

EMISSIONS INVENTORY REPORT

Prepared in accordance with ISO 14064-1:2018. This report is to be read in conjunction with the Emissions Inventory spreadsheet.



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Verification Status: Independently Verified

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Base year period: 01/01/2018 to 31/12/2018

Contents

INTRODUCTION.....	3
STATEMENT OF INTENT	3
DESCRIPTION OF AUT.....	4
Sustainability at AUT	4
REPORTING PERIOD COVERED	4
ORGANISATIONAL BOUNDARIES	4
Defining the individual facilities.....	5
INVENTORY SUMMARY	5
OPERATIONAL BOUNDARIES.....	8
SUMMARY OF EMISSION SOURCE INCLUSIONS	8
GHG EMISSIONS AND EXCLUSIONS.....	10
COMPARISON TO PREVIOUS INVENTORIES	11
SIGNIFICANT EMISSION SOURCES.....	14
PERSONS RESPONSIBLE.....	14
INFORMATION MANAGEMENT PROCEDURES.....	14
DATA COLLECTION, QUANTIFICATION AND UNCERTAINTIES.....	14
LEVEL OF UNCERTAINTY.....	15
DOUBLE COUNTING	15
BASE YEAR	15
CHANGES TO HISTORIC BASE YEAR.....	15
GREENHOUSE REMOVALS AND REDUCTIONS	15
ASSESSMENT OF PERFORMANCE AGAINST KPIs.....	16
OFFSETS.....	16
COMPLIANCE WITH ISO14064-1	17
AUDIT OF GHG INVENTORY	17
APPENDIX 1: AUT STRUCTURE 2020	18
APPENDIX 2: MATRIX TO ISO14064-1:2018 STANDARD	19

INTRODUCTION

Auckland University of Technology (AUT) is committed to advancing knowledge and understanding the issues and opportunities around creating a sustainable future for people and the planet and its biological ecosystems. This vision encompasses three core values which intersect across all areas of our activities. They are Mauri ora - wellbeing, Ki Tua - futures and Whanaungatanga - connectivity. The approach is outlined through the Sustainability Plan which sets out goals and targets until 2025. This is also contextualised through our commitment to the United Nation's Sustainable Development Goals (SDGs) of which SDG 13, Climate Action is seen as critical.

AUT has reported on its carbon emissions to the Tertiary Education Facilities Management Association of Australasia since 2012. This provides a benchmark against other tertiary Institutes in Australasia. It has reported one of the lowest carbon footprints in this sector.

This report is our fifth GHG Inventory report and is consistent with the International Standards Organisation (ISO) 14064-1:2018 which is based on the Greenhouse Gas Protocol (GHG Protocol¹). This is a Corporate Accounting and Reporting Standard (2004) and ISO 14064-1:2018 Specification with Guidance at the Organisation Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals. Where relevant, the inventory is aligned with sector best practice for emissions measurements and reporting.

For the purposes of this report, AUT refers to the three campuses operations, AUT Foundation and AUT Ventures Ltd. It excludes AUT Millennium, the Mangere Refugee Centre and any organisations partially owned by AUT Ventures.

STATEMENT OF INTENT

ISO14064-1 9.3.2 (a)

This inventory forms part of AUT's commitment to gain ISO14064-1:2018 verification. This report:

- relates specifically to emissions of AUT;
- has been prepared following the requirements in ISO14064-1;
- has been prepared as part of an ongoing commitment to measure and reduce emissions as outlined in our Sustainability Plan; and
- Identifies exposure to carbon risk within our core business and our supply chain, in support of a longer-term goal of transitioning to a business model that is viable within a net zero economy.

Intended users of this report include, but are not limited to:

- Our staff and students
- Prospective students
- Our industry partners and government
- Executive Leadership and AUT Council
- General public
- Ministry for the Environment

¹ Throughout this document 'GHG Protocol' means the GHG Protocol Corporate Accounting and Reporting Standard and 'ISO 14064-1:2018' means the international standard *Specification with Guidance at the Organisational Level Quantification and Reporting of Greenhouse Gas Emissions and Removals*.

DESCRIPTION OF AUT

ISO14064-1 9.3.1 (a) and 9.3.2 (a)

AUT is the second largest university in Aotearoa, New Zealand. Students are provided with unique learning opportunities through engagement with industry, business, and international partners. AUT operates across three campuses located in Auckland and in 2023 had an enrolment of 18,724 equivalent full-time students (EFTS) and 2240 full time equivalent (FTE) staff. This information is from the 2023 annual report on AUT's website.

The University has five Faculties:

- Business, Economics and Law
- Culture and Society
- Design and Creative Technologies
- Health and Environmental Sciences
- Te Ara Poutama (Faculty of Māori and Indigenous Development).

For more information on the University see the Annual Reports for the year ended December 2023 at www.aut.ac.nz². For further information on the structure of the organisation see figure 1 and table 1.

The University is also a 100% shareholder in AUT Foundation and AUT Ventures Ltd and is a 50% and 15% shareholder in AUT Millennium and the Waterfront Theatre respectively.

Sustainability at AUT

The mission in the University's [Sustainability Plan](#) is to create great graduates for a sustainable world. Collectively we are committed to ensuring that students have opportunities to develop sustainability related knowledge, that students will have opportunities for interdisciplinary collaboration on the world's most intransigent problems, through action orientated research and finally that these activities will be undertaken on campuses that are operating with ever decreasing carbon footprints in response to SDG13, climate action.

The university has set an ambitious goal of halving its CO₂e footprint by 2025 using 2018 as its baseline.

A focus on GHG measurement and gaining ISO14064 certification provides credibility that the organisation is committed to reducing its footprint in line with global targets.

REPORTING PERIOD COVERED

ISO14064-1 9.3.1 (c,l)

This GHG inventory report covers the financial year 1 January 2023 to 31 December 2023. This is our fifth report and 2018 is our baseline year. A calendar year was chosen to align with our financial reporting cycles. The frequency of this report will be annual.

ORGANISATIONAL BOUNDARIES

ISO14064-1 9.3.1 (d)

The organisational boundaries were set with reference to the methodology described in the ISO 14064-1:2018 standard. The standard allows for two distinct approaches to be used to consolidate GHG emissions: the equity share or control (either financial or operational) approaches.

