

# Greenhouse Gas Inventory Report FY25





Executive summary	3
GHG emissions summary	4
1 Introduction	6
• 1.1 Statement of intent	6
• 1.2 Purpose of this document	6
• 1.3 Intended uses and users	7
• 1.4 Persons responsible and quality control	7
2 Description of Wellington International Airport	8
• 2.1 Physical description	8
• 2.2 Organisational boundary	9
• 2.3 Boundary exclusions	9
• 2.4 Base year selection	10
• 2.5 Recalculating emissions for a period	10
3 Methodology	11
• 3.1 Accreditation and required reporting	11
• 3.2 Materiality	12
• 3.3 GHG emissions source inclusions and Scope definitions	12
• 3.4 GHG emissions source exclusions	16
• 3.5 Rounding	16
• 3.6 Data collection and uncertainties	18
4 GHG emissions calculations and results	22
• 4.1 Biogenic emissions	26
• 4.2 Comparison to previous years and baseline year	26
• 4.3 Data analysis	26
» 4.3.1 Scope 1 and Scope 2 emission sources	26
» 4.3.2 Scope 3 emissions – comparison to previous year	27
» 4.3.3 Scope 3 emissions – largest emission sources	28
» 4.3.4 Scope 3 emissions – remaining emission sources	28
• 4.4 Subsidiaries	28
• 4.5 Key changes to previous and baseline year	28
• 4.6 Renewable electricity and offsets	28
• 4.7 Verification of GHG inventory	29
• 4.8 Summary	29
5 Glossary	30
References	31

# Executive summary

This document is the annual greenhouse gas (GHG) emissions inventory for Wellington International Airport Ltd (Wellington Airport). It covers GHG emissions in the financial year 1 April 2024 to 31 March 2025 (FY25).

**Wellington Airport’s total emissions for FY25 were 259,178 tonnes of carbon-dioxide equivalent (tCO<sub>2</sub>-e) using a location-based approach, and 258,648 tCO<sub>2</sub>-e using a market-based approach.<sup>1</sup> Scope 1 and Scope 2 emissions (those which are a direct result of Wellington Airport operations) accounted for 1,096 tCO<sub>2</sub>-e using a location-based approach, and 566 tCO<sub>2</sub>-e using a market-based approach. Aircraft full-flight emissions (those that arise from aircraft leaving Wellington Airport) accounted for the vast majority of emissions at 224,930 tCO<sub>2</sub>-e.**

Intent on providing transparent, high quality GHG reporting, Wellington Airport has prepared this report in accordance with the Airport Carbon Accreditation (ACA) Level 4+ requirements. It has been prepared in accordance with the New Zealand Climate Standards (NZ CS) and measured in accordance with *Greenhouse Gas Protocol: A Corporate*

*Accounting and Reporting Standard (2004)* (GHG Protocol) and the *Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011)* (GHG Protocol: Scope 3) standards.

These emissions were verified by KPMG to reasonable assurance for Scope 1 and 2 emissions and limited assurance for Scope 3 emissions. The assurance report has been attached to the end of this document.

In accordance with the above documentation, this document discloses all of Wellington Airport’s Scope 1, Scope 2, and Scope 3 GHG emissions. This document also details the calculation and reporting methodology, activity data, reasons for excluded data, assumptions, limitations, and estimations methodology.

The ACA accreditation process requires airports to measure and disclose their GHG emissions to varying degrees, depending on the

level being accredited for. Wellington Airport has measured and disclosed its emissions to achieve Level 4+ certification previously and this is its second GHG inventory report.

For FY25, Wellington Airport has further broadened its included GHG emissions to include emissions from all downstream leased assets, including non-aeronautical, commercial tenants, and residential tenants.

This inventory has been prepared with the best available information, but there is inherent uncertainty of GHG quantification due to incomplete scientific knowledge.



1. Market-based and location-based are two different methods of calculating emissions from electricity usage. The location-based method uses an emission factor calculated from all electricity delivered to the grid in a year or quarter, while the market-based method reflects the emissions from the specific electricity sources a company has chosen to purchase. See glossary on page 30 for a more detailed description.



GHG emissions  
summary

Emissions data for Wellington Airport’s GHG emissions in FY25 is summarised below.

Table 1 shows the GHG emissions broken down by category, as defined in the GHG Protocol. Full results are in section 4.

Table 1. GHG emissions by category (tCO<sub>2</sub>-e)

Emission Source	tCO <sub>2</sub> -e (location based)	tCO <sub>2</sub> -e (market based)
Scope 1: Natural Gas	350	350
Scope 1: Airport Vehicles & LPG	71	71
Scope 1: Refrigerants	145	145
Scope 2: Purchased Electricity	530	0
Scope 3, Category 1: Purchased Goods and Services	2,618	2,618
Scope 3, Category 2: Capital Goods	1,810	1,810
Scope 3, Category 3: Fuel and Energy Related Activities	69	69
Scope 3, Category 5: Waste Generated in Operations	133	133
Scope 3, Category 6: Business Travel	114	114
Scope 3, Category 7: Employee Commuting/Working from Home	238	238
Scope 3, Category 11: Use of Sold Products	251,666	251,666
Scope 3, Category 13: Downstream Leased Assets	1,005	1,005
Scope 3, Category 15: Investments	428	428
Total	259,178	258,648







1.1 Statement of intent

Wellington Airport is committed to preparing transparent and consistent carbon accounting and reporting in line with global best practice. Therefore, Wellington Airport’s GHG inventory has been prepared in accordance with the requirements of the GHG Protocol to be a fit for purpose, transparent, and comprehensive document.

1.2 Purpose of this document

This report is the annual GHG emissions inventory report for Wellington Airport. The inventory is a complete and accurate quantification of the amount of GHG emissions that can be directly attributed to Wellington Airport’s operations within the declared boundary and scope for the specified reporting period.

The inventory has three key purposes:

- 1. Wellington Airport was certified by an ACA approved verifier as Level 4+ in FY24. The ACA program is a global carbon management certification program for airports,

with the goal of assessing and recognising the emissions tracking and reduction efforts of airports. There are seven levels of certification and Wellington Airport current sits at Level 4+, one level below the highest level, Level 5. This report has been provided to support the maintenance of Wellington Airport’s Level 4+ certification.

- 2. This report also serves to meet Wellington Airport’s disclosure requirements under the XRB’s Climate Standards, specifically regarding metrics and targets (paragraph 22a and 24 of NZCS1).
- 3. Beyond adherence to standards and accreditation requirements, this report serves to transparently disclose Wellington Airport’s GHG emissions and progress against its reduction targets. The purpose of this practice is to allow key stakeholders and interested parties to be informed about the impact of Wellington Airport operations on the climate and environment. Actions Wellington Airport is taking to reduce this impact is summarised in its FY25 Climate-Related Disclosures.

1.3 Intended uses and users

In line with this report’s purpose, there are several intended uses and users of this report.

Intended uses:

- Meet accreditation and disclosure requirements under ACA and XRB climate standards.
- Provide the public, staff, investors, and customers with confidence that Wellington Airport is accurately quantifying the amount of GHG emissions directly attributed to Wellington Airport’s operations within the declared boundary and scope for the specified reporting period.

Intended users:

- Wellington Airport investors and shareholders.
- Wellington Airport staff and executive leadership.
- Interested members of the public.

1.4 Persons responsible and quality control

Wellington Airport’s GHG Inventory Report is prepared annually by the Sustainability Advisor. It has been reviewed and approved by the Sustainability Manager and Chief Financial Officer. The final report is approved by The Board, alongside Wellington Airport’s Climate-Related Disclosures.





## 2 Description of Wellington International Airport



Figure 1. Wellington Airport boundary as of March 2025



### 2.1 Physical description

Wellington International Airport is located about 5km southeast of Wellington CBD. It is situated on the isthmus that connects the Miramar peninsula to the rest of Wellington. It is flanked by the Cook Strait to the south and Wellington harbour to the north. The airport is geographically very small relative to its operations and passenger numbers (around 5.3 million passengers per year). Wellington Airport is the third largest airport in New Zealand by passenger traffic and is the major node of connection to the domestic and international air travel network for the Wellington Region.

In serving this purpose, Wellington Airport maintains the following critical physical infrastructure:

- Operation of an extensive terminal complex on the Eastern section of the airport campus.
- Operation of a single Instrument Landing System capable runway.
- Operation of an on-site car parking complex.

- Maintenance of a Facilities Hub office located South on the Eastern side of the airport site on freight drive.
- An Airport Fire Service station north of the terminal complex on the Eastern Apron.
- Airfield Ground Lighting and the associated generators that serve as backup power for the lighting.<sup>2</sup>

Wellington airport also owns a number of properties that are leased to commercial and residential tenants. This includes businesses located at the Airport Retail Park in Lyall Bay, several buildings at Lyall Bay Junction, a café which borders the airport's western apron, and several other offsite commercial buildings located at sites close to the airport. The portfolio also includes residential housing, consisting of around 29 non-vacant residential properties which are externally managed by a property management company. The property management company has operational control for instructing any maintenance or building works required.

2. In March 2025, Wellington Airport took ownership of all airfield ground lighting (AGL) and the supporting power infrastructure, asset ownership, and maintenance. This includes all the lighting visible on the runway and taxiways, the supporting underground cables, control systems, power supplies, and standby electrical systems. The standby power system consists of 2 diesel generators to provide redundancy in the system. Fuel used by these generators come under Wellington Airport's Scope 1 emissions. Power used by the lights come under Wellington Airport's Scope 2 emissions – although these are excluded from FY25's emissions reporting as Wellington Airport only took over the electricity contract April 2025.



### 2.2 Organisational boundary

The organisational boundary of a GHG inventory determines which aspects of the organisation are included within the GHG inventory. The GHG Protocol allows two distinct approaches to consolidate GHG emissions: equity share and control (financial or operational). Wellington Airport uses an operational control consolidation approach to account for emissions. Under the definition of operational control, as defined by the GHG protocol, Wellington Airport will take responsibility for emissions from all activities it has the full authority to introduce and implement its operating policies over the operation.

Wellington Airport has four wholly owned subsidiary companies it has considered when defining the organisational boundary.

- Whare Manaakitanga Limited is the holding company for Wellington Airport's hotel, which is independently operated and managed by Noahs Hotels (NZ) Limited under the Rydges brand.

Noahs Hotels is wholly owned by EVT limited group. EVT reports Scope 1 and Scope 2 emissions for its New Zealand operations and is assessing and expanding its Scope 3 emissions. As such, the hotel is considered outside Wellington Airport's operational control and so only its electricity and natural gas usage will be reported in Scope 3, Category 13 – Downstream Leased Assets, alongside Wellington Airport's other tenants.

