



GREENHOUSE GAS EMISSIONS INVENTORY AND MANAGEMENT REPORT

Toitū carbonreduce programme

Prepared in accordance with ISO 14064-1:2018 and the Technical Requirements of the Programme



Auckland Transport

Prepared by (lead author): Sandra Murray

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Verification status: Reasonable for category 1, 2, 3 and mandatory category 4 & Limited for additional category 4

Measurement period: 01 July 2025 to 30 June 2026

Base year period: 01 July 2021 to 30 June 2022

Approved for release by:

A handwritten signature in black ink, appearing to be "Sandra Murray", written over a light blue grid background.

Sandra Murray

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This report shall not be used to make public greenhouse gas assertions without independent verification and issue of an audit opinion by Toitū Envirocare.

AVAILABILITY

The verified summary of this report is available on the TOITU and Auckland Transport webpage. The full report is available to internal and external stakeholders including public on request.

REPORT STRUCTURE

The Inventory Summary contains a high-level summary of this year's results and from year 2 onwards a brief comparison to historical inventories.

Chapter 1, the Emissions Inventory Report, includes the inventory details and forms the measure step of the organisation's application for Programme certification. The inventory is a complete and accurate quantification of the amount of GHG emissions and removals that can be directly attributed to the organisation's operations within the declared boundary and scope for the specified reporting period. The inventory has been prepared in accordance with the requirements of the Programme¹, which is based on the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004) and ISO 14064-1:2018 Specification with Guidance at the Organization Level for

¹ Programme refers to the Toitū carbonreduce, Toitū net carbonzero and the Toitū climate positive programmes.

Quantification and Reporting of Greenhouse Gas Emissions and Removals². Where relevant, the inventory is aligned with industry or sector best practice for emissions measurement and reporting.

Chapter 2, the reduction plan and progress report, forms the manage step part of the organisation's application for Programme certification.

See Appendix 1 and the related Spreadsheet for detailed emissions inventory results, including a breakdown of emissions by source and sink, emissions by greenhouse gas type, and non-biogenic and bio-genic emissions. Appendix 1 also contains detailed context on the inventory boundaries, inclusions and exclusions, calculation methodology, liabilities, and supplementary results.

This overall report provides emissions information that is of interest to most users but must be read in conjunction with the inventory workbook for covering all of the requirements of ISO 14064-1:2018.

² Throughout this document 'GHG Protocol' means the *GHG Protocol Corporate Accounting and Reporting Standard* and 'ISO 14064-1:2018' means the international standard *Specification with Guidance at the Organizational Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals*.

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EXECUTIVE SUMMARY

This is the annual greenhouse gas (GHG) emissions inventory and management report for Auckland Transport covering the measurement period 01 July 2025 to 30 June 2026.³

This is the annual greenhouse gas (GHG) emissions inventory and management report for Auckland Transport covering the measurement period 01 July 2025 to 30 June 2026. AT is a Council Controlled Organisation (CCO) of Auckland Council (AC) established under the Local Government (Auckland Council) Act 2009, specifically to: "...contribute to an effective, efficient and safe Auckland land transport system in the public interest". Under the legislation, AT has the powers and roles of both a regional council and a road controlling authority. AT is responsible for over \$37 billion in infrastructure and assets across for Auckland's transport network and provides integrated, affordable, safe and sustainable public transport (PT). The construction, operation, and maintenance of these assets releases emissions.

AT's Sustainability Strategy sets out climate change, environment, social, and economic objectives and targets which are embedded into AT's systems, policies, and operations. The strategy has two targets: to reduce both operational and embodied emissions by 50% each by 2031/32, against a 2021/22 baseline.

This carbon inventory and management report discloses AT's emissions broadly into two categories: Operational (including PT) and Embodied Emissions.

Operational Emissions: emissions associated with AT corporate activities and the assets that AT owns and has direct control of. AT has a high degree of influence over AT-contracted bus and ferry services provided by third-party operators. These are therefore included in AT's operational emissions category under Scope 3 emissions.

Embodied Emissions: indirect upstream and downstream emissions associated with infrastructure construction, maintenance, and renewals.

Key points:

total emissions increased by 6.3% in FY 2025/26 compared to the 2021/22 base year, and decreased by 11.4% compared to last year.

AT emitted a total of 227,897 tCO₂e total in FY 2025/2026. Operational Emissions accounted for 92,514 tCO₂e, a decrease of 8.0% from last year, and a decrease of 0.6% from the base year. We are on track to meet AT's 50% operational emissions reduction target by 2031/32.

Embodied emissions accounted for 135,383 tCO₂e, a decrease of 13.5% from last year, and decrease of 13.2% from the board approved baseline of 156,000 tCO₂e. We are on track to meet AT's 50% embodied emissions reduction target by 2031/32.

Major emission sources included construction and renewals, fuel and energy used in PT bus and ferry services, solid and liquid waste from corporate and facilities, and transmission and distribution (T&D) losses from imported electricity and gases.

The inventory report and any GHG assertions are expected to be verified by a programme-approved, third-party verifier. The level of assurance is reported in a separate Assurance Statement provided to the directors of the certification entity.

³ Throughout this document "emissions" means "GHG emissions". Unless otherwise stated, emissions are reported as tonnes of carbon dioxide equivalent (tCO₂e).

Table 1: Inventory summary

Category (ISO 14064-1:2018)	Scopes (ISO 14064-1:2006)	2022	2025	2026
Category 1: Direct emissions (tCO ₂ e)	Scope 1	1,769.42	1,190.65	691.26
Category 2: Indirect emissions from imported energy (location-based method*) (tCO ₂ e)	Scope 2	6,978.83	7,260.13	6,410.16
Category 3: Indirect emissions from transportation (tCO ₂ e)	Scope 3	63.48	281.51	219.10
Category 4: Indirect emissions from products used by organisation (tCO ₂ e)		205,522.64	248,350.96	220,576.60
Category 5: Indirect emissions associated with the use of products from the organisation (tCO ₂ e)		0.00	0.00	0.00
Category 6: Indirect emissions from other sources (tCO ₂ e)		0.00	0.00	0.00
Total direct emissions (tCO₂e)		1,769.42	1,190.65	691.26
Total indirect emissions* (tCO₂e)		212,564.95	255,892.60	227,205.87
Total gross emissions* (tCO₂e)		214,334.37	257,083.25	227,897.12
Category 1 direct removals (tCO ₂ e)		0.00	0.00	0.00
Total net emissions (tCO₂e)		214,334.37	257,083.25	227,897.12

*Emissions are reported using a location-based methodology. See section 1.2.1 for details.1.2.1

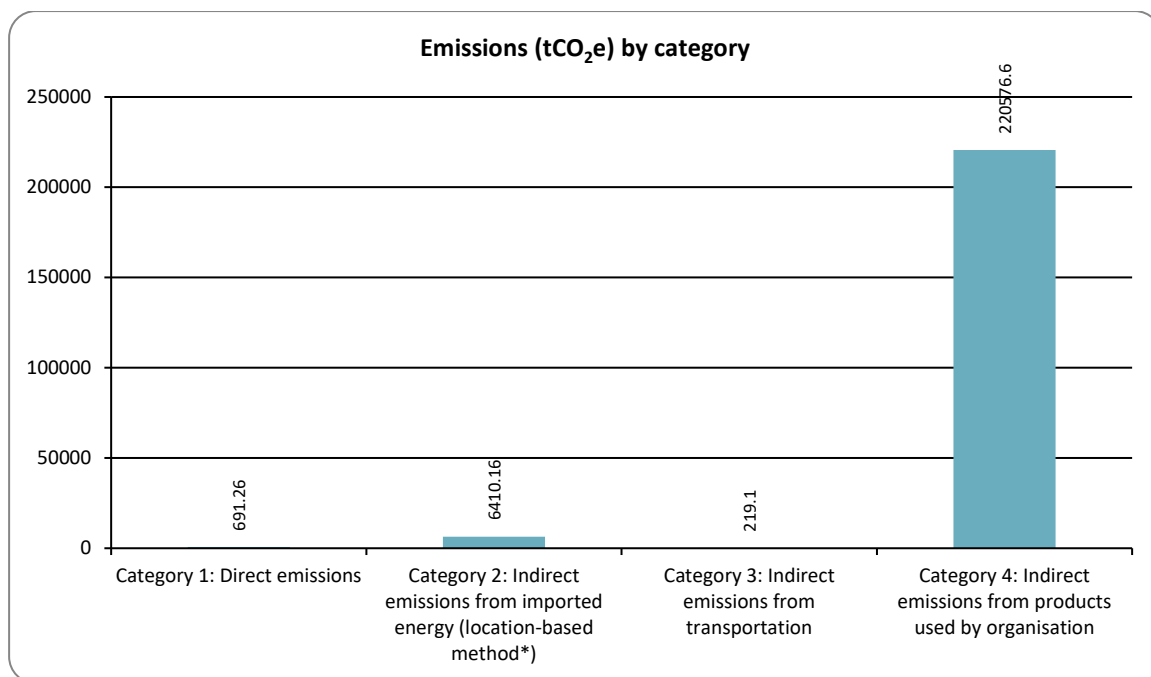


Figure 1: Emissions (tCO₂e) by Category for this measurement period

CHAPTER 1: EMISSIONS INVENTORY REPORT

1.1. INTRODUCTION

This report is the annual greenhouse gas (GHG) emissions inventory and management report for Auckland Transport.

This report is the annual greenhouse gas (GHG) emissions inventory and management report for Auckland Transport (AT).

This report:

- Discloses AT's GHG emissions from operations, services, and activities for the period July 2025 to June 2026.
- States AT's organisational scope, boundary, inclusion, and exclusions, for this GHG inventory.
- Allows monitoring of AT's emission hotspots and tracking against AT's Operational and Embodied Emission reduction targets as outlined in the AT Sustainability Strategy 2024-31.
- Demonstrates AT's environmental compliance and requirements under the Auckland Climate Plan, Aotearoa New Zealand's Emissions Reduction Plan, Climate Leaders Coalition (CLC), Climate Financial Disclosures, and Sustainability-Linked Loans and Green Bond transactions.
- Validates that the assurance on AT's GHG emission claims is credible and robust so that AT's sustainability credentials can be disclosed publicly and used in marketing propositions to customers, suppliers, and stakeholders.

The inventory report and any GHG assertions are expected to be verified by a Programme-approved, third-party verifier. The level of assurance is reported in a separate Audit Opinion provided to the directors of the certification entity.

1.2. EMISSIONS INVENTORY RESULTS

Table 2: Emissions inventory summary for this measurement period

Measurement period: 01 July 2025 to 30 June 2026.

Category	Toitū carbon mandatory boundary (tCO ₂ e)	Additional emissions (tCO ₂ e)	Total emissions (tCO ₂ e)
Category 1: Direct emissions	691.26 Natural Gas distributed commercial, HFC-134a, Petrol premium, Diesel, Petrol regular, Diesel stationary combustion, HFC-32	0.00	691.26
Category 2: Indirect emissions from imported energy (location-based method*)	6,410.16 Electricity Toitū carbonzero certified factor Ecotricity, Electricity	0.00	6,410.16
Category 3: Indirect emissions from transportation	148.17	70.93 Working from home	219.10

Category	Toitū carbon mandatory boundary (tCO ₂ e)	Additional emissions (tCO ₂ e)	Total emissions (tCO ₂ e)
	Air travel domestic (average), Air travel long haul (business), Air travel long haul (econ), Air travel long haul (econ+), Air travel short haul (econ), Air travel short haul b/f class, Car Average (unknown fuel type), Rental Car average (fuel type unknown), Taxi (regular)		
Category 4: Indirect emissions from products used by organisation	776.40 Electricity distributed T&D losses, Electricity Toitū carbonzero certified factor Ecotricity (T & D losses), Natural Gas distributed T&D losses, Waste landfilled LFGR Mixed waste	219,800.20 Pre-calculated (tCO ₂ -e) - Capital goods, Water treatment, Composting, Water supply, Electricity, Diesel, WTT - Lubricants, Electricity distributed T&D losses	220,576.60
Category 5: Indirect emissions associated with the use of products from the organisation	0.00	0.00	0.00
Category 6: Indirect emissions from other sources	0.00	0.00	0.00
Total direct emissions	691.26	0.00	691.26
Total indirect emissions*	7,334.73	219,871.13	227,205.87
Total gross emissions*	8,025.99	219,871.13	227,897.12
Category 1 direct removals	0.00	0.00	0.00
Total net emissions	8,025.99	219,871.13	227,897.12
Operating revenue (gross tCO ₂ e / \$Millions)		10.54	299.17

*Emissions are reported using a location-based methodology. See section 1.2.1 for details.1.2.1