The operational control approach was used to account for emissions. This approach was used to account for emissions over which the University has control and can influence reductions in line with its targets.

² Link to 2023 Annual Report: <https://www.aut.ac.nz/about/auts-leadership/official-aut-publications>.

The criteria AUT used to define organisational boundaries consisted of mapping the organisational chart to show legal structure of all entities residing beneath AUT. Table 1 and figure 1 describe how each entity is considered and shows what has been included in the context of the organisational profile. In figure 1, the part of the structure in green indicates what has been included and those highlighted in orange show what has been excluded.

ISO 14064-1 requires that different activities and emissions are categorised into ‘facilities’ to provide data in its disaggregated form to provide transparency and flexibility to meet reporting requirements.

A facility is an operation which by its processes and geography can be separately accounted for. ISO14064 defines facility as: **“a single installation, set of installations or production processes (stationery or mobile), which can be defined within a single geographical boundary, organisational unit or production process”³**

While the university operates from three campuses and it has several subsidiaries which are included in this report, they cannot be easily separated into facilities. AUT Foundation and AUT Ventures occupy space within the university campuses and are included in the total emissions. However, the companies owned by AUT Ventures are excluded from the organisational boundary, as the staff do not occupy space in AUT buildings, book travel through AUT, nor does AUT Ventures exercise control over their Boards. The City, South and North campuses which form Auckland University of Technology have not been separated out in this report. The Warkworth Observatory (which closed in 2023) and the Mangere Refugee Centre are both excluded from the organisational boundary.

Figure 1: AUT Structure highlighting what is included in the reporting boundaries

Defining the individual facilities

A brief description of each of the facilities (including which legal entities are included within them) follows:

Table 1: Description of AUT Structure and Facilities

Facility	Description
AUT	This includes the three Auckland campuses. The university operates out of 47 buildings and used 19.15 GWh of electricity, 3.07 GWh gas, with 18,724 EFTS students and 2,240 FTE staff. The three campuses are: <ul style="list-style-type: none"> • City campus • North campus • South campus AUT staff also occupy offices at AUT Millennium. Further information about AUT can be found on AUT’s website
AUT Millennium	New Zealand’s leading health, sport and exercise tertiary education provider managed by the AUT Millennium Ownership Trust.
AUT Ventures	The commercialisation arm of AUT which provides access to the university’s IP portfolio, research consultants, commercial research, and investment opportunities.
AUT Foundation	An independent charitable trust established in 1987 set up to manage donations to the university.
ASB Waterfront Theatre	Auckland theatre located in Wynyard Quarter and is the home of the Auckland Theatre Company. AUT is a funder and one of the founding partners.

INVENTORY SUMMARY

ISO14064-1 9.3.1 (f)

A description of AUT emissions is outlined in table 2 and 3 and figure 2 and 3 below.

³ ISO 14064-1:2018€ section 3.4.1

Table 2: Summary of emissions (tCO₂e) by sources for the period 1/1/2023 to 31/12/2023

	Source	CO ₂ e (tonnes)	% of Total
Category 1	Fuel (L)	48	0.5%
	Refrigerants (kg)	100	1.1%
	Natural Gas (kWh)	638	7.2%
	LPG (kg)	2	0.0%
Category 2	Electricity (kWh)	1,421	16.0%
Category 3	Freight (Road)(tonnes)	0	0.0%
	Air Travel (tonnes)	1,834	20.6%
	Taxis (\$)	4	0.1%
	Mileage (km)	59	0.7%
	Rental Cars (km)	7	0.1%
	Hotels (stay nights)	84	0.9%
	Staff Commuter Travel (SOV km)	504	5.7%
	Student Commuter Travel (SOV km)	3,605	40.6%
	WFH (days)	46	0.5%
	Shuttle Bus (km)	138	1.6%
Category 4	Waste (tonnes)	98	1.1%
	Transmission & Distribution Losses (kWh)	188	2.1%
	Paper Consumption (tonnes)	21	0.2%
	Water & Wastewater (kL)	59	0.7%
	Data Centres (kWh)	27	0.3%
Grand total		8,885	100%

Table 3: Summary emissions and removals (tCO₂e) by category for the period 1/1/2023 to 31/12/2023

Category	All measured emissions (tCO ₂ e)
Category 1 direct emissions	789
Category 2 indirect emissions (imported energy)	1,421
Category 3 indirect emissions (transportation)	6,282
Category 4 indirect emissions (products used by organisation)	392
Category 5 indirect emissions (use of products from the organisation)	-
Category 6 indirect emissions (other sources)	-
Total direct emissions	789
Total indirect emissions	8,096
Total gross emissions	8,885
Category 1 direct removals	-
Certified renewable energy certificates	-
Total net emissions	8,885