- Wellington Airport Noise Treatment Limited (WANT Limited) provides noise mitigation activities to manage the impact of noise generated from the airport on the surrounding community, part of the [Quieter Homes Programme](#). The Quieter Homes Programme is an initiative by Wellington Airport to carry out acoustic mitigation treatment work on homes within its Air Noise Boundary. Emissions from these activities are reporting under Wellington Airport's Scope 3, Category 1 – Purchased Goods and Services, as they are outside Wellington Airport's operational control.

- Meitaki Limited is a captive insurance company incorporated in the Cook Islands. As a result, Wellington Airport comprises a Group for financial reporting purposes and is required to prepare a consolidated report. For the purposes of emissions accounting, there are two components to its footprint: a small amount of business travel, consisting largely of a few business travel flights per year, and the investments Meitaki Limited makes with Milford Asset Management. This is incorporated into Wellington Airport's operational footprint.
- Jean Batten Street Limited is a company acquired by Wellington Airport, purely for the purposes of taking ownership of property on Jean Batten Street. It is outside Wellington Airport's operational control, so the properties fall within Wellington Airport's wider tenant emissions: Scope 3, Category 13 – Downstream Leased Assets.

### 2.3 Boundary exclusions

No boundary exclusions were noted for FY25.



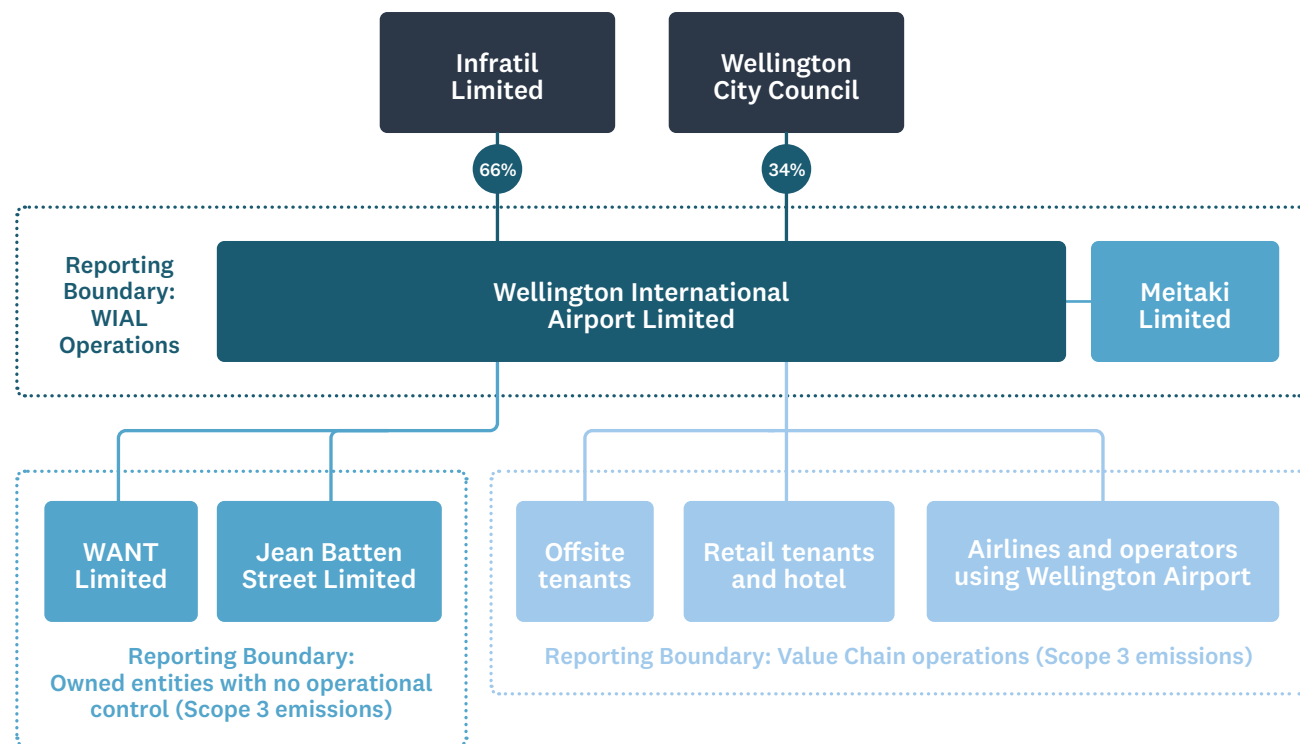


Figure 2. Reporting boundary chosen for accounting for Wellington Airport's emissions profile

## 2.4 Base year selection

Wellington Airport's base-year for GHG emissions tracking, against which it sets most of its targets is FY17 (1 April 2016 to 31 March 2017). This year was chosen because it is the earliest and most comprehensive set of emissions data that has been collated. This is in line with the ACA guidelines which state "...it is recommended to choose the most recent year for which the most data is available...". The FY17 GHG inventory report by Beca provides a relevant set of data to compare for future years. Additionally, FY17 represents an accurate baseline for airport operations, as it was before any disruptions caused by the Covid-19 pandemic.

For many of Wellington Airport's Scope 3 emissions activities, FY24 is the first year in which these emissions have been measured. Therefore, FY24 will serve as the baseline year for Scope 3 emissions targets, which Wellington Airport is still in the process of developing.

## 2.5 Recalculating emissions for a period

There are certain situations in which Wellington Airport may need to recalculate emissions for a particular reporting period or its base year.

Wellington Airport aligns with the ACA standards recalculation policy, which is derived from the GHG Protocol. Any mergers, acquisitions, or divestments that are not considered a standard contraction or expansion of Wellington Airport operations, will trigger a recalculation in order to maintain parity in comparisons from year to year. Additionally, should any significant changes in emissions factors, calculation methodologies, or errors come to light, a recalculation will occur.

The materiality threshold Wellington Airport is setting for changes that will trigger a recalculation, is 5% of the total inventory. In other words, if any of the above conditions occur that result in an emissions estimation change of 5% or more for a particular

period, Wellington Airport will recalculate the period. Wellington Airport may choose to recalculate a period for a change of less than 5% in certain circumstances.

Wellington Airport has not needed to recalculate anything for the FY25 reporting period, under this definition.



## 3 Methodology

### 3.1 Accreditation and required reporting

There are two major bodies that govern how Wellington Airport reports its annual GHG emissions: the ACA and XRB.

The ACA is an international accreditation body for airports. It was developed and launched in Europe by Airports Council International (ACI) Europe in 2009. As of late 2014, Airport Carbon Accreditation had expanded world-wide to all ACI regions. It is the only voluntary global carbon management standard for airports. The aim of ACA is to encourage and enable airports to implement best practices in carbon management and achieve emissions reductions. Accreditation provides the opportunity for airports to gain public recognition for their achievements, promotes efficiency improvements, encourages knowledge transfer, raises an airport's

profile and credibility, encourages standardisation, and increases awareness and specialisation.

Airports can be accredited to one of seven levels, each of which requires airports to have more comprehensive carbon measurement, reduction, and offsetting systems than the previous. Wellington Airport is currently accredited at Level 4+, which is known as "Transition", indicating Wellington Airport has been shown to be transforming airport operations and those of its business partners to achieve absolute emissions reductions, while also compensating for residual emissions with reliable offsets.

Wellington Airport is also subject to requirements by the XRB. The XRB was tasked with creating the Aotearoa New Zealand Climate Standards, and the requirement for a comprehensive GHG inventory come specifically from paragraph 22a and 24 of the first document in these standards (NZ CS 1).

The aim of the Aotearoa New Zealand Climate Standards is to support the allocation of capital towards activities consistent with a transition to a low-emissions, climate resilient future.

In providing a consistent framework for entities to consider the climate-related risks and opportunities that climate change presents for their activities over the short, medium and long term, the objective of the standards is to enable primary users to assess the merits of how entities are considering those risks and opportunities, and then make decisions based on these assessments.

Part of these disclosure standards (alongside the risk management, governance, and strategy disclosures that enable stakeholders to make decisions regarding the potential impact of climate change on the organisation), is the need to disclose GHG emissions.

