

2016

NATIONAL CARBON OFFSET STANDARD

PUBLIC DISCLOSURE SUMMARY

Australian Region

1 July 2015 – 30 June 2016

Carbon neutral certification type: Organisation

Subject of certification: Organisational Inventory

Date of most recent verification: 17/12/2015



An Australian Government Initiative

INTRODUCTION

National Australia Bank Limited and its controlled entities (together, NAB Group) is a financial services organisation. The majority of the NAB Group's financial services businesses operate in Australia and New Zealand with branches located in Asia, the United Kingdom and North America. This Public Disclosure Summary principally reports on the carbon neutral reporting and activities for the Australian region of NAB Group.

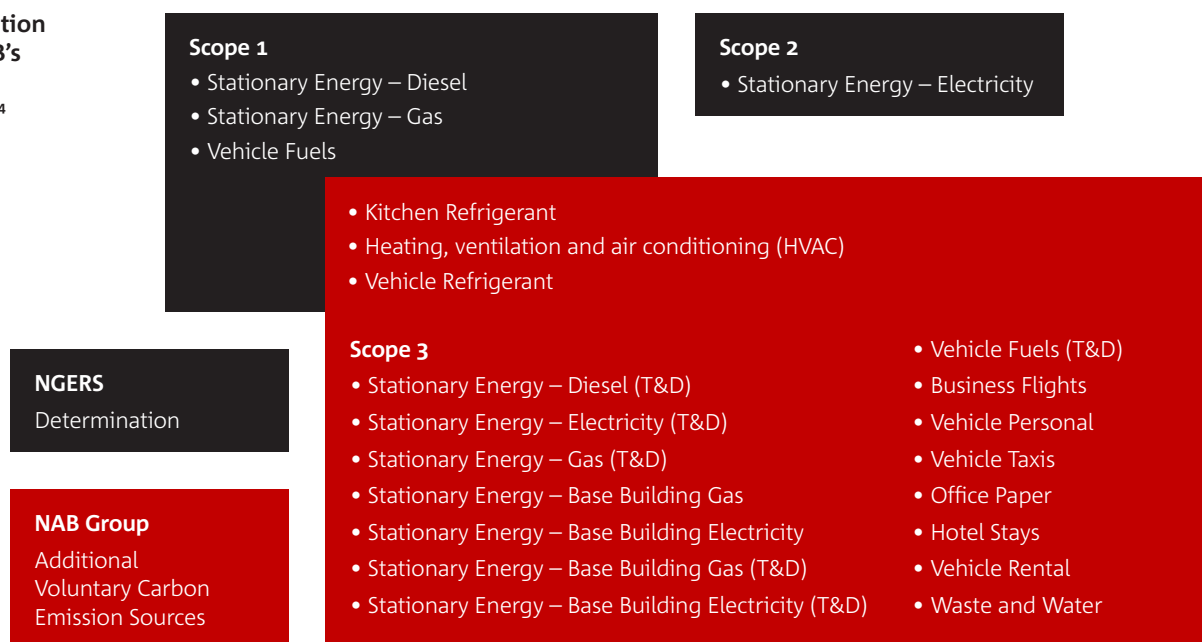
NAB¹ was the first Australian bank to be certified carbon neutral under the National Carbon Offset Standard (NCOS) Carbon Neutral Program.² Understanding and managing our carbon footprint and operating on a carbon neutral basis, for our defined carbon inventory, is part of NAB's response to the issue of climate change, and our broader Environmental Agenda (which can be accessed at nab.com.au/environment).

This report provides an overview of NAB's approach to maintaining our NCOS carbon neutral certification and achievements in managing our carbon emissions.³ The NCOS requirements for auditing of the NAB carbon footprint have been met and a copy of the independent assurance report is available on the NAB website at www.nab.com.au/about-us/corporate-responsibility/shareholders/environmental-performance.

CARBON NEUTRAL INFORMATION

NAB's certification under the NCOS is for a defined inventory of carbon emissions resulting from the activities of its Australian-based business. NAB generally uses an operational control approach consistent with that required under the National Greenhouse and Energy Reporting Act 2007 (Cth) (NGER Act). Full details regarding our quantified Australian carbon emissions sources can be found under the heading 'How we calculate our carbon emissions' here www.nab.com.au/about-us/corporate-responsibility/environment/climate-change.