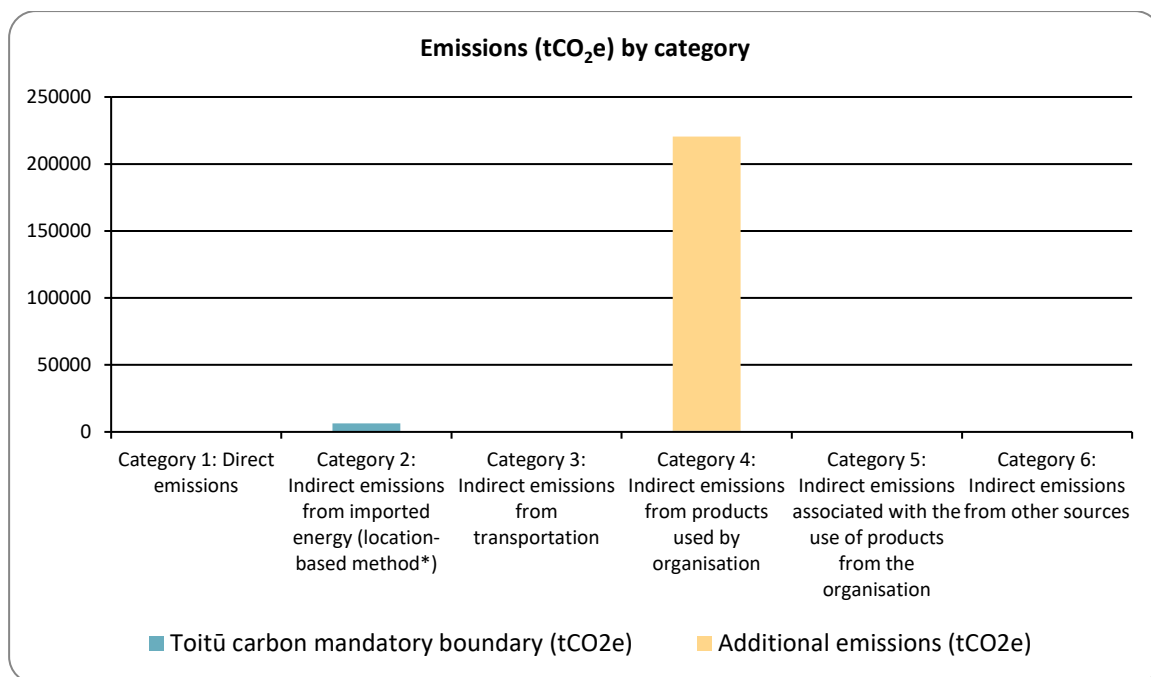


Figure 2: Emissions (tCO₂e) by category

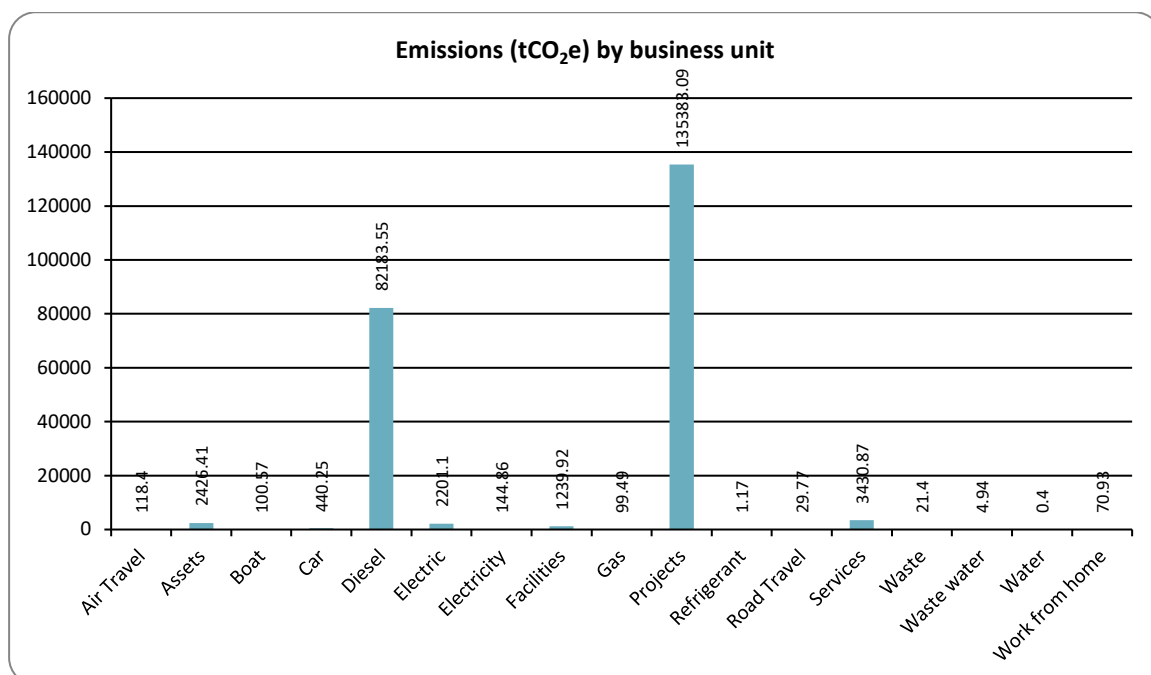


Figure 3: Emissions (tCO₂e) by business unit

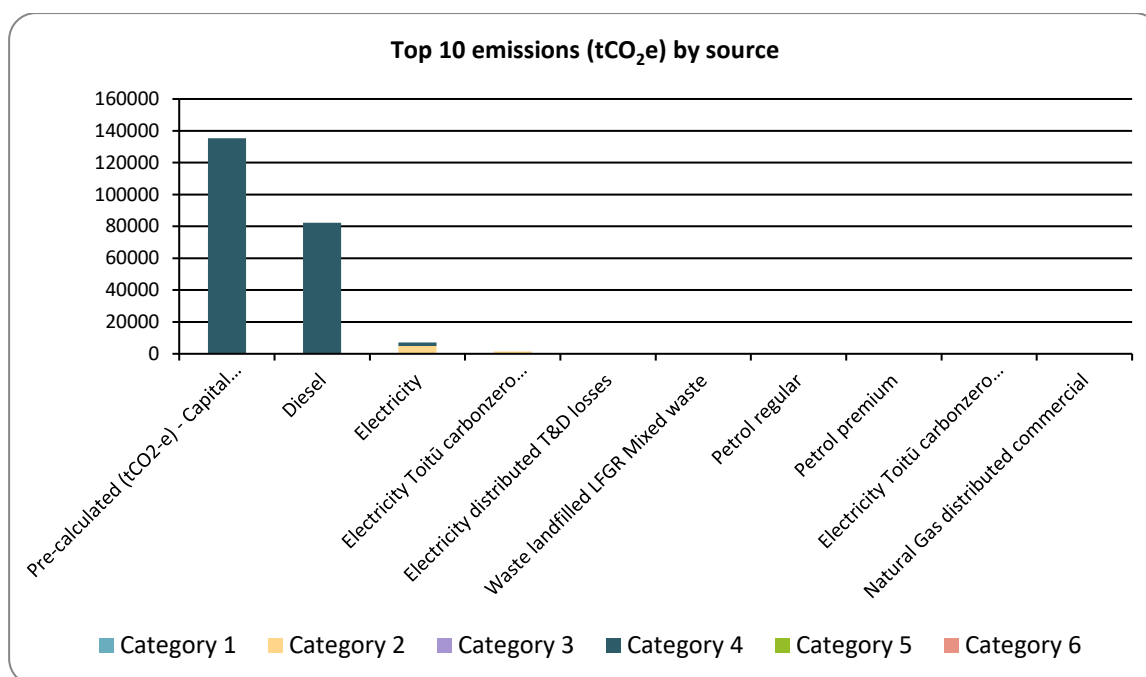


Figure 4: Top 10 emissions (tCO₂e) by source

1.2.1. Dual reporting of indirect emissions from purchased and generated energy

All purchased and generated energy emissions are dual reported using both the location-based method and market-based method. Dual reporting illustrates the role of supplier choice, onsite renewable energy generation and contractual instruments in managing indirect emissions from energy alongside any ongoing energy efficiency and reduction efforts.

Auckland Transport aligns to location-based reporting for tracking energy related emissions and reductions over time.

All purchased and generated energy emissions are dual reported using both the location-based method and market-based method. Dual reporting illustrates the role of supplier choice, onsite renewable energy generation and contractual instruments in managing indirect emissions from energy alongside any ongoing energy efficiency and reduction efforts. Auckland Transport aligns to location-based reporting for tracking energy related emissions and reductions over time.

Hydrogen is supplied by tier 2 supplier (BOC) with Obyashi being the Tier1 supplier of AT. BOC confirmed that electricity is used to produce hydrogen at their facility. Electricity used to produce the amount of hydrogen we received from the supplier in this FY is estimated based on average electricity consumption of 55 kWh/kg of hydrogen. Emissions associated with the estimated electricity is reported based on location-based methodology.

Table 3. Dual reporting of indirect emissions from imported energy

Category	Location-based methodology (tCO ₂ e)	Market-based methodology (tCO ₂ e)
Category 1: Direct emissions	691.26	691.26
Category 2: Indirect emissions from imported energy	6,410.16	6,748.30
Category 3: Indirect emissions from transportation	219.10	219.10

Category	Location-based methodology (tCO ₂ e)	Market-based methodology (tCO ₂ e)
Category 4: Indirect emissions from products used by organisation	220,576.60	220,469.26
Category 5: Indirect emissions associated with the use of products from the organisation	0.00	0.00
Category 6: Indirect emissions from other sources	0.00	0.00
Total direct emissions	691.26	691.26
Total indirect emissions	227,205.87	227,436.66
Total gross emissions	227,897.12	228,127.92
Category 1 direct removals	0.00	0.00
Total net emissions	227,897.12	228,127.92

1.3. ORGANISATIONAL CONTEXT

1.3.1. Organisation description

AT is a Council Controlled Organisation (CCO) of Auckland Council (AC) established under the Local Government (Auckland Council) Act 2009, specifically to: "...contribute to an effective, efficient and safe Auckland land transport system in the public interest." Under the legislation, AT has the powers and roles of both a regional council and a Road Controlling Authority.

AT's functions as per the legislation include preparing the Auckland Regional Land Transport Plan and managing and controlling the Auckland transport system.

AC has delegated the following additional activities to AT:

- Management and control of off-street parking
- Acquisition of property (for transport related purposes)
- A range of maritime functions administered by the Harbourmaster

The Government has also granted airport authority status to AT to manage and operate the aerodromes AC owns on Great Barrier Island. This came into effect on 1 April 2020. The process to shift the management and operation of the aerodromes from AC to AT is currently ongoing.

AT is responsible for over \$37 billion in infrastructure and assets across Auckland's transport network and provides integrated, affordable, safe, and sustainable public transport (PT). The construction and maintenance of these assets release indirect emissions. The provision of services and operations releases both direct and indirect emissions.

Auckland Council-specific legislation – the Local Government Auckland Council Act (2009) was amended by parliament on 30 April 2026. The amended legislation will mean significant local government transformation for Auckland and will impact roles, functions and the structure of both Auckland Council and AT.

The council has a six-month implementation period from when legislation is passed to determine its specific functions.

The government's amended legislation focuses on:

- Returning regional transport policy and planning; and airport authority to Auckland Council.
- Establishing a new Auckland Regional Transport Committee to develop a 30-year Integrated Transport Plan for Auckland, to be agreed upon by both Cabinet and Auckland Council. This will ensure long-term strategic alignment between local and central government.
- Designating Auckland Council as the Road Controlling Authority. Decision-making will be shared between the Governing Body and Local Boards.
- Empowering Auckland Council to give it control over its transport council-controlled organisation focused solely on delivering transport projects and services.

Until the implementation process is complete, AT's purpose remains unchanged and we will continue to provide the support, and services Aucklanders depend on.

However, through our partnered approach, Auckland Council and AT have already identified and are undertaking three key early opportunities that do not require legislative change;

- Auckland Transport is transferring some specific strategy, policy functions to Auckland Council to complete regional transport planning.
- Development of a joint work programme for AT and council strategy, policy and planning functions.
- The appointment of two Auckland Council staff observers to the Auckland Transport Traffic Control Committee.

As at 30 June 2026, the reform process has not impacted the AT FY26 emissions inventory.

Commitment to certification

AT is committed to reducing GHG emissions. Initially focusing on operations, reduction efforts now include services and aim to influence AT's significant supply chain.

GHG emissions have been measured since 2018. In 2020, AT signed up to Toitū's carbon reduction programme, Carbon Reduce, to receive third-party verification. Toitū verification helps AT:

- report confidently on annual GHG emissions
- monitor progress and update GHG reduction targets when required
- set new more ambitious targets

AT's commitment to certification embeds auditing and verifying processes according to international standards and GHG accounting. This allows emissions reductions to be recognised and publicly disclosed with third-party assurance.

GHG Reporting

AT's Sustainability Strategy sets out what AT will do during the 2023-2031 period to fulfil AT's sustainability vision and make Auckland's transport system resilient, sustainable and inclusive. It is structured around three key goals: climate change, the environment, and social and economic outcomes. The strategy has a target to reduce 50% of AT's operational emissions (including emissions from public transport), and 50% of AT's embodied emissions by 2031/32 (relative to 2021/22).

Information about AT's sustainability activities are publicly available on our webpage (at.govt.nz/sustainability).

Five action plans sit under AT's Sustainability Strategy to provide detail on how the objectives and targets will be met:

- Hīkina te Wero: Environment Action Plan 2020-2030
- AT Sustainable Procurement Action Plan 2021-2024

- AT Equity Framework
- AT Climate Transition Plan 2025
- AT Climate Adaptation Framework and Action Plan 2025

AT's Statement of Intent: Preparing for tomorrow, delivering today 2025-2028 sets three targets for operational emission reductions through to year 2027/28. These targets establish a baseline year of 2024/25 (100,511 tCO₂e). Successive years target a reduction as measured against previous years (for example, the 2025/26 target is a reduction against 2024/25) to account for the onboarding of new operational assets such as the City Rail Link and Out of Home media.

AT's operational emissions relate to the GHG emissions emitted directly or indirectly during the operational phase of assets, product, and services (including PT provided by AT or through contracted operators). This includes all Scope 1 and 2 and 3 emissions (excluding embodied, enabled, avoided, and upstream Scope 3 emissions).