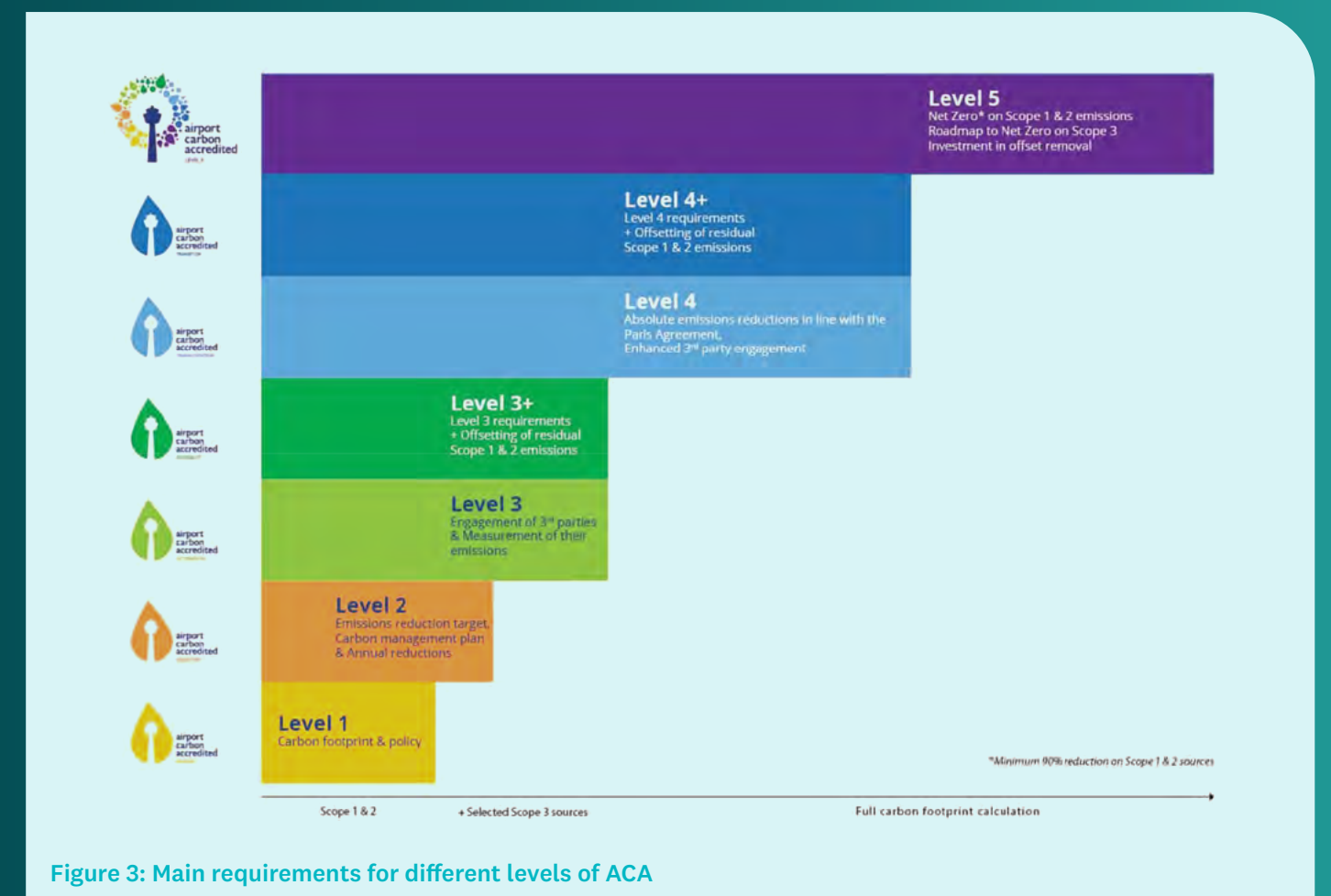


Figure 3: Main requirements for different levels of ACA



3.2 Materiality

Wellington Airport has used the ACA standards as a guide when it comes to prioritising and disclosing emission sources. ACA is specifically designed to help airports disclose their most important emissions first, with the aim of transitioning to disclosing all emissions that fall within their operational boundary, as they go up the levels of accreditation.

This approach is important, as for most airports the vast majority of emissions within their complete emissions profile will be emissions from airlines landing and taking off at the airport. In many cases, this could be more than of 90% of total emissions. The result makes determining materiality from a quantitative perspective very difficult. Most reasonable materiality thresholds could result in all except airline flight emissions being deemed immaterial.

As such, the ACA standards provide a logical progression of emission source inclusions that stem more from a qualitative perspective than strictly quantitative. They start with the airport’s direct operations, then expand to include commonly disclosed

value chain emissions that airports are likely to have a greater degree of control over, and finally look to disclose all emissions that can be reasonably assumed to adhere to the concept of completeness for an airport.

Wellington Airport intends on following the ACA standards when it comes to determining materiality. It also makes its own value judgements when considering the principles of relevance, completeness, consistency, transparency, and accuracy, which are laid out in the GHG protocol.

It is worth noting that the question of materiality with regards to emission inclusions within this report is different to the question of material change that will result in a recalculation as defined in Section 2.5.

3.3 GHG emissions source inclusions and Scope definitions

The ACA standards offer guidance with emission source identification and inclusion, based on which level of accreditation is being sought. Ultimately, the identification process

is derived from the GHG Protocol, utilising the Scopes and Categories defined there. The ACA then elaborates on what airport-specific emission sources are typically found under each of these Scopes and Categories. Below is a diagram of a typical airport and the emission sources usually found as part of its operations.

It is worth noting that only the direct emissions of sources not under the operational control of the reporting organisation are included in Scope 3. In other words, “Scope 3 of Scope 3 sources” are not required to be reported but can voluntarily be reported if deemed appropriate.

The table below shows which emission sources are included as part of this GHG inventory. More details on these emission sources and how data is obtained can be found in Wellington Airport’s Summary Methodology document.



Figure 4: Typical emission sources and their scopes

Table 2. Individual emission sources included within the inventory, listed by scope and category

Scope and Category	Wellington Airport Emission Source	Emission Source Description
Scope 1	Natural Gas	Natural gas is currently used throughout the terminal for heating and cooling as part of its operations. Tenant emissions from natural gas use are reported under Scope 3, Category 13.
Scope 1	Mobile Fuel Combustion: Airport Vehicles	Wellington Airport owns and operates some vehicles at the airport precinct. Though many have already been electrified, there are still some vehicles that use diesel or petrol. Additionally, there is some minor diesel usage for testing backup generators, which is captured on the same fuel card as mobile combustion and not delineated from other mobile combustion usage. There is also a small amount of LPG used under this category for barbeques.
Scope 1	Stationary Fuel Combustion: AGL Generators	As described in section 2.3, Wellington Airport took ownership of the airfield ground lighting (AGL) at the beginning of March 2025. Associated with this, are two diesel backup power generators which run periodically throughout the year. The diesel used in these generators will be captured and reporting under Wellington Airport’s Scope 1 emissions. There was no usage in March 2025.
Scope 1	Refrigerants	Wellington Airport requires refrigerants for its cooling systems. Over time, these refrigerants can slowly leak and require topping up. Wellington Airport reports on these top up amounts within the year that the top up occurred.
Scope 1	Fire Training	Wellington Airport is also required to report on emissions from fire-services training, such as the use of CO <sub>2</sub> extinguishers. The Wellington Airport Fire Service doesn’t use live extinguishers for training, instead using a digital, training extinguisher which emits no emissions. There has been no live extinguisher use in FY25.
Scope 2	Purchased Electricity	Purchased electricity is used throughout Wellington Airport facilities for direct Wellington Airport operations. Tenant emissions from purchased electricity usage are reported in Scope 3, Category 13.

Scope and Category	Wellington Airport Emission Source	Emission Source Description
Scope 3, Category 1	Purchased Goods and Services	<p>There are several purchased goods and services Wellington Airport reports on within its emissions profile:</p> <ul style="list-style-type: none"><li>• Water: Wellington Airport uses potable water throughout its buildings. It reports on emissions associated with the treatment and supply of water to its buildings.</li><li>• General spending: To disclose as much of its emissions profile as possible, Wellington Airport has also looked at its operational expenses and assigned emissions factors to these dollar values. They include all kinds of services and products, from legal services to cleaning products.</li><li>• WANT: Wellington airport contracts out the completion of work as part of its air-noise treatment programme. The amount spent on this programme is allocated to an appropriate send-based emission factors for contracting works.</li></ul>
Scope 3, Category 2	Capital Goods	<p>There have been two large capital projects Wellington Airport has undertaken in FY25 (building of a new Airport Fire Station and building of a new carpark), as well as ongoing maintenance projects. Emissions from these projects are broken down into the following:</p> <ul style="list-style-type: none"><li>• Fuel used in construction: The fuel used in these projects are part of the construction service, and thus reported within the emissions profile.</li><li>• Electricity used in construction: As above, the electricity used in construction of these projects are reported.</li><li>• Embodied carbon within material use: all materials used and installed as part of permanent fixtures of new airport infrastructure have had their embodied carbon calculated and included within the inventory.</li></ul>
Scope 3, Category 3	Fuel and energy related activities	<p>This category covers the upstream emissions that are a result of Wellington Airport’s fuel, natural gas, and purchased electricity. These emissions are:</p> <ul style="list-style-type: none"><li>• Transmission and Distribution losses from electricity usage.</li><li>• Transmission and distribution losses from natural gas usage.</li><li>• Well-to-tank emissions from fuel used in airport vehicles (Scope 1 only).</li></ul>
Scope 3, Category 5	Waste Generated in Operations	<p>Waste is generated by Wellington Airport’s operations, as well as by tenants and customers throughout the terminal. This category covers all waste generated at the Wellington Airport terminal that is sent to landfill. Only waste to landfill is included for the purposes of the carbon inventory. Emissions from other waste streams are not included within this inventory.</p> <p>Wastewater is generated throughout Wellington Airport’s buildings. Emissions from the treatment of this wastewater is included within the profile.</p>
Scope 3, Category 6	Business Travel	<p>As part of its business operations, Wellington Airport sometimes require its staff to travel off-site. This category captures the emissions as a result of this travel, from flights, taxis, and Ubers.</p> <p>Miscellaneous travel spending not captured by the above activities has been included by using a spend-based factor.</p> <p>Wellington Airport also wholly owns Meitaki Ltd., who undertake a small amount of business travel annually.</p>
Scope 3, Category 7	Employee Commuting	<p>Wellington Airport captures emissions from its staff commuting to work at Wellington Airport, by way of conducting a survey.</p> <p>Emissions that arise from staff working from home (heating, electricity usage, etc), are estimated and captured based on the number of “employee-workdays”.</p>
Scope 3, Category 11	Use of Sold Products	<p>The ACA definition of an airport’s “product sold” is the infrastructure and service (runways, stands, parking, etc.) that third parties can use for the purpose of air travel. Therefore, there are four major emission sources relevant to Wellington Airport that arise from this category:</p> <ul style="list-style-type: none"><li>• Aircraft full flight emissions, the emissions from aircraft flying from Wellington Airport to their destination airport. Full flight emissions are a development from “landing and take-off cycle” emissions and are required to be reported under higher ACA levels (four and up). Because Wellington Airport uses fuel uplifted at the airport to estimate these emissions, all other aircraft activities that use fuel on the ground will also be captured.</li><li>• Scope 1 emissions from fuel, refrigerant, and de-icing use of tenants and partners of Wellington Airport, such as airline ground vehicles.</li><li>• Surface access traffic from airport visitors, passengers, and tenants (land-based travel to/from the terminal). This data is gathered via a travel survey conducted by Angus and Associates. The data can then be extrapolated, based on the number of passengers passing through Wellington Airport annually. Emissions are calculated based on vehicle type and average distances to/from destination/origin suburbs.</li><li>• Emissions from freight to and from the airport have been estimated based on truck/van movements.</li></ul>
Scope 3, Category 13	Downstream Use of Leased Assets	<p>This category includes the electricity, natural gas, and refrigerant use of Wellington Airport’s tenants (including the hotel operated by Whare Manaakitanga Limited). This includes commercial tenants within the terminal, the wider airport premises, the Airport Retail Park, other off-site tenants, and residential tenants.</p>
Scope 3, Category 15	Investments	<p>Meitaki Limited is Wellington Airport’s wholly owned captive insurance subsidiary. Accumulated funds are invested in a diversified portfolio, managed by Milford Asset Management. Milford Asset Management calculate the emissions for all of their funds and the Scope 1 and Scope 2 emissions associated with these investments are apportioned to Wellington Airport, based on the amount invested in each fund.</p>



### 3.4 GHG emissions source exclusions

Wellington Airport is committed to measuring and disclosing the full breadth of its GHG emissions sources so that appropriate reduction actions can be taken. For this year’s carbon inventory report, the following emission sources have been excluded with supporting reasons (see Table 3).

