



VICTORIA UNIVERSITY OF
WELLINGTON
TE HERENGA WAKA

2025

Greenhouse Gas Emissions Inventory

Compiled by: Andrew Wilks – Manutaki, Toitūroa | Director, Sustainability

Independently Verified by: McHugh & Shaw

Assurance Level: Reasonable Assurance ISO Cat 1-2, Limited Assurance ISO Cat 3-6

Reporting Period: 1 January to 31 December 2025

Photo Credit: Nish Singh

1. About Us

Te Herenga Waka—Victoria University of Wellington has approximately 16,300 equivalent full-time students, including international students from around 100 countries. We award about 4,700 qualifications each year.

The University has around 2,300 full-time equivalent staff and about half of those are involved in teaching and research.

The University has seven faculties, six of which conduct both teaching and research. The University's faculties are divided into schools, many of which are closely aligned with the University's numerous research centres and institutes.

Victoria University of Wellington (VUW) has three main campuses in Wellington – Kelburn, Pipitea and Te Aro; along with satellite facilities including Miramar Creative Centre, the Coastal Ecology Lab as well as space at the Hospital and Callaghan Innovation. We also have premises in Auckland.

Our Zero Carbon Plan has a 2030 target of net zero emissions and a 40 percent reduction in gross carbon emissions compared to our 2017 baseline.

The purpose of this report is to track and transparently report our greenhouse gas emissions and our progress on climate action. It is available to the public, including our students who use it as a learning resource, on our website (wgtn.ac.nz/carbon-footprint). The information contained within the report is used for reporting internally as well as to external entities including the Carbon Neutral Government Programme, Climate Leaders Coalition, Universities New Zealand, the Association for the Advancement of Sustainability in Higher Education (to gain a STARS rating) and University Ranking schemes.

2. Organisational Boundary

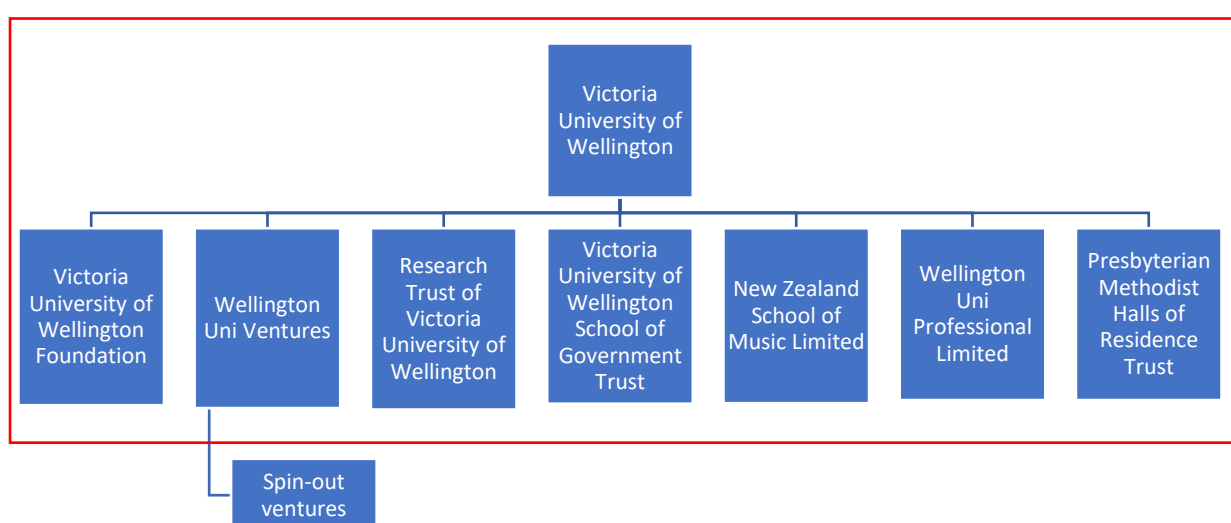


Figure 1: Organisational boundary for this greenhouse gas inventory

The operational control approach was adopted to determine the organisational boundaries for the carbon footprint. The red box indicates the entities over which the University has operational control and which are included in the organisational boundary.

