

# ANZ FINANCED EMISSIONS METHODOLOGY

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**NOVEMBER 2023**



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- 3. Complexity of calculations and estimates** – estimating financed emissions (including allocating emissions to financing activities) and emissions reduction is complex and relies on assumptions and judgments, often made in respect of long periods of time. For facilitated emissions, suitable standards to allow financial institutions to calculate facilitated emissions are still under development as at October 2023.
- 4. Changes to climate-related governing frameworks** – changes to climate-related policy, laws, regulations and market practices, standards and developments, including those resulting from legal proceedings and regulatory investigations.
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- The qualifications, limitations and guidance included throughout this document
- ANZ Climate-related Financial Disclosures report found at [anz.com/esgreport](https://anz.com/esgreport)
- ANZ Greenhouse Gas Reporting and Carbon Offset Guidelines available [anz.com.au/about-us/esg/environmental-sustainability/environmental-footprint/](https://anz.com.au/about-us/esg/environmental-sustainability/environmental-footprint/)

### VERSION HISTORY

Version	Date issued	Brief outline of change
1.0	13 Nov 2023	Version for publication
1.1	19 Aug 2024	Change: Restated Transport sub-sector aviation pathway as outlined in footnote on page 19.

## Introduction

Energy

Transport

Manufacturing

Buildings

Other

Total lending portfolio

## INTRODUCTION

Banks have an important role to play in supporting the transition of the real economy to net zero emissions. This is acknowledged in Article 2.1(c) of the Paris Agreement which recognises that making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development is one of the actions needed to respond to the threat of climate change.

To help guide our efforts in steering financial flows towards the adoption of technologies, strategies and initiatives which reduce greenhouse gas emissions, in 2021, ANZ joined the Net-Zero Banking Alliance (NZBA) – an initiative bringing together a global group of banks. ANZ is committed to transitioning our lending portfolio in line with the goals of the Paris Agreement.

In line with our NZBA commitment, ANZ is progressively setting Paris-aligned pathways and targets for 2030 (or sooner) for certain sectors. At this stage, ANZ has set targets for the following eight carbon-intensive sectors of the economy:

- Power Generation
- Oil and Gas
- Thermal Coal
- Transport (Auto Manufacturing, Aviation, Shipping)
- Aluminium
- Cement
- Steel
- Large-scale commercial real estate

For some sectors, we have disclosed additional, or complementary metrics, that we consider useful to inform our decision making. This includes: establishing an emissions baseline for our Australian home loans portfolio, total lending portfolio in Australia, and a data coverage target for our Large Institutional Agribusiness Customers (LIAC).

The purpose of this document is to outline the methodologies that ANZ GHL and its subsidiaries (referred to as "ANZ" or "the Group" or "our") has used to establish emissions baselines and sectoral pathways or metrics; and to annually measure and report the emissions profile of these lending portfolios. It also describes our approach in setting 2030 targets for each of the above sectors and the scenarios against which we have benchmarked these targets. It supplements our Climate-related Financial Disclosures located at [anz.com/esgreport](https://anz.com/esgreport).

### Introduction

Energy

Transport

Manufacturing

Buildings

Other

Total lending portfolio

## ENERGY

### POWER GENERATION

#### Overview

ANZ has set a 2030 target to reduce the emissions intensity of our power generation portfolio by 50% (compared to a 2020 baseline). The metric we use to track the carbon intensity of our portfolio reflects the portfolio-weighted carbon intensity of electricity generation (i.e. carbon emissions per unit of generation) for Institutional customers whose main business activity is the generation of power. Customers included in the metric each year are those to which we have more than \$1m exposure at default (EAD) at the end of our financial reporting year (September 30).<sup>1</sup>

Our target covers the Scope 1 emissions from electricity generation assets either owned by our customers or coming under their operational control that dispatch electricity into transmission grids. It does not include emissions from generation assets that some customers may use exclusively in their own operations, such as some mining customers. It also does not include electricity that some of our power generation customers may purchase from third-party generators either as part of a power purchase agreement or on the spot market. This decision was made to avoid potentially double-counting emissions should ANZ also have a customer relationship with the third-party generator.

Our choice of an emissions intensity reduction target recognises that under 1.5°C aligned scenarios, there is a need for substantially more electricity to be generated in 2050 than is generated today with almost all this growth to be supplied from renewables. The IEA's NZE 2050 scenario<sup>2</sup> shows renewables moving from around 29% of total global generation in 2020 to 88% of generation by 2050. Under that scenario, renewable electricity generation grows eightfold between 2020 and 2050. At the same time, generation from unabated fossil fuels – responsible for around 61% of global electricity generation in 2020 – shrinks to negligible levels.

The key design choices we used in calculating our emissions intensity reduction target for our power generation financing activities are summarised in Table 1.

Progress towards our 2030 target is unlikely to be linear given the challenges and different rates of transition in markets where ANZ is active. However, our target to halve the emissions intensity of our power generation financing activities by 2030 helps demonstrate that we are playing our part in supporting the clean electrification of the world's energy supply.

**Table 1 – Key design choices in calculating 2030 power generation target**

<b>ANZ Customers Included</b>	<ul style="list-style-type: none"> <li>Companies that own or operate one or more electricity generation facilities that dispatch electricity into transmission grids, and that we have more than \$1m exposure at default (EAD) at the end of our financial reporting year (September 30)<sup>3</sup></li> </ul>
<b>Emissions Included</b>	<ul style="list-style-type: none"> <li>Scope 1 (from electricity generation activities only)</li> </ul>
<b>Metric</b>	<ul style="list-style-type: none"> <li>Emissions intensity of electricity generation (kgCO<sub>2</sub>-e/MWh)</li> </ul>
<b>Financing Activities Included</b>	<ul style="list-style-type: none"> <li>Exposure at default: represents the Group's exposure to each sector based on APRA's calculation formula which includes total committed loans (drawn plus a proportion of off-balance sheet exposures as specified by APRA)</li> </ul>
<b>Attribution Approach</b>	<ul style="list-style-type: none"> <li>Portfolio-weighted approach (based on the ratio of ANZ's financing to individual customers relative to ANZ's total financing to the power generation sector)</li> </ul>
<b>Benchmarking Scenario</b>	<ul style="list-style-type: none"> <li>International Energy Agency (IEA) Net Zero Emissions by 2050 World Scenario (NZE 2050) (2021)</li> </ul>
<b>Key External Data Sources</b>	<ul style="list-style-type: none"> <li>Customer disclosures</li> <li>Australian Clean Energy Regulator</li> <li>International Energy Agency</li> <li>Asset Impact<sup>4</sup></li> </ul>

Introduction

**Energy**

Transport

Manufacturing

Buildings

Other

Total lending portfolio

<sup>1</sup> It is estimated that cumulative customer exposures below this threshold represent a very small part of our overall financing activities in the power generation sector (<.01%) that are linked to actual generation assets. <sup>2</sup> International Energy Agency 2021, Net Zero by 2050: A Roadmap for the Global Energy Sector (May 2021). <sup>3</sup> Excludes captive power generation facilities that are not connected to an electricity grid. <sup>4</sup> Asset Impact.

## POWER GENERATION (CONTINUED)

### Activities and Emissions in Scope

ANZ considers that an emissions intensity target (kgCO<sub>2</sub>-e/MWh generated) is the best way to demonstrate how our finance is contributing to the clean electrification of the world's energy supply. While increases in support to existing customers to transition their portfolios to cleaner generation sources may translate into short to medium term increases in emissions intensity of our financing activities, we consider that this is an appropriate step for us to take to support real-world reductions in emissions over the longer term.

To identify customers with ownership stakes in power generation assets, we used the ANZSIC code for power generation. This captures corporate financing to customers whose main business activity is power generation as well as project financing of power generation assets. As several of our oil and gas customers are looking to clean energy generation projects as a way of diversifying their traditional hydrocarbon businesses, we also include these directly financed projects within the boundary of our target.<sup>1</sup>

The emissions included in the target are the Scope 1 emissions from the power generation assets that are owned by our customers or that come under their operational control. While most of these Scope 1 emissions are carbon dioxide, it also includes a small amount of methane and nitrous oxide emissions as well. For the denominator of the emissions intensity target, we have used gross electricity generation of our customers, to ensure that we are able to benchmark on a like-for-like basis with the IEA's NZE 2050 Scenario.

Our methodology will not consider the use of any offsets that are used by power generation customers to reduce their emissions. This is because the low costs and maturity of an array of renewable technologies means that there are both technologically and financially viable alternatives to eliminate emissions.

### Data used to calculate customer emissions

To maximise the quality of the data we used to calculate our financed emissions, ANZ was guided by the *Global GHG Accounting and Reporting Standard for the Financial Industry – Part A* published by PCAF.

We relied on a variety of different sources to calculate each customer's emissions intensity of generation. For our customers with assets in Australia, we use the Scope 1 emissions and gross generation data they report annually to the Australian Clean Energy Regulator (CER) (responsible for administering Australia's *National Greenhouse and Energy Reporting Act*). We used the latest available data submitted to the CER to calculate the emissions intensity of our customers' generation fleets, meaning we used generation and emissions data applicable for the year ending 30 June 2022 for our 2023 calculations.

For customers with assets outside of Australia we use emissions and generation data reported in corporate disclosures – the main method we applied. In a small number of cases where this information was unavailable, or unsatisfactory, we estimated our customers' emissions intensity of generation based on their ownership stake in generation capacity that we sourced from an Asset Level Database (ALD),<sup>2</sup> compiled by climate and energy data specialist Asset Impact.

The annual generation from these assets was calculated by applying global average capacity factors for the relevant technology type reported in the International Energy Agency's (IEA) 2022 World Energy Outlook. Emissions factors were sourced from the IEA's Emissions Factors 2021 publication and applied for the relevant technology type of the plant, i.e. coal, gas or oil in the country that the customer's assets were located. Assets that were based on nuclear, hydro and renewables technologies were assumed to have an emissions intensity of zero.

Introduction

**Energy**

Transport

Manufacturing

Buildings

Other

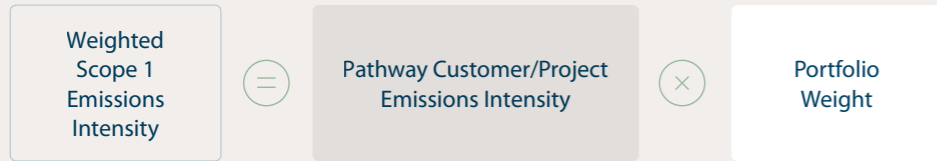
Total lending portfolio

1. Whenever they are dispatching electricity into centralised energy transmission grids. 2. Based on Asset Resolution's 2022 (and earlier) datasets.

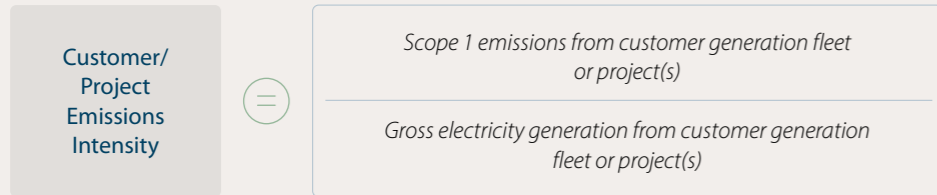
POWER GENERATION (CONTINUED)

Calculation of portfolio-weighted emissions intensity

ANZ uses a portfolio-weighted, emissions intensity metric to measure the extent to which our financing is supporting the transition of the electricity generation sector. By focusing on each customer’s emissions intensity of generation – irrespective of the size of their fleet – it allows comparability between our customers. ANZ calculates the portfolio-weighted emissions intensity for each customer and project using the following formula:



The emissions intensity of our customers’ generation fleet or projects, is calculated by dividing their Scope 1 emissions from electricity generation by their gross electricity generation over the corresponding 12-month period, shown below:



The portfolio weight for each relevant customer is a measure of ANZ’s financing to that customer relative to our total financing to all customers and projects in the electricity generation sector. It is calculated using the formula below:



To calculate the emissions intensity of our full portfolio, we aggregate the company-level performance indicators using the following formula:



While ANZ considers that a weighted portfolio emissions intensity metric is a useful way to demonstrate how our finance is supporting the transformation of the electricity sector, we remain open to adjusting our approach as standards evolve.

Climate Scenario and Target

ANZ chose to align our 2030 target with the IEA’s NZE 2050 Scenario, published in 2021. This Scenario aligns with the Net-Zero Banking Alliance’s guidance that banks should use scenarios produced by credible and well-recognised sources that align with no/low overshoot 1.5°C transition pathways.

ANZ chose 2020 as the baseline for our 2030 target for the electricity generation sector where the global average emissions intensity was 459 kgCO<sub>2</sub> per MWh.<sup>1</sup> In contrast, the emissions intensity of ANZ’s portfolio was measured at the end of 2020 as 225 kgCO<sub>2</sub> per MWh<sup>2</sup> – around 50% below the global benchmark. This was in large part due to 39% of our portfolio being companies and projects that were dedicated entirely to the generation of renewable energy.

The fact that our portfolio started well below the global average in 2020, was a key factor in our decision to set a 50% reduction target in the emissions intensity of our portfolio by 2030. While this is below the 70% reduction in emissions intensity earmarked for the global electricity sector in the IEA’s NZE 2050 Scenario, our 2030 target of 113 kgCO<sub>2</sub> per MWh,<sup>3</sup> would still have our portfolio below the NZE 2050 trajectory to net zero emissions by 2040 for the global electricity sector.<sup>4</sup> ANZ will also benchmark our performance against the latest net zero emissions pathway for the global electricity sector that is updated annually by the IEA in their World Energy Outlook Report.

While we are committed to supporting our customers to phase-out coal-fired generation capacity, we understand there are broader social and economic factors that must be balanced against the need to rapidly reduce emissions. This is illustrated in Australia where coal fired generation still meets around half of the country’s electricity needs.<sup>5</sup> Supporting our existing customers with increased lending to transition their portfolio to clean energy sources may mean our pathway to a net zero emissions portfolio is uneven rather than linear.

- Introduction
- Energy**
- Transport
- Manufacturing
- Buildings
- Other
- Total lending portfolio

1. 2021 World Energy Outlook (p37). 2. This is a restatement of the 2020 baseline we reported in 2022 of 237 kgCO<sub>2</sub> per MWh. 3. This is a restatement of our 2030 target we reported in 2022 of 119 kgCO<sub>2</sub> per MWh. 4. The IEA’s NZE 2050 scenario sets out a pathway for the global electricity sector to reach net zero emissions by 2040, with a 2030 interim target of 138 kgCO<sub>2</sub> per MWh (2021 World Energy Outlook (p37)). 5. Australian Energy Update 2023, Table O: Australian electricity generation, by state and territory, by fuel type, physical units.



POWER GENERATION (CONTINUED)

**Complementary power generation metric – absolute emissions and portfolio emissions intensity**

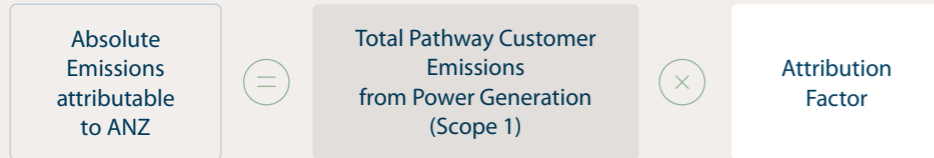
In addition to reporting annual performance against our physical emissions intensity metric, the guidelines of the NZBA include two additional metrics:

- Absolute financed emissions; and
- Portfolio wide emissions intensity

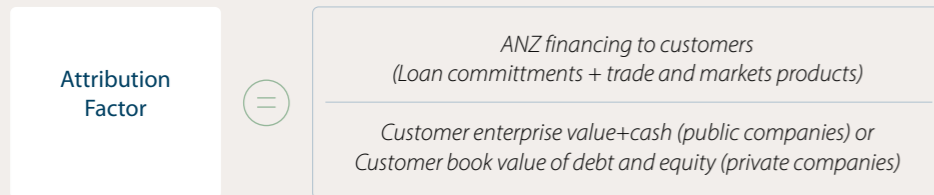
**Absolute Financed Emissions**

ANZ has chosen to report this as Mt CO<sub>2</sub>-e.

To determine what portion of our customers’ emissions are attributable to ANZ’s financing activities, we multiply each of our customers’ emissions from electricity generation by an attribution factor using the formula below:

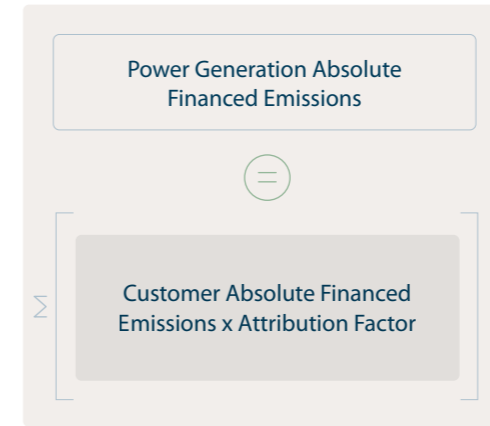


The attribution factor is calculated by dividing ANZ’s financing by our customers’ value using the formula below:



For publicly traded companies, customer value is enterprise value including cash (EVIC). For privately held companies, customer value is the book value of debt plus equity. This approach reflects the relative weight of our financing within a customer’s capital structure. ANZ has taken a conservative approach to the numerator in the attribution factor and has included the total sum of committed loans we have issued to power generation customers (drawn plus a proportion of off-balance sheet exposures as specified by APRA). This departs from the PCAF recommended approach, which includes the outstanding amount of loans and investments (but does not include undrawn amounts). While this approach means that we have attributed a higher proportion of our customers’ emissions, we consider this provides a more accurate representation of our support to power generation companies and the transition risks to which we are potentially exposed. We also consider that including all products provides a better insight on how we are supporting our customers to reduce their emissions intensity.

To calculate the absolute financed emissions of our full portfolio, we aggregate the financed emissions of our individual customers using the following formula:



**Portfolio wide emissions intensity metric**

ANZ has chosen to report this as kilograms of CO<sub>2</sub>-e per dollar lent. This is calculated by dividing the absolute financed emissions (calculated in accordance with the methodology outlined above) by the total financing to customers that were considered within the boundary of the metric.