### 3.5 Rounding

Many emissions calculations result in an amount of tCO<sub>2</sub>-e that isn’t a whole number. In these instances, standard rounding (0.50 or higher is rounded up, less than 0.50 is rounded down) is used so as to report figures to the nearest whole number. If the figure is less than 1, then two decimal places are reported. If the figure is less than 0.01 after rounding, then it will be reported as <0.01.

Table 3. GHG Inventory exclusions and reasoning

Scope and Category	Emission Source	Reason for Exclusion
Scope 3, Category 4	Upstream Transportation and Distribution	Not applicable
Scope 3, Category 5	Waste Generated in Operations	Emissions from other waste streams that aren’t waste-to-landfill, such as recycling process emissions, are not included within this inventory, as emissions factors are highly specific to a facility and are currently unavailable. These are assumed to be immaterial.  Additionally, construction and demolition waste is not included, as this is considered a Scope 3 of Scope 3, and likely immaterial.
Scope 3, Category 8	Upstream Leased Assets	Not applicable
Scope 3, Category 9	Downstream Transportation and Distribution	Not applicable
Scope 3, Category 10	Processing of Sold Productions	Not applicable
Scope 3, Category 12	End of Life Treatment of Sold Products	Not applicable
Scope 3, Category 13	Downstream Leased Assets	Some refrigerant usage by offsite tenants, such as those at the Airport Retail Park is not included, due to a lack of available data. These are assumed to be immaterial.
Scope 3, Category 14	Franchises	Not applicable



3.6 Data collection and uncertainties

The table below provides detail of how data was collected for each GHG emissions source, the source of the data, and an explanation of any uncertainties or assumptions. This inventory has been prepared with the best available information, but there is inherent uncertainty of GHG quantification due to incomplete scientific knowledge.

Table 4. Uncertainties, assumptions, and data quality of all data sources

Scope and Category	Emission Source	Activity Data Unit and Provider	Assumptions, Uncertainties, Comments	Data Quality
Scope 1	Natural Gas	(kWh) Genesis	All data obtained has come from Genesis invoices. Measurements are received in gigajoules (GJ). This does not include transmission and distribution losses, which are reported in Scope 3.	This data is directly measured so it is considered to be of a high quality.
Scope 1	Mobile Combustion and LPG	(L/kg) Z Energy	All data obtained comes from Z energy and are direct measurements of fuel consumption by fuel type.	This data is directly measured so it is considered to be of a high quality.
Scope 1	Refrigerants (fugitive emissions)	(kg) Aquaheat	Wellington Airport uses the “top-up” method, reporting emissions as systems are topped up. Measurements are accurate; however, the actual emissions will take place over time, between top ups, which can be several reporting periods apart. As such, the emissions reporting doesn’t accurately reflect when the emissions activity occurred. Nevertheless, all emissions are still ultimately accounted for.	This data is directly measured so it is considered to be of a high quality.
Scope 2	Purchased Electricity	(kWh) Ecotricity	All data obtained has come from Ecotricity invoices. This does not include transmission and distribution losses, which are reported in Scope 3.	This data is directly measured so it is considered to be of a high quality.
Scope 3, Category 1	Purchased Goods and Services – Water	(m³) Wellington Water	All data obtained has come from Wellington Water invoices.	This data is directly measured so it is considered to be of a high quality.
Scope 3, Category 1	Purchased Goods and Services – Other expenses	(\$) Wellington Airport	Data is obtained via a financial expenditure summary. Emission factors from Market Economics are assigned based on a judgement call around the best representation of the activity the expenditure represents, and these factors are adjusted to account for inflation. These emissions are captured in the interest of completeness, and it is acknowledged that spend-based factors have inherent flaws. Wherever possible, more accurate activity data will be obtained, however in many instances the activities captured in this category, such as legal fees, will likely not have accurate emissions data due to the low emissions impact of the activity.	While the spend data is accurate, the emissions are based on dollars spent, not any form of direct measurement or activity estimate. This data is considered to be of a moderate quality.
Scope 3, Category 2	Capital Goods – Fuel use in construction projects	(L) Construction Contractors	Several suppliers were contracted to perform construction works in and around Wellington Airport – from construction of new buildings such as the new Airport Fire Service building, to general maintenance on the tarmac. Most diesel use is directly measured and some is estimated.	Most of this data is directly measured and the remainder is estimated with a high degree of accuracy, so it is considered to be of a high quality.
Scope 3, Category 2	Capital Goods – Material use in construction projects	(t) Construction Contractors	Several suppliers were contracted to perform construction works in and around Wellington Airport – from construction of new buildings such as the new Airport Fire Service building, to general maintenance on the tarmac. All material use is directly measured and tracked by suppliers, with embodied carbon calculations provided to Wellington Airport based on industry standards.	While the quantities for materials are accurate, there are not specific Environmental Product Declarations (EPDs) for all materials, so some are very close approximations, and the data is considered to be of a high quality.
Scope 3, Category 2	Capital Goods – Electricity use in construction projects	(kWh) Wellington Airport	Not all construction that occurs in and around the airport requires mains electricity. During FY25, when it was required, this usage has been captured by Wellington Airport.	This data is directly measured so it is considered to be of a high quality.
Scope 3, Category 3	Fuel and Energy Related Activities	(kWh/L) Same as Scopes 1 and 2	This is the same activity data as in Scope 1 and Scope 2 but uses a lesser emissions factor to represent T&D losses for both natural gas and electricity and WTT emissions for fuel. WTT emission factors come from DEFRA (2024)	This data is directly measured so it is considered to be of a high quality.
Scope 3, Category 5	Waste Generated in Operations – Waste to Landfill	(Tonnes of waste) EnviroNZ	Currently all that is being reported is waste going to landfill. Recycling is not included as emissions factors are highly specific to a facility and are currently unavailable.  Emissions factor is using gas capture (Southern Landfill).	This data is directly measured so it is considered to be of a high quality.



Scope and Category	Emission Source	Activity Data Unit and Provider	Assumptions, Uncertainties, Comments	Data Quality
Scope 3, Category 5	Waste Generated in Operations – Wastewater	(m³) Wellington Water	All data obtained has come from Wellington Water invoices. Due to a lack of specific measurement of wastewater, total consumption of water by Wellington Airport was used. This will likely result in a large overestimation, which is preferable to attempting to estimate the activity data and potentially underestimate.	The data gathered is extrapolated from water consumption and considered to be of a reasonable quality. Emissions are likely overestimated.
Scope 3, Category 6	Business Travel	(pkm/\$) Air NZ, Uber, P Card Taxi data	<p>All flight data is gathered on a passenger-kilometres (pkm) basis. Air NZ sends travelcard reports directly to Wellington airport, which include a large number of non-Air NZ flights, which cover over 90% of flights taken. Any flights not booked via travelcard are collated by Wellington Airport based on booking receipts. Uber and taxi data is spend based, using a spend based emissions factor.</p> <p>Flight data for Meitaki Ltd was also supplied by Air NZ to Wellington Airport. Additionally, hotel accommodation is included within Meitaki Ltd’s emissions.</p>	Flight data is estimated based on flight path distances between two airports. As these tend to be very accurate, the data is considered a high quality. Taxi and Uber data is spend-based and as such there is some inaccuracy expected. This data is considered to be of a reasonable quality.
Scope 3, Category 11	Use of Sold Products – fuel uplift	(L) Data is gathered based on invoicing received from aviation fuel providers (BP and Mobil) using Wellington Airport’s joint fuelling infrastructure	These emissions are the full flight emissions from planes that fuel up at Wellington Airport. This methodology is different to “Landing and Take off” emissions, which some airports use, whereby airports are responsible for fuel use of aircraft landing into and taking off from their airport up to a specified height. Wellington Airport’s methodology takes account of all the fuel uplifted by a plane; thus, it is responsible for the emissions from the plane’s whole flight (outward), but not for inbound flights. This methodology is accepted by ACA and prescribed for higher (level 4 and 5) accreditation levels. Wellington Airport is working with other airports around New Zealand to strive for consistent reporting.	The data gathered is directly measured and considered to be of a high quality.
Scope 3, Category 11	Use of Sold Products – Surface Access for passengers/visitors to the terminal	(pkm/km) Angus & Associates	Emissions from passengers/visitors travelling to the terminal was estimated based on a survey conducted by Angus & Associates. The survey was of 348 individuals and gathered information on their mode of transport, distance travelled, and type of vehicle used. There was a mix of arriving and departing passengers. Results of the survey were averaged and extrapolated out to the 5,316,847 passengers for the year, less the number of passengers that are only in transit or are transferring, and thus never leave the airport.	Emissions are based on a survey, so there is inevitably potential for error. The data is considered to be of a reasonable quality.
Scope 3, Category 11	Use of Sold Products – tenant staff travel to work	(pkm/km) Angus & Associates/Wellington Airport Staff Survey	Emissions from tenants’ staff travel to work was estimated from the same passenger survey used in Category 11. Numbers were adjusted for tenant numbers (1600 staff) and working days were estimated based on Wellington Staff employee commuting survey. Emissions were then estimated based on transportation type, vehicle type, distance travelled, and number of days travelled to work.	Emissions are based on a survey, so there is inevitably potential for error. Furthermore, the survey was not conducted specifically on tenant staff. The data is considered to be of a satisfactory quality.
Scope 3, Category 11	Use of Sold Products – Land Access for freight to the terminal	Estimated	Emissions from trucks and vans delivering goods to the airport has been estimated based on the opinions of the relevant tenants that receive/ship goods. An average distance to and from the airport was used, and emissions were considered for both directions.	This is a high level estimate, so there is inevitable a potential for error. The data is considered to be of a reasonable quality.
Scope 3, Category 11	Use of Sold Products – Tenant fuel, refrigerant use, and de-icing compounds	(L/kg) On-site ground operators/Aquaheat/ Other airlines	A variety of operators who use diesel/petrol in vehicles in and around the airport, provide this data to Wellington Airport. Refrigerant data for tenants is provided by Aquaheat. De-icing compound use are supplied by the airlines.	Most of this data is directly measured and the remainder is estimated with a high degree of accuracy, so it is considered to be of a high quality.
Scope 3, Category 13	Downstream Leased Assets – tenant natural gas and electricity usage	(kWh/GJ) Tenco/Lumen/ Various tenants	<p>For in-terminal tenant electricity use, Wellington Airport has created an “embedded network”, which is managed by Tenco and data is analysed and insights are provided by Lumen. Individual tenants are sub metered, with Wellington Airport being responsible for shared space usage (e.g. terminal lighting) in its Scope 2 emissions.</p> <p>For the remaining tenants, Wellington Airport obtains this data directly from the tenant, where available. Any tenants for who Wellington Airport is unable to obtain electricity/natural gas data from, estimates are based on the closest similar tenant.</p>	Most of this data is directly measured and the remainder is estimated with a high degree of accuracy, so it is considered to be of a high quality.
Scope 3, Category 15	Investments	(\$) Milford Asset Management	Emissions from Meitaki Limited’s investments with Milford Asset Management, are estimated based off the emissions figures they have provided in their 2024 Climate Statements. These emission are estimated using the Partnership for Carbon Accounting Financials (PCAF) methodology. Emissions for both Scope 1 and Scope 2 of each fund were combined and then emissions for Wellington Airport were calculated base on the value of Meitaki Limited’s investments in each fund (their “portion” of each fund). The 2024 climate statement was used, as the 2025 statements will not be released until Wellington Airport’s own GHG inventory and Climate-Related Disclosures are required to be released.	While the invested quantities are accurate, the emissions are based on dollars invested, not any form of direct measurement or activity estimate. Additionally, emissions are based on Milford Asset Management’s FY24 results, and so are one year behind. This data is considered to be of a moderate quality.