Wellington UniVentures spinouts (ventures that have resulted from research commercialisation) have financial links to the University but operate as separate entities. These spinouts include:

- Wetox Limited
- General Cable Superconductors Limited
- Magritek
- Inhibit Coatings
- Ferronova
- Xframe
- Marama Labs
- Rekovery Therapeutics
- Wellumio
- Allegro Energy
- Tasmanion
- Liquium
- Advemto
- Bontia Bio Ltd

Where the subsidiaries operate from VUW facilities over which VUW has operational control, the emissions associated with their electricity consumption and refrigerant emissions have been accounted for in Category 1 & 2 as appropriate.

Wellington Uni Ventures has also established a partnership with Booster (a financial services company who manage investment funds) to invest in research commercialisation at the University. This partnership has been formalised through a joint venture – NZ Innovation Booster Limited and is excluded from the organisational boundary for this greenhouse gas inventory, as it is simply a financial relationship where the University has no operational control over Booster's emissions.

3. Operational Boundary

GHG emission sources from the University value chain were identified with reference to the methodology described in the GHG Protocol, ISO 14064-1 2018, and Scope 3 standards, and classified into categories. Under the standards, reporting of Scope 3 emissions is optional.

The following ISO 14064-1 categories are used:

Direct GHG emissions (Category 1): GHG emissions that are operationally controlled by the University;

Indirect GHG emissions from imported energy (Category 2): GHG emissions from the generation of purchased electricity, heat or steam consumed by the University

Other indirect GHG emissions (Category 3-6): all indirect emissions (not included in Category 2) that occur in the value chain of the University, including both upstream and downstream emissions. These have been further categorised as:

- Transportation (Category 3)
- Products we use (Category 4)
- Use of our products (Category 5)
- Other sources of emissions (Category 6) – not relevant to the University

4. Significance and Materiality

Under the operational control approach an organisation accounts for GHG emissions from operations according to a level of control over specific assets generating emissions. The selection of the operational control approach was chosen to enable clear measurement of the emissions which are actively managed by the University.

The University began measuring greenhouse gas emissions in 2007. For the 2017 reporting year, in preparation for the development of our Zero Carbon Plan, the University engaged AECOM as an independent expert to review our organisational and operational boundaries and our measurement practices to ensure they were in line with industry best practice.

A spend review was undertaken to assess the likely size of emissions from a wide range of potential emissions sources (note: the emission source was considered material if it exceeded 2 percent of total emissions, based on spend-based emission factors). This was considered alongside the reporting practices of other leading Universities, the availability of reliable consumption data and emissions factors, our ability to influence a reduction in emissions and the level of interest from our stakeholders, in assessing which emissions source were deemed to be significant, material and within our operational control and therefore included in our GHG inventory. In 2024 another spend review was undertaken, using 2023 annual expenditure. For each spend category, a NZ spend-based emission factor (supplied by Think Step ANZ)¹ was applied to roughly determine the size of emissions and see if business activities had significantly changed since 2017. It was determined they had not and using the more accurate spend-based emissions factors indicate that overall emissions through the supply chain are lower than previously assessed.

Since 2024 there have been no significant changes to the University's operations to warrant undertaking another spend review.

The increasing interest in the emissions associated with data storage and artificial intelligence, led to request for emissions reporting from our IT vendors for both our data storage and the provision of our Microsoft applications, which will commence in 2026. Initial discussions indicate that the volume of emissions is likely to be below 50 tonnes CO₂e/year and thus well below the 2% materiality threshold.

Methodologies for measuring embodied carbon in construction projects are improving but are not yet standard practice for our campus development team. In 2025 there was no large-scale construction work at the University – only minor refurbishments.

Exclusions

Based on the above process, the following emissions sources were excluded from the GHG Inventory, which primarily fall within Categories 3 to 6 and are not a requirement of the Carbon Neutral Government Programme.