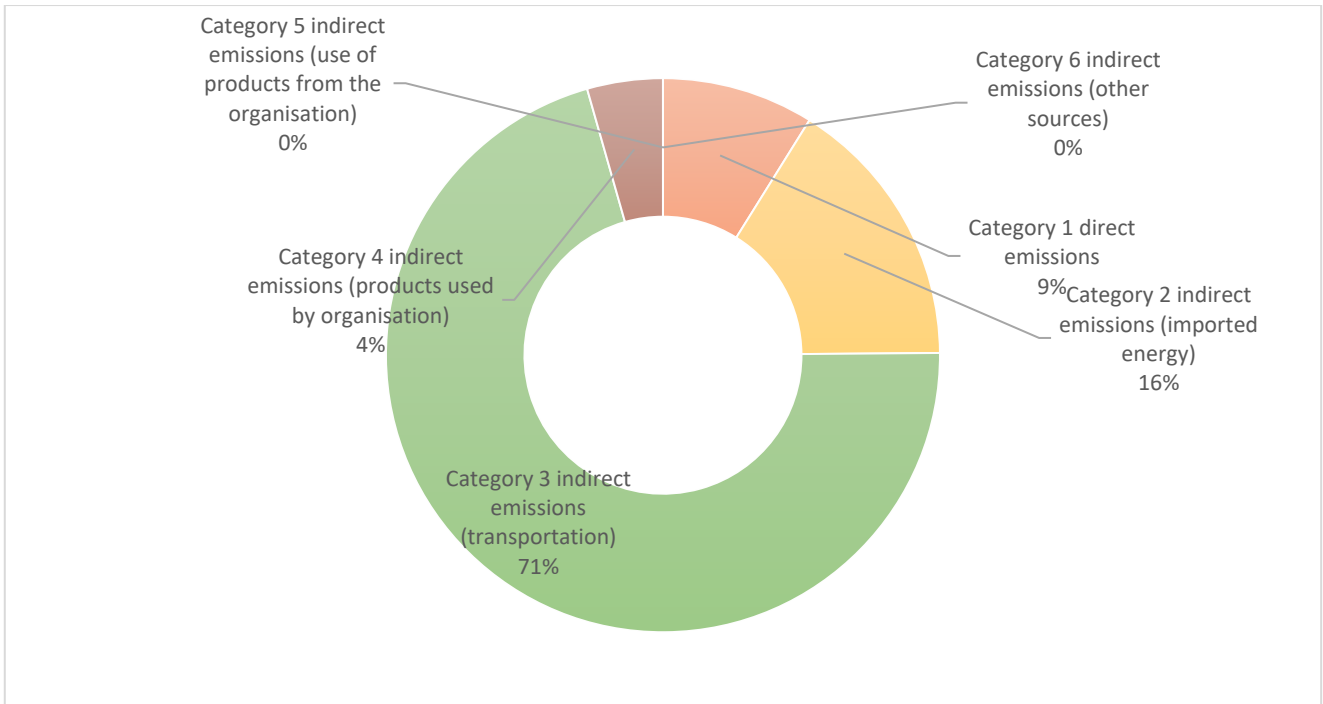


Figure 2: Emissions by Category for all measured emissions for 1/1/2023 – 31/12/2023

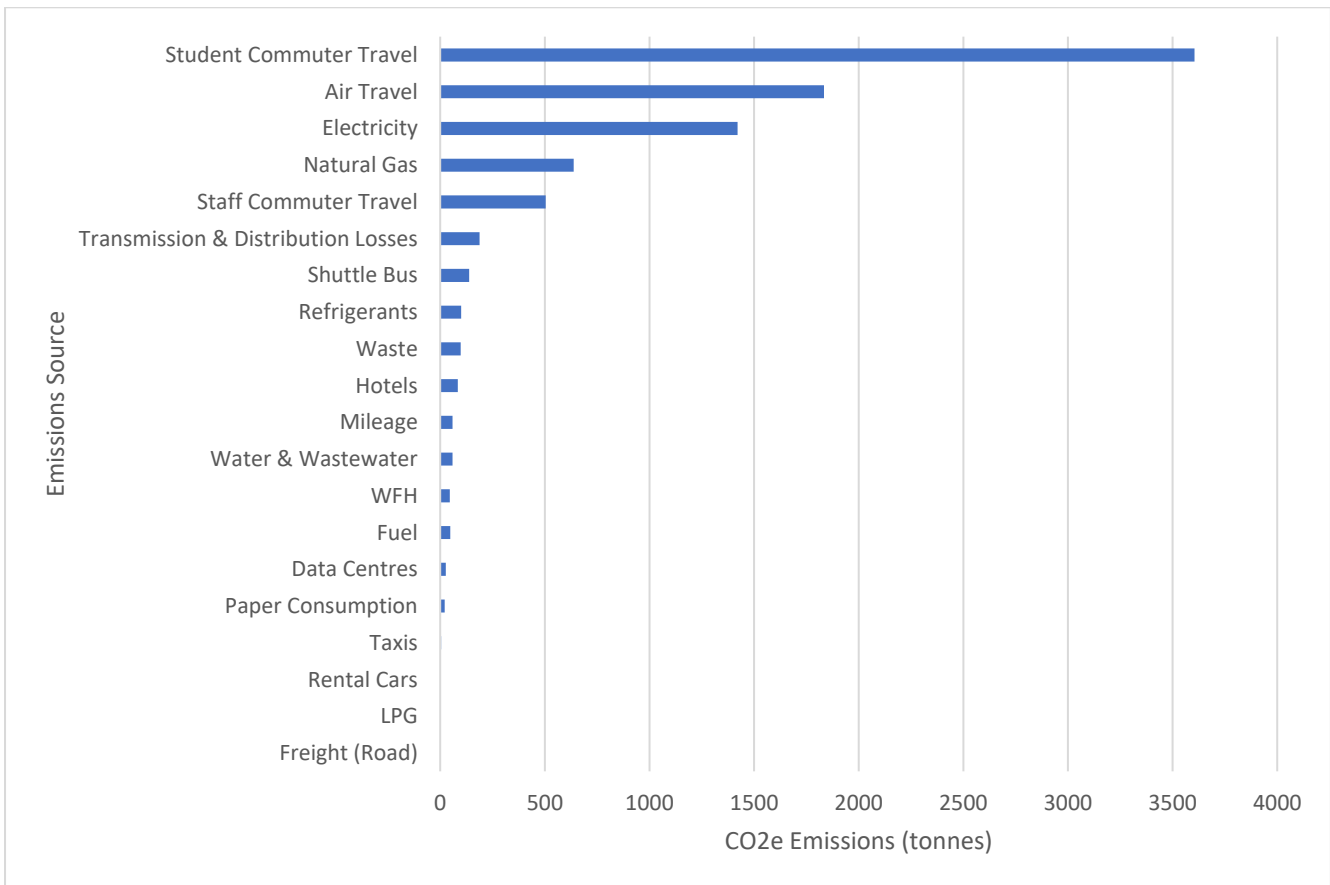


Figure 3: 2023 GHG emissions by source

Category	CO ₂ e	CO ₂	CH ₄	N ₂ O	HFCs	SF
Category 1	789	683	2	2	100	0
Category 2	1,421	1,381	37	4	0	0
Category 3	6,282	2,066	4	18	0	0
Category 4	391	170	141	27	0	0

Table 4: Breakdown of GHG emissions by category.

* Totalling individual GHG numbers may not add to total CO₂e due to rounding and a lack of specific GHG emission factors for some emission sources.