4 GHG emissions calculations and results

In FY25, Wellington Airport emitted a total of 258,648 tCO<sub>2</sub>-e as a result of its activities (market-based).

Of this, 566 tCO<sub>2</sub>-e were a result of direct (Scope 1) activities. 530 tCO<sub>2</sub>-e were a result of purchased electricity (Scope 2), but by purchasing certified 100% renewable electricity, this total is brought down to 0 tCO<sub>2</sub>-e.

258,082 tCO<sub>2</sub>-e were a result of indirect value chain emissions (Scope 3). The tables below summarise the total emissions. Note that if the activity data

or emission factor is listed as NA, this is due to the activity being calculated by amalgamating multiple types of activity data which use multiple emission sources. Most emission factors were sourced from the Ministry for the Environment’s 2024 *Measuring Emissions: A Guide for Organisations*. Full reference for emission factor sources can be found in the glossary.



Table 5. Detailed GHG inventory emissions – Material Emissions (Scope 1, 2, and >5% of total inventory Scope 3 emissions)

Scope and Category	Emission Source	Emission and GWP Factor Source	Activity Data	Emission Factor (unit/kgCO <sub>2</sub> -e)	Total tCO <sub>2</sub> -e	Percentage of Total Inventory (market-based)
Scope 1	Natural Gas	MfE 2024	6,463 GJ	54.14	350	0.14%
Scope 1	Mobile Combustion – Diesel	MfE 2024	19,515 L	2.68	52	0.02%
Scope 1	Mobile Combustion – Regular Petrol	MfE 2024	3,846 L	2.37	9	<0.01%
Scope 1	Mobile Combustion – Premium Petrol	MfE 2024	3997 L	2.41	10	<0.01%
Scope 1	Stationary Combustion – LPG	MfE 2024	18 kg	2.97	0.05	<0.01%
Scope 1	Refrigerants	MfE 2024	89 kg	Various refrigerants	145	0.06%
Scope 1 total					566	0.22%
Scope 2	Purchased Electricity (location-based)	MfE 2024	7,274,284 kWh	0.073	530	0.20%*
Scope 2	Purchased Electricity (market-based, 100% renewable electricity)	N/A	7,274,284 kWh	0	0	0%
Scope 2 total (market-based)					0	0%
Scope 3, Category 11	Use of Sold Products – Full Flight Emissiosn	MfE 2024	89,409,361 L	Jet fuel and avgas emission factors	224,930	86.96%
Scope 3, Category 11	Use of Sold Products – Surface Access to Terminal (Passenger/Tenant/Freight)	MfE 2024	N/A	Various transport	26,506	10.25%
Material Scope 3 total					251,436	97.21%
Material Emissions Total (location-based)					252,532	97.44%
Material Emissions Total (market-based)					252,002	97.43%



Table 6. Detailed GHG inventory emissions – Immaterial Scope 3 (<5% of total inventory Scope 3 emissions)

Scope 3 Category	Emission Source	Emission and GWP Factor Source	Total tCO <sub>2</sub> -e	Percentage of Total Inventory (market-based)
Category 1	Purchased Goods and Services/Water/WANT	Market Economics 2023	2,618	1.01%
Category 2	Capital Goods – Construction and Maintenance	PEET tool, Waka Kotahi, individual EPDs, MfE 2024	1,810	0.70%
Category 3	Fuel and Energy Related Activities – T&D Losses/WTT Emissions	MfE 2024/DEFRA 2024	69	0.03%
Category 5	Waste and Wastewater	MfE 2024	133	0.05%
Category 6	Business Travel	MfE 2024/Market Economics 2023	114	0.04%
Category 7	Employee Commuting and WFH	MfE 2024	238	0.09%
Category 11	Tenant Fuel/De-icing/Refrigerants	MfE 2024/ACERT 2023	230	0.09%
Category 13	Downstream Leased Assets – Tenant Natural Gas and Electricity	MfE 2024	1,005	0.39%
Category 15	Investments	Milford Asset Management	428	0.17%
Immaterial Scope 3 Totals			6,646	2.57%

Table 7. Emissions by gas type. Wellington Airport did not emit any SF6, NF3 or PFCs in FY25

Scope	tCO <sub>2</sub> (in tCO <sub>2</sub> -e)	tCH <sub>4</sub> (in tCO <sub>2</sub> -e)	tN <sub>2</sub> O (in tCO <sub>2</sub> -e)	tHFCs (in tCO <sub>2</sub> -e)	Total tCO <sub>2</sub> -e
Scope 1	418	1	1	145	566
Scope 2 (location-based)	511	19	0.55	0	530
Scope 3	224,932	188	1,684	0	258,082
Total	225,861	208	1,686	0	259,178

Note: Greenhouse gases have been reported by gas type (in CO<sub>2</sub>-e) where gas-specific emission factors are available. Where they aren’t available, only the total CO<sub>2</sub>-e emissions have been reported. As such, totals of individual gases for each scope will not add up to the overall total in CO<sub>2</sub>-e.





4.1 Biogenic emissions

Any biogenic emissions (emissions from biological sources) will be treated as per the GHG Protocol, and as such reported separately. CO<sub>2</sub> from burned biomass, such as wood, will be reported separately but excluded from the inventory total, as emissions would represent CO<sub>2</sub> sequestered during the growing period. As such, only CH<sub>4</sub> and N<sub>2</sub>O emissions will be reported under the GHG inventory.

There were no biogenic emissions during the FY25 period.

4.2 Comparison to previous years and baseline year

To track progress and trends over time, the table below provides information on how the current GHG inventory tracks against previous years. Note that only emission sources in which there is comparable data for previous years have been included. This has expanded as years progress and more data is gathered.

Table 8. GHG emissions for FY25 as compared to FY24 and baseline year FY17

Scope and Category	Emission Source	FY25 tCO <sub>2</sub> -e	FY24 tCO <sub>2</sub> -e	FY17 tCO <sub>2</sub> -e (baseline year)	% change since baseline year
Scope 1	Natural Gas	350	322	651	-46%
Scope 1	Fuel Combustion	71	78	127	-44%
Scope 1	Refrigerants	145	78	79	+84%
Scope 2	Purchased Electricity (market based / location based)	0/530	0/538	916	-100% / -42%
Scope 3, Category 3	Fuel and Energy Related Activities (T&D Losses)	69	74	151	-54%
Scope 3, Category 5	Waste Generated in Operations – Waste to Landfill	85	88	105	-19%
Scope 3, Category 6	Business Travel	114	154	61	+87%

4.3 Data analysis

4.3.1 Scope 1 and Scope 2 emission sources

Scope 1 emissions have increased slightly since FY24 while Scope 2 emissions have decreased slightly. Overall, there is a downward trend across Scope 1 and Scope 2 emissions from the baseline year (FY17).

Emissions from natural gas are down by around 46% since the baseline year and airside vehicle fuel emissions are down by around 44%. In FY24, Wellington Airport updated the methodology for refrigerant emission calculations, so FY17, FY24, and FY25 are the only years this emissions source is quantified. Emissions have increased for refrigerants, but a trend will only be able to be determined with at least three years of data under the same methodology.

Purchasing certified renewable electricity through Ecotricity has reduced emissions from purchased electricity down to zero.

Overall Wellington Airport is tracking very well and has already hit its 30% reductions target, with a 38% reduction using a location-based approach and a 68% reduction using a market-based approach.

Emissions intensity in FY25 from these emissions has increased slightly compared to FY24, mostly due to increased heating during an unusually cold May, refrigerant top ups, and a reduction in airline passengers for the year.

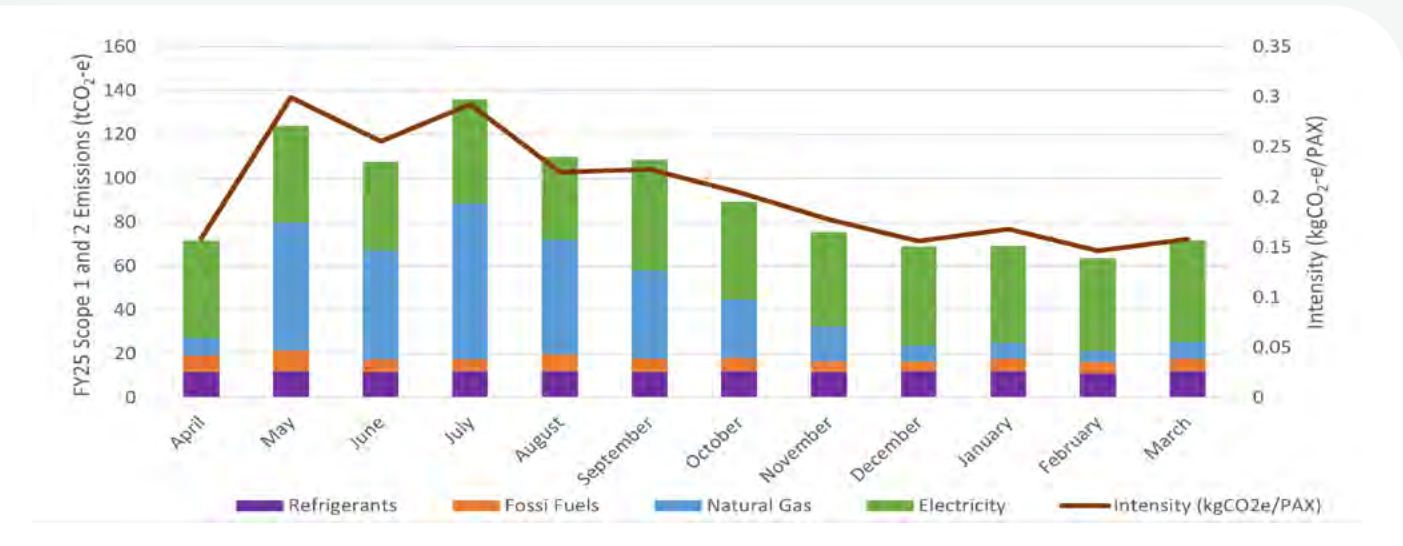


Table 9. Scope 1 and Scope 2 emissions and their intensity over time

	FY17	FY18	FY19	FY20	FY22	FY23	FY24	FY25
Scope 1 (tCO <sub>2</sub> -e)	857	577	827	690	375	473	478	566
Scope 2 (tCO <sub>2</sub> -e)	916	624	715	818	705	841	0*	0*
<b>Total (tCO<sub>2</sub>-e)</b>	<b>1,773</b>	<b>1,201</b>	<b>1,542</b>	<b>1,508</b>	<b>1,080</b>	<b>1,314</b>	<b>478</b>	<b>566</b>
Emissions intensity (kgCO <sub>2</sub> -e/pax)	0.28	0.20	0.24	0.25	0.31	0.25	0.09	0.11

\*Market based approach takes into account the purchase of renewable electricity.  
Note: Emissions were not verified for FY21, so this year has been excluded from year-on-year comparisons.