- Introduction
- Energy**
- Transport
- Manufacturing
- Buildings
- Other
- Total lending portfolio

## OIL AND GAS

### Overview

ANZ has set a 2030 target to reduce the absolute financed emissions from our oil and gas portfolio by 26% (compared to a 2020 baseline). It covers the Scope 1, 2 and 3 (product use) emissions of our customers involved in oil and gas exploration and production (upstream) as well as integrated oil and gas producers that operate across the oil and gas value chain. Customers included in the metric each year are those relevant Institutional customers to which we have at least \$10m exposure at default (EAD) at the end of our financial reporting year (September 30).<sup>1</sup>

Our choice of an absolute emissions reduction target recognises there are limited opportunities to fully reduce the carbon intensity of fossil fuel products. While we recognise that many energy companies are diversifying their businesses into cleaner energy sources – such as renewable electricity, hydrogen and biofuels – the climate benefits of these fuels will be captured in emissions intensity metrics we develop for other sectors such as power generation, transport and other industrial sectors that are the final users of these fuels.

Scope 3 emissions from the burning of oil and gas products account for the large majority of emissions for oil and gas companies across their value chain (typically 80-90%). ANZ's approach to account for these emissions is to base it on our customers' equity-based production<sup>2</sup> of oil and gas (at the point of extraction) that is available for sale. This takes into account the company's use of a portion of the energy produced in their own operations, which is then included in their Scope 1 emissions.

### This approach was preferred for multiple reasons:

- 1. Minimising double-counting of Scope 3 emissions:** Oil and gas can only be extracted from the environment once and the wide availability of company production data that is based on the 'working-interest method',<sup>3</sup> makes it a relatively straight-forward exercise to assess the downstream emissions that would result from the burning of the embodied carbon.<sup>4</sup> Given that an oil and gas company can often produce significantly different quantities of hydrocarbon products than it sells, the approach we have adopted reduces the risk of double and even triple counting of Scope 3 emissions.
- 2. Lack of available sales data:** There is often a lack of traceability in the sales of oil and gas products across intra and inter-organisational boundaries. This makes it hard for financial institutions to account for the downstream emissions resulting from the use of sold energy products. The long-established approach and wide availability of equity-based production<sup>5</sup> reporting makes it a preferable source of data to account for the Scope 3 emissions of our oil and gas customers.
- 3. Aligns with the findings of 1.5°C pathways:** We considered that accounting for our customers' Scope 3 emissions at the production stage would provide a better insight into how our lending is supporting the achievement of a real-world reduction in oil and gas production and associated emissions. The key design choices we used in calculating our absolute financed emissions reduction target for our oil and gas financing activities are summarised in Table 2.

The IEA's Net Zero by 2050 Report<sup>6</sup> highlights multiple opportunities for the oil and gas sector to reduce emissions across the value chain. In relation to their own operations, a priority for oil and gas companies is to minimise methane leaks through a focus on leak detection and repair. Other important steps include avoidance of non-emergency flaring and venting, as well as significant electrification of upstream operations.

In relation to Scope 3 emissions, a reduction in emissions will depend on the combined actions of businesses, governments and consumers. To achieve our target, we will take an overall portfolio view, rather than seeking the same emissions reductions per customer.

**Table 2 – Key design choices in calculating 2030 oil and gas target**

<b>ANZ Customers Included</b>	<ul style="list-style-type: none"> <li>• Exploration and production (includes dedicated upstream companies, and LNG producers)</li> <li>• Integrated oil and gas producers</li> <li>• Customers above are included where ANZ's exposure is at least \$10 million</li> </ul>
<b>Emissions Included</b>	<ul style="list-style-type: none"> <li>• Scopes 1, 2 and 3 (Category 11, product use) for all companies included in scope, preferably on an equity-based accounting approach where that data is available from customers</li> </ul>
<b>Metric</b>	<ul style="list-style-type: none"> <li>• Absolute emissions (in million tonnes CO<sub>2</sub>-e) (Mt CO<sub>2</sub>-e)</li> </ul>
<b>Financing Activities Included</b>	<ul style="list-style-type: none"> <li>• Exposure at default: represents the Group's exposure to each sector based on APRA's calculation formula which includes total committed loans (drawn plus a proportion of off-balance sheet exposures as specified by APRA)</li> </ul>
<b>Attribution Approach</b>	<ul style="list-style-type: none"> <li>• ANZ financing to customers as a proportion of customer value. Customer values are based on the following definitions: <ul style="list-style-type: none"> <li>– <b>Private company:</b> Book value of debt and equity</li> <li>– <b>Public company:</b> Enterprise value including cash (EVIC)</li> </ul> </li> </ul>
<b>Benchmarking Scenario</b>	<ul style="list-style-type: none"> <li>• International Energy Agency (IEA) Net Zero Emissions by 2050 World Scenario (2021)</li> </ul>
<b>Key External Data Sources</b>	<ul style="list-style-type: none"> <li>• Customer disclosures</li> <li>• Wood Mackenzie</li> <li>• Rystad</li> <li>• International Energy Agency</li> <li>• American Petroleum Institute</li> <li>• Intergovernmental Panel on Climate Change</li> </ul>

<sup>1</sup>. ANZ's cumulative customer exposures below this threshold represent a very small part of our overall financing activities in the oil and gas sector (<0.1%), meaning that their exclusion does not materially affect our financed emissions calculations. <sup>2</sup>. Proportion of oil and gas production in line with equity stake in the production facility. <sup>3</sup>. Working-interest refers to a company's percentage interest in an asset or project that normally determines what percentage of costs and revenues that company pays and receives from the asset or project. <sup>4</sup>. Assumes full stoichiometric combustion of the extracted oil and gas that is available for sale, even though a small component is used for non-energy purposes. <sup>5</sup>. ANZ's preference is to use equity-based production data that is based on volumes that are available for sale. If that data is unavailable, we base it on their gross equity-based production. <sup>6</sup>. May 2021 version.

Introduction

**Energy**

Transport

Manufacturing

Buildings

Other

Total lending portfolio



## OIL AND GAS (CONTINUED)

### Activities and Emissions in Scope

The majority of emissions in the oil and gas value chain are associated with the downstream use of products. In setting this pathway, we seek to ensure that our method includes relevant customers<sup>1</sup> with an equity stake in upstream production – the point at which oil and gas enters the world economy. We did this to ensure we were linking Scope 3 emissions (from product use) to the original producer and to avoid potential double counting of emissions.

To identify customers with ownership stakes in upstream production, we used the relevant Australian and New Zealand Standard Industrial Classification (ANZSIC) for oil and gas extraction. We also took into consideration projects involving the exploration and production of oil and gas that we directly finance, principally LNG projects. Accordingly, the customers included within the scope of our target are dedicated upstream producers as well as ‘integrated producers’ involved in activities across the oil and gas value chain, i.e. upstream, midstream and downstream.

We have decided at this stage to exclude dedicated refinery operators from the boundary of our oil and gas target. With only two remaining refineries operating across our home markets of Australia and New Zealand, and with only small exposures to dedicated oil refiners in other markets, we concluded this was unlikely to make a material contribution to our oil and gas sector financed emissions. However, the emissions from the refinery operations of our integrated oil and gas customers are captured.

The emissions included in the target are the Scope 1 and 2 emissions of our customers’ own operations. This includes non-CO<sub>2</sub> gases such as methane. We also consider the downstream Scope 3 emissions associated with the use of extracted oil and gas where it is assumed that it is all fully combusted without any use of carbon capture and storage technologies.

Our methodology does not currently consider the use of any offsets that are used by customers to reduce their emissions even though we recognise that many are proposing to use them to achieve their own emission reduction targets. We will look to further develop a position on the use of offsets in the coming years, however we apply a general principle that emissions should first be avoided, with offsetting used only to compensate for residual and unavoidable emissions. We note the NZBA provides qualified support for their use where there are limited technologically or financially viable alternatives to eliminate emissions and the offsets are of the highest quality.

### Data used to calculate customer emissions

To maximise the quality of the data we used to calculate our financed emissions, ANZ was guided by the Global GHG Accounting and Reporting Standard for the Financial Industry – Part A published by the Partnership for Carbon Accounting Financials (PCAF).<sup>2</sup>

### Scope 1 and 2 emissions

For Scope 1 and 2 emissions, we prioritised the use of company reported emissions based on the equity share approach. If equity-based emissions were not reported, we relied on company disclosure of emissions based on the operational control approach.

We prefer to use our customers’ equity-reported Scope 1 and 2 emissions because companies in the oil and gas industry may have small, non-operating stakes in projects that would otherwise be accounted as zero emissions if we had chosen an operational control approach. While these companies may not be the operator of the projects, we consider their equity in oil and gas projects still provides them with a degree of influence in shaping policies and initiatives aimed at mitigating the Scope 1 & 2 emissions from the projects.

Where our customers did not report any Scope 1 & 2 emissions data, we relied on estimates provided by specialist third party data vendors – Wood Mackenzie and Rystad – which use proprietary models to estimate emissions down to the individual field level. This covers emissions from upstream activities including drilling, production and processing (including LNG liquefaction) along with fugitive emissions associated with CO<sub>2</sub> venting, flaring and methane losses.

### Scope 3 emissions

Although many of our customers now report Scope 3 emissions from the use of their sold energy products, we found these customers are applying boundaries inconsistently. In some cases, this involved companies factoring in external purchases and sales of energy, which introduces the risk of double counting of emissions across our customer base. Accordingly, we decided against relying on our customers’ disclosures of Scope 3 ‘use of product’ emissions.

Instead, ANZ uses the net production data reported in our customers’ mainstream financial reports as the preferred source of information to calculate the downstream Scope 3 emissions associated with the final use of their products (Category 11). Where possible, we based this on the production available for sale given that oil and gas companies use a portion of the energy they produce for use in their own operations – which accordingly would be captured as a source of Scope 1 emissions by our customers.

By estimating our customers’ ‘Scope 3 use of product’ emissions based on their equity production available for sale, it ensures we more accurately measure each customer’s emissions resulting from the energy they introduce into the world’s economy. The experience that our oil and gas customers have in providing regular market updates on their production and reserves means this is a credible source of information on which to base our Scope 3 emissions calculations.

To convert our customers’ production data into estimated emissions, we use mass and volumetric conversion factors published by the American Petroleum Institute (API)<sup>3</sup> We then apply emission factors from the Intergovernmental Panel on Climate Change (IPCC)<sup>4</sup> to estimate the carbon dioxide emissions resulting from the assumed full stoichiometric combustion of the extracted oil and gas. We acknowledge that this is likely to present an over-estimation of our customers’ downstream emissions given that a proportion of their oil and gas production is used for non-energy purposes. Some of our customers also apply this approach in calculating their own emissions.

<sup>1</sup>. Oil and gas customers where our exposures are at least \$AU10 million (EAD). <sup>2</sup>. Refer to p41-42 and the Annex of the PCAF standard that is available [here](#). <sup>3</sup>. American Petroleum Institute, Compendium of Greenhouse Gas Emissions Methodologies for the Natural Gas and Oil Industry, November 2021. <sup>4</sup>. Intergovernmental Panel on Climate Change (IPCC), 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

Introduction

**Energy**

Transport

Manufacturing

Buildings

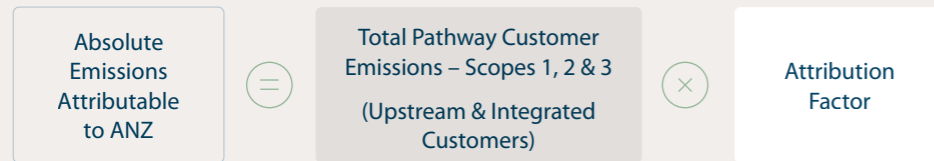
Other

Total lending portfolio

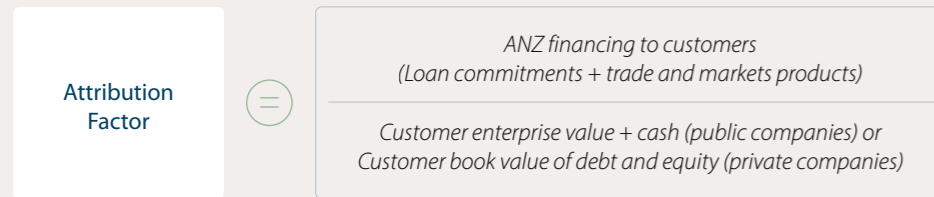
OIL AND GAS (CONTINUED)

Calculation of absolute financed emissions

ANZ has chosen to report this as Mt CO<sub>2</sub>-e. To determine what portion of our pathway customers' absolute emissions are attributable to ANZ's financing activities, we multiply each of our customers' absolute emissions by an attribution factor using the formula below:



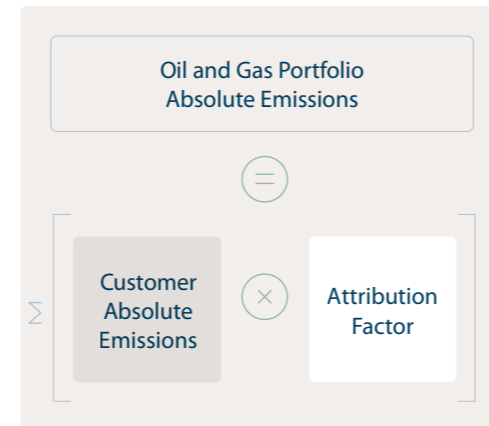
The attribution factor is calculated by dividing ANZ's financing by our pathway customers' value using the formula below:



For publicly traded companies, customer value is enterprise value including cash (EVIC). For privately held companies, customer value is the book value of debt plus equity. This approach reflects the relative weight of our financing within a customer's capital structure.

ANZ has taken a conservative approach to the numerator in the attribution factor and has included the total sum of committed loans we have issued to oil and gas customers (drawn plus a proportion of off-balance sheet exposures as specified by APRA). This departs from the PCAF recommended approach, which includes the outstanding amount of loans and investments (but does not include undrawn amounts). While this approach means that we have attributed a higher proportion of our customers' emissions, we consider this provides a more accurate representation of our support to oil and gas companies and the transition risks to which we are potentially exposed.

To calculate the absolute financed emissions of our portfolio, we aggregate the absolute financed emissions of individual customers in the portfolio using the following formula:



ANZ remains open to adjusting our approach to calculating financed emissions as the quality and availability of data improves and as standards evolve.

Climate Scenario and Target

ANZ has chosen to align our 2030 target with the IEA's Net Zero Emissions by 2050 (NZE 2050) Scenario published in 2021. This scenario aligns with NZBA guidance that banks should use scenarios produced from credible and well-recognised sources that align with no/low overshoot 1.5°C transition pathways.

There were several reasons we chose 2020 as the baseline for our 2030 oil and gas sector target. First, it aligns with the baseline we set for our power generation pathway. Secondly, as our 2020 baseline

predominantly relies on company emissions and production data from the 2019 calendar year, it also provides more representative data than 2020, during which global energy markets were significantly distorted because of COVID-19. And lastly, with the NZE 2050 Scenario providing emissions and production data for the 2019 calendar year, it also provided a clear transition pathway out to 2030 that helped determine the ambition of our target.

There were several factors we considered in setting our 26% reduction target. The biggest factor is the differentiated rates of emissions reductions that the NZE 2050 Scenario shows are required for our customers' operational emissions (Scope 1 & 2), and those associated with the downstream use of the energy that our oil and gas customers produce and sell (Scope 3). Because of this, we sought to develop a clear understanding of our customers' absolute emissions across the three different emissions scopes to calculate an appropriately weighted emissions reduction target for our target portfolio covering all emissions scopes.

For Scope 1 emissions we made the conservative assumption after reviewing our customers' reported emissions, that methane was responsible for 10% of their reported totals (on a carbon dioxide equivalent basis). Under the IEA's NZE 2050 Scenario, methane emissions from the fossil fuel sector fall by 75%<sup>1</sup> between 2020 and 2030, which was the same reduction we applied in formulating our target. For the remaining 90% of Scope 1 emissions – mostly CO<sub>2</sub> emissions associated with upstream activities as well as refining activities for integrated producers – the NZE 2050 Scenario assumes these emissions fall by 53%<sup>2</sup> between 2019 and 2030, which is the same reduction factored into our oil and gas sector target.

1. International Energy Agency (2021) Net Zero by 2050: A Roadmap for the Global Energy Sector p14. 2. International Energy Agency (2021) Net Zero by 2050: A Roadmap for the Global Energy Sector p199. The 53% reduction figure is the difference between CO<sub>2</sub> Emissions for the 'Other Energy Sector' between 2019 and 2030 which captures inter alia the own use of energy in oil and gas extraction as well as energy losses in petroleum refineries and gas transformation and liquefaction.

- Introduction
- Energy**
- Transport
- Manufacturing
- Buildings
- Other
- Total lending portfolio

## OIL AND GAS (CONTINUED)

Scope 2 emissions are typically a small part of oil and gas company emissions given the remoteness of their upstream operations means that they are often not connected to an electricity grid. The electricity that oil and gas companies use in their operations is mostly self-produced, meaning that the resulting emissions are counted as a Scope 1 emission. Nevertheless, we have captured our customers' Scope 2 emissions in the boundary of the target and have factored in a 58%<sup>1</sup> reduction over the period 2019-2030. This aligns with the reduction in CO<sub>2</sub> emissions outlined in the IEAs NZE 2050 Scenario for the electricity sector.

The Scope 3 emissions, associated with the downstream use of the energy that our oil and gas customers produce and sell, are typically responsible for around 80-90% of their value chain emissions. It follows that this source of emissions will have the largest influence over our 2030 target. Under the NZE 2050 Scenario, emissions from the final

consumption of gas (industry, transport, and buildings) and in the electricity sector reduce by a combined 17% between 2019 and 2030. For oil it is 35%, which we applied to our customers' production of crude oil, synthetic oil, bitumen, condensate, natural gas liquids and liquefied petroleum gases.

The result after applying these reductions to the various parts of our 2020 financed emissions portfolio is the need for a 26% reduction in absolute financed emissions that we aim to achieve by 2030.<sup>2</sup> It is important to note however that because the financed emissions figures we report in 2030 will be based mostly on our customers' reported information for the 2029 calendar year, our 26% target is based on what is required over a 10-year trajectory towards the 2030 targets rather than the 11-year timeframe that is modelled in the NZE 2050 scenario (2019-2030) (see target calculation approach below).

**Target Adjustment**

During FY23, ANZ adjusted downwards the 2020 baseline for our 26% emissions reduction target. We have done this following the introduction of new APRA Basel IV rules that alter the way EAD is calculated. For our oil and gas portfolio, the aggregate impact of this change has been a material reduction in EAD, which means a lower proportion of our customers' Scope 1, 2 & 3 emissions is attributed to us.<sup>3</sup>

We have also restated our FY20 and FY22 results to reflect changes in data sources that we have relied on to calculate Scope 3 emissions for some of our customers. These restatements also build in the changes brought about by more precise attribution of our finance to the activities of two customers in our portfolio and correction of minor data issues.