¹ <https://www.thinkstep-anz.com/resrc/reports/spend-based-emission-factors-for-new-zealand/>

Emissions Source	Justification and Commentary
Laboratory chemicals	Difficult to measure, but very low volume – considered <i>de minimis</i>
Vehicle & fridge refrigerants	Difficult to measure, but very low volume – considered <i>de minimis</i>
Food	All food provision on campus is provided by third party suppliers, which limits operational control and makes it difficult to measure. NB: Campus food waste to landfill is included in GHG inventory. Food retailers on campus and halls of residence are providing more plant based choices and the sustainable events guide provides advice on low-carbon catering.
Fertiliser	Very low volume - considered <i>de minimis</i>
Worm farms	Very low volume - considered <i>de minimis</i> . The worm farms have contributed to reducing organic waste to landfill and increasing the waste diversion rate.
Purchased goods and services - General supplies	Numerous small scale purchases across a range of different categories without available emission factors, difficult to measure and low volume - no single expenditure category (by account code) is considered a material source of emissions.
IT Services & data storage	Most of the opex IT spend is for software licences, which will be explored for possible inclusion in the future if a suitable emission factor can be found. The majority of data storage is either on campus (which is included in GHG inventory) or elsewhere in New Zealand (with lower emissions electricity supply) . The off-campus data storage is considered <i>de minimis</i> . See above for further details
THW Press – contracted printing	Difficult to measure, but very low volume – considered <i>de minimis</i>
Capital expenditure	Carbon from campus development projects are difficult to measure, although this is in development through BRANZ and low embodied carbon is being prioritised in campus development projects, with Ngā Mokopuna being a flagship for sustainable design making extensive use of structural timber and sequestering more carbon than it uses for construction. See above for further details. Similarly other items of capital expenditure (lab equipment, furniture, IT hardware etc.) are difficult to measure the carbon emissions from and have also been excluded.
Student travel to Wellington (self-funded)	Limited operational control (i.e.: limited influence over what mode of transport and how frequently students travel – students make their own arrangements for travel to and from Wellington) and difficult to measure (i.e.: there is no visibility of travel bookings). However, it must be acknowledged that students travelling to Wellington to attend University generate a considerable volume of emissions – potentially a further 4,500 tonnes/yr. Greater use of online teaching and franchise models is helping reduce travel emissions of international and domestic students. Note: Staff and student commuter travel is included in this inventory as the University has more operational control (through the provision of carparking, student accommodation locations and influence over public transport networks) and greater ability to measure emissions through (through attendance records, traffic counts, surveys etc.).
Freight	Very low volume - considered <i>de minimis</i>
Investments	Foundation investment portfolio is managed by third party, but the Foundation are signatories to the UN Principles for Responsible Investment and have instructed the fund manager to avoid investment in companies operating in high carbon intensive industries.
Research	Research is often conducted by contractors or partner organisations and funded out of a research grant held by the University. This is difficult to measure and will largely be labour cost. Any emissions from research conducted on-campus will already be captured in the inventory.
Professional Services	Numerous small scale engagements across a range of different categories without available emission factors and difficult to measure.

Table 1: Emissions sources excluded from inventory

Changes from 2024

There were no material changes to the organisational or operational boundary in 2025.

Minor changes included:

- The Victoria University of Wellington Art Collection Funding Trust funds now sit within the Victoria University of Wellington Foundation, so it is no longer included as a unique entity in our organisational boundary.
- Several residential properties that were used as student accommodation were sold off and are no longer part of the University.
- The previous emission factor being used for paper consumption, which was very out-dated, has been replaced with an emission factor from ThinkStep ANZ which is based on spend rather than consumption, but is more up to date.
- Many of the water meters around campus were replaced in 2025 and should now provide more accurate measurement of water consumption.
- Electricity consumption for Time-of-Use sites is using 'unadjusted' data from Meridian Energy which is the actual electricity consumption at the meter. This is consistent with the measurement process for the 2017 baseline year, but in 2023 and 2024 'adjusted' energy data from Meridian Energy (which is used for billing purposes) was mistakenly used and over-represented electricity consumption by about 4%. The GHG inventories for 2023 and 2024 have not been retrospectively corrected.
- Staff public transport usage is now based on p-card expenditure on Snapper card top-ups rather than using outdated reporting from Snapper.

In addition there were several significant factors that influenced the overall volume of greenhouse gas emissions:

- International travel continued to rebound from the pandemic and the tight financial conditions of 2023 – air travel volumes increased a further 14% in 2025 compared to 2024, but still remained 10% below the pre-pandemic peak in 2019.
- The location-based average emission factor for electricity consumption across the country (supplied by the Ministry for the Environment) increased by 32% compared to the previous year, reflecting lower renewable electricity generation for the national grid for the reporting period.
- Student numbers (EFTS) increased again in 2025, up by 3 percent compared to 2024, along with a similar rise in staffing numbers.