Figure 5. Monthly breakdown of Scope 1 and Scope 2 GHG emissions for FY25 – location-based



4.3.2 Scope 3 emissions – comparison to previous year

Table 10. FY25 Scope 3 emission sources compared to FY24

Emission Source	FY25 tCO <sub>2</sub> -e	FY24 tCO <sub>2</sub> -e
Scope 3, Category 1: Purchased Goods and Services	2,618	2,459
Scope 3, Category 2: Capital Goods	1,810	868
Scope 3, Category 3: Fuel and Energy Related Activities	69	92
Scope 3, Category 5: Waste Generated in Operations	133	151
Scope 3, Category 6: Business Travel	114	154
Scope 3, Category 7: Employee Commuting/Working from Home	238	246
Scope 3, Category 11: Use of Sold Products	251,666	247,765
Scope 3, Category 13: Downstream Leased Assets	1,005	393
Scope 3, Category 15: Investments	428	NA
<b>Total</b>	<b>258,082</b>	<b>252,136</b>



4.3.3 Scope 3 emissions – largest emission sources

The largest emission source for Wellington Airport as a whole is full flight emissions. This is followed by passenger surface access to the terminal. Together, these two emission sources make up 95.8% of the total inventory.

Full flight emissions have been calculated by applying an emissions factor to the total jet fuel (Jet A1) and aviation gas uplifted from Wellington Airport. Compared to FY24, full flight emissions have increased by 1.6%, due to an uptick in fuel uplifted. These comprise 87.0% of total emissions from 89,409,361 litres of fuel.

Passenger surface access to the terminal has been calculated based on a survey with a sample size of 348 people. Mode of transport to the terminal, vehicle engine type (where applicable), and distance were the data points gathered, and this data was extrapolated out to the total passenger numbers for FY25, less the number of passengers who only transit/transfer in Wellington. At 8.8%, this is a significant emission source for Wellington Airport’s GHG inventory. Emissions have increased by 3.9% from this source, compared to FY24. However, in FY25, there has been a methodological update to the survey

and available data, to improve the estimate accuracy. Therefor a like-for-like comparison is not available.

The below graph displays the scale of emissions by proportion of the total and it is clear to see how much full flight emissions and passenger surface access to the terminal comprise.

4.3.4 Scope 3 emissions – remaining emission sources

The remaining Scope 3 GHG emission sources for Wellington Airport for its FY25 inventory, make up about 4.0% of the total inventory combined. This is, however, not to say they are insignificant and in many cases Wellington Airport has a greater degree of influence over some of these emission sources.

Wellington Airport has further expanded its Scope 3 emissions profile as part of its ongoing ambition of disclosing all material emission sources. Additions to this year’s emissions profile are electricity and natural gas usage from all of Wellington Airport’s commercial and residential tenants (not just aeronautical related tenants), emissions associated with the WANT programme (see section 2.2), and investment emissions from Meitaki Limited. Emissions across all these sources have increased by 17.2%, due to the inclusion of the additional tenants and investments.

4.4 Subsidiaries

Wellington Airport has three wholly owned subsidiaries within its boundary, that it doesn’t have operational control over. These are WANT (265 tCO<sub>2</sub>-e), Jean Batten Street Ltd. (2 tCO<sub>2</sub>-e), and Whare Manaakitanga Ltd (207 tCO<sub>2</sub>-e). The WANT programme is funded by Wellington Airport but works are carried out by contractors, Jean Batten Street Ltd. is a property ownership company that owns two tenanted properties, and Whare Manaakitanga Ltd. operates the hotel at the airport. Emissions from all three subsidiaries are reported under Scope 3.

4.5 Key changes to previous and baseline year

As mentioned previously, Wellington Airport has expanded its Scope 3 emissions profile to include all commercial and residential tenants, not just those related to the aviation portion of its business. It has also included emissions from the WANT programme, which were previously excluded. Finally, emissions from investments made under Meitaki Ltd. are included.

4.6 Renewable electricity and offsets

Wellington Airport currently utilises two market mechanisms to reduce its carbon footprint:

- 1. 100% Toitū certified renewable electricity – Wellington Airport has purchased 100% renewable electricity through its electricity supplier, Ecotricity. The Toitū certification ensures that the electricity purchased by Wellington Airport is certified 100% renewable, and that this electricity generation accreditation is removed from the residual electricity mix, so there is no double counting.
- 2. Offsets – Wellington Airport has purchased carbon offsets to offset 100% of its Scope 1 emissions, as well as its Scope 3, business travel emissions. In previous years, Wellington Airport has offset air business travel through Air New Zealand’s Voluntary Carbon Offset Programme. From FY25 onwards,



Photo by Lucas Rongo

Wellington Airport purchases offsets for business travel at the same time as it does for its Scope 1 emissions. It is sourcing offsets through the Climate Action Company, which uses Carbon Crop as a provider. Carbon Crop’s methodology ensures a high standard of offset, utilising only native forest that is not growing on arable land. Credits are only rewarded for genuine carbon sequestration that has occurred within the last 4 years, and sites are regularly monitored via satellite and site-visits to provide up to date estimates of biomass and forest age, ensuring a highly accurate estimate of carbon sequestration.

With the purchase of the above renewable electricity and offsets, Wellington Airport will be carbon neutral for its operations (scope 1 and Scope 2 emissions) for FY25.

It is worth noting that Wellington Airport is aligning itself with Science Based Targets Initiative (SBTi) methodology, and as such is not using offsets to count towards the absolute reductions required for its Net Zero by 2030 goal. While offsets will continue to be purchased, they will not count towards the minimum 90% reduction in Scope 1 and Scope 2

emissions by 2030, that Wellington Airport has committed to. However, regarding renewable electricity purchasing, Wellington Airport will be counting this generation towards its Scope 2 reductions and Net Zero goal.

4.7 Verification of GHG inventory

Wellington Airport’s FY25 carbon emissions have been prepared in accordance with the Greenhouse Gas Protocol and are aligned with the requirements for ACA accreditation Level 4+.

Wellington Airport’s GHG emissions were verified to reasonable assurance for Scope 1 and 2 emissions and limited assurance for Scope 3 emissions. Verification has been performed by KPMG and their assurance opinion is attached to this document.

4.8 Summary

Wellington Airport continues to trend downward with some of its Scope 1 and Scope 2 emission sources, despite passenger numbers generally increasing, compared to the FY17 baseline. Operational emissions intensity in FY25 has increased slightly compared to FY24 –

reflecting seasonal abnormalities and unforeseen repair works. Both emission sources are being addressed as part of Wellington Airport’s ongoing emissions reduction efforts. Swapping fleet vehicles to EV and hybrid modes and purchasing renewable electricity has had the largest impact to date on overall Scope 1 and Scope 2 emissions. Additionally, improving the efficiency of the building management system and reducing heating/cooling energy use throughout the terminal have had a significant impact also.

Wellington Airport has expanded and increased its understanding its Scope 3 emissions. The addition of all commercial and residential tenants within its footprint, allows Wellington Airport to consider additional avenues through which it can reduce emission across its value chain.

Finally, Wellington Airport has now expanded the Scope 3 emissions incorporated into its GHG inventory to meet its ultimate aim of having only immaterial emission sources being excluded. Wellington Airport will continue to update its methodology for emissions calculations to align with best practice and improve data accuracy.