Figure 1: Certification Boundary for NAB's Organisational Carbon Inventory⁴



1 For the remainder of this document the word "NAB" refers to the Australian operations of National Australia Bank Limited and its controlled entities.

2 NAB achieved this milestone in 2010.

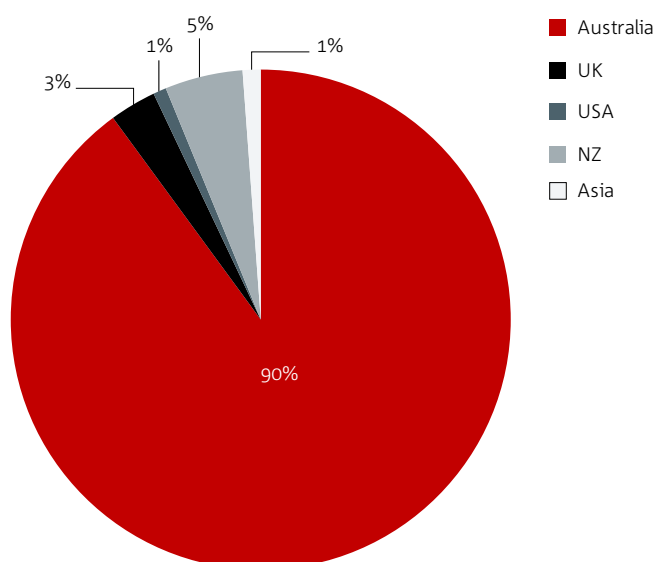
3 The term 'carbon emissions' covers greenhouse gas emissions from all relevant Kyoto Protocol gases and some CFCs and HCFCs under the Montreal Protocol.

4 Air travel emissions are calculated to include an uplift (8%) to compensate for planes not flying using the most direct route as per the DEFRA guidelines. We do not include uplift for radiative forcing.

OUR GLOBAL CARBON EMISSIONS

NAB Group's global carbon emissions (net of UK certified renewable electricity, Green Power Renewable Energy Certificates purchased in Australia and carbon neutral paper purchased in Australia and New Zealand) for the 2016 environmental reporting year (1 July 2015 - 30 June 2016) were 218,918 tCO₂-e of which our Australian emissions account for around 90%, or 196,890 tCO₂-e.

Figure 2: Regional Distribution of NAB Group 2016 Carbon Inventory*



*Figure 2 is based on NAB Group's carbon emissions (net of UK certified renewable electricity, Green Power Renewable Energy Certificates purchased and carbon neutral paper purchased in Australia, New Zealand and UK).

SUMMARY OF CHANGES TO THE CALCULATION METHODOLOGY

This year, we have calculated Scope 3 emissions associated with water use in Australia, in line with the requirements of the revised Carbon Neutral Program Guidelines. Based on this calculation, we have concluded that the greenhouse gas (GHG) emissions associated with our water use are not material, as they are less than 0.3% of our current total GHG footprint. These emissions have been included in our GHG footprint for completeness.

Table 1. NAB's Australian emissions since base year

	NCOS BASE YEAR (2010)	2013	2014	2015	2016 ⁶
Scope 1	11,858	9,650	12,426	12,291	11,774
Scope 2	148,666	141,778	133,589	130,096	115,454
Scope 3	94,630	91,573	85,419	74,092	69,661
Total (tCO₂-e)	255,154	243,001	231,434	216,479	196,890

⁵ LEED (Leadership in Energy and Environmental Design) is one of the most widely used green building certification programs used worldwide. Platinum is the highest possible building certification that can be awarded under the program.

⁶ GHG emissions (tCO₂-e) following renewable energy purchase.

No material changes have been made to NAB's carbon inventory (GHG) inventory since NAB's initial NCOS certification in 2010, except for the inclusion of refrigerants in 2011. We have not run an uncertainty calculation this environmental reporting year as this is only required every second year under NGER Act obligations.

In 2016, we refined the classifications used for air travel data to improve the accuracy of carbon emissions calculated for domestic, international and trans-Tasman flights. This change in classification does not impact total kilometres travelled, but has led to a minor reduction in our total air travel-related carbon emissions (~1%), due to the associated change in some emissions factors applied as a result of the reclassification.