AT's embodied emissions refer to the upstream and downstream emissions associated with infrastructure construction i.e. the development, maintenance, and renewal of capital goods and assets by AT.

This GHG Emissions Inventory and Management Report allows AT to publicly report against the targets as outlined in the Sustainability Strategy and SOI with a level of assurance.

Climate Change Impacts

Unprecedented weather events, including flooding in January, February and May 2023, showed that climate change is already severely impacting Auckland. As temperatures increase, extreme weather events such as storm surges and drought will become more common and severe. Auckland must change the way it operates to stop the irreversible and catastrophic consequences of climate change.

AT must simultaneously reduce AT's impact on the climate and prepare for future climate impacts on the transport network. Measures to manage and mitigate against the impacts of climate change are integrated within AT's risk management framework and our internal systems and processes. More information in the Voluntary Climate-Related Financial Disclosures section in AT Annual Reports (Annual reports (at.govt.nz)).

AT's Climate Change Technical Policy provides technical direction on how to respond to the impacts of climate change. Its purpose is to assist AT to mitigate, prepare for and adapt to climate related risks, issues and impacts across all aspects of AT's business. The Policy also provides guidance on GHG emission calculation methodology.

1.3.2. Statement of intent

This inventory forms part of the organisation's commitment to gain Toitū carbonreduce certification. The intended uses of this inventory are:

Intended use and users

AT has made public commitments, outlined in AT's SOI and Sustainability Strategy, to reduce operational and embodied emissions. AT's verified GHG inventory is used to report performance against these targets.

This emissions inventory discloses AT activities and progress towards GHG emission targets, as well as management of risks associated with GHG emissions from AT's operations, activities, assets, infrastructure, and services.

AT's inventory is of interest to key stakeholders including AT's Executive Leadership Team (ELT), Board of Directors, AC and the New Zealand Transport Agency (NZTA). To meet requirements under the Aotearoa New Zealand Climate Standards, Auckland Council Group (ACG) is required to disclose the Group Climate Statement and Group's consolidated GHG emissions inventory.

Where applicable, this inventory report and accompanying verified inventory may be used as a source of current and historical emissions for AT as part of the ACG consolidated inventory. Likewise, this report may be used to contribute to AC's Green Bond and Sustainability-Linked Loans emissions impact assessments.

Other schemes and requirements

This inventory may be used to demonstrate compliance with the CLC Statement of Ambition, required as part of AT's membership.

1.3.3. Person responsible

Myles Lind: Built Environment and Place Acting Co-Director I&P (Chief Engineer) is responsible for overall emission inventory measurement and reduction performance, as well as reporting results to top management. Myles Lind: Built Environment and Place Acting Co-Director I&P (Chief Engineer) has the authority to represent top management and has financial authority to authorise budget for the Programme, including Management projects and any Mitigation objectives.

State any other people/entities involved

Manoj Pokhrel: Senior Climate Transition & Energy Specialist, Climate Transition Team, Science & Sustainability Division: manages the delivery of the overall inventory including critical modelling applied in the report, responsible for monitoring and reporting of operational emissions.

Craig Campbell: Senior Sustainability Advisor, Climate Transition, Climate Transition Team, Science & Sustainability Division: inventory reporting and management of Emissions Reporting Solution (ERS).

Sandra Murray: Manager – Climate Transition, Climate Transition Team, Science & Sustainability Division: review of inventory.

Sujata Dahal: Senior Infrastructure Specialist, Adaptation and Environment Team, Science & Sustainability Division: responsible for monitoring and reporting of embodied emissions.

Kate Hayward: Infrastructure Sustainability Reporting Specialist, Adaptation and Environment, Science & Sustainability Division: Management of sustainability reporting portal and supplier specific database for capital goods.

Tracey Gardener and Ken Syme of Smart Power Energy NZ: measuring energy and operational emissions KPI data and providing the quarterly report.

Cumulative 40+ years of experience in AT emissions data collection, processing, management, reductions, and reporting.

Top management commitment

AT's ELT and Board have joint responsibility for providing a clear vision for transport sustainability in Auckland. A resilient and sustainable transport system is one of the five ambitions listed in AT's Strategy and Purpose. AT's progress against the Sustainability Strategy and SOI targets are reported six-monthly to the ELT and Board.

AT's Chief Executive is a signatory of the Climate Leaders Coalition (CLC), a CEO-led leadership community "leading the response to climate change through collective, transparent and meaningful action on mitigation, adaptation and transition." Membership requires measurement and public disclosure of AT's emissions and adoption of short and long-term emissions reduction targets.

Critical physical and transition climate risks are integrated and managed through the organisational risk management system (Active Risk Management – ARM). This is overseen by the Head of Risk and Assurance within the Finance & Corporate Services division. Key Risk Indicators are monitored and reported against quarterly to the ELT and the Board.

2024 saw the establishment of the Science and Sustainability team within AT, led by the Chief Scientist. The team actions AT's Sustainability Strategy over three functions: Social and Economic Equity, Climate Transition, and Adaptation and Environment.

Management involvement

Major emissions sources and progress against SOI and Sustainability Strategy targets are monitored and reported to ELT and the Board quarterly. Climate risks are included in Quarter 1 to 3 risk reporting to the Finance & Assurance Committee (Board subcommittee) then monthly (April, May and June) to the interim AT Board.

1.3.4. Reporting period

Base year measurement period: 01 July 2021 to 30 June 2022

The adoption of AT's Sustainability Strategy 2024-2031 set new emissions targets for AT, including PT within operational emissions for the first time, and setting embodied emissions targets. AT's previous baseline year of 2018/19 did not include embodied emissions. AT began measuring embodied emissions following the adoption of the Climate Change Technical Policy in 2022.

In 2023/24, AT adopted a new baseline year of 2021/22 to align with the period AT began to measure embodied emissions, and to measure progress against the new targets set in the Sustainability Strategy.

In 2025, AT adopted a SOI target baseline of the absolute emissions from the previous year, to better manage the challenges of continuous improvement in data quality for scope 3 emissions (PT operations).

Measurement period of this report: 01 July 2025 to 30 June 2026

AT's consolidated emissions inventory is reported annually. Operational Emissions (including PT) are measured, monitored, and reported on a quarterly basis. Embodied Emissions are reported annually.

Reporting period is chosen as 1 year from July 2025 to June 2026.

1.3.5. Organisational boundary and consolidation approach

An operational control consolidation approach was used to account for emissions.⁴

Organisational boundaries were set with reference to the methodology described in the GHG Protocol and ISO 14064-1:2018 standards.

Justification of consolidation approach

AT uses an operational control consolidation approach as AT has:

- a high degree of control over the introduction and implementation of operating policies and organisational emission reduction activities.
- a high degree of influence over the operators of PT services, including the ability to influence emission reduction activities by these suppliers.

Organisational structure

Figure 5 shows what has been included in the context of the overall structure.

[note legislative changes being incrementally implemented from 1 May, with full effect from September 2026]

There are many business units that work together to deliver AT's day-to-day activities, however the activities of just three directorates establish the boundary for AT's GHG emissions - broadly categorised under Operational and Embodied.

⁴control: the organisation accounts for all GHG emissions and/or removals from facilities over which it has financial or operational control. equity share: the organisation accounts for its portion of GHG emissions and/or removals from respective facilities.

1) Infrastructure & Place:

Operational: Corporate emissions (electricity, natural gas and waste of corporate properties, work from home, water, wastewater, transmission and distribution losses – corporate fleet and travel are managed through ACG shared services).

Embodied: Emissions associated with the delivery of infrastructure construction and maintenance projects conducted by third-party contractors (including development related to PT and active modes e.g. cycleway construction).

2) Public Transport & Active Modes:

Operational: Emissions associated with the delivery of AT owned and controlled PT services (buses, trains, ferries) and active modes (walking, cycling) including network operations and all respective facilities and assets; emissions associated with PT services (buses, ferries) delivered on AT's behalf by operators using their own assets (operator-owned). All gross, net, and commercial services contracts emissions are included for ferries.

Prior to the 2023/24 inventory, operator-owned PT emissions were reported under the former Non-operational category. Given AT's substantial influence over operator-owned PT services, and to reduce emissions sufficient to achieve AT's Sustainability Strategy targets, operator-owned PT emissions are now included under AT's Operational boundary.

3) Customer & Network Performance:

Operational: Emissions associated with operating the road network (streetlights and traffic signal assets), parking facilities, and assets.

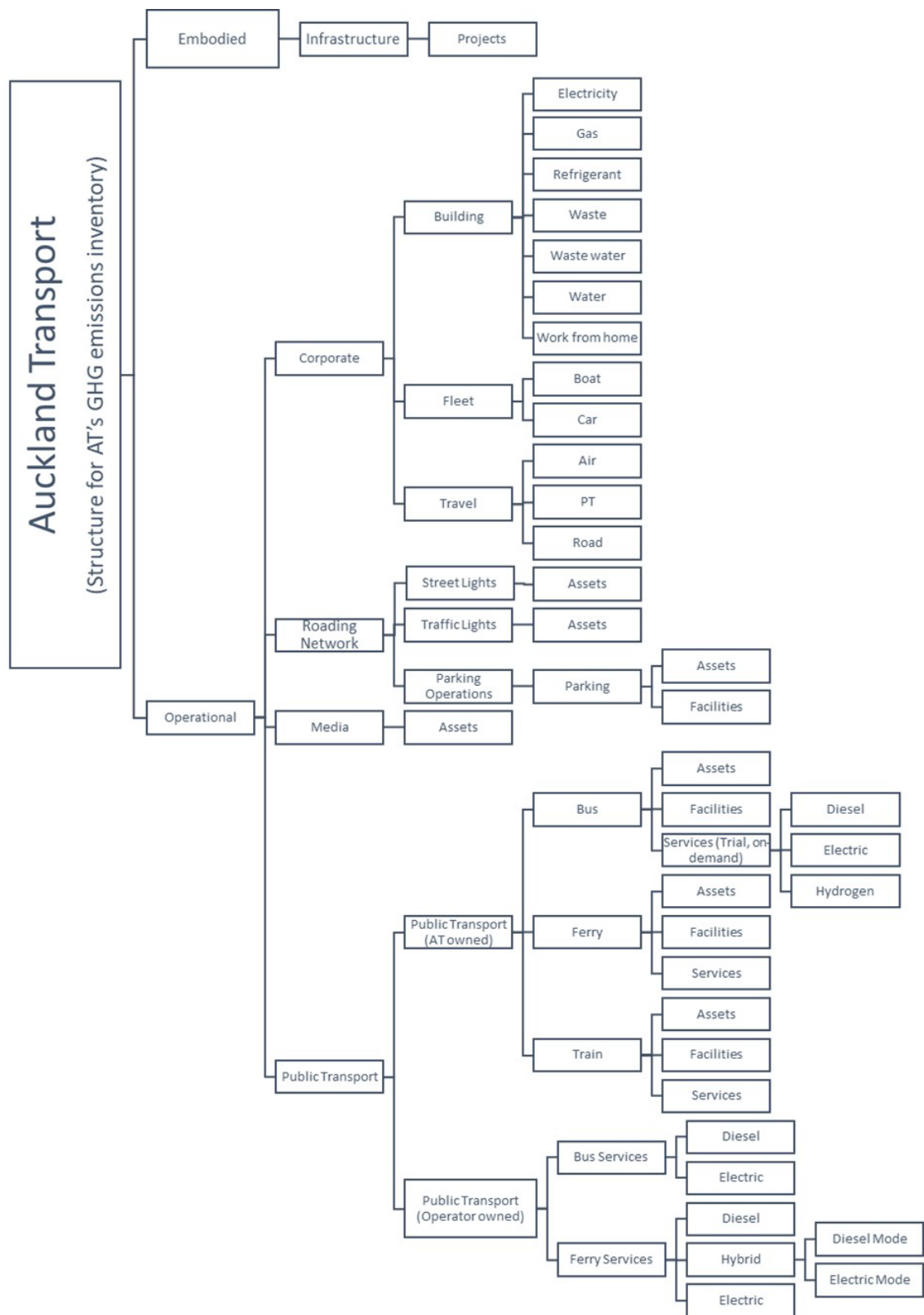


Figure 5: Organisational structure

Table 4. Brief description of business units, sites and locations included in this emissions inventory

Company/Business unit/Facility	Physical location	Description
Operational: Corporate	Corporate head office and some satellite offices	Emissions as a result of AT operating as a business, including employee activities, corporate offices, and corporate fleet. The included emissions sources are: Electricity and its T&D losses, natural gas and its T&D losses, water treatment, composting, waste landfilled LFGR mixed waste, water supply, water treatment, working from home, petrol & diesel used in corporate fleet, employee travel (air, PT, car, rental car, taxi).
Operational: Media	Auckland	Operational emissions as a result of AT using electricity for media displays installed in the shelters, stations, and the PT road network. AT refreshed media contract in FY26 with responsibility of procuring and providing electricity to operate the media/displays in the network.
Operational: Public Transport (Facilities, train and trial services)	Auckland	Emissions as a result of providing PT services in the Auckland region with facilities and assets that AT owns and has operational control. This includes stations, terminals, toilets, bus shelters, bus signs, and park and rides, fuel used in diesel generators at facilities, water used at facilities and disposal of water for water treatment, waste collected at facilities, and PT fleet services owned by AT (trains, trial services where AT pays fuel use - hydrogen buses, on-demand/AT local bus services).
Operational: Road Network Operations (Street Lights, Traffic Lights)	Auckland	Emissions from road network operations: lighting and signals assets including street lights, traffic lights, cycleway lights, pedestrian crossing lights and signals, bridge lights, tunnel lights, smart studs, speed camera, speed sign, advanced warning signal, gantry signals, CCTV etc.
Operational: Parking Operations	Auckland	Emissions from provision of parking services, particularly parking facilities/assets such as car parks, car park buildings, EV chargers, waste collected at parking facilities.
Operational: Public Transport (Contracted Bus, Contracted Ferry services)	Auckland	Emissions from PT service provision through third party operators with their operational control of assets. Includes contracted PT ferries (including AT owned ferries that are leased to operators for providing AT contracted services) and bus services. AT does not pay directly for fuel and electricity for these services.
Embodied: Infrastructure, construction and maintenance	Auckland	Embodied emissions from the development, maintenance and renewal of physical infrastructure assets (products, materials and services). Includes emissions from road corridor maintenance, facility maintenance, construction of new assets, etc. Emissions vary year-to-year-based on executed projects under the Regional Land Transport Plan (RLTP). Data (actual activity reported, actual spend, budgeted spend etc) for projects and categories used with PEET to estimate emissions. Spent related to land purchase are not considered.