**Complementary oil and gas metrics – portfolio and physical emissions intensity**

In addition to reporting annual performance against our absolute emissions target, the guidelines of the NZBA include two additional metrics:

- Portfolio wide emissions intensity; and
- Sector-specific emissions intensity

**Portfolio wide emissions intensity metric:**

ANZ has chosen to report this as kilograms of CO<sub>2</sub>-e per dollar lent. This is calculated by dividing the absolute financed emissions (calculated in accordance with the methodology outlined above) by the total financing to customers that were considered within the boundary of the metric.

**Sector-specific emissions intensity metric:**

ANZ reports this as kilograms of CO<sub>2</sub>-e per gigajoule of energy produced (and available for sale). The numerator of this metric is again the absolute emissions figure calculated in accordance with the methodology outlined above. The denominator is the total combined oil and gas production that is attributed to ANZ's finance using the same attribution factors outlined on page 10. The embodied energy in our customers' oil and gas products was calculated by using mass and volumetric conversion factors published by the American Petroleum Institute (API)<sup>4</sup> and based on the net calorific value.

Emissions source	Percentage of total ANZ 2020 financed emissions (CO <sub>2</sub> -e) (A)	IEA NZE 2050 Reduction Pathway (2019-2030) (B)	Contribution to ANZ 2030 reduction target (C) (C=A*B*10/11)
<b>Scope 1 – Operational</b>			
CO <sub>2</sub> -related emissions	9.5%	-53.4%	-4.6%
Methane-related emissions	1.1%	-75%	-0.7%
<b>Scope 2 – Operational</b>	0.7%	-57.9%	-0.4%
<b>Scope 3 – Use of products</b>			
Liquids	41.9%	-34.6%	-13.2%
Gas	46.9%	-17.2%	-7.3%
<b>Weighted average emissions reduction</b>			$\Sigma C = -26\%$

1. International Energy Agency (2021) Net Zero by 2050: A Roadmap for the Global Energy Sector, p199. 2. Restatement of our FY20 financed emissions baseline has resulted in some small adjustments to the percentages we reported in Columns A & C for our target calculation table. There was no adjustment however, to the overall need for a 26% reduction in absolute financed emissions by 2030 for our oil and gas portfolio. 3. While these APRA capital reforms only came into effect from 1 January 2023, we see it as important to benchmark our current and future performance against a consistent set of rules, hence the reason why we have estimated what our financed emissions for the FY20 year would have been using the APRA Basel IV rules (approximately 9.3% downward revision). We have also estimated our FY22 financed emissions using the new APRA Basel IV rules. 4. American Petroleum Institute, Compendium of Greenhouse Gas Emissions Methodologies for the Natural Gas and Oil Industry, November 2021.

Introduction

**Energy**

Transport

Manufacturing

Buildings

Other

Total lending portfolio

## THERMAL COAL

### Overview

The 2030 target we have set for our Thermal Coal Mining portfolio is a 100% reduction in absolute financed emissions from a 2020 baseline. It covers the Scope 1, 2 and 3 (product use) emissions of in scope<sup>1</sup> customers that generate the majority<sup>2</sup> of their revenue from thermal coal mining (categorized into Australian and New Zealand Standard Industrial Classification (ANZSIC) code 1102).<sup>3</sup> Customers included in the metric each year are those to which we have at least \$1m exposure at default (EAD) at the end of our financial reporting year (September 30).<sup>4</sup>

Our choice of an absolute emissions reduction target recognises that there are limited opportunities to fully reduce the carbon intensity of fossil fuel products in all 1.5°C scenarios. Since 2015, we have reduced our lending directly to thermal coal mining by around 85% – it is now around 0.02% of our Group EAD. Our exposure to thermal coal is expected to continue to decline in line with our policy measures outlined in our Climate Change Commitment and Extractive Industries Policy, which includes no longer onboarding any new business customers with material thermal coal exposures, or directly financing new thermal coal mines or power plants.<sup>5</sup>

Scope 3 emissions derived from the combustion of thermal coal typically account for more than 95% of the emissions of the sector. ANZ accounts for Scope 3 emissions included in our pathway using our customers' equity-based production<sup>6</sup> of thermal coal made available for sale.

While this accounting approach helps to minimise the risk of double counting of emissions, we would note that some double counting of Scope 3 emissions from thermal coal may occur given this may make up the Scope 1 emissions of coal-fired power generators in our power generation metric.

The IEA's Net Zero by 2050 Report highlights opportunities for the coal sector to reduce emissions across the value chain. In relation to their own operations, a top priority for thermal coal companies is to reduce coal mine methane emissions and to reduce the use of diesel fuel by switching to biofuels and electric powered equipment. In relation to the Scope 3 emissions generated from the burning of coal, reductions will depend on the combined actions of businesses, governments and consumers.

**Table 3 – Key design choices in calculating 2030 thermal coal financed emissions target**

<b>ANZ Customers Included</b>	<ul style="list-style-type: none"> <li>Australian and New Zealand Standard Industrial Classification (ANZSIC)<sup>7</sup> code 1102, i.e. those customers for whom thermal coal mining is their predominant activity<sup>8</sup></li> <li>Customers above are included where ANZ's exposure is at least \$1 million</li> </ul>
<b>Emissions Included</b>	<ul style="list-style-type: none"> <li>Scope 1, 2 and 3 (category 11, product use) for all companies included in scope<sup>9</sup></li> </ul>
<b>Metric</b>	<ul style="list-style-type: none"> <li>Absolute emissions (in million tonnes CO<sub>2</sub>-e) (Mt CO<sub>2</sub>-e)</li> </ul>
<b>Financing Activities Included</b>	<ul style="list-style-type: none"> <li>Exposure at default: represents the Group's exposure to each sector based on APRA's calculation formula which includes total committed loans (drawn plus a proportion of off-balance sheet exposures as specified by APRA</li> <li>Rehabilitation bonds and transaction banking are not included<sup>9</sup></li> </ul>
<b>Attribution Approach</b>	<ul style="list-style-type: none"> <li>ANZ financing to customers as a proportion of customer value.</li> <li>Customer values are based on the following definitions:                             <ul style="list-style-type: none"> <li><b>Private company:</b> Book value of debt and equity</li> <li><b>Public company:</b> Enterprise value including cash (EVIC)</li> </ul> </li> </ul>
<b>Benchmarking Scenario</b>	<ul style="list-style-type: none"> <li>International Energy Agency (IEA) Net Zero Emissions by 2050 World Scenario (2021)</li> </ul>
<b>Key External Data Sources</b>	<ul style="list-style-type: none"> <li>Customer disclosures</li> <li>Wood Mackenzie</li> <li>AME</li> <li>International Energy Agency</li> <li>2006 IPCC Guidelines for National Greenhouse Gas Inventories</li> </ul>

**1.** Includes emissions from thermal coal production only. Emissions from metallurgical coal production are not included in the scope of this target. **2.** Includes customers for whom thermal coal mining is the predominant activity. Excludes diversified miners where thermal coal mining is not their predominant activity. **3.** Australian and New Zealand Standard Industrial Classification (ANZSIC). The Australian Bureau of Statistics and Statistics New Zealand jointly developed this classification to improve the comparability of industry statistics between the two countries and with the rest of the world. **4.** Cumulative customer exposures below this threshold represent a very small part of our overall financing activities in the thermal coal sector (<0.8%), meaning that their exclusion does not materially affect our financed emissions calculations. **5.** Our lending is informed by our evolving social, environmental and credit policies, which includes commitments relating to thermal coal. Information on our policies is available here: <https://www.anz.com.au/about-us/esg/policies-practices/responsible-business-lending/>. **6.** Proportion of thermal coal production in line with equity stake in the production facility. **7.** ANZSIC has been developed for use in the compilation and analysis of industry statistics in Australia and New Zealand. The Australian Bureau of Statistics and Statistics New Zealand jointly developed this classification to improve the comparability of industry statistics between the two countries and with the rest of the world. **8.** Includes emissions from thermal coal production only. Emissions from metallurgical coal production are not included in the scope of this target. **9.** We will continue to provide rehabilitation bonds for those existing customers with some thermal coal exposure to ensure their responsibilities with exiting mine sites are fulfilled. The purpose of a rehabilitation bond is related to environmental remediation and not financing of the coal mining activity itself. As at 30 September 2023, rehabilitation bonds were \$169m, which equates to 64.7% of our exposure to thermal coal mining under ANZSIC code 1102.

Introduction

**Energy**

Transport

Manufacturing

Buildings

Other

Total lending portfolio

## THERMAL COAL (CONTINUED)

### Activities and Emissions in Scope

To identify customers with ownership stakes in thermal coal mining, we used the ANZSIC code for thermal coal mining.

The NZBA *'Guidelines for Climate Target Setting for Banks'* states that any client with more than 5% of their revenues coming directly from thermal coal mining shall be included in the scope of targets and specifies that metallurgical coal is considered within the value chain of the iron and steel sector.<sup>1</sup> The customers within ANZ's thermal coal target are those with ANZSIC code 1102, i.e. those customers for which thermal coal mining is their predominant activity<sup>2</sup>. The target does not include diversified miners or metallurgical coal miners that produce thermal coal as a by-product (i.e. customers that are not classified as ANZSIC code 1102). Analysis of this 5% revenue threshold found that diversified miners and metallurgical coal miners that produce thermal coal as a by-product would fall in and out of the target boundary on any given year in line with changes in commodity prices. This creates challenges in both reporting and setting a target for these customers at this stage.

We have also decided to exclude transaction banking related exposures (<2% of the total exposure) and environmental rehabilitation bonds from our target boundary. We will continue to provide rehabilitation bonds for existing customers with thermal coal exposure to ensure their responsibilities with exiting mine sites are fulfilled.

The purpose of a rehabilitation bond is related to environmental remediation and not financing of the coal mining activity itself.

The emissions included in the target are the Scope 1 and 2 emissions of our customers' own operations and the downstream Scope 3 emissions associated with the use of thermal coal, where it is assumed, it is all fully combusted without any use of carbon capture and storage technologies. Non-CO<sub>2</sub> gases, such as methane, are included within our target boundary.

Our methodology does not currently consider the use of any offsets that are used by customers to reduce their emissions. We will look to further develop a position on the use of offsets in the coming years, however we apply a general principle that emissions should first be avoided, with offsetting used only to compensate for residual and unavoidable emissions. We note the NZBA provides qualified support for their use where there are limited technologically or financially viable alternatives to eliminate emissions and the offsets are of the highest quality.

### 4.3 Data used to calculate customer emissions intensity

To maximise the quality of the data we used to calculate our financed emissions, ANZ was guided by the Global GHG Accounting and Reporting Standard for the Financial Industry – Part A published by the Partnership for Carbon Accounting Financials (PCAF).<sup>3</sup>

### Scope 1 and 2 emissions

For Scope 1 and 2 emissions, we prioritised the use of company reported emissions based on the equity accounting approach. If equity-based emissions were not reported, we relied on company disclosure of emissions based on the operational control approach.

We prefer to use our customers' equity-reported Scope 1 and 2 emissions because companies in the thermal coal industry may have small, non-operating stakes in projects that would otherwise be accounted as zero emissions if we had chosen an operational control consolidation approach. While these companies may not be the operator of the projects, we consider that their equity in thermal coal projects still provides them with a degree of influence in shaping policies and initiatives aimed at mitigating the Scope 1 & 2 emissions from the projects.

Where our customers did not report any Scope 1 & 2 emissions data, we relied on estimates provided by specialist third party data vendor, Wood Mackenzie, which uses proprietary models to estimate emissions on a mine by mine basis. This covers emissions from mining activities including blasting, hauling, washing and coal preparation, along with fugitive emissions.

### Scope 3 emissions

Although some of our customers are now reporting their Scope 3 emissions from the use of their sold thermal coal, we found that these customers are applying boundaries inconsistently. Accordingly,

we decided against relying on our customers' disclosures of Scope 3 'use of product' emissions.

Instead, ANZ uses the production data reported in our customers' mainstream financial reports as the preferred source of information to calculate the downstream Scope 3 emissions associated with the final use of their products (Category 11). Where possible, we based this on the reported saleable coal production which is the shippable product of a coal mine.

By estimating our customers' Scope 3, use of product emissions based on their equity production, we are more accurately measuring each customer's emissions resulting from the energy that they introduce into the world's economy. The experience that our thermal coal customers have in providing regular market updates on their production and reserves means that this is a credible source of information on which to base our Scope 3 emissions calculations.

To convert our customers' production data into estimated emissions, we multiplied saleable coal production quantities by emission factors obtained from the Intergovernmental Panel on Climate Change (IPCC)<sup>4</sup> to estimate the emissions resulting from the assumed full stoichiometric combustion of the mined thermal coal.

Introduction

Energy

Transport

Manufacturing

Buildings

Other

Total lending portfolio

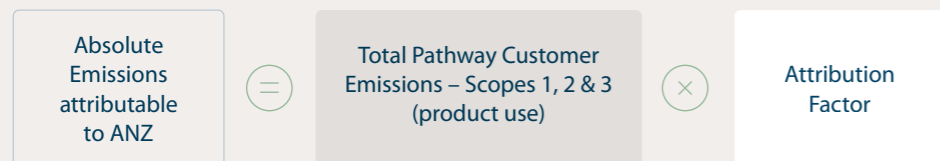
<sup>1</sup>. The NZBA *'Guidelines for Climate Target Setting for Banks'*. <sup>2</sup>. Includes emissions from thermal coal production only. Emissions from metallurgical coal production are not included in the scope of this target. <sup>3</sup>. Refer to p41-42 and the Annex of the PCAF standard that is available [here](#). <sup>4</sup>. Intergovernmental Panel on Climate Change (IPCC), 2006 IPCC Guidelines for National Greenhouse Gas Inventories.



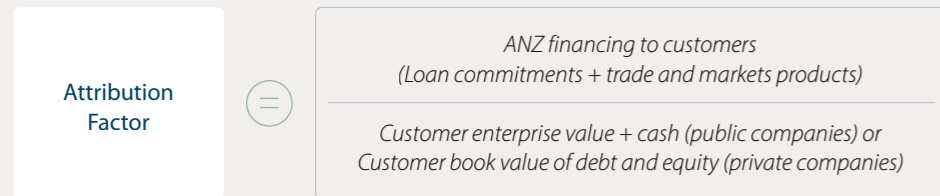
**THERMAL COAL (CONTINUED)**

**Calculation of absolute financed emissions**

To determine what portion of our customers’ emissions are attributable to ANZ’s financing activities, we multiply each of our customers’ emissions by an attribution factor as per the formula below:



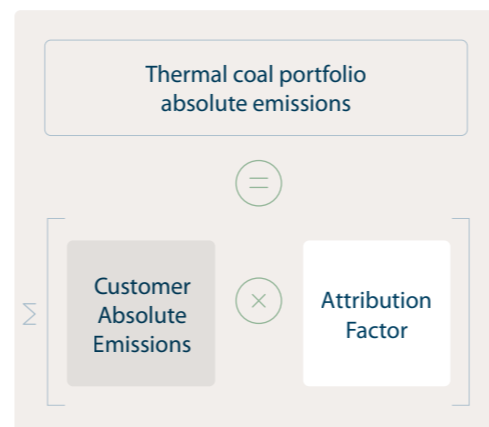
The attribution factor is calculated by dividing ANZ’s financing by our pathway customers’ value using the formula below:



For publicly traded companies, customer value is enterprise value including cash (EVIC). For privately held companies, customer value is the book value of debt plus equity. This approach reflects the relative weight of our financing within a customer’s capital structure.

ANZ has taken a conservative approach to the numerator in the attribution factor and has included the total sum of committed loans we have issued to thermal coal mining customers (drawn plus a proportion of off-balance sheet exposures as specified by APRA). This departs from the PCAF recommended approach, which includes the outstanding amount of loans and investments (but does not include undrawn amounts). While this approach means that we have attributed a higher proportion of our customers’ emissions, we consider this provides a more accurate representation of our support to thermal coal mining companies and the transition risks to which we are potentially exposed.

To calculate the absolute financed emissions of our full portfolio, we aggregate the absolute financed emissions of individual customers in accordance with the following formula:



ANZ remains open to adjusting our approach to calculating financed emissions as the quality and availability of data improves and as standards evolve.

**Climate Scenario and Target**

ANZ has chosen to align our 2030 target with the IEA’s Net Zero Emissions by 2050 (NZE 2050) Scenario that was published in 2021. This scenario aligns with NZBA guidance that banks should use scenarios produced from credible and well-recognised sources that align with no/low overshoot 1.5°C transition pathways.

We chose 2020 as the baseline for our 2030 thermal coal sector target. This aligns with the baseline we set for our power generation and oil and gas pathways and because it predominantly relies on company emissions and production data from the 2019 calendar year, it also provides more representative data than 2020, during which global energy markets were significantly distorted because of COVID-19.

There were several factors we considered in setting our 100% reduction target. Since 2015 we have reduced lending provided directly to thermal coal mining by around 85%<sup>1</sup>. As the vast majority of emissions is due to Scope 3 end use of the product, we don’t consider efforts to decarbonise the mining process will dramatically impact the overall emissions across the value-chain. We note that while technological advances may emerge in future there is currently no large scale, economically viable CCUS on the horizon to mitigate the impact of the Scope 3 emissions.

- Introduction
- Energy**
- Transport
- Manufacturing
- Buildings
- Other
- Total lending portfolio

<sup>1</sup> This exposure is to the ANZSIC code 1102, i.e. those customers for whom thermal coal mining is their predominant activity. It does not include other thermal coal mining exposure to diversified miners or metallurgical coal miners that produce thermal coal as a by-product (i.e. customers who are not classified as ANZSIC code 1102).



## THERMAL COAL (CONTINUED)

### Complementary thermal coal metrics – portfolio and physical emissions intensity

#### Total thermal coal financed emissions by customer type metric:

We also report a complementary thermal coal metric that is aimed at providing enhanced transparency over the breakdown of our financed emissions from each customer type: those included in our thermal coal target (ANZSIC code 1102), as well as both metallurgical coal miners and diversified miners where more than 5% of revenue comes directly from thermal coal. For these customers we calculate absolute financed emissions consistent with the method outlined above. Given our active portfolio management in line with our Extractives Industry Policy outlined in our Climate Change Commitment, our thermal coal exposures are now primarily within our metallurgical coal miners that produce thermal coal as a by-product and diversified mining customers' portfolios (through corporate lending facilities).

In addition to reporting annual performance against our absolute emissions target, the guidelines of the NZBA include two additional metrics:

- Portfolio wide emissions intensity; and
- Sector-specific emissions intensity

#### Portfolio-wide emissions intensity metric:

ANZ has chosen to report this as kilograms of CO<sub>2</sub>-e per dollar lent. This is calculated by dividing the absolute financed emissions (calculated in accordance with the methodology outlined on page 14) by the total financing to customers that were considered within the boundary of the metric.