OPERATIONAL BOUNDARIES

ISO14064-1 9.3.1 (e)

GHG emissions sources for AUT were measured using the 12-month period 1 January 2023 – 31 December 2023 which is our financial year.

The following categories are used:

- Direct GHG emissions/removals (Category1): GHG emissions that are operationally controlled by the organisation:
- Indirect GHG emissions from imported energy (Category 2): GHG emissions from the generation of purchased electricity, heat or steam consumed by the company.
- Indirect emissions from Transportation (Category 3)
- Indirect emissions from products used by the organisation (Category 4)
- Products used from organisation (Category 5)
- Other indirect emissions (Category 6)

Sources and sinks were identified through regular discussions with the NZ and Australia Tertiary Education Sector, annual Tertiary Education Facilities Management Association (TEFMA) reporting and a screening tool was used to identify monetary spend and associated carbon emissions.

Key considerations around what sources to include were the magnitude, level of influence, risk/opportunity, sector guidance, outsourcing, stakeholder engagement, ISO14064 requirements and others.

All required category 1 and 2 emissions are included. Category 3 and 4 emissions are included where data is available. Only data that is deemed *de minimis* (less than 1%) or where exclusion has been approved has been excluded.

SUMMARY OF EMISSION SOURCE INCLUSIONS

ISO14064-1 9.3.1 (g & m), 9.3.2 (f)

Table 4 below provides a summary of the emissions sources included in the GHG inventory. It also describes the methodology used and level of uncertainty.

Table 5: Summary of Inclusions

Category	GHG emissions source	Data source	Data collection unit	Methodology, data quality, uncertainty
Category 1	Natural Gas	Gas consumption in offices, kitchens.	EnergyPro, finance and usage portal for utilities.	Accurate records from billing information captured in EnergyPro.
	LPG	Gas consumed by BBQ,	Invoices	Usage captured through gas purchases.

	Mobile combustion	Fuel used by AUT fleet	Fuel card (Cardlink)	Litres of fuel purchased on fuel card
	Fugitive emissions	Fugitive emissions from AC systems	Maintenance records	Aquaheat & Econair provide data
Category	GHG emissions source	Data source	Data collection unit	Methodology, data quality, uncertainty
Category 2	Electricity	Electricity consumed in offices, lecture theatres, cafes etc	EnergyPro, finance and usage portal for utilities.	Accurate records from the billing system. Electricity data is reported using the location-based methodology.
Category	GHG emissions source	Data source	Data collection unit	Methodology, data quality, uncertainty
Category 3 operational	Transportation	Freight (Office consumables)	OfficeMax Carbon Emissions Report (Verified)	OfficeMax pre-verified data.
		Air Travel	Orbit Travel environmental report.	Orbit provides kms travelled, class of travel and departure date. AUT applies emissions factors for all domestic, short haul and long haul travel, including the radiative forcing emission factors.
		Car rentals	Rental provider	Average kms travelled per day applied by Orbit
		Taxis	Data provided by finances team.	Accurate records from finances team
		Mileage	Data provided by the finance team	Accurate records from finance team
		Hotels	Orbit Travel environmental report.	Orbit provides Environmental report which uses departure date providing accurate data verified by Toitu Envirocare.
		Staff & Student Commuter Travel	Data based on AUT's staff & student travel survey	Data based on AUT travel survey. People counting technology also used to inform % of students on campus after pandemic.
		Shuttle Bus	Pacific Tourway's emails	Data based on kilometres travelled by diesel & electric buses.
		WFH	Based on different WFH days – used Travel survey data	Uses MfE methodology for working out number of WFH days for total staff. This is based on a 46-week year and applies different WFH days across FTE total. People counting technology could be used in future.
Category	GHG emissions source	Data source	Data collection unit	Methodology, data quality, uncertainty
Category 4	Purchased goods & services	Waste	Data provided by OCS as main contractor.	Waste, commingled recycling, paper cardboard recycling and compostables is a mix of actual weights and industry best guess estimates.
		Transmission & Distribution Losses	EnergyPro, finance and usage portal for utilities.	Emissions based on electricity & gas use using MfE average emissions factors for NZ.
		Paper Consumption	Officemax consumption figures	Accurate records from Officemax

	Water & Wastewater	EnergyPro, finance and usage portal for utilities.	Accurate records based on invoice system in EnergyPro
	Data Centres	Data provided by Datacom & Microsoft	Accurate emissions based on Microsoft scope 1,2 & 3. Datacom based on kWh used by racks & % of total.

GHG EMISSIONS AND EXCLUSIONS

ISO14064-1 9.3.1 (i)

Table 6: Table of Category 1 and 2 exclusions

Category	GHG emissions source	Data source	Reason for exclusion	% of total category 1 & 2 inventory
	Stationary combustion			
Category 1	Diesel	Testing of backup generators	Estimates available from maintenance officers & is excluded as considered <i>de minimis</i> .	Less than 1%
	Fertiliser	Fertiliser Usage	Data is de minimis based on previous years	

Table 7: Table of Category 3,4, 5 and 6 exclusions

Category	GHG emissions source	Data source	Reason for exclusion
Category 3 operational	Transportation	Freight (Other than paper)	Data has not been obtained yet. Work is underway with key suppliers & will be available in the future.
		Air Travel (International students)	Data not available for this report. Will be considered for future reports.
		Vehicle rentals for students trips not booked through Orbit	Data not available and considered to be de minimus
		Student trips (students' vehicles)	Data not available and considered to be de minimus.
		Compost Bays at North Campus	Data considered to be de minimus
		9Kg LPG cylinders and special gasses	Data considered to be de minimus

COMPARISON TO PREVIOUS INVENTORIES

Greenhouse gas emissions for the current reporting period are detailed in figures 4 to 7 and table 6. There is a decrease of 4,792 tCO₂e compared to 2018, the baseline year. The totals of all categories have decreased in comparison to the 2018 baseline. Furthermore, all emissions sources decreased or remained constant (in comparison to 2018) except for refrigerants, mileage, rental cars, water/wastewater and data centres.