1.3.6. Excluded business units

Embodied emission measurement for infrastructure projects currently excludes end-of-life emissions for materials and products due to complexities in assessing the supply chain. AT is investigating end-of-life emissions and will include in the inventory once confidence in the available data is established.

AT's inventory considers the operational impact of fuel and energy used in the provision of PT services (both those provided by AT and services contracted to operators). Upstream emissions associated with the production and distribution of fuel and energy are currently excluded. Upstream emissions will be included as supply chain information becomes available following a detailed assessment in FY27.

Emissions associated with use of the road transport system are outside AT's emissions boundary and therefore excluded. Only those emissions associated with the development, management, and maintenance of the Auckland road network (excluding State Highways which are managed and maintained by NZTA) are included.

Given a lack of operational control and an absence from AT's value chain, private vehicle operational (fuel and energy) and embodied (manufacture) emissions are excluded. Central government has operational control of private vehicles through the vehicle registration system, importation licences and standards, driver licencing, taxation, and fees associated with vehicle use.

Emissions related to capital project water consumption and wastewater discharges are currently excluded.

Embodied emissions associated with buses/ferries for contracted PT services have previously been excluded given AT lack of operational control and influence over the purchase of operator-owned assets. Inclusion is pending based on the completion of LCAs for new buses and ferries.

Emissions associated with office supplies, professional services, other materials or equipment purchased are not included. AT intends to include this in the future based on total purchase value.

Emissions associated with the management and operation of the aerodrome on Great Barrier Island are excluded pending further investigation due to the ongoing process of shifting the management and operation of the aerodromes from AC to AT.

Emissions associated with the purchase goods and services other than operational water are excluded. AT is investigating all other purchased goods and services that are not captured in any other emissions sources categories, and they would be included in FY27 inventory using spent based information and emissions factor or as appropriate if supplier specific database become available.

CHAPTER 2: EMISSIONS MANAGEMENT AND REDUCTION REPORT

2.1. EMISSIONS REDUCTION RESULTS

AT's verified gross emissions for 2025/26 were 227,897 tCO₂e. AT's emissions increased by 6.3% in FY 2025/26 compared to the 2021/22 base year, and decreased by 11.4% compared to last year.

Category 1 (Scope 1)

- Direct emissions from: gas used in corporate office heating system; fuel for corporate fleet vehicles; harbourmaster boats; on-demand trial bus services; refrigerant top-up at facilities; stationary diesel for generators.
- Category 1 emissions form only a minor part (0.3%) of AT's total inventory. AT has decreased these emissions by 60.9% against the 2021/22 base year through the following actions: gradual transition of the corporate fleet from Internal Combustion Engine (ICE) vehicles to EV and hybrid vehicles; subleasing level 5 and 6 of the Viaduct corporate office leading to a reduction in natural gas for heating; completing electrification of trains on the Papakura-Pukekohe line. There was a 41.9% decrease in Category 1 emissions from last year primarily due to refrigerant leakage (estimated from refrigerant top ups) values being higher than usual last year.
- Further Category 1 emission reductions are expected as AT continues to electrify (e.g. complete transition of corporate fleet to EVs, electric boats, electric heat pumps in the corporate office).

Category 2 (Scope 2)

- Indirect emissions from imported energy (purchased electricity) to operate AT's owned network of assets and facilities such as the corporate office, train services, and on-demand electric trial buses.
- Category 2 emissions form only a minor part (2.8%) of AT's total inventory and decreased by 8.1% against the 2021/22 baseline and decreased by 11.7% from last year despite electricity consumption increasing compared with both periods. This reduction was driven by lower MfE electricity emission factors during three of the four quarters of 2025/26. There has been a notable increase in electricity use from trains from base year (69%) and last year (8.5%) as a result of increasing service kilometres, however overall emissions in category 2 have reduced due to the lower MfE emissions factors.

Category 3 (Scope 3)

- Indirect emissions from transportation including air travel, taxis, mileage claims, work-from-home (WFH), etc. This year employee public transport was excluded from the inventory as it is accounted for in public transport emissions.
- Category 3 emissions form only a minor part (0.1%) of AT's inventory. Emissions increased by more than three-fold relative to the 2021/22 baseline, largely due to the inclusion of working-from-home emissions and unusually low air travel volumes in the baseline year during COVID-19 restrictions.



Category 3 emissions decreased by 22.2% compared with the previous year, driven by reduced number of long-haul business class air travel, a reduction in some MfE air travel emissions factors and reduction in the MfE emission factor for working from home.

Category 4 (Scope 3)

- Indirect emissions from products and services including: solid and liquid waste disposal emissions for AT's office and facilities; water used by AT-owned assets; transmission and distribution (T&D) losses for office electricity use; T&D losses for outsourced services (electric buses); purchased fuel and energy-related activities for AT-owned hydrogen trial bus services; purchased fuel and energy-related activities (diesel and electricity) for outsourced bus and ferry services; embodied emissions from infrastructure capital goods construction and maintenance.
- Category 4 emissions represent the largest component (96.8%) of AT's inventory. Emissions increased 7.3% from the 2021/22 (121,217 tCO₂e verified for 2021/22) due to increased emissions of embodied carbon from capital projects. Category 4 emissions decreased by 11.2% compared to last year, due to a reduction in embodied carbon by implementation of low carbon design, the use of low carbon concrete, and a reduction in emissions due to diesel use by buses. It should be noted that embodied emissions for 2025/26 were 13.2% lower than the board approved baseline (156,000 tCO₂e).

Table 5: Comparison of historical GHG inventories

Category	2022	2023	2024	2025	2026
Category 1: Direct emissions (tCO ₂ e)	1,769.42	854.40	638.22	1,190.65	691.26
Category 2: Indirect emissions from imported energy (location-based method*) (tCO ₂ e)	6,978.83	4,582.20	7,425.31	7,260.13	6,410.16
Category 3: Indirect emissions from transportation (tCO ₂ e)	63.48	298.11	270.20	281.51	219.10
Category 4: Indirect emissions from products used by organisation (tCO ₂ e)	205,522.64	205,039.68	231,978.49	248,350.96	220,576.60
Category 5: Indirect emissions associated with the use of products from the organisation (tCO ₂ e)	0.00	0.00	0.00	0.00	0.00
Category 6: Indirect emissions from other sources (tCO ₂ e)	0.00	0.00	0.00	0.00	0.00
Total direct emissions (tCO₂e)	1,769.42	854.40	638.22	1,190.65	691.26
Total indirect emissions* (tCO₂e)	212,564.95	209,919.99	239,674.00	255,892.60	227,205.87
Total gross emissions* (tCO₂e)	214,334.37	210,774.40	240,312.22	257,083.25	227,897.12
Category 1 direct removals (tCO ₂ e)	0.00	0.00	0.00	0.00	0.00
Total net emissions (tCO₂e)	214,334.37	210,774.40	240,312.22	257,083.25	227,897.12
Emissions intensity					
Operating revenue (gross tCO ₂ e / \$Millions)	485.30	343.02	330.74	282.63	299.17
Operating revenue (gross mandatory tCO ₂ e / \$Millions)	21.59	10.30	12.31	10.31	10.54

*Emissions are reported using a location-based methodology. See section 1.2.1 for details.1.2.1

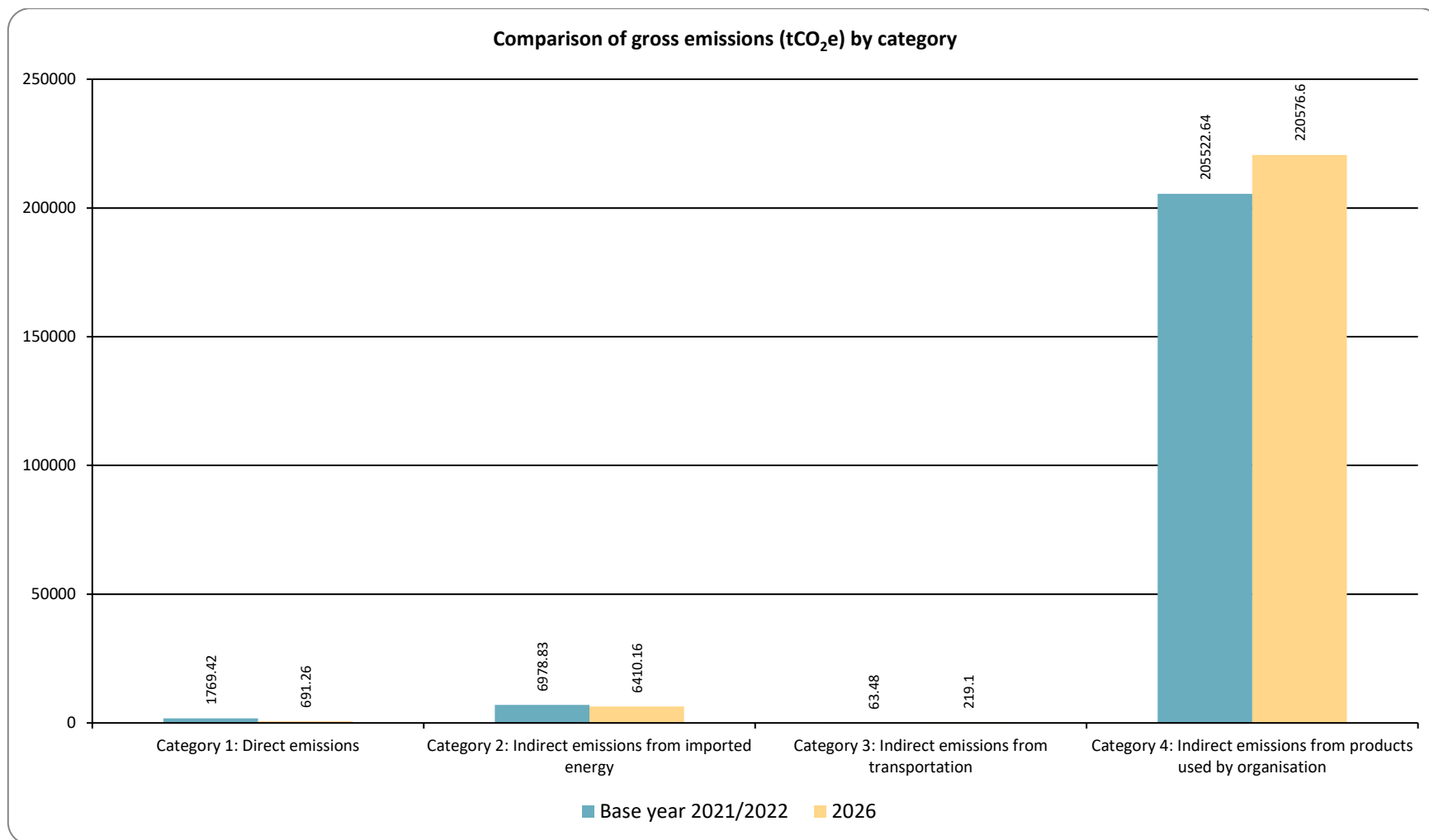


Figure 6: Comparison of gross emissions (tCO₂e) by category between the reporting periods