#### Sector-specific emissions intensity metric:

ANZ has chosen to report this as kilograms of CO<sub>2</sub>-e per gigajoule of energy produced (and available for sale). The numerator of this metric is again the absolute emissions figure calculated in accordance with the methodology outlined on page 14. The denominator is the total thermal coal production that is attributed to ANZ's finance using the same attribution factors outlined on page 14. The embodied energy in our customers' coal product was based on the net calorific value.

Introduction

**Energy**

Transport

Manufacturing

Buildings

Other

Total lending portfolio

## TRANSPORT

### AUTO MANUFACTURING

#### Overview

ANZ has set a 2030 target to reduce the emissions intensity of auto manufacturing by 28% compared to 2022 baseline. We use a portfolio-weighted, emissions intensity metric (i.e., carbon emissions per vehicle kilometre) to measure the extent to which our financing is supporting the transition of the light duty vehicles (i.e., cars) produced by our customers in the auto manufacturing sector (excludes trucks, buses and motorbikes).

The emissions included in the metric are the total expected lifetime emissions from all relevant cars sold which are a source of Scope 3 emissions for the

auto manufacturing sector. This is a commonly used metric and is expected to promote greater comparability across all auto manufacturers.

ANZ has also set a 2025 target to track our performance against a secondary metric that measures the powertrain mix of our customers' new vehicle sales broken down by technology type, namely internal combustion engines, hybrid and zero emissions vehicles (electric or hydrogen).

The key design choices we used in calculating our emissions intensity reduction target for auto manufacturing sector are summarised in Table 4 below.

#### Activities and Emissions in Scope

Institutional customers included in the metric are those to which we have at least \$10m exposure at default (EAD) at the end of our financial reporting year (September 30)<sup>1</sup> and have a primary business of auto manufacturing.

To identify customers with auto manufacturing facilities, we used the ANZSIC code for auto manufacturing. This captures companies that own or operate one or more auto manufacturing facility. Our target excludes companies that manufacture road vehicle parts and/or trucks and buses and motorbikes, due to the complexity of assessment.<sup>2</sup>

The target covers the Scope 3 emissions of auto manufacturers light duty vehicle (passenger cars) production, incorporating tailpipe emissions because they are the most material source.<sup>2</sup>

The powertrain mix indicator shows the portfolio-weighted breakdown of new car sales split across three powertrain mixes:

- i. Internal combustion engines,
- ii. Hybrid, including plug-in hybrid,
- iii. Battery electric vehicles/fuel-cell vehicles.

The emissions intensity target does not currently capture Scope 1 & 2 emissions during vehicle manufacturing, or emissions from battery manufacturing for electric vehicles. We will consider extending our reporting to include the wider value chain in the coming years as standards evolve.

Currently, our methodology does not consider the use of offsets that are used by our customers to offset their emissions. We will look to further develop a position on the use of offsets in the coming years, however we apply a general principle that emissions should first be avoided, with offsetting used only to compensate for residual emissions.

#### Data used to calculate customer emissions intensity

To maximise the quality of the data we used to calculate our financed emissions, ANZ was guided by the *Global GHG Accounting and Reporting Standard for the Financial Industry – Part A* published by PCAF. With auto manufacturing being a higher emitting sector, there has been widespread adoption of corporate greenhouse gas accounting which is available in company reports and third-party databases.

We prioritised the use of company reported emissions and production data based on the equity share accounting approach. The emissions included in our auto manufacturing sector target are the Scope 3 emissions associated with the lifetime use of new vehicle sales which are commonly referred to as well-to-wheel emissions (approximately 150,000 km<sup>2</sup>). We obtain this emissions data from public reports issued by the manufacturing company and/or the Transition Pathway Initiative dataset for auto manufacturing, to ensure that we are able to benchmark on a like-for-like basis with the IEA's NZE 2050 Scenario.

We used the latest available customer information on production and emissions as of our financial year end of 30 September 2023 to report our portfolio wide emissions intensity. In some cases, 2023 data had not yet been released and so 2022 data was relied upon. We consider this the most accurate representation of ANZ's emissions intensity in 2023.

**Table 4 – Key design choices in calculating auto manufacturing production financed emissions reduction target**

<b>ANZ customers included</b>	<ul style="list-style-type: none"> <li>Companies that own or operate one or more auto manufacturing facility (excludes vehicles other than cars, such as trucks, buses and motorbikes)</li> </ul>
<b>Emissions included</b>	<ul style="list-style-type: none"> <li>Scope 3 – tailpipe emissions of cars manufactured by ANZ customers included in the target during the year of assessment (excludes vehicles other than cars, such as trucks, buses and motorbikes)</li> </ul>
<b>Metrics</b>	<ol style="list-style-type: none"> <li>Emissions intensity of newly manufactured cars (gCO<sub>2</sub>-e/vkm)</li> <li>The powertrain mix indicator showing the percentage per technology (internal combustion engines, hybrid (including plug in hybrid) and battery electric vehicles (or hydrogen fuel cell)) of our financed automotive portfolio</li> </ol>
<b>Financing activities included</b>	<ul style="list-style-type: none"> <li>Exposure at default: represents the Group's exposure to each sector based on APRA's calculation formula which includes total committed loans (drawn plus a proportion of off-balance sheet exposures as specified by APRA)</li> </ul>
<b>Attribution approach</b>	<ul style="list-style-type: none"> <li>Portfolio-weighted approach (measures ANZ's financing to customers as a proportion of ANZ's total financing to the auto manufacturing sector)</li> </ul>
<b>Benchmarking Scenario</b>	<ul style="list-style-type: none"> <li>IEA's NZE 2050 Scenario</li> </ul>
<b>Key External Data Sources</b>	<ul style="list-style-type: none"> <li>Customer disclosures</li> <li>Transition Pathway Initiative</li> </ul>

<sup>1</sup>. It is estimated that cumulative customer exposures below this threshold represent a very small part of our overall financing activities in the auto manufacturing sector (<0.1%). <sup>2</sup>. Aligned with guidance issued by the Science Based Targets Initiative.

Introduction

Energy

**Transport**

Manufacturing

Buildings

Other

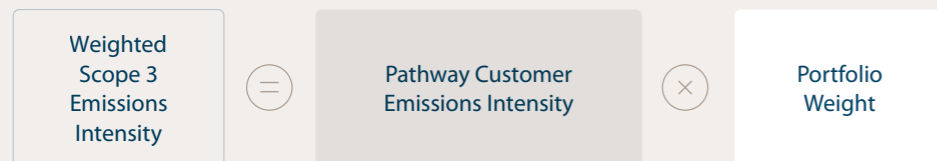
Total lending portfolio

AUTO MANUFACTURING (CONTINUED)

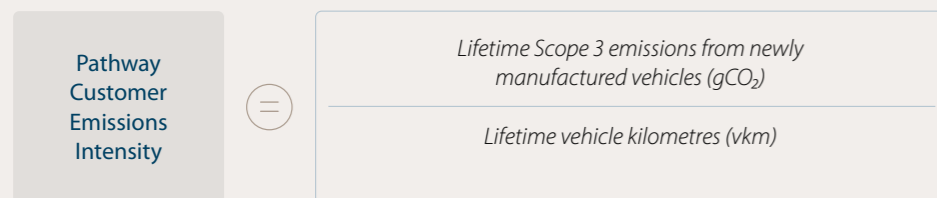
Calculation of portfolio-weighted emissions

ANZ has adopted a portfolio-weighted, emissions intensity metric to measure the extent to which our financing is supporting the transition of the auto manufacturing sector. By focusing on each customer’s emissions intensity – irrespective of their annual auto production volume – it allows comparability between our customers.

The portfolio-weighted emissions intensity for each customer is calculated using the following formula:



The emissions intensity of our customers’ vehicle production each year is calculated by dividing their Scope 3 emissions (tailpipe emissions from newly manufactured cars over their expected lifetime) by the total kilometres (vkm) those vehicles are expected to travel over their lifetime, using the formula below:

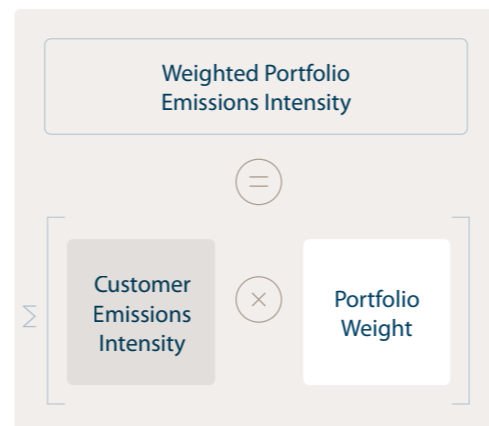


The portfolio weight for each customer is a measure of ANZ’s financing to a customer relative to our total financing to all customers in the auto manufacturing sector. It is calculated using the formula shown below:



1. Net Zero Roadmap: A Global Pathway to Keep the 1.5C Goal in Reach.

To calculate the portfolio wide emissions intensity, we aggregate the company-level performance indicators using the following formula:



While ANZ believes that a weighted portfolio emissions intensity metric is useful, we remain open to considering other approaches as standards continue to evolve.

Complementary metric: Powertrain technology mix

The key lever for automotive sector decarbonisation is a rapid transition away from the internal combustion engine towards zero emissions powertrains such as battery electric vehicles and/or fuel-cell vehicles.

Powertrain technology mix per auto manufacturer (in percentage of vehicles produced) is sourced from new vehicle sales data reported by customers. The produced fleet is segregated across three powertrain mixes:

- i. Internal combustion engines,
- ii. Hybrid, including plug-in hybrid,
- iii. Battery electric vehicles/hydrogen fuel-cell vehicles.

Climate Scenario and Target

ANZ has chosen to align our 2030 target of 99 gCO<sub>2</sub>-e/vkm with the International Energy Agency (IEA) Net Zero Emissions by 2050 Scenario published in 2021. This scenario aligns with the Net-Zero Banking Alliance guidance that banks should benchmark targets against scenarios produced by credible and well-recognised sources that align with no/low overshoot 1.5°C transition pathways. The Scenario puts auto manufacturers on a pathway to achieve net zero emissions by 2050.

2023 is the first year that ANZ has reported on the emissions intensity of our auto manufacturing financing activities. ANZ’s 2022 target portfolio baseline of 137 gCO<sub>2</sub>-e/vkm is marginally below the IEA NZE 2050 baseline of 140g CO<sub>2</sub>-e/vkm. The EU emissions standards are seen as the most stringent emissions standards worldwide and have been provided as a reference point. The ANZ portfolio is currently tracking above the EU emissions standards.

In September 2023, the IEA released a 2023 update of its Net Zero Roadmap,<sup>1</sup> which included an updated scenario for the auto manufacturing sector. In time, we will review this scenario and assess its ambition in comparison to our existing benchmarking scenario.

The opportunities for carbon emission reductions for the auto manufacturing sector are well defined. It is expected the reductions required to meet the NZE pathway will primarily be achieved through increased production of zero emissions vehicles through the electrification of vehicles and/or hydrogen fuel-cell vehicles.

- Introduction
- Energy
- Transport**
- Manufacturing
- Buildings
- Other
- Total lending portfolio

AUTO MANUFACTURING (CONTINUED)

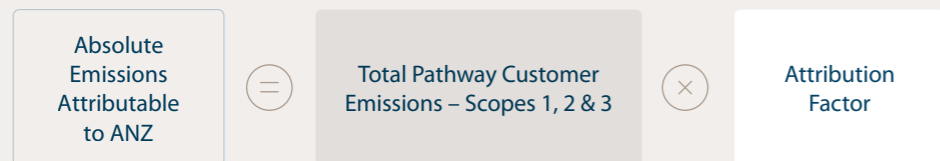
**Complementary auto manufacturing metric – absolute emissions and portfolio emissions intensity**

In addition to reporting annual performance against our emissions intensity target, the guidelines of the NZBA include two additional metrics.

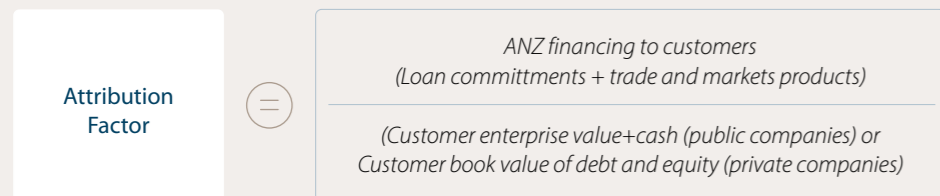
- Absolute financed emissions; and
- Portfolio wide emissions intensity

**Absolute Financed Emissions**

ANZ has chosen to report this as Mt CO<sub>2</sub>-e. To determine what portion of our customers’ emissions are attributable to ANZ’s financing activities, we multiply each of our customer’s emissions from auto manufacturing by an attribution factor as per the formula below:



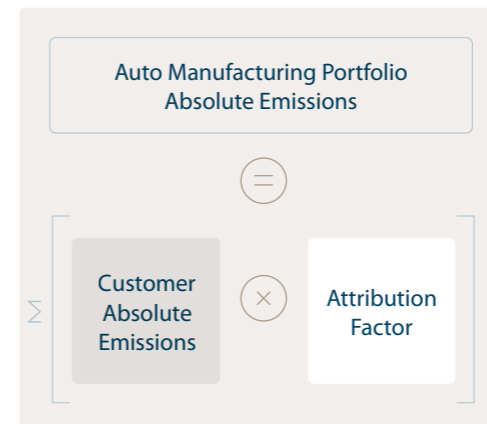
The attribution factor is calculated by dividing ANZ’s financing by our customer’s value as shown in the formula below:



For publicly traded companies, customer value is enterprise value including cash (EVIC). For privately held companies, customer value is the book value of debt plus equity. This approach reflects the relative weight of our financing within a customer’s capital structure.

ANZ has taken a conservative approach to the numerator in the attribution factor and has included the total sum of committed loans we have issued to auto manufacturing customers (drawn plus a proportion of off-balance sheet exposures as specified by APRA). This departs from the PCAF recommended approach, which includes the outstanding amount of loans and investments (but does not include undrawn amounts). While this approach means that we have attributed a higher proportion of our customers’ emissions, we consider this provides a more accurate representation of our support to auto manufacturing companies and the transition risks to which we are potentially exposed.

To calculate the absolute financed emissions of our full portfolio, we aggregate the financed emissions of individual customers using the following formula:



ANZ remains open to adjusting our approach to calculating financed emissions as the quality and availability of data improves and as standards evolve.

**Portfolio wide emissions intensity metric**

ANZ has chosen to report this as kilograms of CO<sub>2</sub>-e per dollar lent. This is calculated by dividing the absolute financed emissions (calculated in accordance with the methodology outlined above) by the total financing to customers that were considered within the boundary of the metric.

- Introduction
- Energy
- Transport**
- Manufacturing
- Buildings
- Other
- Total lending portfolio

## AVIATION

### Overview

ANZ has set a 2030 target to reduce the emissions intensity of aviation by 20%<sup>3</sup> (compared to 2019 baseline). We use a portfolio-weighted, emissions intensity metric (i.e., carbon emissions per revenue tonne kilometre (RTK)) to measure the extent to which our financing is supporting the transition of the aviation sector. This is a commonly used metric in the industry, and we expect that it will promote greater comparability across operators in the aviation sector. Using the emissions intensity metric also means that we will be able to balance supporting the business growth of our customers while working with them to reduce the emissions generated per kilometre flown.

Our target covers the Scope 1 and 3 emissions from assets either owned by our customers or under their operational control. Our target does not currently capture Scope 2 emissions, as they are considered immaterial for the aviation sector, as per the SBTi guidance.<sup>1</sup> We will consider extending our reporting to include the wider value chain in the coming years as standards evolve.

The key design choices we used in calculating our emissions intensity reduction target for the aviation sector are summarised in Table 5 below.

**Table 5 – Key design choices in calculating the aviation sector emissions intensity reduction target**

<b>ANZ Customers Included</b>	<ul style="list-style-type: none"> <li>Commercial airlines that own and/or operate passenger and cargo aircraft on domestic and/or international routes and that we have at least \$10m exposure at default (EAD) at the end of our financial reporting year (September 30)</li> </ul>
<b>Emissions Included</b>	<ul style="list-style-type: none"> <li>Scope 1 &amp; 3 – jet fuel</li> </ul>
<b>Metric</b>	<ul style="list-style-type: none"> <li>Emissions per revenue tonne-kilometre of air travel (gCO<sub>2</sub>-e/RTK)</li> </ul>
<b>Financing Activities Included</b>	<ul style="list-style-type: none"> <li>Exposure at default: represents the Group's exposure to each sector based on APRA's calculation formula which includes total committed loans (drawn plus a proportion of off-balance sheet exposures as specified by APRA)</li> </ul>
<b>Attribution Approach</b>	<ul style="list-style-type: none"> <li>Portfolio-weighted approach (measures ANZ's financing to customers as a proportion of ANZ's total financing to the aviation sector)</li> </ul>
<b>Benchmarking Scenario</b>	<ul style="list-style-type: none"> <li>Science-Based Targets initiative (SBTi) 1.5°C scenario</li> </ul>
<b>Key External Data Sources</b>	<ul style="list-style-type: none"> <li>Customer reports</li> <li>Transition Pathway Initiative</li> </ul>

### Activities and Emissions in Scope

Institutional customers included in the metric each year are those that own and/or operate passenger and cargo aircraft as described in Table 5 and in respect of which we have at least \$10m exposure at default (EAD) at the end of our financial reporting year (September 30). For airlines, we used their Scope 1 and Scope 3 emissions from combustion of jet fuel.

To identify commercial airlines, we used the ANZSIC code for aviation. This captures corporate and asset financing to customers whose main business activity falls under this activity. It excludes the emissions that result from other parts of their business (e.g., services to air transport, travel agency, terminal operation) and our exposures to them.

Currently, our methodology does not consider the use of any offsets that are used by our customers to offset their emissions. However, given the 'hard-to-abate' nature of some emissions sources within the aviation sector, there may be residual emissions in 2050, where technologies do not exist to eliminate them.

We will look to further develop a position on the use of offsets in the coming years, however we apply a general principle that emissions should first be avoided, with offsetting used only to compensate for residual emissions.

We note that various working groups are looking at defining a methodology and standards to report the emission intensity of aviation portfolios. ANZ will consider whether these proposed reporting standards can be adopted for our aviation pathway once they become available.

### Data used to calculate customer emissions intensity

To maximise the quality of the data we used to calculate our financed emissions, ANZ was guided by the *Global GHG Accounting and Reporting Standard for the Financial Industry – Part A*<sup>2</sup> published by PCAF. With aviation being a higher emitting sector, there has been widespread adoption of corporate greenhouse gas accounting which is available in company reports and regulatory or third-party databases.

We prioritised the use of company reported emissions and production data based on the equity share accounting approach.<sup>2</sup> If equity-based data was not reported, we used company reported emissions and production data including data from the Transition Pathway Initiative.