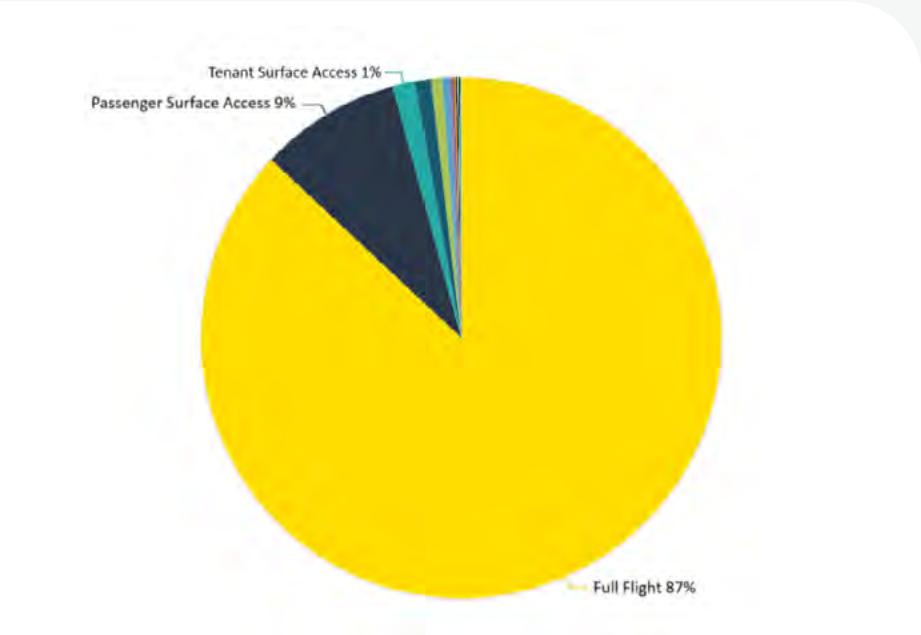
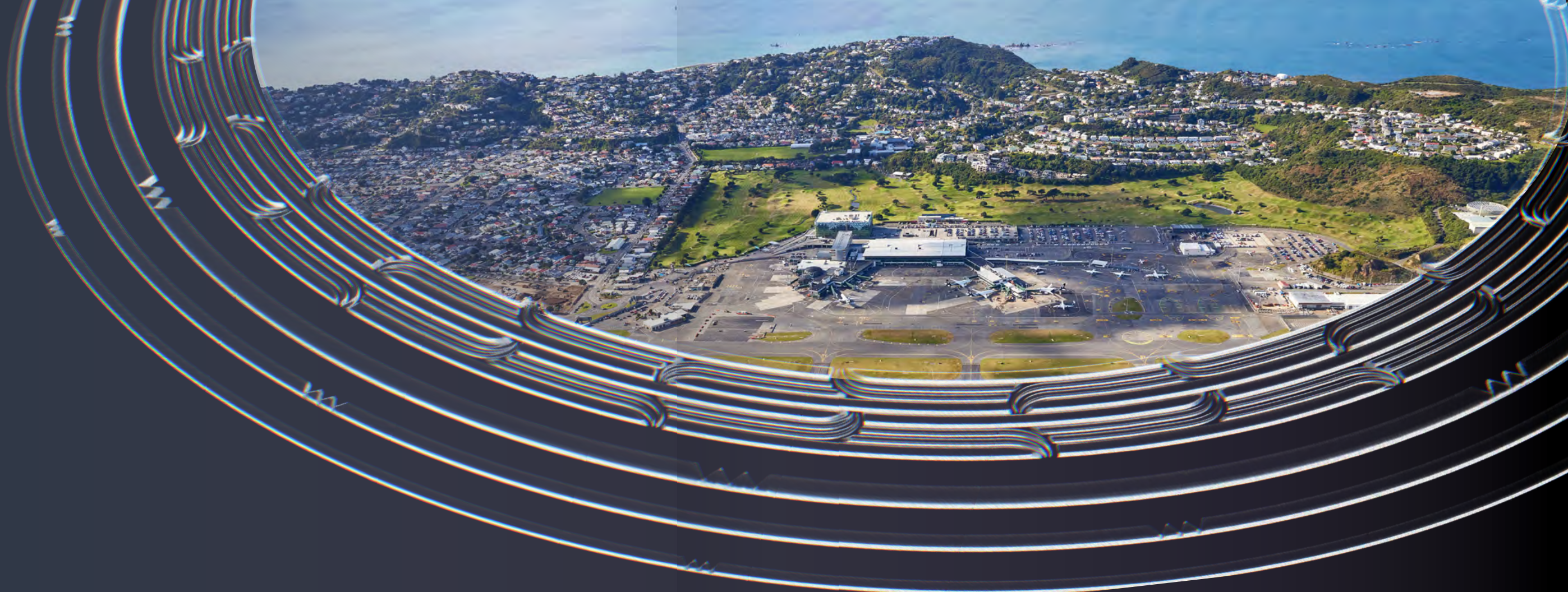


Figure 6. Proportion of Wellington Airport GHG emissions by activity for FY25





## 5 Glossary

Below are some frequently used terms. For further information on these terms and GHG reporting more generally, please refer to the documentation provided in the references.

**GHG: Greenhouse gas**

These the six gases covered by the United Nations Framework Convention on Climate Change: carbon dioxide (CO<sub>2</sub>); methane (CH<sub>4</sub>); nitrous oxide (N<sub>2</sub>O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulphur hexafluoride (SF<sub>6</sub>). These gases, when released, have an overall warming effect on the atmosphere.

**CO<sub>2</sub>-e**

The universal unit of measurement to indicate the global warming potential (GWP) of each greenhouse gas, expressed in terms of the GWP of one unit of carbon dioxide. It is used to evaluate releasing (or avoiding releasing) different greenhouse gases against a common basis.

**Scope 1 (direct GHG emissions)**

Emissions from operations that are owned or controlled by the reporting company.

**Scope 2 (indirect GHG emissions)**

Emissions from the generation of purchased or acquired electricity, steam, heating or cooling consumed by the reporting company.

**Scope 3 (indirect GHG emissions)**

All indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

**Emissions factor**

A factor that converts activity data into GHG emissions data (e.g., kg CO<sub>2</sub>-e emitted per litre of fuel consumed, kg CO<sub>2</sub>-e emitted per kilometre travelled, etc.).

**Transmission and distribution (T&D) losses**

The losses that occur from transporting electricity or gas. These losses are counted separately (in Scope 3) to the generation-side emissions (Scope 1 and Scope 2).

**Location-based method for scope 2 accounting**

A method to quantify Scope 2 GHG emissions based on average energy generation emission factors for defined locations, including local, subnational, or national boundaries.

**Market-based method for scope 2 accounting**

A method to quantify Scope 2 GHG emissions based on GHG emissions emitted by the generators from which the reporter contractually purchases electricity bundled with instruments, or unbundled instruments on their own.

## References

- GHG Protocol – The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004). [ghg-protocol-revised.pdf \(ghgprotocol.org\)](https://ghgprotocol.org)
- GHG Protocol, Scope 3 – The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011). [Corporate-Value-Chain-Accounting-Reporting-Standard\\_041613\\_2.pdf \(ghgprotocol.org\)](https://ghgprotocol.org)
- ACA – Airport Carbon Accreditation. Application Manual, Issue 14 (2023)
- XRB NZ CS 1 – External Reporting Board. Aotearoa New Zealand Climate Standard 1: Climate-related Disclosures (2022)
- Milford Asset Management 2024 Climate Disclosures <https://milfordasset.com/wp-content/uploads/2024/07/Milford-Investment-Funds-Climate-Statements-March-2024-replacement.pdf>
- MfE – Ministry for the Environment. Measuring emissions: A guide for organisations (2024). [Measuring Emissions Guidance Detailed Guide 2024 ME1764 \(environment.govt.nz\)](https://environment.govt.nz)
- Climate Action Company – [www.climateactionco.com](https://www.climateactionco.com)
- Carbon Crop – Permanent Native Forest Restoration: Methodology and Basis (2022). 210f43\_ea1fd-88809464762be806ce5dec28b09.pdf ([carboncrop.com](https://carboncrop.com))
- Market Economics – Consumption Emissions Modelling (2023)
- DEFRA – Department of Energy Security and Net Zero: Conversion factors 2024, full set (2024)
- ACERT – Airport Carbon and Emissions Reporting Tool v7 [https://aci.aero/wp-content/uploads/2023/08/2023\\_ACERT\\_v7.0-Brochure.pdf](https://aci.aero/wp-content/uploads/2023/08/2023_ACERT_v7.0-Brochure.pdf)
- Waka Kotahi – Project emissions estimation tool (PEET) <https://www.nzta.govt.nz/roads-and-rail/highways-information-portal/technical-disciplines/environment-and-sustainability-in-our-operations/environmental-technical-areas/climate-change/climate-change-mitigation/project-emissions-estimation-tool-peat/>









# Independent Assurance Report to Wellington International Airport Limited

## Reasonable Assurance Opinion

Our reasonable assurance opinion has been formed on the basis of the matters outlined in this report.

In our opinion, in all material respects, the scope 1 and 2 (both location and market based approach) gross greenhouse gas emissions, additional required disclosures and gross greenhouse gas emissions methods, assumptions and estimation uncertainty disclosures included in the Climate-related Disclosures report (**Scope 1 and Scope 2 GHG Reporting**) are fairly presented and prepared in accordance with the Aotearoa New Zealand Climate Standards (NZ CSs) issued by the External Reporting Board (**the criteria**) for the period 1 April 2024 to 31 March 2025.

## Limited Assurance Conclusion

Our limited assurance conclusion has been formed on the basis of the matters outlined in this report.

Based on our limited assurance engagement, which is not a reasonable assurance engagement or an audit, nothing has come to our attention that would lead us to believe that, in all material respects, the Scope 3 Greenhouse Gas emissions, additional required disclosures and methods, assumptions and estimation uncertainty disclosures included in the Climate-related Disclosures report (**Scope 3 GHG Reporting**) are not fairly presented and prepared in accordance with the Aotearoa New Zealand Climate Standards (NZ CSs) issued by the External Reporting Board (**the criteria**) for the period 1 April 2024 to 31 March 2025.

## Information subject to assurance

We have performed an engagement to provide reasonable assurance in relation to Wellington International Airport Limited's Scope 1 and Scope 2 GHG Reporting for the period 1 April 2024 to 31 March 2025. The Scope 1 and Scope 2 GHG Reporting includes the following disclosures:

- Total Scope 1 and 2 (both location and market based approach) GHG emissions contained in the Climate-related Disclosures report within table 3 (page 31) and table 4 (pages 34 to 35);
- Scope 1 and 2 (both location and market based approach) GHG emissions contained in the Greenhouse Gas Inventory report within table 1 (page 4) and table 5 (page 22 to 23) of that report; and
- the additional required disclosures and gross greenhouse gas emissions methods, assumptions and estimation uncertainty disclosures included in the Greenhouse Gas Inventory report on pages 9 to 21 of that report.

We have also performed an engagement to provide limited assurance in relation to Wellington International Airport Limited's Scope 3 GHG Reporting for the period 1 April 2024 to 31 March 2025. The Scope 3 GHG Reporting includes the following disclosures:

- Total Scope 3 GHG emissions contained in the Climate-related Disclosures report within table 3 (page 31) and table 4 (pages 34 to 35);
- Scope 3 GHG emissions contained in the Greenhouse Gas Inventory report within table 1 (page 4) and table 5 (pages 22 to 23) and table 6 (pages 24 to 25) of that report; and





- the additional required disclosures and gross greenhouse gas emissions methods, assumptions and estimation uncertainty disclosures included in the Greenhouse Gas Inventory report on pages 9 to 21 of that report.

Collectively the Scope 1 and 2 GHG Reporting and Scope 3 GHG Reporting are referred to as **the GHG Disclosures**.

Our opinion on the Scope 1 and 2 GHG Reporting and conclusion on the Scope 3 GHG Reporting do not extend to any other information included, or referred to, in the Climate-related Disclosures report or Greenhouse Gas Inventory report or other information that accompanies or contains those reports and our assurance report (**other information**). We have not performed any procedures with respect to the other information.