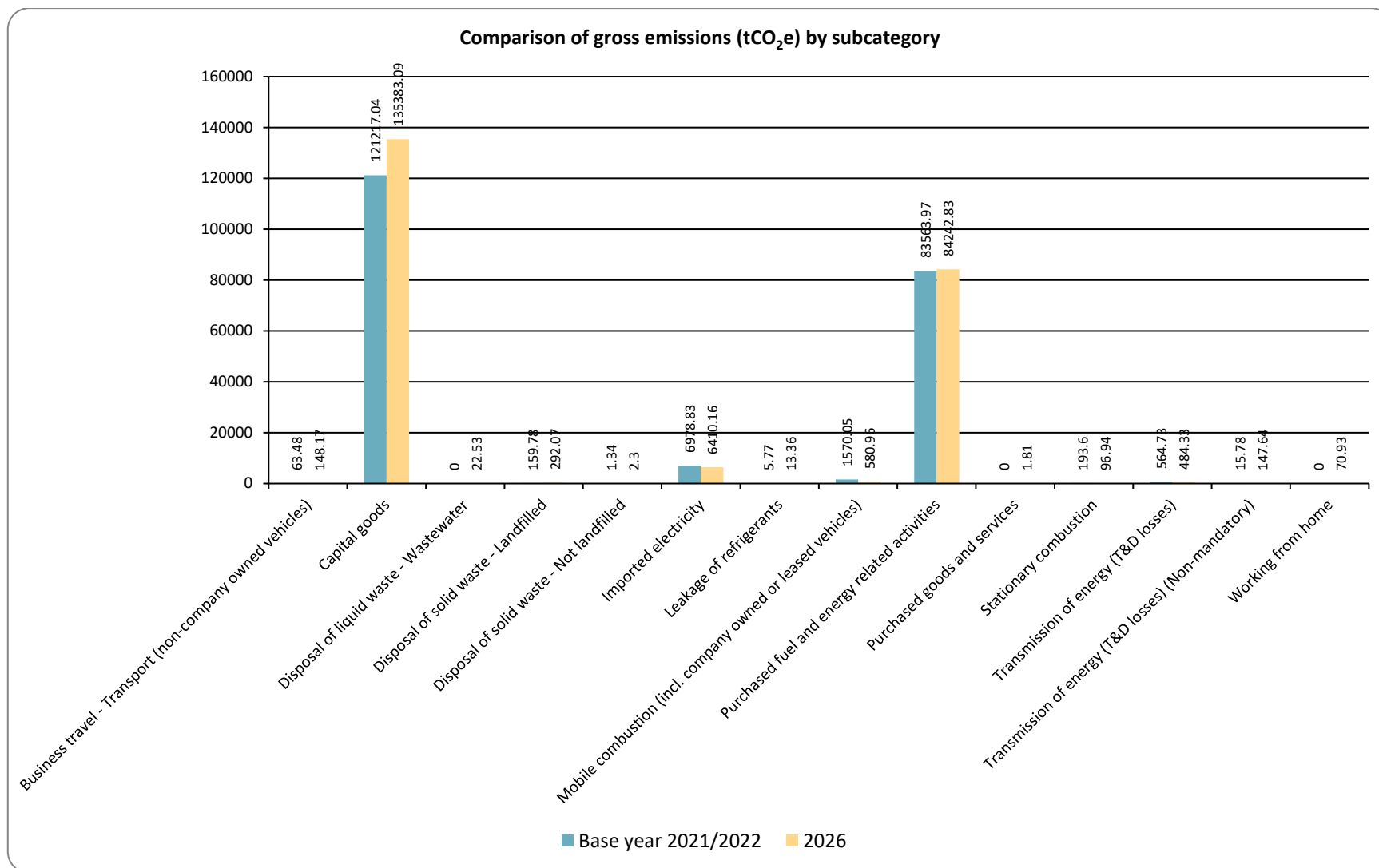


Figure 7: Comparison of gross emissions (tCO₂e) by subcategory between the reporting periods

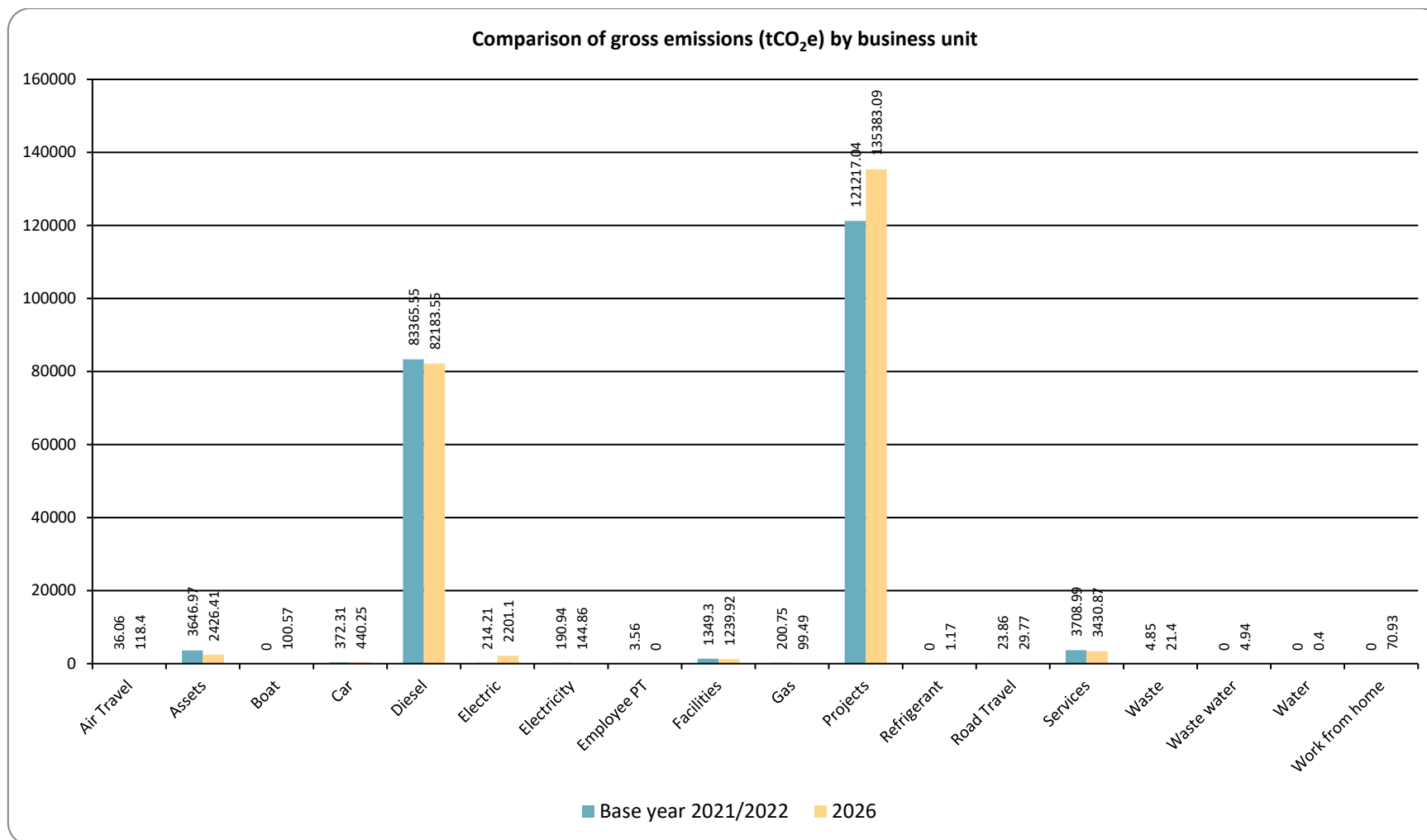


Figure 8: Comparison of gross emissions (tCO₂e) by business unit between the reporting periods

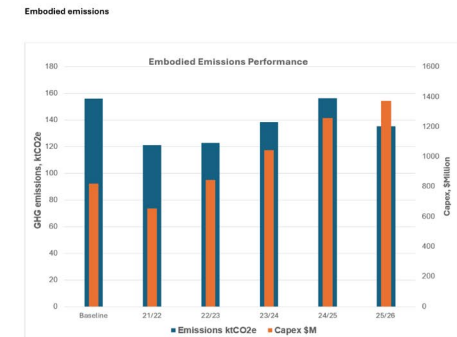
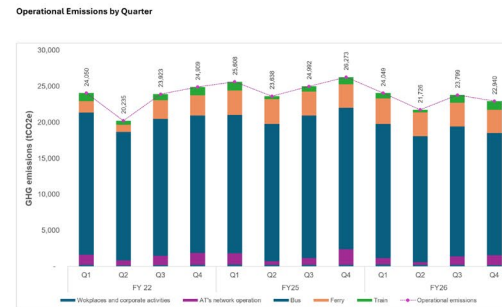
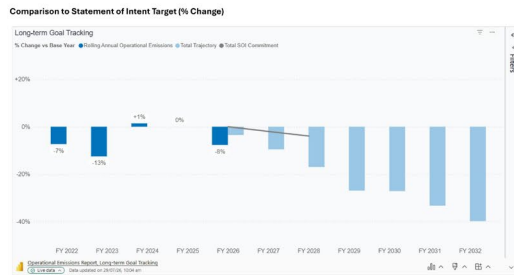


Figure 9: Performance against target since base year

Table 6. Performance against plan

Target name	Baseline period	Target date	Type of target (intensity or absolute)	Current performance (tCO ₂ e)	Current performance (%)	Comments
Percentage reduction of operational emissions	FY22	2031	Absolute	92,514	0.65% decrease against FY22 baseline. 8.0% decrease from FY25.	Base year FY22 emissions is 93,117 tCO ₂ e. AT aims to reduce 50% of the operational emissions by 2031 relative to base year emissions. SOI base year FY25 emissions is 100,511 tCO ₂ e. AT aims to reduce 0% emissions of the operational emission by FY26 relative to SOI base year FY25.
Percentage reduction of embodied emissions	FY22	2031	Absolute	135,383	11.7% increase against verified FY22 value and 13.2% decrease against board approved value	Board approved baseline is 156,000 tCO ₂ e; Verified embodied emissions for FY22 is 121,217 tCO ₂ e. The quoted performance is relative to board approved baseline. AT aims to reduce 50% of the embodied emissions by 2031 relative to FY22 absolute baseline of 156,000 tCO ₂ e emissions.

2.2. SIGNIFICANT EMISSIONS SOURCES

Significant sources

Embodied emissions were AT's greatest emissions source (59.4%), followed by diesel (36.0%) and electricity (3.7%).

Activities responsible for generating significant emissions

Embodied emissions remain the largest source of AT's emissions (135,383 tCO₂e, 59.4%). Embodied emissions decreased by 13.5% from last year, increased 11.7% compared to the verified embodied emissions of 2021/22, and decreased by 13.2% compared to the approved baseline of 156,000 tCO₂e.

Diesel comprises the second largest source (36.0%) of AT's emissions (82,207 tCO₂e). Total diesel litres decreased by 7.9% from last year and decreased by 1.9% from the 2021/22 baseline. Diesel emissions decreased by 8.2% from last year and decreased by 2.8% from the 2021/22 baseline.

Diesel is used in the provision of PT bus and ferry services and a small proportion of AT's corporate fleet. Bus services consumed 25,726,763 litres of diesel, accounting for 30.2% of AT's total emissions. Ferry services consumed 5,019,998 litres of diesel, accounting for 5.9% of AT's total emissions.

Diesel emissions from buses continued their downward trend in 2025/26, declining by 8.7% from the 2021/22 baseline and 9.6% from the previous year. This reduction was driven by the continued electrification of the bus fleet, with 202 additional electric buses entering service during the year and increasing the share of the fleet that is electric to 32%. Although total bus service kilometres increased by 9% to support growing public transport demand, diesel bus service kilometres fell by 6%, demonstrating a continued shift away from diesel operations. Emissions reductions were further supported by operational measures that prioritised the use of electric buses during the fuel supply disruption.

Diesel emissions from ferry operations were 67% higher than the 2021/22 baseline, broadly reflecting a 75% increase in service kilometres delivered over the same period. Emissions and service kilometres remained largely unchanged compared with 2024/25, due to relatively stable ferry service levels and fuel consumption in 2024/25 and 2025/206.

Electricity use is the third-largest source (3.7%) of AT's emissions (8,469 tCO₂e). Total electricity use increased by 22.7% from last year, and 41.8% from the 2021/22 baseline. Electricity emissions decreased by 2.6% from last year and increased 18.0% from the 2021/22 baseline.

Electric bus service kilometres from 4.2 million km in the base year to 23.7 million km in 2025/2026, reflecting the continued electrification of Auckland Transport's bus fleet and growth in service delivery. Consequently, electricity-related emissions from bus operations increased approximately ten-fold compared with the base year and by 43% compared with 2024/2025. However, the absolute increase in emissions was relatively small, equating to 1,861tCO₂e above the base year and 627tCO₂e above the previous year. These increases accounted for only 0.7% and 2.0%, respectively, of total operational emissions in 2025/26, highlighting the low-emissions nature of electric bus services despite significant growth in kilometres operated.

Electric train service kilometres increased from 3.0 million in the base year to 3.5 million in 2024/2025 and to 4.3 million in 2025/2026. As a result, electric train emissions in 2025/2026 have increased by 35% from the base year and by 2.0% from last year.

Out of home media was included as a new small emissions source in 2025/2026, and this accounted for 1.4% of category 2 emissions and 0.1% of operational emissions.

Influences over the activities

Population growth and the associated growth in PT service delivery will be a significant challenge for AT. Growth in future years will continue to be accounted for in emission reduction plans to ensure targets are met. Though not captured directly in this inventory, AT anticipates growth in PT will indirectly avoid emissions associated with the use of private vehicles, contributing to regional transport emissions reduction.

AT manages over \$37 billion in physical assets and has planned for new infrastructure as part of the Regional Land Transport Plan (RLTP). The development, maintenance, and renewal of these assets releases emissions directly and indirectly. AT now has a focus on measuring and managing these emissions as Embodied Emissions.

High energy efficiency assets have become business as usual for AT:

- all new trains will be electric
- all new buses in the network will be zero-emissions
- all new corporate fleet vehicles will be hybrid or electric
- all new streetlights and traffic lights on the road will be the latest generation LEDs

Due to emissions reduction maturity across Scope 1 and Scope 2, AT has shifted focus to Scope 3 emissions reduction. This includes improvements in processes, standards, guidelines, data acquisition, and supply chain engagement. AT's Supplier Code of Conduct stipulates minimum sustainable reporting requirements crucial for AT to measure and reduce embodied emissions. AT further supports suppliers and operators to measure and set emissions reduction targets.

AT is working to embed low carbon options in the Transport Design Manual for infrastructure projects and is collaborating with construction industries and universities to innovate and trial low carbon materials.