We used the latest available customer information on revenue tonne kilometre and emissions as of financial year end of September 30 to report our portfolio wide target emissions intensity. In some cases, 2023 data had not yet been released and so 2022 data was relied upon to calculate the 2023 position. We consider this the most accurate representation of ANZ's emissions intensity in 2023.

Introduction

Energy

**Transport**

Manufacturing

Buildings

Other

Total lending portfolio

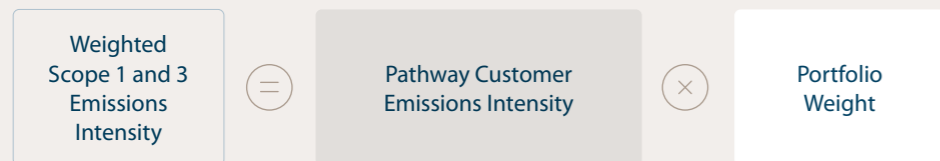
**1. Aviation – Science Based Targets.** **2.** Standard available for download [here](#). **3.** We have restated this target due to an error. We previously stated that our 2030 emissions intensity target for aviation required a 30% reduction from our 2019 baseline whereas, in fact, it only requires a 20% reduction from our 2019 baseline. The target remains unchanged.

AVIATION (CONTINUED)

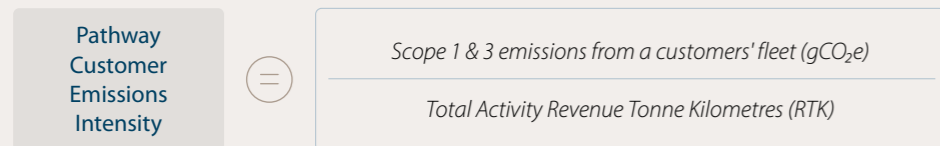
**Calculation of portfolio-weighted emissions**

ANZ has adopted a portfolio-weighted, emissions intensity metric to measure the extent to which our financing is supporting the transition of the aviation sector. By focusing on each customer’s emissions intensity – irrespective of the size of their fleet – it allows comparability between our customers.

The portfolio-weighted emissions intensity for each customer using the following formula:



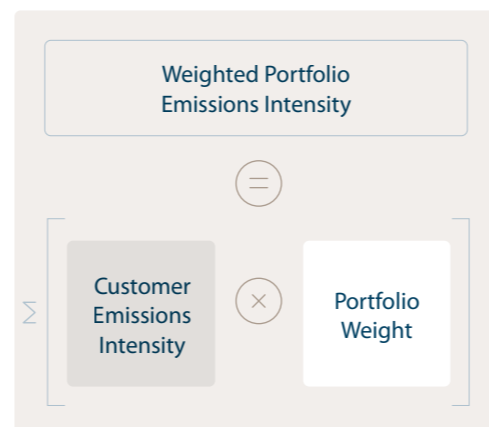
The emissions intensity of our customers’ fleet of aircraft is calculated by dividing their Scope 1 and Scope 3 emissions by the annual revenue tonne kilometres from the entire fleet over the corresponding 12-month period, as shown in the formula below:



The portfolio weight for each customer is a measure of ANZ’s financing to a customer, relative to our total financing to all customers in the aviation sector. It is calculated using the formula shown below:



To calculate the emissions intensity of our full target portfolio, we aggregate the company-level performance indicators in accordance with the following formula:



ANZ remains open to adjusting our approach to considering other approaches as standards evolve.

**Climate Scenario and Target**

ANZ has chosen to align our 2030 target with the SBTi’s Sectoral Decarbonization Approach (SDA) that was published in 2023. The SBTi scenario is derived from the Energy Technology Perspectives 2020 report by the International Energy Agency. This scenario outlines the scale and speed that the aviation sector needs to reduce greenhouse gas (GHG) emissions to align with the goals of the Paris Agreement.

This scenario aligns with Net-Zero Banking Alliance that banks should benchmark targets against scenarios produced by credible and well-recognised sources that align with no/low overshoot 1.5°C transition pathways.

ANZ chose 2019 as the baseline for our 2030 target for the aviation sector where the global average emissions intensity was 1,023 gCO<sub>2</sub>/RTK.<sup>1</sup> In contrast, the emissions intensity of ANZ’s portfolio was measured at the end of 2023 as 828 gCO<sub>2</sub>/RTK.

The entire aviation sector was adversely affected during the period 2020-2022 as the volume of international travel dropped significantly due to public health measures, such as lockdowns and border controls, imposed to control the COVID-19 pandemic.

The drop in occupancy of planes during this period resulted in significant increases in emissions intensity – measured as emissions per revenue tonne-kilometre.

We therefore do not believe that 2020-2022 emissions intensity was representative of a normal year, nor can it be a realistic starting point from which to measure future emissions reductions against. Instead, we have chosen 2019 as the baseline for our emissions reduction target given that it represents the last ‘normal’ year prior to the COVID-19 pandemic.

- Introduction
- Energy
- Transport**
- Manufacturing
- Buildings
- Other
- Total lending portfolio

1. The SBTi’s New Interim 1.5°C Aviation Pathway – Science Based Targets.



AVIATION (CONTINUED)

**Complementary aviation metric – Absolute emissions and portfolio emissions intensity**

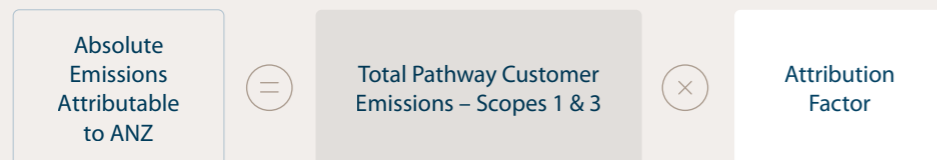
In addition to reporting annual performance against our emissions intensity metric, the guidelines of the NZBA make clear the need for signatory banks to report the emissions profile of our aviation portfolio using two additional metrics.

- Absolute financed emissions; and
- Portfolio wide emissions intensity

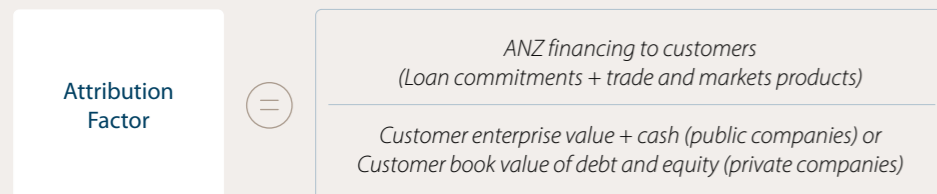
**Absolute Financed Emissions**

ANZ has chosen to report this as Mt CO<sub>2</sub>-e.

To determine what portion of our customers’ emissions are attributable to ANZ’s financing activities, we multiply each of our customer’s emissions by an attribution factor using the formula below:



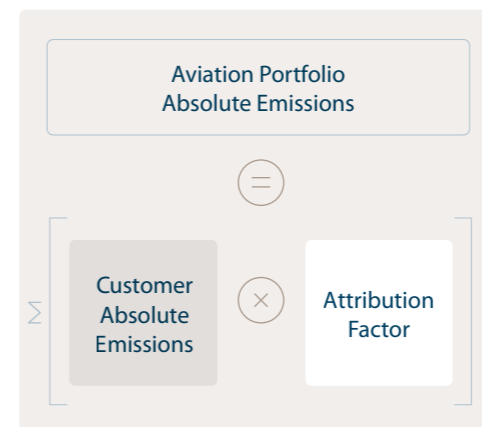
The attribution factor is calculated by dividing ANZ’s financing by our customer’s value using the formula below:



For publicly traded companies, customer value is enterprise value including cash (EVIC). For privately held companies, customer value is the book value of debt plus equity. This approach reflects the relative weight of our financing within a customer’s capital structure.

ANZ has taken a conservative approach to the numerator in the attribution factor and has included the total sum of committed loans we have issued to aviation customers (drawn plus a proportion of off-balance sheet exposures as specified by APRA). This departs from the PCAF recommended approach, which includes the outstanding amount of loans and investments (but does not include undrawn amounts). While this approach means that we have attributed a higher proportion of our customers’ emissions, we consider this provides a more accurate representation of our support to aviation companies and the transition risks to which we are potentially exposed.

To calculate the financed absolute emissions of our full portfolio, we aggregate the financed emissions of individual customers in accordance with the following formula:



ANZ remains open to adjusting our approach to calculating financed emissions as the quality and availability of data improves and as standards continue to evolve.

**Portfolio wide emissions intensity metric**

ANZ has chosen to report this as kilograms of CO<sub>2</sub>-e per dollar lent. This is calculated by dividing the absolute financed emissions (calculated in accordance with the methodology outlined above) by the total financing to customers that were considered within the boundary of the metric.

- Introduction
- Energy
- Transport**
- Manufacturing
- Buildings
- Other
- Total lending portfolio

## SHIPPING

### Overview

ANZ has set a 2030 target to reduce the absolute emissions of our shipping portfolio by 10% (compared to a 2022 baseline). The target covers the Scope 1 and 3 emissions from companies whose primary activity includes owning and operating domestic and/or international ocean-going vessels.

To calculate the financed emissions of our portfolio, we aggregate the financed emissions of our individual customers in line with the *Global GHG Accounting and Reporting Standard for the Financial Industry – Part A* published by the Partnership for Carbon Accounting Financials (PCAF).<sup>1</sup>

The key design choices we used in calculating our absolute emissions reduction target for our shipping sector is summarised in Table 6 below.

**Table 6 – Key design choices in calculating the shipping sector absolute emissions reduction target**

<b>ANZ Customers Included</b>	<ul style="list-style-type: none"> <li>Companies whose primary activity includes owning and operating domestic and/or international ocean-going vessels and that we have at least \$10m exposure at default (EAD) at the end of our financial reporting year (September 30)</li> </ul>
<b>Emissions Included</b>	<ul style="list-style-type: none"> <li>Scope 1 &amp; 3 emissions (fuel production, distribution and combustion)</li> </ul>
<b>Metric</b>	<ul style="list-style-type: none"> <li>Absolute emissions of shipping (Mt CO<sub>2</sub>-e)</li> </ul>
<b>Financing Activities Included</b>	<ul style="list-style-type: none"> <li>Exposure at default: represents the Group's exposure to each sector based on APRA's calculation formula which includes total committed loans (drawn plus a proportion of off-balance sheet exposures as specified by APRA)</li> </ul>
<b>Attribution Approach</b>	<ul style="list-style-type: none"> <li>ANZ financing to customers as a proportion of customer value. Customer values are based on the following definitions:               <ul style="list-style-type: none"> <li>– <b>Private company:</b> Book value of debt and equity</li> <li>– <b>Public company:</b> Enterprise value including cash (EVIC)</li> </ul> </li> </ul>
<b>Benchmarking Scenario</b>	<ul style="list-style-type: none"> <li>International Energy Agency (IEA) Net Zero Emissions by 2050 World Scenario (NZE 2050) (May 2021)</li> </ul>
<b>Key External Data Sources</b>	<ul style="list-style-type: none"> <li>Customer disclosures</li> </ul>

### Activities and Emissions in Scope

Institutional customers included in the metric are those to which we have at least \$10m EAD at the end of our financial reporting year (September 30) and hold shipping assets.<sup>2</sup>

To identify customers with shipping assets, we used the ANZSIC code for shipping. Our pathway captures companies whose primary activity includes owning and operating domestic and/or international ocean-going vessels.

The target covers the Scope 1 and 3 emissions from relevant customers. This approach was selected as:

- Lack of available emissions intensity data:** there is currently a lack of emissions intensity data available in the market. The International Maritime Organisation (IMO) has mandated the Carbon Intensity Indicator (CII) with data expected to become available from early 2024.
- Aligns with the findings of the SBTi guidance:** accounting for our customers' Scope 1 and 3 emissions i.e., at the point of fuel combustion, was considered by ANZ to provide a better insight into how our lending is associated with supporting the achievement of real-world reduction in emissions.

The targets do not currently capture Scope 2 emissions, as they are considered immaterial in the shipping sector<sup>3</sup>. We will consider extending our reporting to include the wider value chain in the coming years as standards evolve.

Currently, our methodology does not consider the use of any offsets that may be used by our customers to offset their emissions. However, given the 'hard-to-abate' nature of some emissions sources within these sectors, there may be residual emissions in 2050, where technologies do not exist to eliminate them.

We will look to further develop a position on the use of offsets in the coming years, however we apply a general principle that emissions should first be avoided, with offsetting used only to compensate for residual emissions.

### Data used to calculate customer emissions

To maximise the quality of the data we used to calculate our financed emissions, ANZ was guided by the *Global GHG Accounting and Reporting Standard for the Financial Industry – Part A* published by PCAF.

The shipping sector has seen widespread adoption of corporate greenhouse gas accounting which is available in company reports and regulatory or third-party databases. We prioritised the use of company reported emissions.

We used the latest available customer information on shipping emissions as of financial year end of 30 September 2023, to report our shipping pathway absolute emissions for 2023. In some cases, 2023 data had not yet been released and so 2022 data was relied upon. We consider this the most accurate representation of ANZ's financed emissions in 2023.

Introduction

Energy

**Transport**

Manufacturing

Buildings

Other

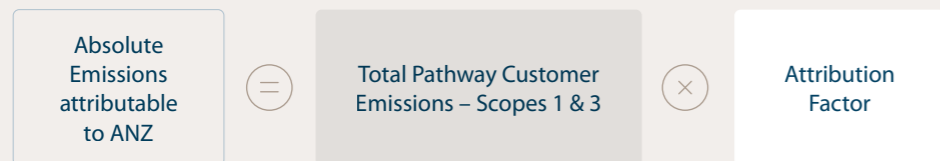
Total lending portfolio

1. Refer to p41-42 and the Annex of the PCAF standard that is available [here](#). 2. It is estimated that cumulative customer exposures below this threshold represent a very small part of our overall financing activities in the auto manufacturing sector (<0.1%). 3. 2021 World Energy Outlook.

SHIPPING (CONTINUED)

**Calculation of absolute financed emissions**

ANZ has chosen to report this as Mt CO<sub>2</sub>-e. To determine what portion of our relevant customers' absolute emissions are attributable to ANZ's financing activities, we multiply each of our customers' absolute emissions from shipping activities by an attribution factor using the formula below:



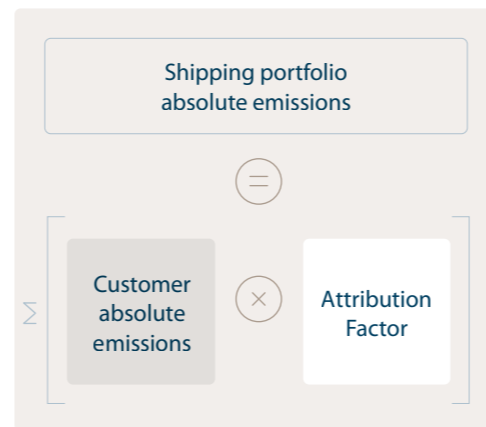
The attribution factor is calculated by dividing ANZ's financing by our pathway customers' value using the formula below:



For publicly traded companies, customer value is enterprise value including cash (EVIC). For privately held companies, customer value is the book value of debt plus equity. This approach reflects the relative weight of our financing within a customer's capital structure.

ANZ has taken a conservative approach to the numerator in the attribution factor and has included the total sum of committed loans we have issued to shipping customers (drawn plus a proportion of off-balance sheet exposures as specified by APRA). This departs from the PCAF recommended approach, which includes the outstanding amount of loans and investments (but does not include undrawn amounts). While this approach means that we have attributed a higher proportion of our customers' emissions, we consider this provides a more accurate representation of our support to shipping companies and the transition risks to which we are potentially exposed.

To calculate the absolute financed emissions of our portfolio, we aggregate the absolute financed emissions of individual customers, in the portfolio, using the following formula:



ANZ remains open to adjusting our approach to calculating financed emissions as the quality and availability of data improves and as standards evolve.

**Climate Scenario and Target**

ANZ has chosen to align our 2030 target with the IEA's NZE 2050 Scenario, published in 2021. This Scenario aligns with Net-Zero Banking Alliance's guidance that banks should use scenarios produced by credible and well-recognised sources that align with no/low overshoot 1.5°C transition pathways.

The main purpose of setting our target to achieve a 10% absolute reduction in financed emissions for the shipping sector by 2030 is to remain

accountable in playing our role to support customers in the development of their transition plans. The absolute reduction target is notwithstanding the expected growth in global trade.<sup>1</sup>

To achieve our target, we will take an overall portfolio view, rather than seeking the same emissions reductions per customer. We have selected an absolute emissions target in the absence of a widely available and transparent emission intensity measure.

We note that the International Maritime Organisation (IMO) has mandated the emissions intensity metric, the Carbon Intensity Indicator (CII) for the industry. With data expected to become available in 2024, ANZ will review opportunities to use the CII measure in place of the absolute emissions, or as a complementary measure.

**Complementary shipping metric – Portfolio emissions intensity**

In addition to reporting annual performance against our absolute emissions metric, the guidelines of the NZBA include an additional metric.

**Portfolio wide emissions intensity metric**

ANZ has chosen to report this as kilograms of CO<sub>2</sub>-e per dollar lent. This is calculated by dividing the absolute financed emissions (calculated in accordance with the methodology outlined above) by the total financing to customers that were considered within the boundary of the metric.

- Introduction
- Energy

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- Transport**

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- Manufacturing
- Buildings
- Other
- Total lending portfolio

1. Review of Maritime Transport 2022 | UNCTAD.

## MANUFACTURING ALUMINIUM, CEMENT AND STEEL

### Overview

ANZ has set targets to reduce the emissions intensity of three key industrial sectors by 2030 (all on a 2021 baseline):

➤ Aluminium -30%

➤ Cement -20%

➤ Steel -28%

ANZ uses a portfolio-weighted, emissions intensity metric (i.e. carbon emissions per unit of cement, aluminium or steel) to measure the extent to which our financing is supporting the transition of these three key industrial sectors. Institutional customers included in the metric each year are those to which we have at least \$1m exposure at default (EAD) at the end of our financial reporting year (September 30)<sup>1</sup> and that own or operate one or more alumina refineries or aluminium smelters<sup>1</sup>, cement plants that manufacture cement from raw inputs, or steel mills.<sup>2</sup>

The targets cover the Scope 1 and 2 emissions from assets either owned by our customers or coming under their operational control. Our targets do not currently capture Scope 3 emissions, or emissions from the upstream mining of raw materials such as bauxite, iron-ore, metallurgical coal or limestone. Our aluminium and steel targets include secondary production, i.e. production of product via recycling of scrap steel or aluminium given its important role in decarbonising both sectors. We will consider extending our reporting to include the wider value chain in the coming years as standards evolve. Our targets incorporate the most material sources of emissions in each of the three industrial sectors covered.