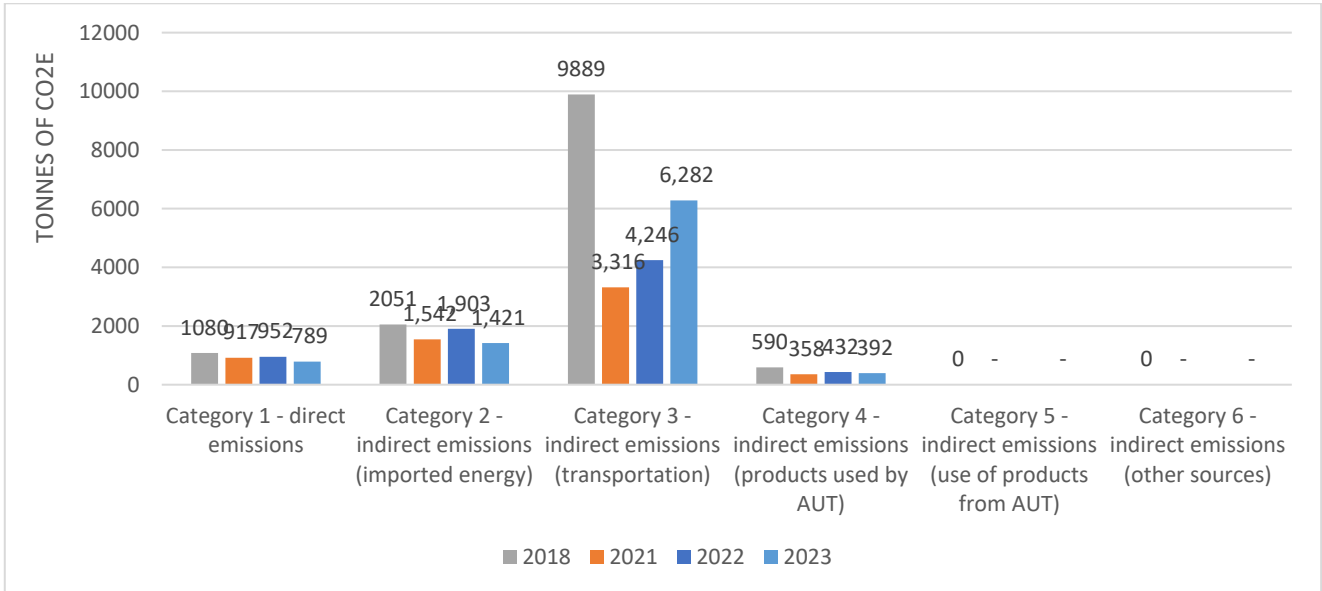


Figure 4: Comparison of gross CO₂e emissions by category in 2018, 2021, 2022 & 2023