Significant sources that cannot be influenced

There are no emissions sources in AT's inventory that cannot be reduced or influenced provided sufficient funding is available. However, it is challenging to secure sufficient funding to transition to low-emission infrastructure and services while AT's infrastructure and services continue to grow to meet population growth and demand.

AT has committed to only consider offsetting once a 90% absolute reduction in emissions has been achieved relative to the 2021/22 baseline, and only when the residual emissions will be neutralised.

2.3. EMISSIONS REDUCTION TARGETS

The organisation is committed to managing and reducing its emissions in accordance with the Programme requirements. Table 7 provides details of the emission reduction targets to be implemented. These are 'SMART' targets (specific, measurable, achievable, realistic, and time-constrained).

AT's operational emissions reduction targets (outlined in AT's Sustainability Strategy) align with science-based requirements limiting warming to 1.5C and seek to reduce 50% of AT's operational emissions (including emissions from PT) by 2030/31.

AT's Statement of Intent: Preparing for tomorrow, delivering on today: 2025-2028 sets three targets for operational emission reductions through to year 2027/28. These targets establish a baseline year of 2024/25 (100,511 tCO₂e). Successive years target a reduction as measured against the year prior (for example, the 2025/26 target is a reduction against 2024/25) to account for the onboarding of new operational assets such as the City Rail Link and Out of Home media. The following are AT's operational targets:

- 2025/26 0% change from 2024/25
- 2026/27 2% decrease from 2025/26
- 2027/28 2% decrease from 2026/27

AT's embodied emissions reduction targets (outlined in AT's Sustainability Strategy) align with science-based requirements limiting warming to 1.5C and seek to reduce 50% of AT's embodied emissions by 2030/31. This target is expected to accelerate emissions reduction in AT's supply chain for infrastructure development and maintenance.

Operational Emission Results:

AT emitted a total of 227,897 tCO₂e total in FY 2025/26. Operational Emissions accounted for 92,514 tCO₂e, a decrease of 8.0% from last year, and a decrease of 0.6% from the base year. We are on track to meet AT's 50% operational emissions reduction target by 2031/32.

Public Transport, at 87,816 tCO₂e, makes up 94.9% of AT operational emissions. PT services will continue to grow to meet the demand from Auckland's expanding population. The speed of AT's transition to low-emission buses and ferries therefore greatly affects AT's emissions reduction efforts and can offset PT emissions as services grow.

Auckland's Low Emission Bus Roadmap provides a foundation for transitioning the bus fleet to low emissions. There are now 427 low-emission buses providing PT services, accounting for approximately 32% of the bus fleet. The successful implementation of the roadmap is expected to significantly lower diesel emissions, and AT's operational emissions, by 2035.

AT is transitioning from diesel-powered ferries to electric and electric-hybrid ferries as the current fleet reaches end of life over the next ten years. By the end of June 2026, AT had taken possession of one electric-hybrid ferry, which is operating limited daily passenger trips between Devonport and Auckland while it ramps up to full service in late August 2026. A second electric-hybrid ferry is nearing completion, is expected to arrive in Auckland in September 2026, and is planned to enter service by the end of the calendar year. Two fully electric ferries are expected to be handed over to AT in August 2026 and enter service in early 2027.

Embodied Emission Results:

Embodied emissions totalled 135,383 tCO₂e in 2025/26, representing a 13.5% reduction from the previous year and a 13.2% reduction from the Board-approved baseline. This places AT on track to achieve its target of a 50% reduction in embodied emissions by 2031/32. The reduction has been achieved despite a 67% increase in capital expenditure relative to the baseline period, demonstrating a significant improvement in the carbon efficiency of infrastructure investment. Key drivers of this performance include earlier engagement with project teams to incorporate low-carbon design solutions and increased adoption of Low Carbon Concrete across project design and delivery, including major programmes such as the Eastern Busway.

Reducing embodied emissions remains a challenge as AT manages transport infrastructure to meet continued population growth in Auckland. Several actions are underway to reduce embodied emissions related to transport infrastructure development:

- Smart design
- Resource efficiency
- Embedding low-carbon construction and material options in processes
- Embedding low carbon options in the Transport Design Manual and Practice Notes
- Updating processes, documentation and reporting measures to ensure emissions are considered throughout the project lifecycle,
- Leveraging AT's Supplier Code of Conduct
- Supply chain engagement
- Research and innovation on low carbon materials and products in collaboration with industry and education institutions

Table 7. Emission reduction targets

Target name	Baseline period	Target date	Type of target (intensity or absolute)	Categories covered	Target		KPI	Responsibility	Rationale
Operational emissions (inc. contracted PT services)	2021/22	2031	Absolute	Emissions due to corporate activities and assets that AT owns (including AT contracted PT services provided by operators)	50%	Baseline: 93,117 tCO ₂ e and Target: 46,559 tCO ₂ e	Percentage reduction of AT's operational emissions (inc. contracted PT, baseline 2021/22)	Head of Science & Sustainability - Chief Scientist Climate Transition Manager	Target from AT Sustainability Strategy 2024. Performance monitored and reported six-monthly to the Board. Target boundary includes emissions related to contracted PT bus and ferry services. Excludes commercial services that operator provides, embodied, upstream emissions. Baseline number as per updated emissions inventory for FY 2021/22 in FY 2024/25.
Embodied emissions	2021/22	2031	Absolute	Embodied emissions from infrastructure construction, maintenance, and renewals	50%	Baseline: 156,000 tCO ₂ e and Target: 78,000 tCO ₂ e	Percentage reduction of AT's embodied emissions (infrastructure construction, maintenance, renewal (baseline 2021/22)	Head of Science & Sustainability - Chief Scientist Senior Infrastructure Specialist	Target set and approved by ELT and AT Board. Baseline number is rounded 2021/22 embodied emissions estimation. Noted that verified number for the baseline year 2021/22 is less than the approved 156,000 tCO ₂ e baseline.

2.4. EMISSIONS REDUCTION PROJECTS

In order to achieve the reduction targets identified in Table 7, specific projects have been identified to achieve these targets, and are detailed in Table 8 below.

Table 8. Projects to reduce emissions

Objective	Project	Responsibility	Completion date	Potential co-benefits	Potential unintended consequences	Actions to minimise unintended consequence
Transition all diesel buses to low emissions bus (electric/hydrogen) services	Low emissions bus roadmap -2023 (Aspirational)	Metro decarbonisation/Integrated Network	ongoing to 2035	Reduce harmful tailpipe pollution and noise	Electric battery waste, more road maintenance required due to heavier electric buses, potential increase in GHG emissions from road maintenance and air pollution	Preference for 3 axle electric buses to distribute load and reduce impact on road pavement. Second-life battery use
Retrofit conventional streetlights with energy efficient LED lights	Streetlight retrofitting	Streetlight Team/Integrated Network	Ongoing	White light, reduce O&M cost, increase safety	Research shows biodiversity impact for LED lights more than 3000K colour temperature of LED. AT is investigating the impact.	n/a
Reduce office floor space in corporate building	20 Viaduct office optimisation	Corporate business unit	2023-completed	Reduce O&M cost on electricity, gas and water	None anticipated	n/a
Electrify Papakura-Pukekohe train service line	The Papakura-Pukekohe upgrade	Kiwirail/AT	2025-completed	Reduce O&M cost on fuel, fast reliable and advanced rail services	None anticipated	n/a

Objective	Project	Responsibility	Completion date	Potential co-benefits	Potential unintended consequences	Actions to minimise unintended consequence
Retirement of the Papakura-Pukekohe diesel train service	The Papakura-Pukekohe DMU service	AT	2022-completed	Reduce harmful tailpipe pollution and noise other than GHG emissions	Rail replacement bus services	Operating optimised capacity of bus services
Efficient operation of Ferry	Owning and leasing back 4 ferries to the operator with engine refurbishment	AT/Ferry Operators	2023-2024; completed	Reduce harmful tailpipe pollution and noise	None anticipated; Operator might use leased ferries for their commercial services.	AT investigating the options for operators for NOT using AT owned/leased ferries for operators commercial services
Transition to low emissions ferries	Low emissions ferry programme	Metro Decarbonisation/Integrated Network/Transport sustainability	2040	Reduce harmful tailpipe pollution and noise	Electric battery waste; Carbon fibre hull might be a problem for recycling at end-of-life.	Second-life battery use; Investigate the potential of Carbon-fibre.
Transition to low emissions corporate fleet	Fleet renewal for safety/emissions	Corporate Business Unit	2030	Reduce harmful tailpipe pollution and noise, improve the safety rating of the corporate fleet	Electric battery waste	Second-life battery use
Streetlight operation profile billing and connecting LEDs streetlights to central management system (CMS)	CMS	Streetlight Team/Integrated Network	2024-completed	Reduce energy consumption and operational cost savings by dimming streetlights when not necessary	Compromised safety	Sensors can be used to trigger dimming
low carbon material-embed process	Advise to embed low carbon material/alternatives infrastructure design review process	Science & Sustainability for advice, Design Team to embed	Ongoing	Long-term cost reductions	New materials, potentially higher initial costs	Low carbon concrete Practice note is released; Continuous R&D

Objective	Project	Responsibility	Completion date	Potential co-benefits	Potential unintended consequences	Actions to minimise unintended consequence
Low carbon material-trials	Investigate the performance of low carbon materials	Science & Sustainability in collaboration with university and Project Delivery team	Ongoing	Innovation, provide confidence on performance	Unintended consequences captured in project lessons learned	Continuous R&D and trials
Low carbon design options	Embed low carbon design options in transport design manual and update practice notes	Science & Sustainability/Standard team	Ongoing	Resource efficiency	Long-term durability effects not tested	Small scale trials in operational areas for improvements
Emissions reduction through energy-efficiency	Continuous monitoring and targeting of energy use at facilities and assets	Science & Sustainability/Smartpower	Ongoing	Reduce costs, improve electricity efficiency	None anticipated	NA
Solar electricity generation	Wiri rail depot-solar roof farm	Project Delivery	Ongoing	Reduce OPEX, increase resiliency of the depot	None anticipated	NA
Energy Strategy-development	Long term energy strategy	Science & Sustainability	Ongoing	Reduce OPEX, increase resiliency, reduce emissions	None anticipated	NA
Climate transition planning	Long term emissions modelling-whole of life	Science & Sustainability	Completed	Strategic decision making on reducing emissions, test the resiliency of the emissions reduction targets	None anticipated	NA
Low carbon concrete practice note	Embed the requirement of Low Carbon concrete in projects and process	Science & Sustainability and Design standard	Completed	Market influence for the uptake of low carbon concrete	None anticipated	NA

Objective	Project	Responsibility	Completion date	Potential co-benefits	Potential unintended consequences	Actions to minimise unintended consequence
Low carbon steel practice note	Embed the requirement of Low Carbon concrete in projects and process	Science & Sustainability and Design standard	Ongoing	Market influence for the uptake of low carbon steel	None anticipated	NA
Dead-running evaluation	Evidence based dead-running for buses	Science & Sustainability Metro decarbonisation	Completed	Better understand the impact of location of depot and other aspect of dead-running and optimisation of the required services	None anticipated	NA
LCA for bus, ferries and trains	Life cycle assessment of bus, ferries and train	Metro Decarbonisation	Completed/Ongoing	Whole of life view and other environmental impacts	None anticipated	NA



Table 9 highlights emission sources that have been identified for improving source the data quality in future inventories.

Table 9. Projects to improve data quality

Emissions source	Actions to improve data quality	Responsibility	Completed/Ongoing
Waste to landfill (facilities managed by AOR)	Receive facility waste report on the basis of weight rather than no of the bin picked up	Metro Decarbonisation	Completed
Operational emissions and emissions inventory	Climate monitoring data project for automating the collection and reporting of KPIs, inventory on quarterly basis and metric and target disclosure for CFD	BT/Science & Sustainability	Completed
PT ferries diesel consumption	Develop system to receive fuel and energy use data from operators. Automate modelling of ferry emissions through BT data automation project	Ferry Transition, Metro Decarbonisation, BT, Science & Sustainability	Completed
PT bus fuel and energy consumption	Develop climate reporting portal to receive fuel and energy use data from operators. Automate modelling of bus emissions through BT data automation project	BT/Science & Sustainability	Completed
PT service km	Automate PT service km to the emissions monitoring system, to enable automatic reporting of KPIs like tCO ₂ e/service km by PT mode-bus, ferry, train	BT/Science & Sustainability	Completed
PT passenger km	Automate PT service km to the emissions monitoring system, to enable automatic reporting of KPIs like tCO ₂ e/passenger km by PT mode-bus, ferry, train	BT/Science & Sustainability	Completed
Reconciliation of historical PT service km	Automate PT historical service km back to base year to the emissions monitoring system	BT/Science & Sustainability	Completed
All Excel based reporting of emissions activities	Automate activity data from the source to the emissions monitoring system	BT/Science & Sustainability	Completed
Employee Commuting	Support Auckland Council group to conduct survey to understand the employee commuting	Science & Sustainability	Ongoing
Capital goods	Engage with suppliers to get material quantity-based data through SharePoint portal to improve the capital good expenditure estimation	BT/Science & Sustainability	Ongoing
Employee Commuting Automation	Automate employee commuting withing emissions monitoring system	BT/Science & Sustainability	Postponed
Dead running - buses	Project to improve evidence base of dead running for buses	Metro Decarbonisation / Science & Sustainability	Completed
Ferry services	Project to investigate Ferry services emissions and remove commercial ferry emissions	Science & Sustainability	Completed

Emissions source	Actions to improve data quality	Responsibility	Completed/Ongoing
Ferry services	Project to align assumptions/inputs/methodology of ferry emissions calculation from base year to current year	Science & Sustainability	Completed
Ferry LCA	LCA of different ferry type to enable evidence based reporting of ferry embodied emissions	Metro Decarbonisation	Completed
Bus LCA	LCA of different bus type to enable evidence based reporting of bus embodied emissions	Metro Decarbonisation	Ongoing
Train LCA	LCA of train to enable evidence based reporting of train embodied emissions	Train program delivery	Yet to start
Purchase goods and services	Scrutinise spent to understand gap on the purchase good and services emissions reporting based on spent based factor	Science & Sustainability	Ongoing
Upstream fuel/energy	Seek LCA to enable upstream emissions associated with fuel/energy	Science & Sustainability	Yet to start

The emissions inventory chapter identified various emissions liabilities (see GHG Storage and liabilities section). Table 10 details the actions that will be taken to prevent GHG emissions from these potential emissions sources.