Our choice of an emissions intensity reduction target recognises that 1.5°C aligned scenarios point to the need for an increase or continued availability of aluminium, cement and steel out to 2050. Our role is to support continued production of these key materials by our customers as they move towards lowering their emissions intensity.

The key design choices we used in calculating our emissions intensity reduction target for three key industrial sectors are summarised in Tables 7-9.

The key design choices we used in calculating our emissions intensity reduction target for our aluminium production financing activities are summarised in Table 7 below.

**Table 7 – Key design choices in calculating 2030 aluminium production financed emissions target**

<b>ANZ Customers Included</b>	<ul style="list-style-type: none"> <li>Companies that own or operate one or more alumina refineries or aluminium smelters<sup>3</sup></li> <li>Customers above are included where ANZ’s exposure is at least \$1 million</li> </ul>
<b>Emissions Included</b>	<ul style="list-style-type: none"> <li>Scope 1 &amp; 2 emissions<sup>4</sup></li> </ul>
<b>Metric</b>	<ul style="list-style-type: none"> <li>Emissions intensity of aluminium production (tCO<sub>2</sub>-e/t aluminium)</li> </ul>
<b>Financing Activities Included</b>	<ul style="list-style-type: none"> <li>Exposure at default: represents the Group’s exposure to each sector based on APRA’s calculation formula which includes total committed loans (drawn plus a proportion of off-balance sheet exposures as specified by APRA)</li> </ul>
<b>Attribution Approach</b>	<ul style="list-style-type: none"> <li>Portfolio-weighted approach (measures ANZ’s financing to customers relative to ANZ’s total financing to the aluminium sector)</li> </ul>
<b>Benchmarking Scenario</b>	<ul style="list-style-type: none"> <li>International Aluminium Institute (IAI) 1.5°C scenario<sup>5</sup></li> </ul>
<b>Key External Data Sources</b>	<ul style="list-style-type: none"> <li>Customer disclosures</li> <li>Wood Mackenzie</li> <li>Transition Pathways Initiative</li> <li>International Aluminium Institute</li> </ul>

Introduction

Energy

Transport

### Manufacturing

Buildings

Other

Total lending portfolio

<sup>1</sup> Cumulative customer exposures below this threshold represent a very small part of our overall financing activities in the aluminium, cement and steel sectors, meaning that their exclusion does not materially affect our financed emissions calculations. Where a customer falls below this threshold, and data is easily accessible we have included them within the metric. <sup>2</sup> Includes both primary and secondary production processes. <sup>3</sup> Includes both primary and secondary production processes. Exposure to entities involved in the trade of raw inputs such as bauxite are not included in the scope of these metrics or targets. For our diversified customers, we look at what percentage of their revenue is derived from the sale of aluminium and then apportion our EAD to these activities using the same percentage. <sup>4</sup> Where customers purchase semi-finished products such as alumina, this is not included within our emissions intensity target as they are not included in the customers Scope 1 or 2 emissions. We will consider how to deal with Scope 3 emissions in future years. <sup>5</sup> In September 2023, the IEA released a 2023 update of its **Net Zero Roadmap**, in which it published a scenario for the aluminium sector for the first time. In time, we will review this scenario and assess its ambition in comparison with our existing benchmarking scenario.

## ALUMINIUM, CEMENT AND STEEL (CONTINUED)

The key design choices we used in calculating our emissions intensity reduction target for our cement production financing activities are summarised in Table 8 below.

**Table 8 – Key design choices in calculating 2030 cement financed emissions target**

<b>ANZ Customers Included</b>	<ul style="list-style-type: none"> <li>Companies that own or operate one or more cement plants that manufacture cement from raw inputs<sup>1</sup></li> <li>Customers above are included where ANZ's exposure is at least \$1 million</li> </ul>
<b>Emissions Included</b>	<ul style="list-style-type: none"> <li>Scope 1 &amp; 2 emissions<sup>2</sup></li> </ul>
<b>Metric</b>	<ul style="list-style-type: none"> <li>Emissions intensity of cement production (tCO<sub>2</sub>-e/t cement)</li> </ul>
<b>Financing Activities Included</b>	<ul style="list-style-type: none"> <li>Exposure at default: represents the Group's exposure to each sector based on APRA's calculation formula which includes total committed loans (drawn plus a proportion of off-balance sheet exposures as specified by APRA)</li> </ul>
<b>Attribution Approach</b>	<ul style="list-style-type: none"> <li>Portfolio-weighted approach (measures ANZ's financing to customers relative to ANZ's total financing to the cement sector)</li> </ul>
<b>Benchmarking Scenario</b>	<ul style="list-style-type: none"> <li>International Energy Agency (IEA) Net Zero Emissions by 2050 Scenario (2021)</li> </ul>
<b>Key External Data Sources</b>	<ul style="list-style-type: none"> <li>Customer disclosures</li> <li>Asset Impact</li> <li>International Energy Agency</li> </ul>

The key design choices we used in calculating our emissions intensity reduction target for our steel production financing activities are summarised in Table 9 below.

**Table 9 – Key design choices in calculating 2030 steel production financed emissions target**

<b>ANZ Customers Included</b>	<ul style="list-style-type: none"> <li>Companies that own and operate one or more steel production mill<sup>3</sup></li> <li>Customers above are included where ANZ's exposure is at least \$1 million</li> </ul>
<b>Emissions Included</b>	<ul style="list-style-type: none"> <li>Scope 1 &amp; 2 emissions<sup>4</sup></li> </ul>
<b>Metric</b>	<ul style="list-style-type: none"> <li>Emissions intensity of steel production (tCO<sub>2</sub>-e/t steel)<sup>5</sup></li> </ul>
<b>Financing Activities Included</b>	<ul style="list-style-type: none"> <li>Exposure at default: represents the Group's exposure to each sector based on APRA's calculation formula which includes total committed loans (drawn plus a proportion of off-balance sheet exposures as specified by APRA)</li> </ul>
<b>Attribution Approach</b>	<ul style="list-style-type: none"> <li>Portfolio-weighted approach (measures ANZ's financing to customers relative to ANZ's total financing to the steel sector)</li> </ul>
<b>Benchmarking Scenario</b>	<ul style="list-style-type: none"> <li>International Energy Agency (IEA) Net Zero Emissions by 2050 Scenario (2021)</li> </ul>
<b>Key External Data Sources</b>	<ul style="list-style-type: none"> <li>Customer disclosures</li> <li>Asset Impact</li> <li>Woodmac</li> <li>International Energy Agency</li> </ul>

**1.** For our diversified customers, we look at what percentage of their revenue is derived from the sale of cement and then apportion our EAD to these activities using the same percentage. **2.** Where customers purchase semi-finished products such as clinker, this is not included within our emissions intensity target as they are not included in the customers Scope 1 or 2 emissions. **3.** Includes both primary and secondary production processes. Exposure to entities involved in the trade of raw inputs such as metallurgical coal and iron ore are not included in the scope of these metrics or targets. For our diversified customers, we look at what percentage of their revenue is derived from the sale of steel and then apportion our EAD to these activities using the same percentage. **4.** Where customers purchase semi-finished products such as crude iron, this is not included within our emissions intensity target as they are not included in the customers Scope 1 or 2 emissions. We will consider how to deal with Scope 3 emissions in future years. **5.** Given the availability of crude steel data within customer public disclosures, we refer to crude steel within our emissions intensity metric. This differs from the SBTi Steel Science-Based Target Setting Guidance (July 2023), which specifies 'hot-rolled steel' as the denominator.

Introduction

Energy

Transport

**Manufacturing**

Buildings

Other

Total lending portfolio

ALUMINIUM, CEMENT AND STEEL (CONTINUED)

Activities and Emissions in Scope

ANZ considers that a physical emissions intensity metric (tCO<sub>2</sub>-e/t product) is the best way to demonstrate how our finance is contributing to the transition of key industrial sectors. While increases in support to existing customers to help their transition to less carbon intensive production may translate into short to medium term increases in emissions intensity of our financing activities, we believe this is an appropriate step for us to take to support real-world reductions in emissions over the longer term, provided these customers have, or are in the process of developing, robust and credible transition plans.

To identify customers with aluminium, cement and steel production assets, we used the ANZSIC code for alumina refining, aluminium smelting, cement and lime manufacturing and basic iron and steel manufacturing. This captures corporate and project financing to customers whose main business activity falls under one of these activities. We also sought to capture the operations of diversified and vertically aligned customers that produce aluminium, cement and steel to ensure greater completeness of our exposures to each sector. For our diversified and vertically aligned customers, we look at what percentage of their revenue is derived from the sale of aluminium, cement and steel products and then apportion our EAD to these activities using the same percentage. Where revenue split is not available within companies' segment analysis, alternate metrics such as EBITDA must be relied upon. We also exclude our exposure to entities involved in the trade of raw inputs such as iron ore, metallurgical coal and bauxite.

The emissions included in our industrial sector targets are the Scope 1 and 2 emissions from the production assets that are fully or partially owned by our customers or that come under their operational control. While most of these emissions are carbon dioxide, it also includes a small amount of methane and nitrous oxide emissions. For the denominator of the emissions intensity target, we have used gross production of our customers, to ensure that we are able to benchmark on a like-for-like basis with the International Aluminium Institute 1.5°C scenario and the IEA's NZE 2050 Scenario (2021).

Where customers purchase semi-finished products such as alumina, clinker or crude iron these are not included within our emissions intensity target as they are not included in the customers Scope 1 or 2 emissions. These Scope 3 emissions will be considered for inclusion in future years.

Currently, our methodology does not consider the use of any offsets that are used by our customers to reduce their emissions. However, given the 'hard-to-abate' nature of some emissions sources within these sectors, there may be residual and unavoidable emissions in 2050, if technology to eliminate emissions does not exist. We will look to further develop a position on the use of offsets in the coming years, however we apply a general principle that emissions should first be avoided, with offsetting used only to compensate for residual and unavoidable emissions.

Additional sector-specific information on the activities and emissions included within the scope of each target is included below:

Aluminium

In line with common aluminium industry practice, the total emissions intensity represents the combination of refining and smelting operations indexed to metric tons of primary aluminium production. This is applied at a ratio of ~2.0 metric tons of alumina to 1.0 metric tons of smelted aluminium<sup>1</sup> calculated using the formula below:

$$\text{Pathway Customer/Project Emissions Intensity} = \frac{\text{Total scope 1 and 2 emissions from alumina and aluminium production}}{(\text{Tonnes of alumina} \times \text{ratio}) + \text{Tonnes of aluminium}}$$

Cement

Our target covers the gross Scope 1 and 2 emissions arising from customers that produce cement. In line with the SBTi Cement Guidance and the Cement CO<sub>2</sub> Protocol (2011), our disclosures are expressed in terms of 'gross' emissions, i.e., emissions from combustion of waste derived fuels are included in the emissions total and are not considered as a biogenic source.

Steel

Given the availability of crude steel production data within customers' public disclosures, our emissions intensity metric is based on emissions per tonne of crude steel produced. This differs from the July 2023 released SBTi Steel Science-Based Target-Setting Guidance,<sup>2</sup> which specifies 'hot-rolled steel' as the denominator. Stainless steel producers are excluded from the metric in line with the core systems boundary specified in the SBTi Steel Science-Based Target-Setting Guidance.<sup>2</sup>

With the September 2023 release of the Sustainable Steel Principles<sup>3</sup>, we are working to better understand our customers percentage of scrap steel used in production and their existing steel production technology mix.

- Introduction
- Energy
- Transport
- Manufacturing**
- Buildings
- Other
- Total lending portfolio

1. Carbon Performance Assessment of aluminium: note on methodology, Transition Pathway Initiative 2021. 2. The Steel Science-Based Target Setting Guidance, 2023. 3. Making Climate Part of Every Steel Loan – Sustainable Steel Principles.



ALUMINIUM, CEMENT AND STEEL (CONTINUED)

**Data used to calculate customer emissions intensity**

To maximise the quality of the data we used to calculate our financed emissions, ANZ was guided by the *Global GHG Accounting and Reporting Standard for the Financial Industry – Part A* published by PCAF.

We prioritised the use of company reported emissions and production data based on the equity accounting approach. If equity-based data was not reported, we used company reported emissions and production data based on the operational control consolidation approach.

We prefer to use our customers’ equity-reported Scope 1 and 2 emissions intensity data because some of our diversified customers often have small, non-operating stakes in production facilities that would otherwise be accounted as zero emissions if we had chosen an operational control consolidation

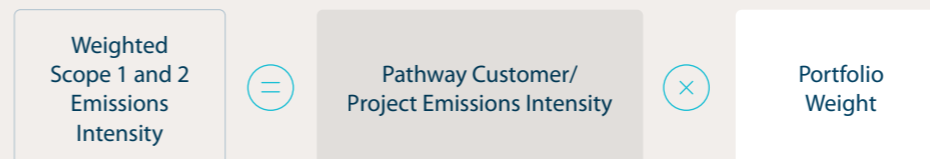
approach. While these companies may not be the operator of the projects, we believe their equity in production facilities still provides them with a degree of influence in shaping policies and initiatives aimed at mitigating Scope 1 & 2 emissions.

Where our customers did not report any Scope 1 & 2 emissions data, we relied on detailed estimates provided by specialist third party data vendors – Wood Mackenzie, Asset Impact and The Transition Pathways Initiative, that use proprietary models to estimate emissions down to the individual company or asset level.

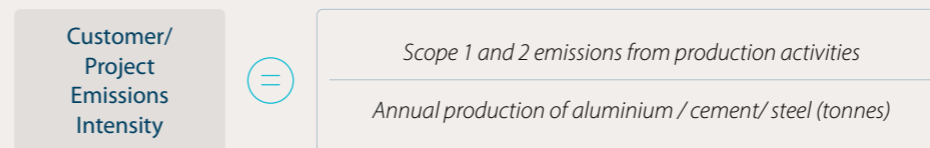
We used the latest available customer information on production and emissions as at September 30 2023 to report our portfolio-wide emissions intensity. In some cases, 2023 data had not yet been released and so 2022 data was relied upon. We consider this the most accurate representation of ANZ’s emissions intensity in 2023.

**Calculation of portfolio-weighted emissions intensity**

ANZ uses a portfolio-weighted, emissions intensity metric to measure the extent to which our financing is supporting the transition of three key industrial sectors – aluminium, cement and steel. The portfolio-weighted emissions intensity for each customer and project is calculated using the following formula:



The emissions intensity of our customers’ production of aluminium, cement and steel is calculated by dividing their Scope 1 and 2 emissions (associated with their production activities), by their overall production over the corresponding 12-month period, using the formula below:



The portfolio weight for each customer is a measure of ANZ’s financing to a customer relative to our total financing to all customers and projects in each of the three industrial sectors. It is calculated using the formula below:



- Introduction
- Energy
- Transport

---

- Manufacturing**

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- Buildings
- Other
- Total lending portfolio

ALUMINIUM, CEMENT AND STEEL (CONTINUED)

To calculate the emissions intensity of our full portfolio, we aggregate the company-level performance indicators using the following formula:



While ANZ believes that a portfolio-weighted emissions intensity metric is a useful way to demonstrate how our finance is supporting the transformation of the aluminium, cement and steel sectors, we remain open to considering other approaches as standards evolve.

**Climate Scenario and Target**

ANZ has chosen to align our 2030 targets with the International Aluminium Institute’s 1.5°C scenario (aluminium) and the IEA’s NZE 2050 Scenario (cement and steel) that was published in 2021. These scenarios align with the Net-Zero Banking Alliance’s guidance that banks should use scenarios produced from credible and well-recognised sources that align with no/low overshoot 1.5°C transition pathways.

**Aluminium**

ANZ chose 2021 as the baseline for our 2030 aluminium target where the global average emissions intensity was 10.29 tCO<sub>2</sub>-e/t aluminium.<sup>1</sup> In contrast, the emissions intensity of ANZ’s portfolio was measured at the end of 2021 as 8.30 tCO<sub>2</sub>-e/t aluminium – well below the global benchmark.

The decision to choose 2021 as the baseline for our 2030 aluminium target was guided by data availability. Corporate reporting is improving year-on-year, with companies moving towards more granular disclosures over time. For our diversified and vertically integrated customers, this improved granularity of reporting has allowed us to capture emissions and production data related specifically to the aluminium producing segment of their business.

Primary aluminium production is highly electricity intensive. Efforts to decarbonise the sector will be heavily reliant on decarbonisation of the electricity supply through switching to renewables. On the other hand, secondary production of aluminium has a significantly lower emissions intensity than primary production but is limited by scrap availability. Limiting the use of aluminium in final products through light weighting and efficiency in design are also key steps to reduce emissions from the sector. Investment into the commercialisation of promising, but currently expensive technologies such as carbon-free anodes,<sup>2</sup> will likely be the key to eliminating the harder to abate emissions of the sector.

In September 2023, the IEA released a 2023 update of its Net Zero Roadmap,<sup>3</sup> in which it published a scenario for the aluminium sector for the first time. In time, we will review this scenario and assess its ambition in comparison to our existing benchmarking scenario.

- Introduction
- Energy
- Transport

---

- Manufacturing**

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- Buildings
- Other
- Total lending portfolio

**1. International Aluminium Institute 1.5°C Decarbonisation Scenario.** 2. Elysis is a technology that replaces traditional carbon anodes (large carbon blocks which conduct electricity during aluminium smelting, producing significant greenhouse gas emissions) with carbon free anodes that produce only oxygen. **3. Net Zero Roadmap: A Global Pathway to Keep the 1.5C Goal in Reach.** **4. IEA NZE 2050 Tracking Report, 2022.** **5. Net Zero Roadmap: A Global Pathway to Keep the 1.5C Goal in Reach.** **6.** Concrete is made of cement, sand, aggregates, water and admixtures. Cement is the ‘glue’ which binds the ingredients of concrete together.

## ALUMINIUM, CEMENT AND STEEL (CONTINUED)

**Cement**

ANZ chose 2021 as the baseline for our 2030 cement target where the global average emissions intensity was 0.59 tCO<sub>2</sub>-e/tonne cement.<sup>4</sup> In contrast, the emissions intensity of ANZ's portfolio was measured at the end of 2021 as 0.61 tCO<sub>2</sub>-e/tonne cement – marginally above the global benchmark. The decision to use 2021 as the baseline for our 2030 cement target was guided by data availability. Our cement customers are moving towards more granular disclosures year-on-year, which has allowed us to gain a good understanding of the emissions profile of the cement producing segment of their business. ANZ aligned its 2030 target with the IEA NZE 2050 scenario, published by the IEA in May 2021.