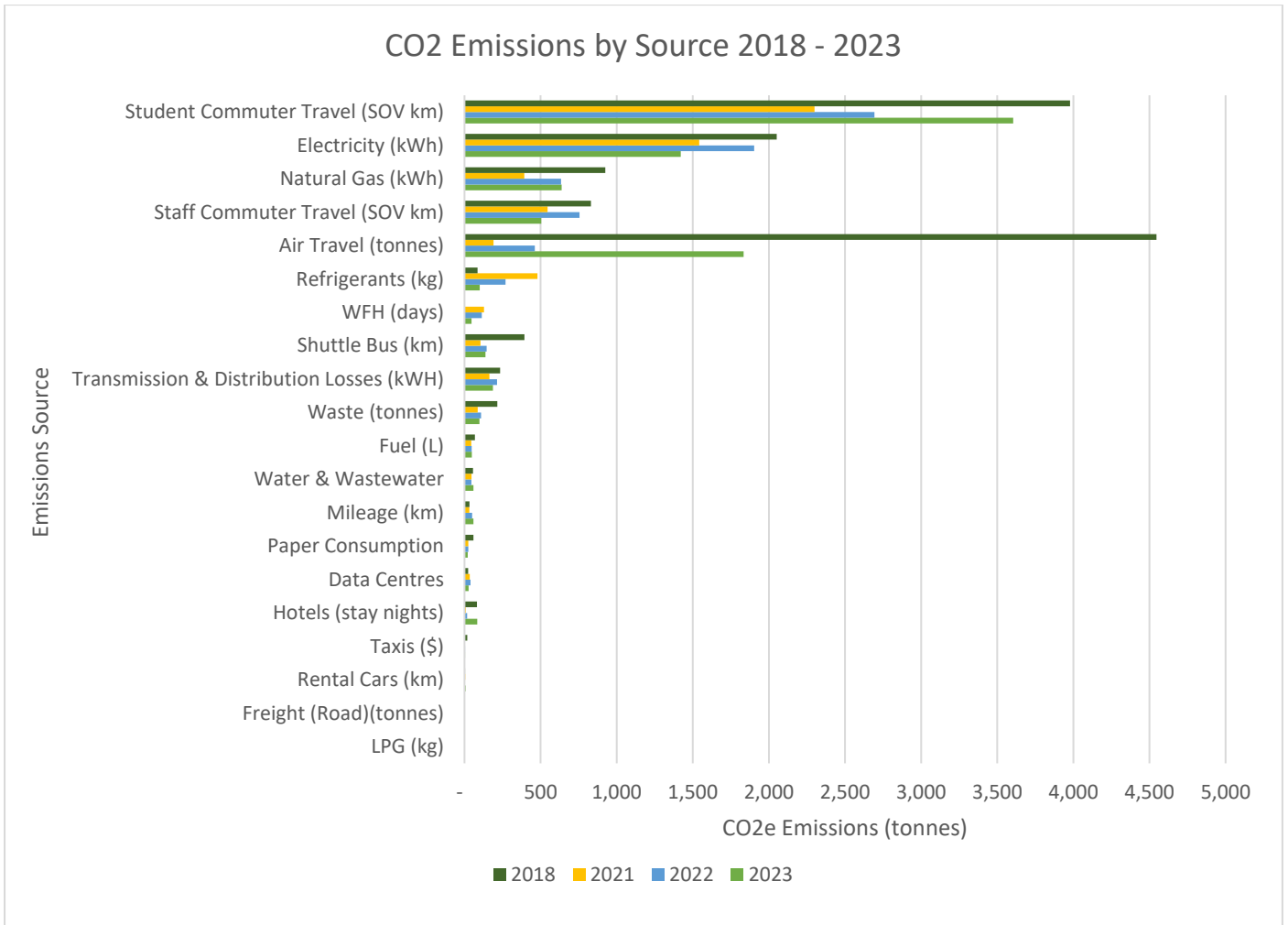


Figure 5: Comparison of gross emissions by source between reporting years

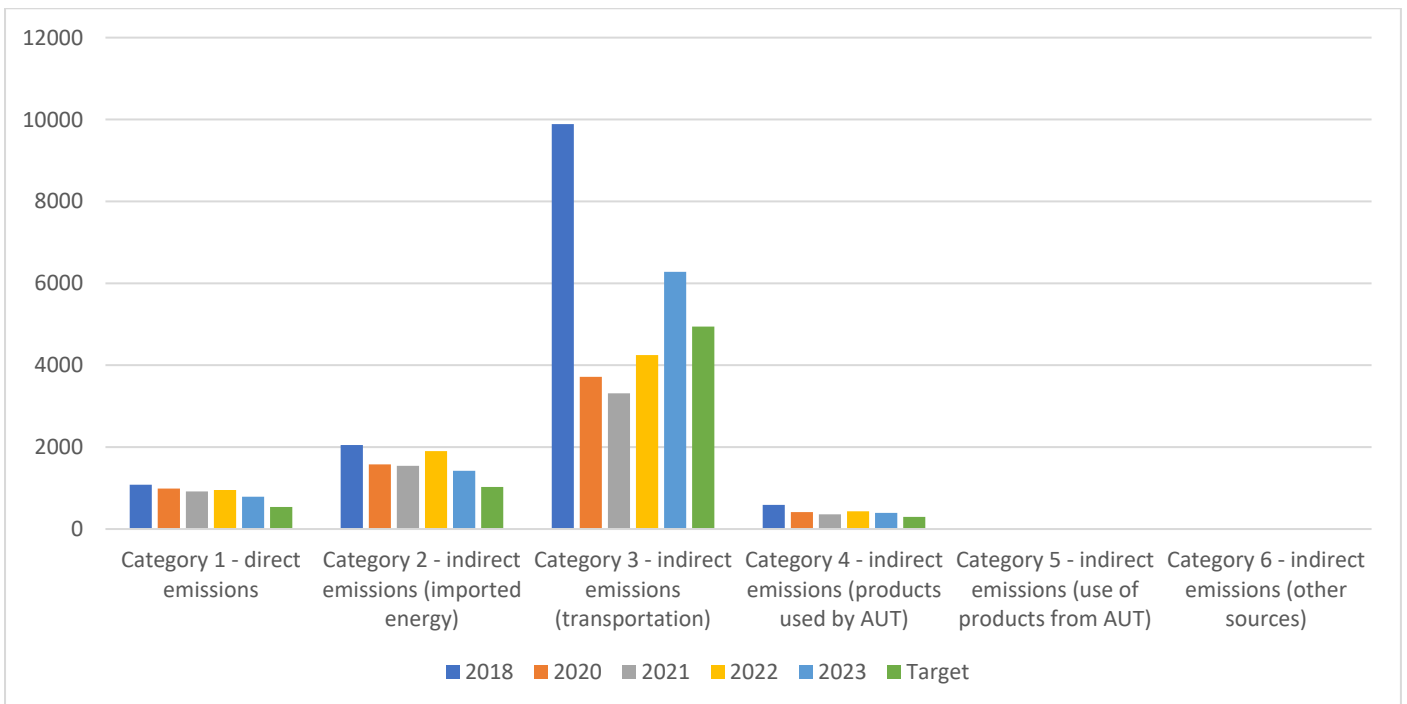


Figure 6: Comparison of emissions by category for 2018, 2020, 2021, 2022, 2023 and a target of half emissions per category

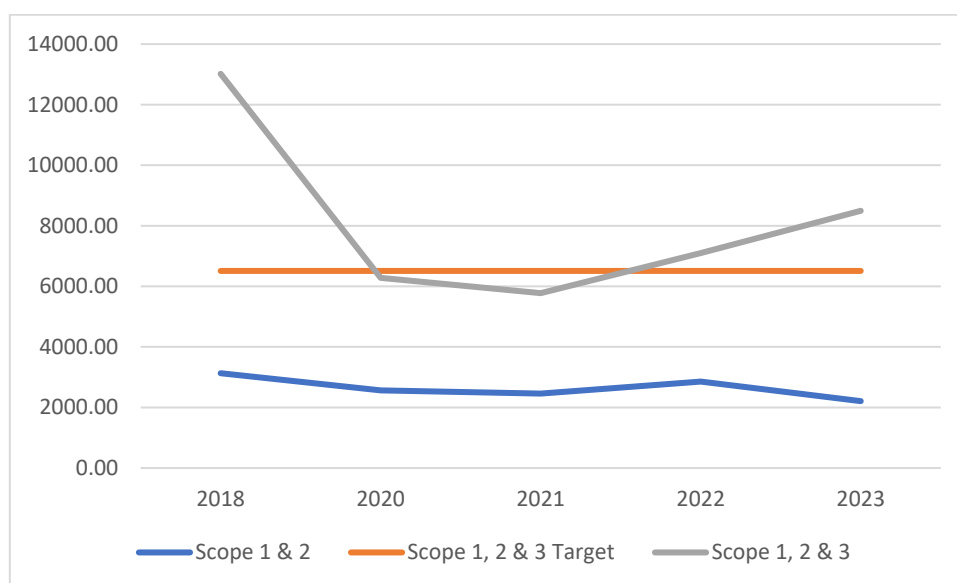


Figure 7: Scope 1, 2 and 3 emissions and Target for 2018, 2020, 2021, 2022 & 2023

All category 1 & 2 emissions sources, except refrigerants, decreased when compared to the 2018 baseline. The carbon associated with refrigerants is an area the industry is developing and AUT is considering and adopting refrigerants with a lower global warming potential, whilst balancing other risks, such as flammability of refrigerants.