## Criteria

The criteria used as the basis of reporting include the NZ CSs. As disclosed on page 31 of the Climate-related disclosures report and page 3 of the Greenhouse Gas Inventory report, the greenhouse gas emissions have been measured in accordance with:

- Scope 1 emissions have been measured in accordance with The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (revised edition)
- Scope 2 emissions have been measured in accordance with The Greenhouse Gas Protocol: GHG Protocol Scope 2 Guidance: An amendment to the GHG Protocol Corporate Standard
- Scope 3 emissions have been measured in accordance with The Greenhouse Gas Protocol: Corporate Value Chain (*Scope 3*) Accounting and Reporting Standard

As a result, this report may not be suitable for another purpose.

## Standards we followed

We conducted our assurance engagement in accordance with New Zealand Standard on Assurance Engagements 1 (**NZ SAE 1**) Assurance Engagements over Greenhouse Gas Emissions Disclosures and International Standard on Assurance Engagements (New Zealand) 3410 Assurance Engagements on Greenhouse Gas Statements (**ISAE (NZ) 3410**) issued by the New Zealand Auditing and Assurance Standards Board (**Standard**). We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on the Scope 1 and 2 GHG Reporting and conclusion on the Scope 3 GHG Reporting.

Our responsibilities under the Standard are further described in the 'Our responsibility' section of our report.

## Key Matters

Key matters are those matters that, in our professional judgment, were of most significance in undertaking our assurance engagement over the GHG disclosures for the period 1 April 2024 to 31 March 2025.

Our procedures were undertaken in the context of and solely for the purpose of our assurance opinion on the Scope 1 and 2 GHG Reporting and conclusion on the Scope 3 GHG Reporting and we did not reach a separate assurance opinion or conclusion on each individual key matter.

### Key Matter

### Procedures to address the Key Matter

---

#### Estimation of customer access and full-flight emissions

As described on page 28 of the Greenhouse Gas Inventory report, Use of sold product emissions (customer access and full flight emissions) comprise approximately 97.5% of scope 3 emissions.

For customer access emissions our assurance procedures included:

- Inquiring with responsible staff and reviewing process and methodology documentation to obtain an understanding of the calculation methodology, assumptions, and estimation uncertainties.
-



## Key Matter

## Procedures to address the Key Matter

Estimating customer access emissions involves extrapolating survey results on the transportation type and distance travelled to the airport across all customers. Full flight emissions are non-complex to estimate as direct fuel data is available for all aircraft refuelling at the airport.

This area is a key matter due to the size of emissions and estimation uncertainty involved in projecting survey results over a large customer base.

- Assessing the expertise and independence of the survey provider.
- Assessing the estimate of average distance travelled (using map data) for a limited sample of survey respondents.
- Comparing the emissions factors used for different types of travel to Ministry for the Environment's *Measuring emissions: A guide for organisations (2024)*.
- Recalculating the estimated emissions for a limited number of survey respondents.
- Reconciling total passenger numbers included in the estimate to airline confirmations.

For full flight emissions:

- Reconciling monthly fuel use to supplier records for a limited sample.

## Other Matter – Prior year comparatives not assured

The GHG disclosures for prior periods were not subject to our assurance engagement and, accordingly, we do not express an opinion or a conclusion, or provide any assurance on such information.

Our opinion and conclusion are not modified in respect of this matter.

## Other Matter – Re-issued opinion and conclusion

We completed our work and initially signed our opinion and conclusion on 17 June 2025 over the Greenhouse Gas Inventory as a document linked to the Climate-Related Disclosures report. Our opinion and conclusion was updated to include the total scope 1, 2 and 3 emissions in Table 3 on page 31 and Table 4 on page 35. We have re-issued our opinion and conclusion dated 29 July 2025 over the Climate-related Disclosures report as a whole.

## How to interpret reasonable and limited assurance and material misstatement

Reasonable assurance is a high level of assurance, but is not a guarantee that it will always detect a material misstatement when it exists.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks.

Misstatements, including omissions, within the GHG disclosures are considered material if, individually or in the aggregate, they could reasonably be expected to influence the relevant decisions of the intended users taken on the basis of the GHG disclosures.

## Inherent limitations

GHG quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emission factors and the values needed to combine emissions of different gases.





## Use of this assurance report

Our report is made solely for Wellington International Airport Limited. Our assurance work has been undertaken so that we might state to Wellington International Airport Limited those matters we are required to state to them in the assurance report and for no other purpose.

Our report should not be regarded as suitable to be used or relied on by anyone other than Wellington International Airport Limited for any purpose or in any context. Any other person who obtains access to our report or a copy thereof and chooses to rely on our report (or any part thereof) will do so at its own risk.

To the fullest extent permitted by law, none of KPMG, any entities directly or indirectly controlled by KPMG, or any of their respective members or employees accept or assume any responsibility and deny all liability to anyone other than Wellington International Airport Limited for our work, for this independent assurance report, and/or for the opinions or conclusions we have reached.

Our opinion and conclusion are not modified in respect of this matter.

## Wellington International Airport Limited's responsibility for the GHG disclosures

The Directors of Wellington International Airport Limited are responsible for the preparation and fair presentation of the GHG disclosures in accordance with the criteria. This responsibility includes the design, implementation and maintenance of such internal control as Directors determine is relevant to enable the preparation of the GHG disclosures that are free from material misstatement whether due to fraud or error.

The Directors of Wellington International Airport Limited are also responsible for selecting or developing suitable criteria for preparing the GHG disclosures and appropriately referring to or describing the criteria used.

## Our responsibility

We have responsibility for:

- planning and performing the engagement to obtain reasonable assurance about whether the Scope 1 and 2 GHG reporting is free from material misstatement, whether due to fraud or error;
- forming an independent opinion based on procedures we have performed and the evidence we have obtained regarding the Scope 1 and 2 GHG reporting;
- planning and performing the engagement to obtain limited assurance about whether the Scope 3 GHG reporting is free from material misstatement, whether due to fraud or error;
- forming an independent conclusion based on the procedures we have performed and the evidence we have obtained regarding Scope 3 GHG reporting; and
- reporting our opinion and conclusion to Wellington International Airport Limited.

## Summary of the work we performed as the basis for our opinion and conclusion

### Reasonable assurance opinion on the Scope 1 and 2 GHG Reporting

We exercised professional judgment and maintained professional scepticism throughout the engagement. We designed and performed our procedures to obtain evidence about the Scope 1 and 2 GHG Reporting that is sufficient and appropriate to provide a basis for our opinion.

The nature, timing and extent of the procedures selected depended on our judgment, including an assessment of the risks of material misstatement whether due to fraud or error. We identified and assessed the risks of material misstatement through understanding the Scope 1 and 2 GHG Reporting and the engagement circumstances.





A reasonable assurance engagement includes:

- assessing the suitability of the circumstances of Wellington International Airport Limited's use of the criteria as the basis for preparation of the Scope 1 and 2 GHG Reporting;
- considering relevant internal controls when designing our assurance procedures, however we do not express an opinion on the effectiveness of these controls;
- evaluating the appropriateness of reporting policies, quantification methods used in the preparation of the Scope 1 and 2 GHG Reporting by Wellington International Airport Limited; and
- evaluating the overall presentation of the Scope 1 and 2 GHG Reporting.

## **Limited assurance conclusion on the Scope 3 GHG Reporting**

A limited assurance engagement performed in accordance with the Standard involves assessing the suitability in the circumstances of Wellington International Airport Limited's use of the criteria as the basis for the preparation of the Scope 3 GHG Reporting, assessing the risks of material misstatement of the Scope 3 GHG Reporting whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the Scope 3 GHG Reporting.

We exercised professional judgment and maintained professional scepticism throughout the engagement. We designed and performed our procedures to obtain evidence about the Scope 3 GHG Reporting that is sufficient and appropriate to provide a basis for our conclusion.

Our procedures selected depended on the understanding of the Scope 3 GHG Reporting that is sufficient and appropriate to provide a basis for our conclusion. The procedures we performed were based on our professional judgment and included inquiries, observation of processes performed, inspection of documents, analytical procedures, evaluating the appropriateness of quantification methods and reporting policies, and agreeing or reconciling with underlying records.

In undertaking limited assurance on the Scope 3 GHG Reporting the procedures we primarily performed were:

- obtaining, through inquiries, an understanding of Wellington International Airport Limited's control environment, processes and information systems relevant to the preparation of the Scope 3 GHG Reporting. We did not evaluate the design of particular control activities, or obtain evidence about their implementation;
- Evaluating organisational and operational boundaries to test completeness of Scope 3 GHG sources and disclosures of exclusions;
- evaluating whether the methods for developing estimates were appropriate and had been consistently applied. Our procedures did not include testing all the data on which the estimates are based or separately developing our own estimates against which to evaluate the Client's estimates;
- Performing analytical procedures on particular emission categories by comparing the expected Scope 3 GHG emissions to reported Scope 3 GHG emissions and made inquiries of management to obtain explanations for any significant differences we identified;
- agreeing a selection of Scope 3 GHG emissions data to relevant underlying source documents and re-performing emission factor calculations for a limited number of items; and
- considering the presentation and disclosures of the Scope 3 GHG Reporting and explanatory notes against the requirements of the Criteria.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.





## Our independence and quality management

This assurance engagement was undertaken in accordance with NZ SAE 1. NZ SAE 1 is founded on the fundamental principles of independence, integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

We have complied with the independence and other ethical requirements of Professional and Ethical Standard 1 *International Code of Ethics for Assurance Practitioners (including International Independence Standards)* (New Zealand) (**PES 1**) issued by the New Zealand Auditing and Assurance Standards Board, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies Professional and Ethical Standard 3 *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements* (**PES 3**), which requires the firm to design, implement and operate a system of quality control including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We have also complied with Professional and Ethical Standard 4 *Engagement Quality Reviews* (**PES 4**) which deals with the appointment and eligibility of the engagement quality reviewer and the engagement quality reviewer's responsibilities relating to the performance and documentation of an engagement quality review.

Our firm has also provided financial statement audit and regulatory assurance services to Wellington International Airport Limited. Subject to certain restrictions, partners and employees of our firm may also deal with Wellington International Airport Limited on normal terms within the ordinary course of trading activities of the business of Wellington International Airport Limited. These matters have not impaired our independence as assurance providers of Wellington International Airport Limited for this engagement. The firm has no other relationship with, or interest in, Wellington International Airport Limited.

As we are engaged to form an independent opinion and conclusion on the GHG disclosures prepared by Wellington International Airport Limited, we are not permitted to be involved in the preparation of the GHG disclosures as doing so may compromise our independence.

The engagement partner on the assurance engagement resulting in this independent assurance report is Gavin Silva.

A handwritten version of the KPMG logo in blue ink, with the letters 'KPMG' in a stylized, cursive-like font.

KPMG

Wellington

29 July 2025