SUMMARY OF CHANGES TO THE CARBON INVENTORY

The most significant change to NAB's carbon emissions in the 2016 environmental reporting year (1 July 2015 - 30 June 2016) was a 9% reduction in carbon emissions related to energy use in our buildings. This was primarily the result of a 6% reduction in total electricity consumption due to the decommissioning of an obsolete data centre. Other energy efficiency initiatives delivered the remainder of the reduction.

In September 2015, we finalised a three-year transition from an older less energy efficient data centre to a new LEED Platinum⁵ certified data centre. During this transition (2013-2015), we were operating three data centres as opposed to two – as we moved equipment from one facility to another. In addition, we achieved a reduction in electricity consumption across our branch portfolio of 4% due to wireless control solutions (HVAC and lighting) and solar initiatives (Photovoltaic (PV) / and solar paint), and a 2% reduction in our office buildings due to energy efficiency initiatives, such as Light-emitting diode (LED) upgrades and power management control improvements.

We also achieved a 15% reduction in our Scope 1 carbon emissions due to lower natural gas and diesel use – a reduction of 1,023 tCO₂-e. This decrease relates to the reduced gas use at Knox data centre when the tri-generation plant was offline.

EMISSIONS OVER TIME

Over time, the reduction in NAB's carbon emissions has largely been due to improvements in the energy efficiency of our buildings.

EMISSION REDUCTION MEASURES

NAB has a well-established governance framework to ensure oversight of our environmental performance, including our carbon neutral commitment. This includes detailed review at a business unit level, in addition to review by our Enterprise Risk function and an independent assurance provider. Executive level oversight is provided by NAB's Group Regulatory, Compliance and Operational Risk Committee.

As per NAB Group's *Environmental Reporting and Offset Management Policy*, the NAB Group defines carbon neutrality as a process involving five steps:

- defining and measuring our carbon (GHG) inventory or footprint;
- reducing our carbon emissions through energy efficiency and demand management (employee behavioural change);
- avoiding carbon emissions by increasing the amount of energy we purchase from renewable sources where practicable (and where we are allowed by Government rules or standards to apply a zero emissions factor to the renewable electricity purchased);

- offsetting remaining carbon emissions by purchasing quality accredited carbon offsets; and
- verifying and reporting on our progress by:
 - regularly assessing our progress towards meeting our commitment and targets;
 - obtaining external assurance over our carbon accounts (inventory and offsets) underlying our carbon neutral commitment; and
 - reporting regularly to key internal stakeholders and annually to external stakeholders.

Achieving reductions in our carbon emissions and delivering to our resource efficiency targets are key elements of supporting delivery of our Environmental Agenda. Table 2 below outlines emission reduction measures implemented in the 2016 environmental reporting period. Further information regarding our performance towards our targets can be found in our **2016 Dig Deeper**.

Table 2. Emission Reduction Measures Implemented in the 2016 Reporting Period (1 July 2015 to 30 June 2016)

EMISSION REDUCTION ACTIVITY TYPE	REDUCTION MEASURE*	EMISSION SOURCE AND SCOPE	STATUS	EXPECTED ANNUAL REDUCTION tCO ₂ -e
Energy efficiency: Building services	Decommissioning of obsolete data centre	Gas & Electricity consumption Scope 1,2 & 3	Implemented	15,359
Energy efficiency: Processes	Decommissioning, consolidating and phasing out older technology equipment and implementing more efficient solutions	Gas & Electricity consumption Scope 1,2 & 3	Implemented	2,559
Energy efficiency: Building services	Upgrading diesel generators at a data centre	Diesel consumption Scope 1 & 3	Implemented	15
Energy efficiency: Building services	Improving energy efficiency across our buildings, including improvements to HVAC and lighting, installing wireless controls and powering down sites when not in use	Electricity consumption Scope 2 & 3	Implemented	285
Energy efficiency: Building fabric	Installing of solar reflective roof paint and window film at our branches to reduce heat gain	Electricity consumption Scope 2 & 3	Implemented	69
Low carbon energy installation	Installing solar panel on our branches	Electricity consumption Scope 2 & 3	Implemented	338
Total emission reductions implemented in this reporting period				18,625
Total expected emission reductions in future reporting periods from currently identified opportunities				1,357

*Data in this table has been calculated by direct metering, invoiced data and extrapolation.

In addition to the emission reduction measures implemented in the 2016 environmental reporting year, we continue to purchase an NCOS Carbon Neutral product - Australian Paper's Reflex 100% Recycled Carbon Neutral A3 and A4 office paper. If this purchase did not occur, our carbon footprint for the 2016 environmental reporting year would have increased by 1,042 tCO₂-e.