Table 10. Projects to prevent emissions from liabilities

Liability source	Actions to prevent emissions	Responsibility	Completion date
Air conditioning units in electric trains	Regular servicing and preventing damage to units	Rail franchise-Auckland One Rail	Ongoing
Air conditioning units in facilities maintained directly by AT	Regular servicing and preventing damage to units	Technical facilities manager, maintenance contractor, rail franchise	Ongoing
Refrigerant containing units (fridges, hot and chilled water bench units, air conditioning units) in corporate building	Regular servicing and preventing damage to units	Workplace experience manager in coordination with the landlord	Ongoing
Diesel engine generator	Regular servicing and preventing damage to units	Workplace experience manager in coordination with the landlord	Ongoing
Diesel engine generators in civic carpark building and downtown ferry terminal	Regular servicing and preventing damage to units	Technical facilities manager, maintenance contractor	Ongoing
Air conditioning units in Britomart facility	Regular servicing and preventing damage to units	Technical facilities manager, maintenance contractor - Downer	Ongoing
Gas boiler 20 Viaduct Harbour	Investigating feasibility of gas boiler removal at VH	Science & Sustainability Team	Ongoing

2.5. STAFF ENGAGEMENT

Employees are made aware of AT's GHG emissions reduction commitments through internal company communications, promotional campaigns, quarterly reporting updates, and AT's Annual Report. AT is currently developing Learning & Development modules for incoming staff and an internal communications plan to increase emissions awareness and capabilities across AT.

Progress against GHG metrics and targets outlined in the Sustainability Strategy and SOI are monitored and reported to AT's ELT, Board, and AC quarterly. Internal and external stakeholders are engaged to provide the relevant data necessary for reports. These engagements are opportunities to build greater awareness of emissions measurement and management across AT and its suppliers, particularly with teams, divisions, and individuals able to exert significant influence on the emission source and its management.

AT regularly communicates emission reduction progress and engages with suppliers, contractors, and operators to reduce Scope 3 emissions.

2.6. KEY PERFORMANCE INDICATORS

Based on the financial summary for the year 2025/26 as below, GHG emissions per \$million of total revenue (including capital and operating funding) are reported as an additional KPI.

- Capital funding: Million \$1,372.426
- Operating funding: Million \$1,082.814
- Other revenue (including finance revenue): Million \$761.777
- Total: Million \$3,217.017

Table 11. Key Performance Indicators (KPIs).

KPI	Rationale of using the additional KPI
PT Bus GHG emissions per passenger km; Result for FY26: 0.122 kgCO ₂ e/pas-km	To understand how improvements in services, patronage, and the transition to low emission buses, affects bus emission performance. This information will enable entities to estimate employee commuting emissions. CY25 update is also shared with MFE for emissions factor guide.
PT Bus GHG emissions per passenger km (Electric only): Result for FY26: 0.014 kgCO ₂ e/pas-km	To monitor and disclose the performance of electric bus emissions on passenger km basis. CY25 update is also shared with MFE for emissions factor guide.
PT bus GHG emissions per passenger km (Diesel only): Result for FY26: 0.163 kgCO ₂ e/pas-km	To monitor and disclose the performance of diesel bus emissions on passenger km basis. CY25 update is also shared with MFE for emissions factor guide.
PT train GHG emissions per passenger km; Result for FY26: 0.020 kgCO ₂ e/pas-km	To understand train emission performance due to improvements in services and patronage. This information will enable entities to estimate employee commuting emissions. CY25 update is also shared with MFE for emissions factor guide.
PT ferries GHG emissions per passenger km; Result for FY26: 0.654 kgCO ₂ e/pas-km	To understand ferry emission performance due to improvements in services, patronage, and the ongoing transition to low emission ferries. This information will enable entities to estimate employee commuting emissions. CY25 update is also shared with MFE for emissions factor guide.
GHG emissions tCO ₂ e per \$m total revenue for FY26: 70.84 tCO ₂ e/\$m	This KPI considers all AT revenue sources including capital and operating funding received from AC and NZTA. Total revenue (millions) in FY26: \$3,216.158

2.7. MONITORING AND REPORTING

AT monitors operational emissions progress quarterly and reports six-monthly. Embodied emissions progress is reported annually.

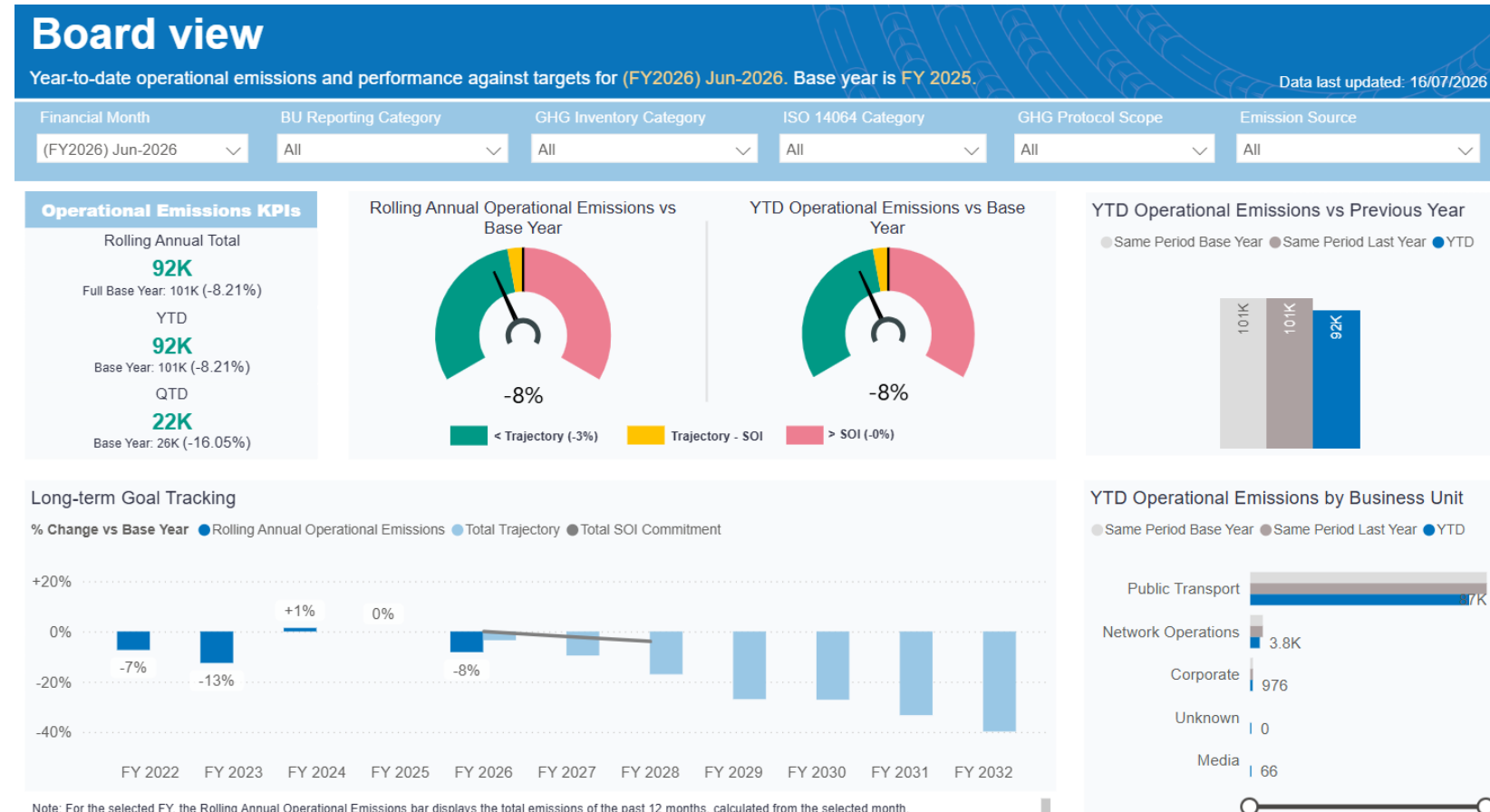


Figure 10: Monitoring and reporting

APPENDIX 1: DETAILED GREENHOUSE GAS INVENTORY

Additional inventory details are disclosed in the tables below, and further GHG emissions data is available on the accompanying spreadsheet to this report (Appendix1-Data Summary Auckland Transport.xls).

Table 12. Direct GHG emissions and removals, quantified separately for each applicable gas

Category	CO ₂	CH ₄	N ₂ O	NF ₃	SF ₆	HFC	PFC	Desflurane	Sevoflurane	Isoflurane	Emissions total (tCO ₂ e)
Stationary combustion	96.67	0.23	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	96.94
Mobile combustion (incl. company owned or leased vehicles)	559.18	6.29	15.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	580.96
Emissions - Industrial processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Removals - Industrial processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Leakage of refrigerants	0.00	0.00	0.00	0.00	0.00	13.36	0.00	0.00	0.00	0.00	13.36
Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Treatment of waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Treatment of wastewater	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions - Land use, land-use change and forestry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Removals - Land use, land-use change and forestry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fertiliser use	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Addition of livestock waste to soils	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Addition of crop residue to soils	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Enteric fermentation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Addition of lime to soils	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Open burning of organic matter	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity generated and consumed onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medical gases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Exported electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forestry, Land and Agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total net emissions	655.85	6.52	15.53	0.00	0.00	13.36	0.00	0.00	0.00	0.00	691.26

Table 13. Non-biogenic, biogenic anthropogenic and biogenic non-anthropogenic CO₂ emissions and removals by category

Category	Anthropogenic biogenic CO ₂ emissions	Anthropogenic biogenic (CH ₄ and N ₂ O) emissions (tCO ₂ e)	Non-anthropogenic biogenic (tCO ₂ e)
Category 1: Direct emissions	0.00	0.00	0.00
Category 2: Indirect emissions from imported energy	0.00	0.00	0.00
Category 3: Indirect emissions from transportation	0.00	0.00	0.00
Category 4: Indirect emissions from products used by organisation	0.00	314.03	0.00
Category 5: Indirect emissions associated with the use of products from the organisation	0.00	0.00	0.00
Category 6: Indirect emissions from other sources	0.00	0.00	0.00
Total gross emissions	0.00	314.03	0.00

A1.1 REPORTING BOUNDARIES

A1.1.1 Emission source identification method and significance criteria

The GHG emissions sources included in this inventory are those required for Programme certification and were identified with reference to the methodology described in the GHG Protocol and ISO 14064-1:2018 standards as well as the Programme Technical Requirements.

Please review 'Annual Audit_AT procedure' document

Significance of emissions sources within the organisational boundaries has been considered in the design of this inventory. The significance criteria used comprise:

- All direct emissions sources that contribute more than 1% of total Category 1 and 2 emissions
- All indirect emissions sources that are required by the Programme.

No changes to the significance criteria have been made since this inventory was initially developed in the base year.

A1.1.2 Included sources and activity data management

As adapted from ISO 14064-1, the emissions sources deemed significant for inclusion in this inventory were classified into the following categories:

- **Direct GHG emissions (Category 1):** GHG emissions from sources that are owned or controlled by the company.
- **Indirect GHG emissions (Category 2):** GHG emissions from the generation of purchased electricity, heat and steam consumed by the company.
- **Indirect GHG emissions (Categories 3-6):** GHG emissions that occur as a consequence of the activities of the company but occur from sources not owned or controlled by the company.

Table 14 provides detail on the categories of emissions included in the GHG emissions inventory, an overview of how activity data were collected for each emissions source, and an explanation of any uncertainties or assumptions made based on the source of activity data. Detail on estimated numerical uncertainties are reported in Appendix 1.