5. Measurement Process

Andrew Wilks – Director, Sustainability has overall responsibility for the greenhouse gas inventory, producing this report and tracking our progress towards our climate action goals. Data for the inventory is sourced from several different suppliers and staff across the University, which is then entered into a bespoke Excel workbook by Patrick Coelho – Sustainability Project Coordinator and checked by Andrew Wilks before being sent to McHugh & Shaw for an independent audit.

This GHG Inventory has been compiled in line with the Ministry for the Environment (MfE) *‘Te ine tukunga: He tohutohu pakihi Measuring emissions: A guide for organisations – 2024 detailed guide’*.

Consumption or activity data was sourced from relevant suppliers, via third party agents, or from internal financial records. An emission factor was then applied to each activity to convert consumption to the greenhouse gases emitted. This quantification approach is common and in line with best practice. We have used this approach since first measuring our GHG emissions in 2007.

The emission factors were sourced from the 2025 MfE Guide (with the exception of paper consumption, that MfE does not provide an emission factor for – emission factors for paper consumption come ThinkStep as described above). The MfE has included the 100-year Global Warming Potential (GWP) of the greenhouse gases in their emissions factors based on the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5). MfE released updates to historic emissions factors (prior to 2025) for electricity (including transmission and distribution losses) and changed methodology for air travel emission factor calculations – we have not retrospectively updated our GHG inventories from previous years to include those changes.

Wherever possible, we used measured data for emission source quantities (for direct emissions) and the measure that relates as close as possible to the point of combustion or emission (e.g. litres of fuel, rather than kilometres travelled). The emissions calculated for Category 1 and 2 sources are based on robust and measures input data (M1), with the exception of fuel and travel data associated with Purchase-card spending.

In some cases it was not possible to extract measured data, and VUW either derived the data or estimated the data. Data quality is evaluated using the following qualitative framework:

Data management	Data collection		
	Measured	Derived	Estimated
Robust	M1	D1	E1
Satisfactory	M2	D2	E2
Questionable	M3	D3	E3

Table 2: Framework for assessing data quality

Measured = Data directly provided by a service provider, contractor or directly obtained from a monitoring device. For example electricity invoices, contractor receipts, emissions monitoring equipment, incident reports, consultant reports etc.

Derived = Data obtained from calculations, mass balances, use of physical/chemical properties, use of coefficients and emission factors etc., for example converting cubic meters of waste into tonnes.

Estimated = Usually, where there is no other available method for obtaining the data. Such data could be pro-rated on previous results, use of precedents or historical data, or even a calculated guess.

Robust = Evidence of sound, mature and correct reporting system, where room for error is negligible. Examples would include use of spreadsheets, databases and on-line reporting.

Satisfactory = Examples would include manual, but structured keeping of records, files and results. Some potential for error or loss of data.

Questionable = No logical or structured approach to data or record keeping. High potential for error &/or loss of data. Data may appear to differ from those initially reported.

Data Quality is indicated in Section 6 of this report for each activity. A qualitative assessment of data quality was used as it is a more pragmatic approach than attempting to determine a margin of error for each emission source.