CARBON EMISSIONS SUMMARY

NAB's 2016 Australian carbon inventory is summarised in Table 3. A more detailed breakdown of carbon emissions sources and activity data is provided in our 2016 Dig Deeper paper available online at www.nab.com.au/environment. This year, NAB purchased 2,000 GreenPower Renewable Energy Certificates. This resulted in an emissions reduction of 2,520 tCO₂-e during the 2016 environmental reporting year.

Table 3. Australian Carbon Inventory

SCOPE	EMISSION SOURCE	tCO ₂ -e
1	Building-based refrigerants - HVAC, refrigerators	917
1	Business travel - Work-use vehicles fleet: diesel, petrol, ethanol	4,943
1	Stationary energy - combustion of fuel: diesel, gas, propane	5,787
1	Work-use vehicle fleet - air conditioning refrigerant	127
2	Stationary energy - electricity	117,714
Total Scope 1 and Scope 2 emissions		129,488
3	A4 and A3 paper purchased - non carbon neutral	21
3	A4 and A3 paper purchased - carbon neutral (693 tonnes)	0
3	Base-building energy - combustion of fuel: diesel, gas	2,188
3	Base-building energy - electricity	18,680
3	Business travel - air	20,458
3	Business travel - employee vehicle: work purpose claims	1,722
3	Business travel - hotel stays	4,073
3	Business travel - rental cars	219
3	Business travel - taxi use	1,235
3	Business travel - Work-use vehicles fleet: diesel, petrol, ethanol (T&D losses)	259
3	Transmission Losses - base-building energy: diesel, gas, electricity	2,613
3	Transmission Losses - stationary energy: diesel, gas, electricity	15,140
3	Waste to Landfill	2,812
3	Water	501
Total Gross Emissions (Scope 1, 2 & 3)		199,410
GreenPower or LGC reductions		2,520
Total Net Emissions		196,890

CARBON OFFSETS

NAB Group manages our offsets on a consolidated basis. NAB Group's *Environmental Reporting and Offset Management Policy* provides guidance on the purchase of quality offsets to ensure that any purchase of offsets meets the objective of NAB Group's carbon neutral commitment and any related carbon neutral accreditation or certification processes.

At NAB Group we apply a forward purchasing model to meet our carbon neutral commitment. This means we have calculated our forecast carbon emissions for the 2017 environmental reporting year using the actual carbon emissions reported in our 2016 carbon inventory and then we have purchased and retired⁷ carbon offsets in advance of the 2017 environmental reporting year estimated carbon emissions occurring (refer to Table 5).

This also means at the end of each environmental reporting year, we need to reconcile the forecast carbon emissions

and retired offsets and ensure this reconciles with the actual position. If there is any shortfall of offsets at this time, we retire additional offsets to neutralise our actual carbon emissions for the relevant environmental reporting period. In 2015, we retired 242,560 offsets in advance to cover forecast global carbon emissions for the 2016 environmental reporting year. Following reconciliation of actual carbon emissions for the 2016 environmental reporting year, only 218,918 offsets needed to be retired (refer to Table 4).

The offsets we retired last year in excess of our actual 2016 global carbon emissions have been banked for use in future years. This enables us to have retired offsets available should our reconciliation process identify carbon emissions volumes which vary from our forecasts. This avoids us having to access the market at short notice and therefore limits our exposure to supply risk or the price implications of this (refer to Table 6).

⁷ The term "retire" is used throughout, including where the offset has been cancelled or surrendered.

Table 4. Retired Carbon Offsets for Actual 2016 Group Carbon Emissions

OFFSET TYPE	REGISTRY	SERIAL NUMBER	QUANTITY (tCO ₂ -e)
Forestry	NZ Emissions Unit Register	50132119158-50132130157	11,000
Biomass fuel switch	Markit	1464-62109891-62125890-VCU-008-MER-BR-1-34-01022010-31122010-1	16,000
RE – Run of River Hydropower	APX VCU Registry	3114-137207483-137210301-VCU-008-APX IN-1-1114-28122010-31122011-0	2,819
RE – Wind	Markit	1404-60764829-60770936-VCU-020-MER-IN-1-429-01012010-30062010-0	6,108
Forestry	Australian Emissions Reductions Fund Register	3655938856-365596187	24,332
RE – Wind	APX VCU Registry	3848-166154321-166214320-VCU-048-APX-IN-1-1352-01012012-31122012-0	60,000
RE – Run of River Hydropower	ANREU	10,720,400 - 10,757,700	37,301
Forestry	VCS Project Database	3937-168537016-168548373-VCU-016-APX-PG-14-1122-22052009-31122012-0	11,358
Biogas Utilisation	ANREU	4,528,479 - 4,578,478	50,000
Total			218, 918

