbonisation plan which details the customer's interim and long-term emissions reduction targets and outlines the overall strategies and actions to meet those targets. Such plans may also cover other climate-related issues including governance, just transition and scenario analysis.

## EAD used in financed emissions

EAD used in financed emissions baselines and for setting sector targets excludes securitisation exposures within the scope of APS 120 Securitisation, off-balance sheet EAD (including performance guarantees to rehabilitate existing thermal coal mining and oil and gas assets) and markets-related EAD (including derivative exposures). Australian Energy Market Operator (AEMO) bonds have also been excluded as they are a requirement to participate in domestic electricity and gas markets for any entity not regulated by the Australian Prudential Regulation Authority. EAD for used in financed emissions baselines has not been adjusted to account for changes through the revised capital framework implemented from 1 January 2023.

## Environmental year

Year ended 30 June, in alignment with relevant environmental regulatory reporting requirements.

## Executive Leadership Team (ELT)

Executive Leadership Team means the Group CEO and the Group Executives.

## Exposure at Default (EAD)

EAD is an estimate of the credit exposure amount outstanding if a customer defaults. EAD is presented net of eligible financial collateral.

## Financed emissions

Indirect GHG emissions attributable to financial institutions due to their involvement in providing capital or financing to the original emitter. Financed emissions are included within Category 15 'Investments' of the Greenhouse Gas Protocol Standard.

## Financial year

Year ended 30 September.

## Full-time equivalent employees (FTE)

Includes all full-time, part-time, temporary, fixed term and casual employee equivalents, as well as agency temporary employees and external contractors either self-employed or employed by a third-party agency. Note: This excludes consultants, IT professional services, outsourced service providers and non-executive directors.

## Gentailers

Vertically integrated power companies operating in the National Electricity Market, where generators own and operate a retail arm.

## Green equipment finance

Green equipment finance refers to financing provided to categories of vehicles and equipment that NAB has determined are eligible to be financed under its Equipment Finance Green Asset framework.

## Greenhouse gas (GHG) emissions

Gaseous pollutants released into the atmosphere that amplify the greenhouse effect. Gases responsible include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.

## Greenhouse Gas Protocol

Comprehensive global standardised frameworks to measure and manage GHG emissions from private and public sector operations, value chains and mitigation actions. The GHG Protocol supplies the world's most widely used GHG accounting standards.

## Group

NAB and its controlled entities.

## Group Performance Indicators (GPI)

A scorecard of financial and non-financial performance measures linked to the Group's key strategic priorities, overlaid by a qualitative assessment. The GPI is used to assess the Group's performance for the purpose of the Annual VR Plan.

## ICMA

International Capital Market Association.

## IEA

International Energy Agency.

## IEA NZE 2050 (2021)

Refers to the International Energy Agency's Net Zero by 2050 scenario and report, October 2021 (4th revision).

## IEA NZE 2050 (2022)

Refers to the International Energy Agency's Net Zero by 2050 scenario and report, October 2022 (5th revision).

## Interim 2030 sector-specific decarbonisation targets (sector decarbonisation targets)

Refers to targets set at intervals towards over-arching net zero by 2050 targets. NAB's first wave of interim targets are set for 2030. Also referred to as 'sector targets'.

## Just transition

Global effort to transition to a low carbon economy in a way that is as fair and inclusive as possible to all people, creating decent work opportunities and leaving no one behind.

## Large-scale generation certificate (LGC)

One LGC is evidence that one megawatt hour of electricity has been generated from renewable energy sources.

## LMA

Loan Market Association.

## Location-based accounting

An emissions accounting approach that calculates electricity emissions based on the average emissions intensity of the electricity grid in the location (state) in which the electricity consumption occurs. Location-based accounting therefore does not recognise the surrender of LGCs as evidence of renewable electricity use.

## LSTA

Loan Syndications and Trading Association.

## Market-based accounting

An emissions accounting approach that allows total electricity consumption to be reduced by the megawatt hours of renewable electricity consumed by the company before applying an emissions factor to grid-imported electricity. Market-based accounting therefore recognises the surrender of LGCs as evidence of renewable electricity use.

## NAB

'NAB' or the 'Company' means National Australia Bank Limited ABN 12 004 044 937.

## NAB Agri Green Loan

The NAB Agri Green Loan is a tailored NAB business loan to finance eligible activities that are aligned to the independent taxonomy and requirements set out under the Climate Bonds Standard Agriculture Criteria.

## NatHERS

Nationwide House Energy Rating Scheme is administered by the Australian Government and accredits a number of tools that can measure and rate a home's energy efficiency.