6. Emissions Inventory - 2025

Reporting Category	Activity/ Emission source	Consumption		Data Quality	Emission Factor	tonnes CO ₂ e
Category 1: Direct Emissions						3,589.819
Stationary combustion	Diesel Generators - campus and operated accommodation	642	Litres	M1	2.68 kg/L (MfE)	1.720
	Natural Gas - campus	12,974,903	kWh	M1	0.195 kg/kWh (MfE)	2,525.035
	Natural Gas - student accommodation (VUW owned and operated)	4,337,668	kWh	M1	0.195 kg/kWh (MfE)	846.487
Mobile combustion	Petrol- Fleet vehicles	12,954	Litres	M1	2.38 kg/L (MfE)	30.872
	Diesel - Fleet vehicles	14,060	Litres	M1	2.68 kg/L (MfE)	37.691
Fugitive emissions	Refrigerant Purchases	77	kg	E2	varies by refrigerant type (MfE)	148.013
Category 2: Indirect emissions from imported energy						2,292.008
Electricity (location-based)	Campus, including assets leased from third parties but operated by VUW	16,900,650	kWh	M1	0.101 kg/kWh (MfE)	1,698.530
	Student accommodation (operated by VUW)	5,869,107	kWh	M1	0.101 kg/kWh (MfE)	593.478
Category 3: Indirect emissions from transport						10,130.337
Business travel	Taxi	453,225	\$	M1	0.045 kg/\$ (MfE)	20.315
	Rentals	246,660	km	M1	varies by vehicle type (MfE)	44.509
	Public transport (staff)	62,638	km	E2	0.054 kg/pkm (MfE)	3.395
	VUW-funded air travel	48,390,227	km	M1	varies by distance, class and aircraft size (MfE), includes radiative forcing	7,788.091
	Hotel Stays	2,513	room nights	M1	varies by country (mfE)	45.248
	Private mileage	64,834	km	D2	0.244 kg/km (MfE)	15.843
Upstream transportation and distribution	Student commute	20,319,140	km	D2	varies by transport mode (MfE)	1,422.188
	Student intercampus travel	96,823	km	E2	0.054 kg/pkm (MfE)	5.247
Employee commuting	Public & active transport	2,636,330	km	D2	varies by mode (MfE)	81.097
	Private vehicle	2,739,874	km	D2	varies by mode (MfE)	603.555
	Working from home	210,252	days	D2	0.480 kg/day (MfE)	100.848

Reporting Category	Activity/ Emission source	Consumption		Data Quality	Emission Factor	tonnes CO2e
Category 4: Indirect emissions from the products we use						760.024
Purchased goods & services	Print and paper	78,198	\$	M1	0.263 kg/\$ (ThinkStep ANZ)	25.625
	Water (campus)	92,810	m3	M1	0.049 kg/m3 (MfE)	4.506
	Water (accommodation)	71,406	m3	D2	0.049 kg/m3 (MfE)	3.467
	Student accommodation (not owned or operated by VUW) - electricity	0	kWh	M1	0.101 kg/kWh (MfE)	-
Fuel and energy related activities	Transmission and distribution losses for electricity consumed	24,128,041	kWh	M1	0.008 kg/kWh (MfE)	185.552
	Transmission and distribution losses for natural gas consumed	18,437,791	kWh	M1	0.006 kg/kWh (MfE)	114.539
Waste generated in operations	Landfill Waste	425,762	kg	M2	0.584 kg/kg (MfE)	189.093
	Waste water (campus)	92,810	m3	M1	0.516 kg/m3 (MfE)	47.851
	Waste water (accommodation)	71,406	m3	D2	0.516 kg/m3 (MfE)	36.816
Upstream leased assets	Campus spaces leased from third party	1,402,234	kWh	M1	0.109 kg/kWh (MfE)	152.576
Category 5: Indirect emissions from the use of our products						374.368
Downstream leased assets	Office and campus space owned by VUW but operated by tenants	2,483,503	kWh	M1	0.109 kg/kWh - electricity and 0.201 kg/kWh - gas (MfE)	374.368
TOTAL						17,146.557

Table 3: Greenhouse gas emissions by ISO category

In accordance with 14064-1:2018, we also present our direct emissions (Category 1) broken down into the separate greenhouse gases (and refrigerant gases), again based on MfE emission factors.

Reporting Category	Activity/ Emission source	Consumption		tonnes CO ₂ e	tones CO ₂	tonnes CH ₄	tonnes N ₂ O
Category 1: Direct Emissions							
Stationary combustion	Diesel Generators - campus and operated accommodation	642	Litres	1.720	1.710	0.007	0.004
	Natural Gas - campus	12,974,903	kWh	2,532.025	2,525.026	5.885	1.114
	Natural Gas - student accommodation (VUW owned and operated)	4,337,668	kWh	846.487	844.147	1.968	0.372
Mobile combustion	Petrol- Fleet vehicles	12,954	Litres	30.872	29.576	0.393	0.902
	Diesel - Fleet vehicles	14,060	Litres	37.691	37.109	0.056	0.526

Table 4: Category 1 emissions by gas type

Reporting Category	Activity/ Emission source	Consumption	AR5 GWP100	tonnes CO ₂ e
Fugitive emissions (HFC)	Refrigerant Purchases - R410A	76.95 kg	1,924	148.013

Table 5: Refrigerant gases lost to atmosphere

Note: There are no emissions from sulphur hexafluoride (SF₆) or nitrogen trifluoride (NF₃) refrigerants.