Table 5. Carbon Offsets Retired in Advance for Forecast 2017 Group Carbon Emissions

OFFSET TYPE	REGISTRY	SERIAL NUMBER	QUANTITY (tCO ₂ -e)
Forestry	VCS Project Database	3937-168548374-168572015-VCU-016-APX-PG-14-1122-22052009-31122012-0	23,642
RE – Geothermal	Markit	371-151640751-151655750-VCU-010-MER-ID-1-144-01012012-31072012-0	15,000
RE – Geothermal	Markit	3370-151555776-151605561-VCU-010-MER-ID-1-144-01042011-31122011-0	49,786
RE – Run of River Hydropower	ANREU	10757701 - 10807700	50,000
Forestry	NZ Emissions Unit Register	50075151572-50075161571	10,000
Forestry	NZ Emissions Unit Register	50139081144-50139082143	1,000
RE – Wind	Markit	GS1-1-TW-GS472-12-2014-4605-34085 to 94084	60,000
Savanna Burning	ANREU	3743294783-3743301782	7,000
RE - Solar PV	Markit	GS1-1-CN-GS3344-1-2014-4418-55016 to 56186	1,171
RE – Wind	APX VCU Registry	3848-166214321-166215322-VCU-048-APX-IN-1-1352-01012012-31122012-0	1,002
Total			218,601

Table 6. Retired Carbon Offsets Banked for Future Use

OFFSET TYPE	REGISTRY	SERIAL NUMBER	QUANTITY (tCO ₂ -e)
RE – Biogas Utilisation	ANREU	4,578,479 - 4,628,478	50,000
RE – Wind	APX VCU Registry	3850-166224518-166236517-VCU-048-APX-IN-1-1352-01012012-31122012-0	12,000
RE – Wind	APX VCU Registry	3848-166215323-166217320-VCU-048-APX-IN-1-1352-01012012-31122012-0	1,998
RE – Run of River Hydropower	APX VCU Registry	3207-145120519-145128518-VCU-008-APX-IN-1-1114-01012012-31102012-0	8,000
RE – Solar PV	Markit	GS1-1-CN-GS3344-1-2015-4417-422 to 20250	19,829
RE – Geothermal	Markit	371-151605751-151640750-VCU-010-MER-ID-1-144-01012012-31072012-0	35,000
RE – Wind	Markit	GS1-1-TW-GS472-12-2014-4605-94085 to 145121	51,037
RE – Run of River Hydropower	VCS Project Database	4499-188403815-188420225-VCU-037-MER-CN-1-166-01012013-14112013-0	16,411
RE – Run of River Hydropower	VCS Project Database	4499-188383512-188403814-VCU-037-MER-CN-1-166-01012012-31122012-0	20,303
Total			214,578

VERIFICATION

Annual Independent Assurance of global carbon neutral GHG and offset data

Name of assurer: KPMG

Period covered: 1 July 2015 - 30 June 2016

Date of assurance: 10 November 2016

Next assurance verification due: September 2017

NCOS Biannual Verification

Name of verifier: KPMG

Period covered: July 2014 - 30 June 2015

Date of verification: 17 December 2015⁸

Next verification due: September 2017

DECLARATION

To the best of my knowledge and having met the requirements of the National Carbon Offset Standard Carbon Neutral Program, the information provided in this Public Disclosure Summary is true and correct.

	
Matthew Lawrance	
Chief Technology and Operations Officer	
12th December 2016	

⁸ NAB's submission for the purposes of certification under the Carbon Neutral Program was provided to the Department in compliance with the due date of 30 October 2015. Due to our participation in a pilot to streamline the NCOS reporting and assurance process, the assurance activities over our Carbon Neutral Program submission were performed prior to 30 October and then the assurance report was signed post 30 October once the Department had indicated they were satisfied with the streamlined assurance process.