## National Construction Code (NCC)

The NCC is a uniform set of technical provisions for the design, construction and performance of buildings and plumbing and drainage systems throughout Australia. The 2022 update includes, among other things, new requirements to facilitate the future installation of electric vehicle charging infrastructure in carparks.

Our response to climate change

Strategy

Governance

Risk management

Sector decarbonisation

Metrics and targets

Supporting information

### Natural capital

The stock of renewable and non-renewable natural resources (e.g. plants, animals, air, water, soils, minerals) that combine to yield a flow of benefits to people.

### Net zero by 2050

Net zero emissions' refers to achieving an overall balance between GHG emissions produced and GHG emissions taken out of the atmosphere. NAB's approach is informed by the UNEP FI Guidelines pathways to net zero that are aligned with limiting warming to a maximum of 1.5°C above pre-industrial levels.

### Network for Greening the Financial System (NGFS)

A group of authorities willing, on a voluntary basis, to exchange experiences, share best practices, contribute to the development of environment and climate risk management in the financial sector, and to mobilise mainstream finance to support the transition toward a sustainable economy.

### NZBA

Net Zero Banking Alliance.

### Operational environmental measures

Refers to environmental-related performance measures within NAB's operational control. This includes Scope 1, Scope 2, and selected Scope 3 emissions (excluding financed emissions). It also includes broader operational environmental measures such as waste generation, water usage and energy consumption.

### Paris Agreement

Refers to the agreement adopted within the United Nations Framework Convention on Climate Change in December 2015 and entered into force in November 2016. The agreement commits all participating countries to limit global warming to well-below 2°C, striving for 1.5°C above pre-industrial levels, to build resilience to adapt to impacts of climate change, and regularly increase efforts over time.

### Paris Agreement Capital Transition Assessment (PACTA)

Building off a vast climate-related financial database, the PACTA tool aggregates global forward-looking asset-level data (such as the production plans of a manufacturing plant over the next five years), up to parent company level. The tool then produces a customized, confidential output report, which allows investors to assess the overall alignment of their portfolios with various climate scenarios and with the Paris Agreement.

### PCAF

Partnership for Carbon Accounting Financials.

### Residual Mix

The mix of energy generation resources and associated attributes such as GHG emissions in a defined geographic boundary left after contractual instruments have been claimed/retired/cancelled. The residual mix can provide an emission factor for companies without contractual instruments to use in a market-based method calculation.

### Revised capital framework (RCF)

APRA's revised capital framework, applied since 1 January 2023.

### Scope 1

This includes direct emissions from within an organisation's boundary. These emissions are from sources that the organisation owns or controls such as:

- Combustion of fuel in boilers, furnace or generators that are owned or controlled by the reporting company.
- Generation of electricity, steam or heat in equipment that is owned or controlled by the reporting company.
- Business travel in vehicles such as company cars or corporate jets that are owned or controlled by the reporting company, colleague commuting in company-owned or controlled vehicles, such as company cars.
- Hydrofluorocarbon emissions from company-owned or controlled refrigeration or air-conditioning equipment.

### Scope 2

Indirect emissions from electricity that is used by the organisation but is generated outside the organisation's boundary by another company, such as an electricity provider. This is called 'purchased electricity'. This includes indirect emissions from purchased or acquired electricity, steam, heat or cooling.

### Scope 3

All other indirect emissions that occur outside the boundary of the organisation as a result of the activities of the organisation, including indirect emissions from:

- Business travel in non-company owned or controlled vehicles, such as rental cars, colleague cars, rail and commercial planes.
- Combustion of fuel in boilers or furnaces not owned or controlled by the reporting company.
- Energy used by colleagues working from home.
- Third-party production or manufacture of materials and resources used by the reporting company, such as furniture, paper and equipment.
- Indirect losses resulting from the transmission of electricity and other fuels.
- Emissions generated through the investments a company makes, see definition for 'Financed emissions'.

### SDGs

Sustainable Development Goals.

### SME

Small and medium-sized enterprises.

### Soil organic carbon

Soil organic carbon refers to the carbon components of soil organic matter.

### Streamlined Energy and Carbon Reporting (SECR)

Reporting of emissions sources required under the United Kingdom's Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018.

### TCFD

The Financial Stability Board Task Force on Climate-related Financial Disclosures.

### Thermal coal

Coal that is almost exclusively used as a fuel for steam-electric power generation.

### UN SDGs

United Nations Sustainable Development Goals.

### UNEP FI

United Nations Environment Programme Finance Initiative.

### UNEP FI Guidelines

UNEP FI Guidelines for Climate Target Setting for Banks.

### Verra

Organisation that manages the Verified Carbon Standard program which allows certified projects to turn their GHG emission reductions and removals into tradable carbon credits.

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