In September 2023, the IEA released a 2023 update of its Net Zero Roadmap,<sup>5</sup> which included an updated scenario for the cement sector. In time, we will review this scenario and assess its ambition in comparison to our existing benchmarking scenario.

The 2021 IEA NZE 2050 scenario shows that the emissions intensity of cement production would need to reduce by ~95% by 2050, whilst the overall demand profile for cement remains relatively flat.

The Global Cement and Concrete Association considers the opportunity for decarbonisation for the cement sector will rely on substituting clinker for supplementary cementitious materials (e.g. fly ash), alternate fuels for kilns (e.g. biomass instead of fossil fuels), decarbonisation of electricity and plant and end-user efficiencies. The cement industry will rely on carbon capture and utilization/storage (CCUS) technologies becoming commercially viable to capture the remaining 'hard-to-abate' emissions from the chemical reaction of heating limestone to achieve net-zero by 2050 for the industry. Concrete<sup>6</sup> naturally re-absorbs CO<sub>2</sub> from the atmosphere over its lifetime, but this is not enough to neutralize the impact of its initial production.

The currently limited availability of cost-effective technologies to reduce the hard-to-abate process emissions of cement production, makes the pathway towards our target less clear in comparison to other sectors. However, customer discussions to date have been positive and revealed that significant investment in research and development is underway.

**Steel**

ANZ chose 2021 as the baseline for our 2030 target for the steel sector where the global average emissions intensity was 1.89 tCO<sub>2</sub>-e/tonne steel.<sup>1</sup> This aligns closely with the emissions intensity of ANZ's portfolio that was measured at the end of 2021 as 1.90 tCO<sub>2</sub>-e/t steel.

The decision to use 2021 as the baseline for our 2030 steel target was guided by data availability. Our steel customers are moving towards more granular disclosures year-on-year which has allowed us to gain a good understanding of the emissions profile of the steel producing segment of their business.

ANZ has chosen to align our 2030 target with the IEA NZE 2050 scenario, published by the IEA in May 2021. The 2021 IEA NZE 2050 scenario shows that the emissions intensity of steel production would need to reduce by 92% by 2050, compared with 2019. Global demand for steel is expected to increase marginally through to 2050, with the share of steel production using electric arc furnaces increasing from 24% in 2020 to 53% in 2050.

In September 2023, the IEA released a 2023 update of its Net Zero Roadmap,<sup>2</sup> which included an updated scenario for the steel sector. In time we will review this scenario and assess its ambition in comparison to our existing benchmarking scenario.

The opportunities for carbon emission reductions for the steel sector are well defined, however the majority of technologies facilitating further reductions, while available, are not yet commercially viable. The wide-scale deployment of technologies such as carbon capture utilization/storage (CCUS) and near-zero-emissions direct reduction of iron-ore using natural gas, green hydrogen and bioenergy, will be the key to eliminating the 'hard-to-abate' emissions of the sector. Secondary production of steel, via electric arc furnaces, has a significantly lower emissions intensity, but is limited by scrap availability and challenges associated with producing high-quality steel from scrap.

Given the significant technological advances required to enable commercialisation of low emissions steel making, the emissions intensity reduction pathway of the steel sector will likely be slow moving; however, we are already seeing efficiency measures being taken and investment into research and development.

Introduction

Energy

Transport

**Manufacturing**

Buildings

Other

Total lending portfolio

1. World Steel Association, *Climate change and the production of iron and steel*. 2. Net Zero Roadmap: A Global Pathway to Keep the 1.5C Goal in Reach.

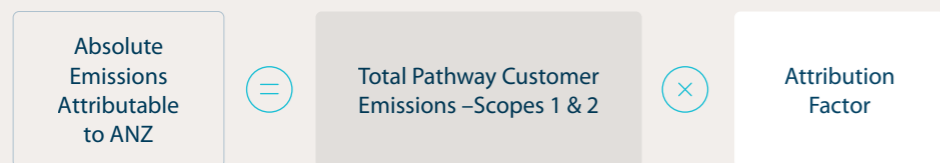
ALUMINIUM, CEMENT AND STEEL (CONTINUED)

**Complementary industrial sector metrics – absolute emissions and portfolio emissions intensity**

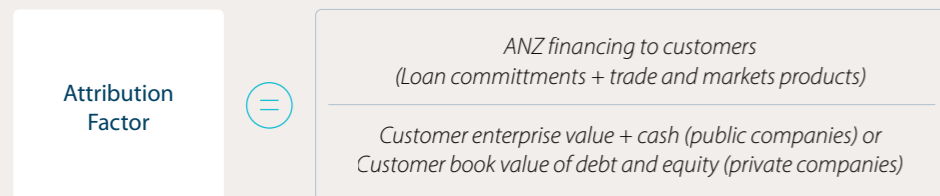
In addition to reporting annual performance against our emissions intensity target, the guidelines of the NZBA include two additional metrics:

- Sector-specific absolute emissions
- Portfolio wide emissions intensity; and

**Sector-specific absolute emissions metric:** ANZ has chosen to report this as Mt CO<sub>2</sub>-e. To determine what portion of our customer’s emissions are attributable to ANZ’s financing activities, we multiply each of our customers’ emissions by an attribution factor using the formula below:



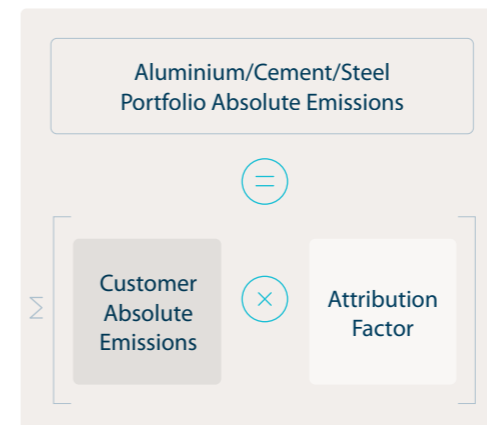
The attribution factor is calculated by dividing ANZ’s financing by our customer’s value as shown in the formula below:



For publicly traded companies, customer value is enterprise value including cash (EVIC). For privately held companies, customer value is the book value of debt plus equity. This approach reflects the relative weight of our financing within a customer’s capital structure.

ANZ has taken a conservative approach to the numerator in the attribution factor and has included the total sum of committed loans we have issued to aluminium, cement or steel customers (drawn plus a proportion of off-balance sheet exposures as specified by APRA). This departs from the PCAF recommended approach, which includes the outstanding amount of loans and investments (but does not include undrawn amounts). While this approach means that we have attributed a higher proportion of our customers’ emissions, we consider this provides a more accurate representation of our support to these sectors and the transition risks to which we are potentially exposed.

To calculate the financed emissions of our full portfolio, we aggregate the financed emissions of our individual customers using the following formula:



ANZ will consider adjusting our approach to calculating financed emissions as the quality and availability of data improves and as standards evolve.

**Portfolio wide emissions intensity metric:**

ANZ has chosen to report this as kilograms of CO<sub>2</sub>-e per dollar lent. This is calculated by dividing the absolute financed emissions (calculated using the methodology above) by the total financing to customers included within the boundary of the metric.

- Introduction
- Energy
- Transport
- Manufacturing**
- Buildings
- Other
- Total lending portfolio

## BUILDINGS

### COMMERCIAL REAL ESTATE

#### Overview

ANZ has set a 2030 target to reduce the emissions intensity of our Australian large-scale office buildings and shopping centres portfolio by 60% (compared to a 2019 baseline). The buildings covered by the target are either fully or partially owned by large Real Estate Investment Trust (REIT) and property fund customers in our Australian Institutional loan book. We are not reporting an update for 2023 of progress towards our target. We have chosen not to report a pathway update at this time due to a change in the key underlying data made available by a third party. We will seek to resolve this challenge and provide an update as soon as practicable.

In addition, our current metric is not tied to our lending. Therefore, it does not show the attribution of our financing to the emissions of our target portfolio.

We set the pathway for this sector prior to joining the NZBA and we intend to review our pathway in 2024 to align more closely with their guidance.

The current metric is calculated by adding up the carbon emissions (Scope 1, 2 & 3 described on page 32) from our customers' office building and shopping centre portfolios and dividing this by their 'net lettable area' (NLA), which is a recognised metric in the commercial buildings sector. We consider it provides valuable insight on the operational performance of hundreds<sup>1</sup> of office buildings and shopping centres we have helped our customers

to construct or upgrade in prior years. The metric will also reflect any steps that our customers take in the future to improve the environmental performance of their portfolio, which may be supported by lending from ANZ.

Our choice of an emissions intensity reduction target recognises that 1.5°C aligned scenarios point to the need for substantially more floor area in service buildings in 2050 than it does today.<sup>2</sup> At the same time, absolute energy use declines by more than 20% while emissions from energy use need to be completely removed. It is an enormous challenge, but one where many of our customers in the commercial building sector are already making significant progress.

The key design choices we used in calculating our emissions intensity reduction target for our large-scale commercial real estate financing activities are summarised in Table 10.

While the majority of building emissions are associated with their use of electricity (Scope 2 emissions), our decision to set a more ambitious 2030 emissions intensity target for the commercial real estate sector compared with the power generation sector takes into account the significant opportunities for improved energy efficiency, greater electrification of final energy use, voluntary purchases of green electricity, and self-generation of electricity from solar PV installations.

**Table 10 – Key design choices in calculating 2030 large-scale real estate financed emissions target**

<b>ANZ Customers Included</b>	<ul style="list-style-type: none"> <li>Office buildings and shopping centres fully or partially owned by large Real Estate Investment Trusts (REIT) or property fund customers in our Australian Institutional loan book</li> </ul>
<b>Emissions Included</b>	<ul style="list-style-type: none"> <li>Scope 1 and 2 emissions (from building operational energy use)</li> <li>Scope 3 emissions (Category 3 – Fuel and energy related emissions)</li> </ul>
<b>Metric</b>	<ul style="list-style-type: none"> <li>Emissions from building energy use per square metre of net lettable area (kgCO<sub>2</sub>-e/NLA)<sup>3</sup></li> </ul>
<b>Financing Activities Included</b>	<ul style="list-style-type: none"> <li>All lending to relevant customers</li> </ul>
<b>Attribution Approach</b>	<ul style="list-style-type: none"> <li>No financing attribution approach applied</li> </ul>
<b>Benchmarking Scenario</b>	<ul style="list-style-type: none"> <li>International Energy Agency (IEA) Beyond 2°C (B2D) scenario for service buildings presented in the 2017 Energy Technology Perspectives report<sup>4</sup></li> </ul>
<b>Key External Data Sources</b>	<ul style="list-style-type: none"> <li>National Australian Building Energy Rating Scheme (NABERS) energy rating certificates (Emissions Data)</li> <li>Australian Government Building Energy Efficiency Register (NLA of office buildings)</li> </ul>

Introduction

Energy

Transport

Manufacturing

**Buildings**

Other

Total lending portfolio

**1.** At the end of 2022, the metrics captured the collective performance of 395 office buildings and 122 shopping centres that were either fully or partially owned by our customers. **2.** The IEA's Net Zero Emissions by 2050 scenario shows that the floor area of service buildings will be 57% higher in 2050 than it was in 2020. **3.** On most occasions this was associated with base building energy use, for which our customers elect to get their buildings rated. **4.** The B2D scenario puts service buildings on a pathway to achieve net zero emissions by 2050, with most of these savings to be achieved before 2030. The 2050 convergence to net zero emissions for service buildings aligns closely with the Net Zero Emissions by 2050 scenario published by the IEA in May 2021.

COMMERCIAL REAL ESTATE (CONTINUED)

**Activities and Emissions in Scope**

Most of the office buildings and shopping centres that are covered by our target obtain NABERS energy ratings that cover the operational energy use in the base building, which includes foyers, lifts, heating, ventilation and air conditioning (HVAC) equipment and bathrooms. This means these ratings usually exclude the additional energy used in tenanted space such as lighting, IT and other plug-in load and appliances.

While the energy used in tenancy space is estimated to account for around 44% of total office building energy use,<sup>1</sup> it is difficult to account for this additional energy load in our commercial building metric given that tenants have operational control of their leased space and are responsible for the payment of their own electricity that is usually metered separately from the rest of the building.

Our reported metric is therefore mostly a reflection of the emissions arising from base building energy consumption, with a small amount based on whole building emissions. The emissions sources included are the Scope 1 and 2 emissions from building operational energy use in addition to Scope 3 emissions related to the production of fuels and energy purchased and consumed by our customers (Category 3).

As base building services are used by all tenancies of a building or shopping centre, ANZ considers it appropriate to normalise these cumulative emissions by the combined net lettable area of all office buildings and shopping centres that are owned or operated by our customers.

**Data we will use to calculate customer emissions intensity**

Emissions data is sourced from NABERS Energy rating certificates that are issued to our customers and includes a mixture of both Whole Building and Base Building ratings. The ratings are accessible from a public register.<sup>2</sup> Data on the NLA of office buildings is sourced from the Australian Government’s Building Energy Efficiency Register. For office buildings and shopping centres that don’t have a Building Energy Efficiency Certificate, the NLA of our customers’ buildings is back-calculated based on information appearing in the NABERS Energy Rating. This is calculated by dividing the total energy use of the building by the published energy use per m2 of NLA.

**Calculation of portfolio emissions intensity**

We have established separate metrics to cover our commercial office and shopping centre portfolio in Australia, where the majority of exposures are located. The emissions intensity metric is calculated by adding up the Scope 1, 2 and 3 emissions from our customers’ office building and shopping centre portfolios and dividing this by the combined ‘net lettable area’ (NLA). This is calculated in accordance with the following formula:

$$\frac{\text{Commercial building portfolio emissions intensity}}{\text{Customer Building Emissions (kg CO}_2\text{)}} = \frac{\text{Customer Net Lettable Area (m}^2\text{)}}{\text{Customer Net Lettable Area (m}^2\text{)}}$$

ANZ considers that the emissions intensity metrics we have developed for our large scale commercial real estate portfolio provides insights on how customers are collectively transitioning to net zero emissions. The main limitations are that it doesn’t currently allow a direct linkage of ANZ finance to these improvements and that it excludes emissions arising from energy use in building tenancies, or emissions embodied in building materials. We remain open to adjusting our approach to seek to improve transparency of the outcomes of this pathway.

**Climate Scenario and Target**

ANZ has chosen to align our 2030 target with the IEA’s Beyond 2°C (B2D) scenario for service buildings presented in the 2017 Energy Technology Perspectives report (as per guidance from the SBTi at the time the target was set). The B2D scenario puts service buildings on a pathway to achieve net zero emissions by 2050, with most of these savings to be achieved before 2030. These reductions will primarily be achieved through energy efficiency improvements, increased electrification of final energy use and the decarbonisation of global electricity production. The 2050 convergence to net zero emissions for service buildings aligns closely with the Net Zero Emissions by 2050 scenario published by the IEA in May 2021.

- Introduction
- Energy
- Transport
- Manufacturing
- Buildings**
- Other
- Total lending portfolio

1. Determining office tenancies energy end use, Energy Efficiency Council 2021. 2. NABERS ratings.



## RESIDENTIAL HOME LOANS

### Overview

ANZ holds home loans over more than 700,000 properties across Australia<sup>1</sup> where the property is used for a residential purpose only. As the largest part of our loan book, we recognise the importance of disclosing the financed emissions of this asset class.

For ANZ's home loan portfolio to reach net zero emissions, this will depend not only on the actions that our customers take, but also the combined actions of governments and regulatory and planning bodies that have a key role in decarbonising energy supply and improving the energy efficiency of homes and the sustainability of urban forms.

As financiers, our role in supporting the decarbonisation of Australian homes is multifaceted. Electricity is the largest source of emissions in Australian homes and ANZ is supporting the higher penetration of renewables into electricity grids that supply our customers' homes. We also recognise our role in providing finance to build new homes and retrofit existing homes so they require less energy to heat and cool, are powered by energy efficient appliances and use rooftop solar to offset as much of their remaining energy use as possible. We acknowledge we have an important role in helping our new and existing home loan customers to identify, understand and implement these opportunities.

We consider the most suitable metric to track our progress towards net zero is average greenhouse gas emissions (CO<sub>2</sub>-e) per dwelling. The emissions included in the metric are the Scope 1 and 2 emissions associated with home energy use, i.e. gas, liquefied petroleum gas (LPG) and electricity sourced from local electricity grids.

This metric has been influenced by two main factors:

- We don't have full data sets on the size of individual properties or their energy ratings that we recognise are important factors influencing residential energy consumption.
- We also recognise that ANZ's home loan portfolio is large and is considered to be representative of the housing stock across each locality in Australia.

Therefore, applying locally specific energy use data for residential properties is a reasonable proxy for estimating the energy consumption of our customer's homes.

While we acknowledge many of our home loan customers are likely to have already taken some action to reduce the carbon intensity of their home energy use, we are currently unable to capture these benefits in our chosen metric. This is because we are reliant on average energy use data from gas and electricity distributors that is available at the postcode, local government area or in the least granular case – the energy distribution zone. Consequently, the emissions benefits stemming from actions that our customers have taken – or will take in future – are averaged across all homes within that area. This applies similarly to the actions taken by non-ANZ customers. This will continue until better methodologies emerge for estimating energy consumption at the individual home level, or alternatively, we gain access to home energy use data of our customers, which is currently restricted for privacy reasons.

The key design choices we used in calculating the average emissions per dwelling of our Australian residential home loan portfolio are summarised in Table 11.

**Table 11 – Key design choices in calculating the average emissions intensity of our Australian residential home loan portfolio**

<b>Activities Included</b>	<ul style="list-style-type: none"> <li>• Energy-related emissions from the day-to-day running of ANZ residential home loan customers' properties</li> </ul>
<b>Emissions Included</b>	<ul style="list-style-type: none"> <li>• Scope 1 (Gas and Liquefied Petroleum Gas (LPG)) and Scope 2 (electricity use sourced from local electricity grids)</li> </ul>
<b>Metric</b>	<ul style="list-style-type: none"> <li>• Average emissions per dwelling (tCO<sub>2</sub>-e)</li> </ul>
<b>Financing Activities Included</b>	<ul style="list-style-type: none"> <li>• On-balance sheet loans for the purchase and refinance of residential properties, including individual homes and multi-family housing with a small number of units</li> </ul>
<b>Attribution Approach</b>	<ul style="list-style-type: none"> <li>• Calculated for each individual home loan property and based on a loan-to-value approach where the outstanding amount of loans at the end of May each year is divided by the property value at loan origination (or latest financing event)</li> </ul>
<b>Benchmarking Scenario</b>	<ul style="list-style-type: none"> <li>• Not applicable (no target set)</li> </ul>
<b>Key External Data Sources</b>	<ul style="list-style-type: none"> <li>• Gas and electricity distributors</li> <li>• State and national energy regulators</li> <li>• Australian Energy Statistics (Department of Climate Change, Energy, the Environment and Water)</li> </ul>

Introduction

Energy

Transport

Manufacturing

**Buildings**

Other

Total lending portfolio

<sup>1</sup> Excludes properties that are used to secure business loans, home equity loans and home equity lines of credit that are generally consumer loans as well as properties that are used as guarantees over other mortgaged properties.