The University operations also do not produce any biogenic CO₂ emissions. Biogenic sources of carbon typically arise from the burning of biomass and biofuel, operating wastewater treatment plants and composting biomass. The Ministry for the Environment emission factors have been used and they exclude biogenic carbon dioxide emissions.

7. Removals

As part of the University's sustainable procurement practices we encourage certified carbon neutral goods and services to be given preference in purchasing decisions. Activities where this is prevalent includes office paper and taxis and car share schemes. These types of carbon neutral purchasing decisions are positive, but not systematically recorded or verified as part of this GHG Inventory.

The University has previously purchased carbon credits to offset the emissions associated with our air travel. However, due to the limited supply of NZ and Pacific carbon credits in the voluntary market and the desire to generate better impact through providing increased funding to our internal contestable fund, our campus decarbonisation projects and our reforestation project, the decision was made in 2025 to halt the purchase of carbon credits.

We have a partnership with Wellington City Council where we are reforesting an 26 hectare block of the Outer Green Belt. We planted 5,300 indigenous trees in 2025 with the help of staff, student and alumni volunteers. This will continue in the coming years with carbon credits being shared between the City Council and the University.

8. Emissions Reductions

Our Zero Carbon Plan has a 2030 target of net zero emissions and a 40 percent reduction in gross carbon emissions compared to our 2017 baseline.

Our 2017 baseline was established as part of the independent review by AECOM of our reporting practices (but not verified against ISO 14064-1). The baseline has been re-calculated once since then following the decision to incorporate radiative forcing in our air travel emissions. If there is a boundary change or new emissions sources added to the inventory that will generate a difference in emissions of greater than 2%, then the baseline year will be recalculated to reflect that change.

GHG Protocol Scope	2017 Baseline (tonnes CO ₂ e)	2025 (tonnes CO ₂ e)
Scope 1: Direct emissions	3,457.132	3,589.819
Scope 2: Electricity indirect emissions	2,824.007	2,292.008
Scope 3: Other indirect emissions	12,937.374	11,264.729
Total	19,218.513	17,146.557

Table 6: Emissions comparison to baseline, by GHG Protocol Scope

While our greenhouse gas emissions remain 11 percent below the 2017 baseline, our emissions continue trend up. For the first time since the pandemic, our overall emissions are now well above our target level.

Notable changes in emissions in 2025

- Air travel emissions have continued to rise, despite the digital engagement mechanisms learnt during the pandemic, the introduction of an internal carbon levy and air travel carbon targets. The increase in emissions is caused by more travel, primarily from academic staff (although we also have a significant number of Manaaki scholarship students, as well as several groups of overseas officials brought in for professional development courses, who have their travel funded through the University). Over 97 percent of our air travel is

economy class, so we are being effective in reducing emissions via the class of travel, but we need to find a more effective mechanism to manage the volume of travel.

- Our ongoing work to reduce energy consumption on campus is effective. Electricity consumption decreased by 4% compared to 2024, while gas consumption dropped 1%. Further reductions in gas consumption are anticipated with the recent completion of the work to electrify heating and hot water in Te Puni Village, von Zedlitz Building, and some of Rutherford House. However, the nation-wide scarcity of gas supply is increasing our focus on minimising gas consumption. We are also exploring the use of certified renewable energy certificates for our electricity use, to incentivise greater investment in renewable nationally. While we are increasing on campus renewable generation, there is limited suitable roof space to support it.