2023 represented the first year when all AUT staff and students were on campus throughout the year, since the pandemic. Carbon from electricity decreased by a quarter in 2023 (in comparison to 2018) due to a decrease in consumption of 1GWh and an increase in renewable electricity supply on the national grid (lowering the electricity emissions factor). AUT is continuing to decarbonise our energy infrastructure, work on WM & WH buildings began to achieve this goal. Carbon from air travel increased against 2022 (when borders were closed until July) but is still about 60% lower than the 2018 baseline year.

For commuter travel a larger than normal cohort of students (16% in 2023 versus 6% in 2021) travelled into the City campus in a single occupancy vehicle in 2023. It is expected this is because of unreliable bus services, and major disruptions to the train network due to the rail network upgrade, as well as the lingering impact of the pandemic.

Category	Emissions Sources	Base Year 2018 (tCO2e)	2020 (tCO2e)	2021 (tCO2e)	2022 (tCO2e)	2023 (tCO2e)
Category 1 direct emissions	Diesel, Petrol, Refrigerants, Natural gas, LPG	1080	989	917	952	789
Category 2 indirect emissions (imported energy)	Electricity	2051	1577	1542	1903	1421
Category 3 indirect emissions (transportation)	Freight, Air Travel, Taxis, Mileage claims, Hotels, Car rentals, commuter travel, WFH, Shuttle Bus	9889	3716	3316	4246	6282
Category 4 indirect emissions (products used by organisation)	Waste, Transmission & Distribution losses, Paper consumption, Water, Data centres, Fertilizers	590	419	358	432	392
Category 5 indirect emissions (use of products from the organisation)		0	0	0	0	0
Category 6 indirect emissions (other sources)		0	0	0	0	0
Total direct emissions		1080	989	917	952	789
Total indirect emissions		12,530	5711	5215	6581	8096
Total gross emissions		13,610	6700	6133	7534	8885
Category 1 direct removals		0	0	0	0	0
Certified renewable energy certificates		0	0	0	0	0
Total net emissions		13,610	6700	6133	7534	8885

Table 8: Comparison GHG emissions by category for 2018, 2020, 2021, 2022 & 2023

SIGNIFICANT EMISSION SOURCES

In 2023, our most significant emissions sources (in order) were commuter travel, air travel, electricity and natural gas. There is ongoing work in all these areas. The scope 3 emissions associated with freight will increase as we work more closely with our suppliers to access emissions associated with freight, currently we only collect emissions associated with transporting office consumables to AUT.

In the latter part of 2023, a Transformation Office was established to enable AUT to realise targets within a range of our Plans, including the Sustainability Plan. Work began in 2023 to identify our key problems within AUT around sustainability and actions to reduce AUT's significant carbon emissions will be developed and implemented over 2024.

PERSONS RESPONSIBLE

ISO14064-1 9.3.1 (b)

The GHG Inventory has been prepared by Amelia Adams, Sustainability Graduate and Lucy McKenzie, Head of Sustainability at AUT. The Inventory is the responsibility of the Head of Sustainability. With a significant target to halve CO₂e emissions by 2025, the completion of the Inventory and the baseline provides the necessary information to progress forwards to achieve the target.

The Sustainability team, the Estates operations staff and suppliers have provided background and supporting information. They are:

- ICT – Data Centres
- Hitesh Patel (Energypro) – Energy and Water
- Chris Wood (OCS) – Waste, Recycling and Organic Waste
- Estates – Fleet, Shuttle Bus
- Orbit – Air Travel, Hotels and Rentals
- Office Max – Paper and Freight
- AUT Finance – Taxis, Mileage

INFORMATION MANAGEMENT PROCEDURES

ISO14064-1 9.3.2 (i)

AUT has drafted GHG information management processes that ensure conformance with the principles of ISO14064 and the GHG Protocol: to ensure consistency with the intended use of the GHG inventory: provide routine and consistent checks to ensure completeness and accuracy: identify and address errors and omissions: and manage and store documentation in a safe and accessible manner. A procedure document has been developed to ensure consistent, accurate and complete data is provided.

The key information management procedures:

- Source data is collected directly from the AUT suppliers or from AUT's financial system;
- The data is stored in the TEAMS folder and reviewed by the Sustainability team;
- Emissions factors and conversion factors are maintained by the Sustainability team;
- The GHG inventory is compiled using activity data and emissions factors;
- The report is reviewed to identify opportunities to reduce emissions and improve the information management process; and
- CO₂e emissions information is provided to AUT Council, AUT's Executive Leadership Team and included on the AUT sustainability webpage.

DATA COLLECTION, QUANTIFICATION AND UNCERTAINTIES

ISO14064-1 9.3.1 (m, n, o & t)

Table 3 provides a summary of the GHG inclusions, and the methodology and uncertainties associated with this information. The data was coordinated by the Sustainability team and sourced from operations staff, the Finance team and suppliers.

Data and supporting documentation were centrally filed and collated in a Teams folder accessible by key stakeholders. The core data is consolidated on a spreadsheet. The emission factors and supporting methodologies are taken from the Ministry for the Environment's guide. 'Measuring Emissions: a Guide for organisations: 2023 detailed guide'⁴. Where this information was not available, emissions factors were taken from the Department of Environment, Food and Rural Affairs⁵ (Defra, United Kingdom). Emissions factors for purchased goods and services have been sourced from Motu⁶. Global warming potentials for refrigerants were taken from the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report⁷ (AR4).

All CO₂e are reported in tonnes and broken into their constituent greenhouse gases where data is available.

There have been no changes in methodologies used for reporting.

LEVEL OF UNCERTAINTY

ISO14064-1 9.3.1 (p, q)

There is an inherent level of uncertainty with most data sources. Verifiable data has been used wherever this is available. A more conservative approach has been taken where there is a higher level of uncertainty.

DOUBLE COUNTING

There is no double counting to report in 2023.

BASE YEAR

ISO14064-1 9.3.1 (k)

2018 is our baseline year and was chosen because it aligned with the release of AUT's Sustainability Plan that includes a target to half emissions by 2025. Furthermore, we had a sufficient dataset for 2018 to begin CO₂e emissions reporting. Reporting occurs from 1 January to 31 December and is in line with our financial year.