## RESIDENTIAL HOME LOANS (CONTINUED)

**Activities and Emissions in Scope**

Our method for estimating the energy-related emissions of our residential home loan customers is based on a bottom-up calculation approach that includes all properties used for residential purposes. We apply several exclusions to the properties included in the analysis, to ensure alignment with the financed emissions methodology outlined in the *Global GHG Accounting and Reporting Standard*,<sup>1</sup> such as:

- Vacant land securities
- Construction and renovation loans
- Properties used solely as a guarantee for other residential or business loans
- Home equity loans and home equity lines of credit where use of proceeds is unknown

The energy related emissions we include in the metric are the Scope 1 & 2 emissions arising from our customers use of distributed gas, LPG and electricity drawn from local distribution networks. It excludes the electricity generated and consumed from solar PV installations which we have assumed for this purpose, has zero emissions.

**Data used to calculate home energy emissions****Overview**

We sought to gather the most granular and recent data available to estimate the energy related emissions of ANZ's residential home loan portfolio. In the absence of actual energy consumption data from individual customers' homes, we used a mix of voluntary and regulatory reports from energy distributors across Australia as well as the reports of state and national energy regulators to calculate the average energy consumption per dwelling. Because these data sets reflect real energy consumption from all residential customers connected to a network, we consider this was the most accurate way to estimate the energy-related emissions from our customers' homes.

**Estimating household energy consumption**

Before estimating the energy use of our customers' homes, we:

- Identified which electricity distribution zone our customers resided in and whether they lived in a postcode supplied by a distributed gas network.<sup>2</sup>
- For homes not supplied by a gas network, we assumed they use LPG to supplement their electricity needs.

While we assumed all properties are connected to their local electricity grid, we recognise not all properties are connected to an available gas distribution network. For properties with a gas network available, we assumed our customers

connect to those networks at the same rate as the relevant state or territory average, adjusted for the estimated number of homes that have no access available. We estimated connection rates based on data made available by state and national energy regulators that provide at least annual updates on the numbers of retail customers for electricity and gas. We estimate the number of homes with no gas distribution network available based on the known number of electricity customers in those areas.

For any homes that don't have access to a gas distribution network, we assumed they are responsible for the entirety of that state or territory's LPG use in residential homes. We source state and territory residential LPG consumption figures from the 2023 update of *Australian Energy Statistics* published by the Australian Department of Climate Change, Energy, the Environment and Water.

There are some differences between states or territories, for example The Northern Territory has no gas distribution networks available while the ACT

was assumed to use no LPG since all postcodes within the jurisdiction are available to connect to a gas distribution network.

**Emissions factors used**

After we estimate energy use for each of the properties in our home loan book, we convert that into an equivalent emissions figure. ANZ accounts for the Scope 1 (direct combustion) emissions from the use of natural gas and LPG in our customers' homes as well as the Scope 2 emissions associated with electricity use. This approach is aligned with the guidance issued by PCAF on accounting for the financed emissions of home loans.<sup>3</sup>

We calculate these emissions by multiplying each source of energy used in our customers' homes by relevant emissions factors published by the Australian Government in the National Greenhouse Accounts (NGA) Factors. The emissions factors we applied for each energy source in our 2023 calculations are outlined in Table 12.

**Table 12 – Emissions factors used to calculate emissions from Australian home loan customers' homes in 2023**

Energy & Emissions Source	Jurisdiction applied to	Emission Factor
Natural Gas (Scope 1)	Australia	51.53 kgCO <sub>2</sub> -e/GJ
LPG (Scope 1)	Australia	60.60 kgCO <sub>2</sub> -e/GJ
Electricity (Scope 2)	Victoria	0.79 kgCO <sub>2</sub> -e/kWh
	NSW & ACT	0.68 kgCO <sub>2</sub> -e/kWh
	Queensland	0.73 kgCO <sub>2</sub> -e/kWh
	Tasmania	0.12 kgCO <sub>2</sub> -e/kWh
	South Australia	0.25 kgCO <sub>2</sub> -e/kWh
	Western Australia	0.53 kgCO <sub>2</sub> -e/kWh <sup>4</sup>
		0.62 kgCO <sub>2</sub> -e/kWh <sup>5</sup>
	Northern Territory	0.54 kgCO <sub>2</sub> -e/kWh <sup>6</sup>

<sup>1</sup>. Partnership for Carbon Accounting Financials (PCAF) (2022). The Global GHG Accounting and Reporting Standard Part A: Financed Emissions. Second Edition. <sup>2</sup>. We obtained details on which postcodes and localities were supplied by a gas distribution network via publicly available information on energy distributors and retailers' websites. <sup>3</sup>. Partnership for Carbon Accounting Financials (2022), *The Global GHG Accounting and Reporting Standard, Part A* (p95). <sup>4</sup>. Emission factor applied for all homes connected to the Western Power distribution network located in south-west Western Australia. <sup>5</sup>. Emission factor applied for all remaining homes in Western Australia, most of which are connected to the North Western Interconnected System (NWIS) or microgrids operated by Horizon Power. <sup>6</sup>. Emission factor for the Darwin Katherine Interconnected System that we have applied for all mortgaged homes throughout the Northern Territory, including those homes in and around Tennant Creek and Alice Springs that are supplied by separate grids.

Introduction

Energy

Transport

Manufacturing

**Buildings**

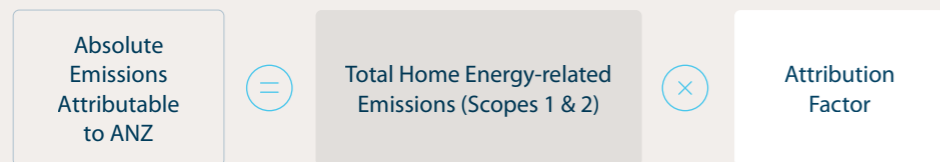
Other

Total lending portfolio

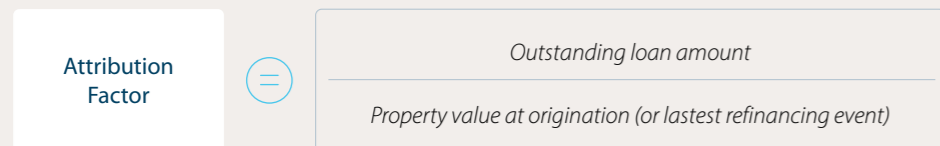
RESIDENTIAL HOME LOANS (CONTINUED)

**Calculation of absolute financed emissions and emissions intensity metrics**

To determine what portion of our customer's home energy-related emissions are attributable to ANZ's financing activities, we multiply the emissions from each home by an attribution factor using the formula below:

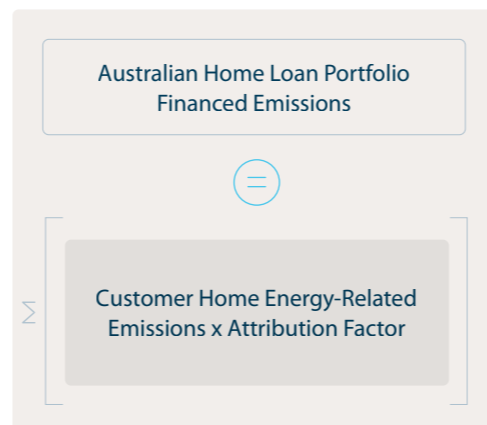


The calculation of the attribution factor varies depending on whether the property is linked to single or multiple loan accounts, or whether there are multiple properties financed by a single account or multiple loan accounts. All are aligned with the loan-to-value approach outlined in the PCAF standard, which defines that the attribution factor is equal to the ratio of the outstanding amount at the time of GHG accounting (May 31 each year) to the property value at loan origination (or latest refinancing event), as shown in the formula below:



In any case where the outstanding loan amount is greater than the property value, we assign an attribution factor of 1.

To calculate the financed emissions of our full Australian home loan portfolio, we aggregate the financed emissions of individual customers using the following formula:



**Sector-specific emissions intensity metric:**

The key metric we are using to track the emissions performance of our portfolio is emissions per dwelling. This is calculated by summing up the total energy emissions of our customers' homes and dividing this by the total number of dwellings in our portfolio (as at May 31 each year).

**Portfolio-wide emissions intensity metric:**

We have also reported a portfolio-wide emissions intensity metric which will be calculated by dividing the absolute financed emissions (calculated in accordance with the methodology outlined above) by the combined outstanding loan amount from all ANZ home loans across Australia (as at May 31 each year).

- Introduction
- Energy
- Transport
- Manufacturing
- Buildings**
- Other
- Total lending portfolio

## OTHER LARGE INSTITUTIONAL AGRIBUSINESS CUSTOMERS

ANZ has set a data coverage target for our Large Institutional Agribusiness Customers (LIAC) to encourage and support the provision of high quality and comparable emissions data. The target seeks all relevant LIACs to disclose their Scope 1 and 2 emissions<sup>1</sup> by the end of 2027. Currently, 72% of these customers are disclosing their Scope 1 and Scope 2 emissions data.

Our choice of a data coverage target, rather than an emissions reduction target, was due to the absence of a widely accepted Paris-aligned pathway to net zero emissions for the Australian agricultural sector and the ongoing challenges with the quality and availability of data.

Nevertheless, it is important to encourage our customers to measure and report their emissions data, especially as they prepare for the Australian Government’s proposed Mandatory Climate-Related Financial Disclosures regime, and we expect this will help the industry to overcome some of its data challenges, which will support the development of a net-zero pathway.

The key design choices we used in setting the data coverage target are summarised in Table 13:

Institutional customers included in the target are all large companies, either multinationals with significant operations in Australia or companies headquartered in Australia that we provide finance to for their Australian business operations. We have included customers with an exposure of at least AUD\$100million (EAD) at the end of our financial reporting year (30 September) and that are categorised in to one of the following four Australian and New Zealand Standard Industrial Classification (ANZSIC) sectors:

- Farm Gate
- Post Farm Gate
- Farming Inputs
- Food & Beverage Manufacturing

**Agriculture:** The practice of cultivating the soil, growing crops, or raising livestock for human use, including the production of food, feed, fibre, fuel, or other useful products. Also known as farming.<sup>2</sup>

**Agribusiness:** Large-scale, industrialised agriculture controlled by corporations, which includes all of the operations involved in the production, storage, processing, distribution, and wholesale marketing of farm products.<sup>3</sup>

As at 30 September 2023, 32 customers were covered by this target, which represents 1.4% of ANZ’s EAD.

The target baseline was determined by reviewing publicly available data, including customers’ published sustainability reports and submissions made to the Clean Energy Regulator under the National Greenhouse and Energy Reporting Act.

\*Customers that are being managed out of the portfolio have not been included in this target.

**Table 13 – Key design choices in setting the data coverage target**

<b>Data</b>	Seek the disclosure of Scope 1 and 2 emissions at a standard equivalent to the ‘Australian National Greenhouse Account Factors’ <sup>4</sup> by 100% of relevant LIACs <sup>5</sup> by the end of financial year 2027
<b>ANZ Customers Included</b>	Companies that own or operate companies across the entire value chain including: <ul style="list-style-type: none"> <li>• Farm input providers (e.g., fertiliser)</li> <li>• Producers (e.g., beef, lamb, grain, poultry, aquaculture)</li> <li>• Processors (e.g., bulk-handlers, meat processors)</li> <li>• Retailers (e.g. supermarkets)</li> <li>• Quick-service restaurants (large fast food chains)</li> </ul>
<b>Key External Data Sources</b>	<ul style="list-style-type: none"> <li>• Customer public disclosure</li> <li>• National Greenhouse and Emission Reporting</li> <li>• National Greenhouse Account Factors</li> </ul>

Introduction

Energy

Transport

Manufacturing

Buildings

**Other**

Total lending portfolio

1. Using relevant methods and factors outlined in the ‘Australian National Greenhouse Account Factors’. 2. Agriculture, *The Oxford Reference*. 3. Agribusiness, *The Oxford Reference*. 4. DCCEEW – Australian National Greenhouse Accounts Factors, 2023. 5. The customers covered by this target sit within ANZ’s Institutional portfolio and have a Group Relationship Point in Australia as of 01 October 2023.

## TOTAL LENDING PORTFOLIO

### Overview

ANZ has developed a total lending portfolio (TLP) financed emissions metric that is aimed at improving our understanding of the proportion of Australia's national emissions that are attributable to ANZ's lending. This TLP metric uses a top-down approach that is focused on direct emissions (Scope 1) from each economic sector so as to avoid double counting of emissions.

The TLP metric is calculated using an assumption that each dollar lent to customers within the same economic sector – as identified by ANZSIC codes –

has the same emissions intensity. The TLP metric is therefore shaped by how much we lend to each economic sector in total rather than who we lend to.

We consider that in addition to being a useful macro-analytical tool to improve our understanding of the size of our financed emissions in Australia, the TLP metric also indicates how our financed emissions are impacted by the speed and scale of decarbonisation efforts from individual sectors.

The key design choices we used in calculating our TLP metric are summarised in Table 14.

**Table 14 – Key design choices in calculating TLP financed emissions metric**

<b>Sectors Included</b>	<ul style="list-style-type: none"> <li>All Australian economic sectors, including industry, business and residential as referred to in Table 15</li> </ul>
<b>Emissions Included</b>	<ul style="list-style-type: none"> <li>Direct emissions (Scope 1)</li> </ul>
<b>Metric</b>	<ul style="list-style-type: none"> <li>Absolute financed emissions (MtCO<sub>2</sub>-e)</li> <li>Financed emissions intensity (tCO<sub>2</sub>-e/\$m lent)</li> </ul>
<b>Financing Activities Included</b>	<ul style="list-style-type: none"> <li>Outstanding lending, reflecting the drawn amount of committed loans</li> </ul>
<b>Attribution Approach</b>	<ul style="list-style-type: none"> <li>ANZ's outstanding lending to each economic sector as a proportion of the sector's total assets</li> </ul>
<b>Key External Data Sources</b>	<ul style="list-style-type: none"> <li>Australia's National Greenhouse Accounts (ANGA)</li> <li>Reserve Bank of Australia (RBA)</li> <li>Australian Prudential Regulation Authority (APRA)</li> <li>Department of Agriculture, Fisheries and Forestry</li> <li>Bloomberg</li> </ul>
<b>Date of Data</b>	<ul style="list-style-type: none"> <li>Emissions data – 31 December of the relevant year</li> <li>Financial data – 30 September of the relevant year</li> </ul>

### Sectors and Emissions in Scope

All economic sectors are included in the scope of the TLP metric (see Table 15). To avoid double counting of emissions, only direct emissions (Scope 1) are included.

**Table 15 – Sectors in scope**

ANZSIC division	Sector in scope
DIV A	Agriculture
DIV B	Mining
DIV C	Manufacturing
DIV D	Utilities
DIV E	Construction
DIV F-H, J-S	Commercial Services
DIV I	Transport and Storage
NA	Residential (non-transport) <sup>1</sup>

### Data used to calculate financed emissions by economic sector

The Australian Government has been reporting the national greenhouse gas emissions inventory since 1990 to meet its obligations under the United Nations Framework Convention on Climate Change (UNFCCC). The emissions data we used in the TLP

metric calculation was from ANGA.<sup>2</sup> Time lags involved in compiling national greenhouse gas emissions inventories meant that the most recent data accessible at the time of analysis was from the year 2021, and so this is the most recent year for which we have calculated our TLP emissions.

The total outstanding lending to each economic sector (except residential) was sourced from the RBA's<sup>3</sup> website, which includes outstanding lending data provided by ANZ. It is this same data that we provided to the RBA, that we have used as the basis for our own outstanding lending to each economic sector. For outstanding lending on residential mortgages, both the Australian total and ANZ's total were sourced from APRA<sup>4</sup>.

To fairly attribute each sector's emissions to ANZ's financing, we sought to understand the size of total assets of each sector. We estimated the total assets of each sector by dividing total outstanding lending by the debt ratio applicable to that sector. The debt ratios – except agriculture and residential mortgages – were calculated by dividing total debt by total assets of the top 2000 (by market capitalisation) companies in each sector domiciled in Australia.<sup>5</sup> For agriculture, the sectoral debt ratio was obtained from survey data sourced from the Department of Agriculture, Fisheries and Forestry. For residential mortgages, the debt ratio was calculated as the ratio of total outstanding lending to the total asset value of mortgaged homes across Australia sourced from the RBA.<sup>6</sup>

Introduction

Energy

Transport

Manufacturing

Buildings

Other

### Total lending portfolio

1. Residential transport emissions were excluded from the scope because ANZ did not offer retail car loan products at the time the analysis was conducted. 2. National inventory by economic sector, Department of Climate Change, Energy, the Environment and Water. 3. Reserve Bank of Australia, Table D14.1: Lending to Business – Business Finance Outstanding by Business Size and Industry. 4. Australian Prudential Regulation Authority, Monthly Authorised Deposit-taking Institutions Statistics. 5. Based on Bloomberg data. 6. Reserve Bank of Australia, Table E1: Household and Business Balance Sheets.

TOTAL LENDING PORTFOLIO (CONTINUED)

**Calculation of financed emissions by economic sector**

To determine what portion of each economic sector's emissions are attributable to ANZ's outstanding lending, we multiply each sector's direct emissions by an attribution factor as per the formula below:

$$\text{ANZ absolute financed emissions of sector 'X'} = \text{Direct emissions of sector 'X'} \times \text{Attribution factor of sector 'X'}$$

The attribution factor for each sector is calculated by dividing ANZ's outstanding lending by the total assets of each sector using the formula below:

$$\text{Attribution factor of sector 'X'} = \frac{\text{ANZ outstanding lending to sector 'X'}}{\text{Total assets of sector 'X'}}$$

We estimate the total assets of each sector by dividing total outstanding lending to each sector by the sector's debt ratio as per the formula below:

$$\text{Total assets of sector 'X'} = \frac{\text{Total outstanding lending to sector 'X'}}{\text{Debt ratio of sector 'X'}}$$

To determine ANZ's financed emissions intensity for each economic sector, we divide ANZ's absolute financed emissions of each sector by ANZ's outstanding lending to the sector as per the formula below:

$$\text{ANZ financed emissions intensity of sector 'X'} = \frac{\text{ANZ absolute financed emissions of sector 'X'}}{\text{ANZ outstanding lending to sector 'X'}}$$

- Introduction
- Energy
- Transport
- Manufacturing
- Buildings
- Other

**Total lending portfolio**

1. Based on Bloomberg data.





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