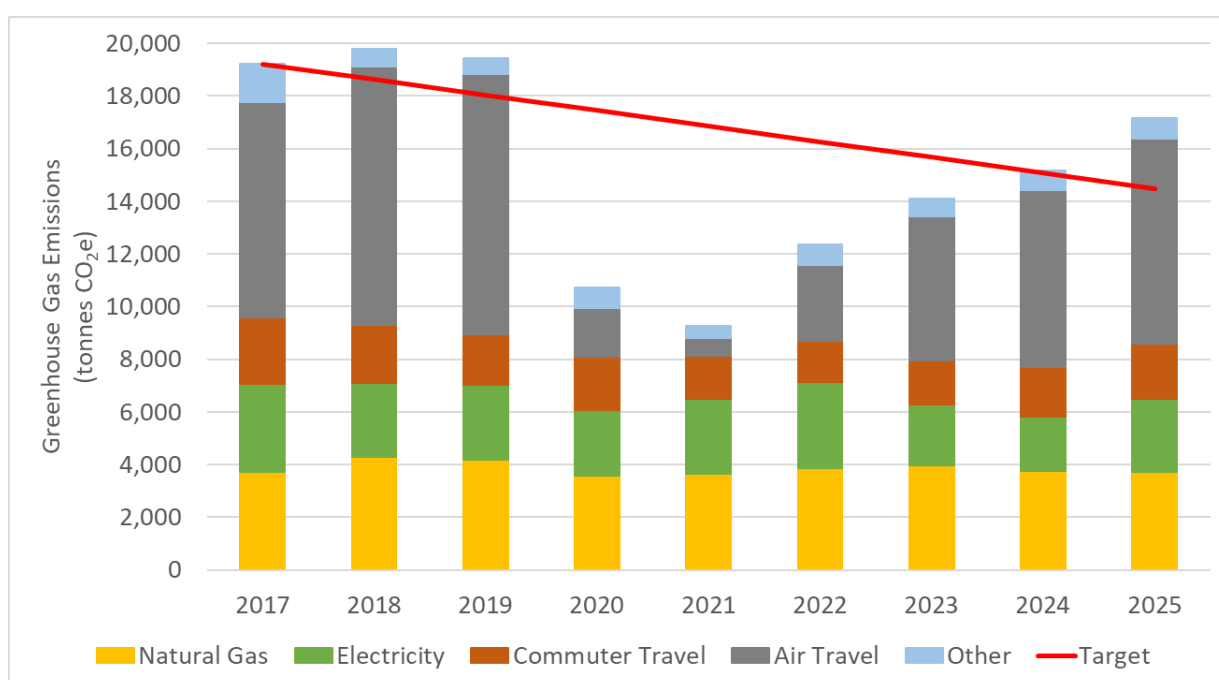


Figure 2: Annual emissions by source compared to target

Overall, our gross greenhouse gas emissions have increased by 13.1% compared to 2024, which is largely due to the growth in air travel. The gross emissions for 2025 were still 11% below our 2017 baseline, but well above our target level.

9. Climate Adaptation

While it is critical that we continue work to reduce our carbon emissions, we have also begun work to prepare for the impacts of climate change as a significant amount of global warming has already occurred with more to come.

In 2023 we led the development of [sector-wide climate scenarios](#) to explore how climate change will impact tertiary education in Aotearoa over the rest of the century. The mahi to develop the scenarios was a great example of cross-sector collaboration and was recognised

with an Australasian Green Gown Award in the Powerful Partnerships category. In 2024 we used these scenarios to facilitate a series of workshops and meetings across the University to determine the risks and opportunities most relevant to Te Herenga Waka. We then prioritised these based likelihood and impact. Now we are developing our plan of how best to respond to those risks and opportunities and how to integrate the actions within existing workstreams.

The key opportunities include increased demand for climate-related teaching and research; increased population diversity leading to richer cultural exchange; utilisation of Mātauranga Māori and Ngā Mokopuna; increased global connections to solve climate challenges; and growing our reputation which helps to attract students through our climate action.

The key risks include the security of supply for utilities (particularly natural gas); the mental health of staff and students; the financial health of the University as well as financial stress for individual staff and students; the impact of weather events on campus facilities; greater inequities across staff and students as disadvantaged groups experience greater impacts of climate change; reduced internationalisation through less travel; increasing insurance costs; narrowing research funding; and city-wide housing shortages.

Climate is already included as one of eleven strategic risks that are monitored by our Audit and Risk Committee of the University Council with regular reporting practices in place.

10. Verification

This GHG Inventory has received independent verification from McHugh & Shaw Ltd as meeting the ISO 14064-1:2018 mandatory requirements. The verification process followed the protocols of ISO 14064-3:2019 and provides reasonable assurance of Category 1 and 2 emissions and limited assurance of Category 3-6 emissions.