CHANGES TO HISTORIC BASE YEAR

ISO14064-1 9.3.1 (l)

Changes will be made to the baseline year's data if significant changes occur such as changes in emissions factors or substantial changes in scope.

GREENHOUSE REMOVALS AND REDUCTIONS

ISO14064-1 9.3.1 (h) and 9.3.2 (b, c, j & k)

⁴ Ministry for the Environment. 2023. Measuring emissions: A guide for organisations: 2023 detailed guide. Wellington: Ministry for the Environment. <https://environment.govt.nz/assets/publications/Measuring-Emissions-Guidance-DetailedGuide-2023-ME1764.pdf>

⁵ Department for Business, Energy & Industrial Strategy, UK Government Greenhouse gas reporting conversion factors 2023. <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023>

⁶ Romanos, Carl; Suzi Kerr & Campbell Will, 2014. 'Greenhouse Gas Emissions in NZ. A Preliminary Consumption-Based Analysis', Motu Working Paper 14-05, Motu Economic & Public Policy Research, Wellington.

<https://www.motu.nz/our-research/environment-and-resources/emission-mitigation/emissions-trading/greenhouse-gas-emissions-in-new-zealand-a-preliminary-consumption-based-analysis/>

⁷ <https://www.ipcc.ch/assessment-report/ar4/>

The University has set an absolute target to halve its emissions by 2025 based on the 2018 baseline. A key focus this year was supporting Estates to reduce energy consumption through our ongoing Collaboration Agreement with EECA and completing a Draft Commuter Travel Plan. A list of current initiatives is listed in the table below.

Table 9: Emissions reduction actions 2023

Initiatives	Detail
Energy efficiency	Supporting Estates to achieve energy reductions through the Energy Reduction Plan and our Collaboration Agreement with EECA. Work began to decarbonise energy infrastructure in WM and WH buildings – primarily removing natural gas boilers.
Waste reduction	In July the new onsite sort of the contents of bins at the City and South campuses began. This initiative seeks to maximise the amount of recycling and compostables from AUT and subsequently minimise waste to landfill. We also promoted plastic Free July.
Engagement with staff and students	Green Impact programme & sustainability newsletter for staff and students, free compost workshops, free e-bike rides, bike maintenance workshops for staff and students, a herb and vegetable planting workshop. Ongoing meetings with AUT’s student Sustainability Club – Sustainability Collab – including delivering an event in partnership.
Transport	Drafted AUT’s Commuter Travel Plan in conjunction with staff and student stakeholders from across AUT. One of the primary aims of the Plan is to reduce CO ₂ e emissions associated with and staff and student commuter travel. Completed a staff and student travel survey to understand how our students and staff are travelling to campus.
Air Travel	Desktop analysis of domestic and international air travel undertaken by staff.

Halving our carbon footprint by 2025 is a significant challenge which is only set to increase once work commences on our supply chain. Initial work is focussed on improved efficiency, upgrades to old technology, integrating circular economy principles to our purchases and better construction using carbon accounting framework.

AUT has no removals to report for this financial period. AUT has not implemented any biogenic CO₂e removals or storage in 2023. Biogenic CO₂ emissions are not measured or reported on in this report.

ASSESSMENT OF PERFORMANCE AGAINST KPIS

ISO14064-1 9.3.2 (h)

This year is the fifth year that the GHG emissions are being reported on. This is being benchmarked against a 2018 baseline and the 2025 target of halving gross emissions.

OFFSETS

ISO14064-1 9.3.3

There are no offsets applied to this inventory. Current thinking is that budget will be used for operational and capital upgrades to reduce emissions.

COMPLIANCE WITH ISO14064-1

ISO14064-1 9.3.1 (r)

The GHG Inventory report has been compiled in accordance with ISO14064-1. A matrix is attached in Appendix 2.

AUDIT OF GHG INVENTORY

ISO14064-1 9.3.1 (s)

An internal review has been conducted by key staff at AUT to get reasonable confidence that the assertions and data are correct. The calculations and inventory have been independently verified by McHugh & Shaw Limited. The level of assurance is reasonable for ISO Cat 1 & 2 (Scope 1 & 2) and limited for ISO Cat 3 & 4 (Scope 3).

APPENDIX 1: AUT STRUCTURE 2023

Company Name	Emissions source	Legal Structure & Partners	Economic Interest held by AUT	Operational control	Comment
Auckland University of Technology	Yes	Parent company	100%	Yes	Includes City, North and South campuses
Auckland University of Technology Foundation			100%	Yes	Included in AUT emissions as operate from City campus.
AUT Ventures Limited			100%	Yes	Included in AUT emissions as operates from City campus
Companies owned by AUT Ventures Ltd			Variable	No	Start Ups. Don't operate from AUT buildings. AUT does not have control over company or facility they operate from.
AUT Millennium			50%	No	Not included as AUT does not have operational control over facility
Waterfront Theatre Limited			15%	No	Not included as AUT does not have operational control over facility

APPENDIX 2: MATRIX TO ISO14064-1:2018 STANDARD

ISO Reporting	Page in GHG Inventory Report	
	Page	
9.3.1 (a)	Page	4
9.3.1 (b)	Page	14
9.3.1 (c)	Page	4
9.3.1 (d)	Page	4
9.3.1 (e)	Page	8
9.3.1 (f)	Page	6
9.3.1 (g)	Page	9
9.3.1 (h)	Page	16
9.3.1 (i)	Page	10
9.3.1 (j)	Page	
9.3.1 (k)	Page	16
9.3.1 (l)	Page	4, 16
9.3.1 (m)	Page	9, 15
9.3.1 (n)	Page	15
9.3.1 (o)	Page	15
9.3.1 (p)	Page	15
9.3.1 (q)	Page	15
9.3.1 (r)	Page	17
9.3.1 (s)	Page	17
9.3.1 (t)	Page	15
9.3.2 (a)	Page	3,4
9.3.2 (b)	Page	16
9.3.2 (c)	Page	16
9.3.2 (d)	Page	
9.3.2 (e)	Page	
9.3.2 (f)	Page	9
9.3.2 (g)	Page	
9.3.2 (h)	Page	17
9.3.2 (i)	Page	14
9.3.2 (j)	Page	16
9.3.2 (k)	Page	16
9.3.3	Page	17