11. Compliance with ISO Standard

ISO 14064-1:2018 Requirement	Report Section
9.3.1 a	1
9.3.1 b	Cover
9.3.1 c	Cover
9.3.1 d	2
9.3.1 e	3 & 4
9.3.1 f	6
9.3.1 g	6
9.3.1 h	7
9.3.1 i	4
9.3.1 j	6
9.3.1 k	8
9.3.1 l	8
9.3.1 m	5
9.3.1 n	5
9.3.1 o	5 & 6
9.3.1 p	5
9.3.1 q	5
9.3.1 r	3 & 10
9.3.1 s	10
9.3.1 t	6

Table 7: Report navigation for ISO standard requirements

12. Assumptions

- The commute travel distance data (for both the student and staff commute) is based on average travel distances per mode of transport obtained from the 2025 student survey (which had a 26 percent response rate) and cross-referenced against home suburb details collected in enrolment and HR databases.
- Survey respondents who indicate they drive to campus alone are assumed to drive a petrol vehicle.
- Survey respondents who indicate they drive to campus as a passenger are assumed to be in a vehicle with an average of 2.5 people.
- All train travel is assumed to be electric (as the Johnsonville, Kapiti, Melling and Hutt lines are all electrified).
- The emission factor for bus travel has been adjusted to reflect that average passenger loadings in the Wellington Region (20 per bus) are higher than the national average (7 per bus).
- The emissions factor for motorcycles/mopeds under 60cc is used for all those who indicate they travel by motorcycle/moped.
- Air travel booked via purchasing card (where the class of travel is unknown) is assumed to be economy, as 95 percent of international travel booked via CTM (where the class of travel is known) is economy.
- All purchased water is assumed to generate an equivalent amount of wastewater.

- Some Halls of Residence are not being metered for water consumption. The water consumption per bed of the Halls that are metered is applied to the unmetered Halls to estimate their water use.
- Air Travel booked using a purchasing card (and re-imbursed travel, where staff have privately paid for travel and then made an expense claim) is assumed to be domestic if the cost is less than \$400, short-haul international if it is between \$400 and \$700, and long-haul international if it is over \$700. The distance travelled per dollar spend is estimated based on the average kilometres travelled per dollar spend of travel booked via CTM, which provides detailed reporting and accounts for over 95% of booking. Note: Re-imbursed travel cost can also accommodation and food etc. which have lower emissions, so the reported emissions are likely to be slightly overstated.
- TaxiCharge reporting indicates that on average it costs the University \$5.17/km for taxi travel. This value is used to determine distance travelled for other taxis booked via purchase card, purchase order or personal expense claim, where only the cost of the taxi is known.
- Staff public transport usage is estimated based on p-card spending for Snapper Card top-ups, assuming all travel is between Kelburn and Pipitea campuses with 25% of journeys at peak and 75% off-peak.
- Commuting emissions are estimated based on mode share and distance travelled (which are captured via staff and student surveys) and attendance rates (which are estimated month by month and by teaching weekdays, non-teaching weekdays and weekend public holidays and based on survey data, IT network connections and general campus observations). Estimated student attendance rates range from 55% on weekdays at the start of the semester to 20% in January. Estimated staff attendance rates range from 65% on teaching weekdays to 45% in mid-year non-teaching days to 30% in January. Up to 7% of students are assumed to come to campus on non-teaching days.
- Employee working from home days are estimated by determining the expected number of trips for a full time staff member (5 days/week for 47 weeks of the year less 12 public holidays and 10 sick days) multiplied by the number FTE employed. The total number of weekday employee trips estimated to have actually occurred in the point above is then subtracted from this figure, so the remaining trips are assumed to have been avoided by staff working from home.
- Prior to 2025, emissions from refrigerant gases were assumed to be the volume of refrigerant purchased. Now we try isolate only the refrigerant gases that have escaped to the atmosphere (therefore excluding the gases that were replaced as part of controlled planned maintenance). Where a leak has occurred but the volume of gas discharged is unknown (ie: the system did not fully discharge), it is assumed that 50% of the gas in the system escaped.