Please review 'Annual Audit_AT procedure' document

Table 14. GHG emissions activity data collection methods and inherent uncertainties and assumptions

GHG emissions category	GHG emissions source or sink subcategory	Overview of activity data and evidence	Explanation of uncertainties or assumptions around your data and evidence	Use of default and average emissions factors	Pre-verified data
Category 1: Direct emissions and removals	Stationary combustion	Natural Gas distributed commercial, Diesel stationary combustion	Assume email report from contractors accurately represent fuel use. Assume invoices for natural gas accurately capture natural gas consumed. Selected category in emanage: Data complete, invoice, fuel card or measured	N/a	N/a
	Mobile combustion (incl. company owned or leased vehicles)	Diesel, Petrol premium, Petrol regular	Assume Auckland Council Fleet Management system accurately apportions AT fleet fuel-use. Selected category in emanage: Data complete, invoice, fuel card or measured	N/a	N/a
	Leakage of refrigerants	R-410A	Assume email maintenance reports for refrigerants and data accurately represent top-ups. Selected category in emanage: Data complete, some estimation required	N/a	N/a
Overall assessment of uncertainty for Category 1 emissions and removals		4%	Low		
Category 2: Indirect emissions from imported energy	Imported electricity	Electricity, Electricity Toitū carbonzero certified factor Ecotricity	Assume that invoices received from electricity companies are correct. Assume Smart Power accurately recording true electricity use and estimate wherever necessary when split is needed.	N/a	N/a

GHG emissions category	GHG emissions source or sink subcategory	Overview of activity data and evidence	Explanation of uncertainties or assumptions around your data and evidence	Use of default and average emissions factors	Pre-verified data
			Selected category in emanage: Data complete, invoice, fuel card or measured		
Overall assessment of uncertainty for Category 2 emissions and removals		2%	Low		
Category 3: Indirect emissions from transportation	Business travel - Transport (non-company owned vehicles)	Car Average (unknown fuel type), Air travel domestic (average), Air travel long haul (business), Air travel long haul (econ), Air travel long haul (econ+), Air travel short haul (econ), Air travel short haul b/f class, Bus travel (national average), Ferry travel (other), Rail travel (national), Taxi (regular)	Assume supplier reports provide accurate activity data. Assume GL code captures all the mileage claimed. Selected category in emanage for air travel: Data complete, invoice, fuel card or measured Selected category in emanage for taxis: Data complete, some estimation required Selected category in emanage for mileage: Data complete, some estimation required	N/a	N/a
	Working from home	Working from home	Assume estimated staff working from home data is accurate. Assume staff have a laptop and electricity source at home. Selected category in emanage: Large use of estimation	N/a	N/a
Overall assessment of uncertainty for Category 3 emissions and removals		18%	Medium		

GHG emissions category	GHG emissions source or sink subcategory	Overview of activity data and evidence	Explanation of uncertainties or assumptions around your data and evidence	Use of default and average emissions factors	Pre-verified data
Category 4: Indirect emissions from products used by organisation	Purchased fuel and energy related activities	Electricity, Diesel, WTT - Lubricants	Assume operators provide reasonably accurate data (even if based on estimated percentage of fuel use after deducting their commercial/private charter services), including repositioning/dead-running. All operators have provided actual fuel and energy use report, resulting in estimation for only very very small fraction of the services for Rail replacement/ferry replacement. Assume no fraudulent or illegal activity is occurring among operators, and that any such activity would be visible in the data. Bus methodology assumes a low level of change in weightage (l/km and kwh/km) from year to year as service routes do not vary greatly. Therefore, estimated fuel use using above average factors are relatively good quality. PT service km data is considered a high level of confidence, further ensuring high confidence on the average values of l/km and kwh/km. Buses: 20.34% additional kms added to data to include GHG emissions associated with dead running. . There is no impact of using deadrunning %. Bus electricity data compared against previous trial data and more recent data from contractors to check validity of average kWh/km. All fuel use for contracted ferry services are based on the actual report received from the operators. No estimation is used. Assume the ferry operators provide reasonably accurate data.	Lubricant emissions factor for bus is sourced from DEFRA Lubricant WTT - 2025 as NZ based factor are not available.	N/a

GHG emissions category	GHG emissions source or sink subcategory	Overview of activity data and evidence	Explanation of uncertainties or assumptions around your data and evidence	Use of default and average emissions factors	Pre-verified data
			All assets and facilities (Excluding waste): Selected category in emanage: Data complete, invoice, fuel card or measured All waste across assets and facilities: Data complete, some estimation required AT-owned services and trains (waste): Selected category in emanage: Data complete, invoice, fuel card or measured Bus and ferry services: Selected category in emanage: Data complete, some estimation required		
	Purchased goods and services	Water supply	Assume that invoices received from supplier are correct. Assume Smart Power esmart system accurately record true water use and estimation wherever necessary is based on the % split of the facility area shared like in corporate head office. Selected category in emanage: Data complete, invoice, fuel card or measured	N/a	N/a
	Disposal of solid waste - Landfilled	Waste landfilled LFGR Mixed waste	Assume that reports received from the waste management contractors are correct. Assume no fraudulent or illegal activity is occurring among contractors, and that any such activity would be visible in the data. Assume provider is accurately recording waste type and quantity. Selected category in emanage: Data complete, some estimation required	N/a	N/a

GHG emissions category	GHG emissions source or sink subcategory	Overview of activity data and evidence	Explanation of uncertainties or assumptions around your data and evidence	Use of default and average emissions factors	Pre-verified data
	Disposal of solid waste - Not landfilled	Composting	Assume that reports received from the waste management contractors are correct. Assume no fraudulent or illegal activity is occurring among contractors, and that any such activity would be visible in the data. Assume provider is accurately recording waste type and quantity. Selected category in emanage: Data complete, some estimation required	N/a	N/a
	Disposal of liquid waste - Wastewater	Water treatment	Assume that invoices received from supplier are correct. Assume Smart Power esmart system accurately record true water use and estimation of waste water on 95% of water use. Assume Smartpower esmart system estimate wastewater %, wherever necessary based on the % split of the facility area (for e.g. corporate head office). Selected category in emanage: Data complete, invoice, fuel card or measured	N/a	N/a
	Capital goods	Pre-calculated (tCO ₂ -e) - Capital goods	Assume contractors provide reasonably accurate data for construction, renewals, and maintenance for the 4 projects that is measured based on the actual reports from the contractors. Assume no fraudulent or illegal activity is occurring among contractors, and that any such activity would be visible in the data. Assume that the tCO₂e/million \$ for different category estimated for the base year based on PEET model is still valid	The PEET tool used to model emissions per category (tCO ₂ e/\$ million) of different infrastructures/physical assets uses emissions factors from various sources (ex Branz, ICA, etc).	N/a

GHG emissions category	GHG emissions source or sink subcategory	Overview of activity data and evidence	Explanation of uncertainties or assumptions around your data and evidence	Use of default and average emissions factors	Pre-verified data
			Selected category in emanage: Large use of estimation		
	Transmission of energy (T&D losses)	Electricity distributed T&D losses, Electricity Toitū carbonzero certified factor Ecotricity (T & D losses), Natural Gas distributed T&D losses	Assume that invoices received from supplier are correct. Assume Smart Power accurately recording true electricity use. Selected category in emanage: Data complete, invoice, fuel card or measured	N/a	N/a
	Transmission of energy (T&D losses) (Non-mandatory)	Electricity distributed T&D losses	Assume that invoices received from supplier are correct. Assume Smart Power accurately recording true electricity use. Selected category in emanage: Data complete, invoice, fuel card or measured	N/a	N/a
Overall assessment of uncertainty for Category 4 emissions and removals		33%	High		



A1.1.3 Excluded emissions sources and sinks

Emissions sources in Table 15 have been identified and excluded from this inventory.

Table 15. GHG emissions sources excluded from the inventory

Business unit	GHG emissions source	GHG emissions Category	Reason for exclusion
Infrastructure construction and maintenance	Infrastructure construction and maintenance related sources	4	Insufficient information available to report end-of-life emissions associated with infrastructure development and maintenance project works. Embodied end-of-life phase emissions are excluded in this inventory.
Public Transport-Bus	Petrol	4	Petrol cars used by bus operators to transport drivers to the start or end of the journey, driver shifts etc. AT does not pay operators specifically for this service. Associated emissions not considered significant to stakeholders. AT does not have influence over operators for managing, controlling and reducing these emissions, therefore this source is excluded from the inventory.
	Refrigerant	4	Bus fleets are not in AT's operational and maintenance control. GHG emissions associated with refrigerant used in Bus heat pump system is not considered significant.
	Waste	4	Poor mixed recycling data for large facilities, therefore emissions not considered in this inventory.
	Hydrogen	4	The electricity used to produce hydrogen via electrolysis is reported in this inventory. However, emissions due to electricity used for water supply, purification and filtration processes per kg of hydrogen produced are excluded due to data unavailability. Similarly, electricity emissions for hydrogen compression, purification, drying and cooling per kg of hydrogen produced is also excluded.
Public Transport-Ferries	Refrigerant	4	Ferry fleets are not in AT's operational and maintenance control. GHG emissions associated with refrigerant used in Ferries for air conditioning/heat pump is not considered significant.
	Lubricant	4	Insufficient information available to report emissions from lubricant used in Ferry diesel engines.
	Waste	4	Poor mixed recycling data for large facilities, therefore emissions not considered in this inventory.
Public Transport-Trains	Lubricant	4	Insufficient information available to report emissions from lubricant used in Train diesel engines.
	Waste	4	Poor mixed recycling data for large facilities, therefore emissions not considered in this inventory.
Corporate	Paper consumption	4	Not considered material at this time.

Business unit	GHG emissions source	GHG emissions Category	Reason for exclusion
	Employee commuting	3	Employee commuting emissions are not explicitly categorised and included in the inventory. Work from home is already being reported. Employee commuting via PT services contracted to AT is already included under PT emissions. AT is currently investigating the inclusion of employee commuting by private vehicles. We don't have employee commuting emissions by private vehicles to include in base year 2122 so not included in this inventory.
	Freight	4	Not considered material at this time.
	Employee accommodation	3	Insufficient data available. AT investigating the future inclusion of this emissions source.
Parking Operations	Waste	4	Poor mixed recycling data for large facilities, therefore emissions not considered in this inventory.
Upstream PT	Upstream fuel and energy for PT	4	Not considered in this inventory due to data unavailability. AT aims to include this in future inventories after detail assessment from FY27.
	Bus embodied emissions	4	Not included as data not available; LCA is being done, the emissions would be included for new vehicles in FY27 inventory.
	Train embodied emissions	4	Embodied emissions for all trains are not included as data not available; However, based on the spent on the FY26 year for the electric trains, the embodied emissions are included in the infrastructure emissions. AT aims to add new train emissions in future inventories after LCA assessment.
	Ferry embodied emissions	4	Not included as data not available; LCA is being done, the emissions would be included in FY27 inventory. However, based on the spent on the FY26 year for ferries, the embodied emissions for new trains are included in infrastructure emissions.
Upstream-Purchased goods and services	Water	4	Operational water supply disposal included, water used in capital project development not included. AT aims to include emissions from water-use for infrastructure construction and maintenance through a PEET tool update.
	Wastewater	4	Operational wastewater discharge is already included, wastewater discharged due to capital project infrastructure development not included. AT aims to include emissions from wastewater discharge for infrastructure construction and maintenance through a PEET tool update.
	Office supplies (stationary etc)	4	AT is investigating the future inclusion of this emissions source from FY27 considering spent based information.

Business unit	GHG emissions source	GHG emissions Category	Reason for exclusion
	Other materials (clothing etc and equipment purchased)	4	AT is investigating the future inclusion of this emissions source from FY27 considering spent based information.
	Total Mobility	4	AT identified that it administers and disburse the funding from AC and NZTA for Total Mobility. AT is investigating to include this emissions sources subject to data availability or by applying spent based factor from FY27.
	IT and Software, security and support, computer and AV accessories, software licensing	4	AT is investigating to include this emissions sources subject to supplier specific data availability if possible or by applying spent based factor from FY27.
	Advertising	4	AT is investigating to include this emissions sources subject to supplier specific data availability if possible or by applying spent based factor from FY27.
	Professional services (consultants, contractors, research, legal services)	4	AT is investigating the future inclusion of this emissions source from FY27 considering spent based information.
	Cleaning services	4	AT is investigating the future inclusion of this emissions source from FY27 considering spent based information.
	Vehicle Towing services, security services	4	AT is investigating the future inclusion of this emissions source from FY27 considering spent based information.
	Any other purchased good and services not mentioned above and not accounted in the emissions inventory	4	AT will investigate to include all the spent which are not captured in any other categories from FY27 considering spent based information and emissions factors.
Upstream-Private vehicles on Auckland's road network	Private/freight vehicles operation in Auckland	NA	Not in AT's organisation/operational/corporate boundary.
Commercial/private bus/ferry services by bus and ferry operators in Auckland region	diesel/electricity	NA	Bus and Ferry operators engaged with AT might be providing their own commercial, private, charter bus and ferry services , other than contracted PT service to AT. Emissions related to those commercial services does not falls under the AT's emissions boundary.

A1.2 QUANTIFIED INVENTORY OF EMISSIONS AND REMOVALS

A1.2.1 Calculation methodology

A calculation methodology has been used for quantifying the emissions inventory based on the following calculation approach, unless otherwise stated below:

$$\text{Emissions} = \text{activity data} \times \text{emissions factor}$$

The quantification approach(es) has not changed since the previous measurement period

All emissions were calculated using Toitū emanage with emissions factors and Global Warming Potentials provided by the Programme (see Appendix 1 - data summary.xls). Global Warming Potentials (GWP) from the IPCC fifth assessment report (AR5) are the preferred GWP conversion⁵.

Where applicable, unit conversions applied when processing the activity data has been disclosed.

There are systems and procedures in place that will ensure applied quantification methodologies will continue in future GHG emissions inventories.

A1.2.2 GHG Storage and liabilities

A1.2.2.1 GHG STOCKS HELD ON SITE

Refrigerants and fuels may be stored on site, but their accidental leakage or release could result in a large increase in emissions for that period. Refrigerants such as HFCs, PFCs and SF₆ are GHGs with high global warming potentials, so material volumes of these or fuel are reported as potential liabilities.

Table 16. Total storage as of year end with potential GHG emissions liabilities.

GHG gas stock held	Quantity	Unit	Potential liability (tCO ₂ e)
Diesel stationary combustion	6,140.00	litres	16.43
HCFC-22 (R-22, Genetron 22 or Freon 22)	0.90	kilograms	1.58
HFC-134a	438.32	kilograms	569.82
HFC-32	54.65	kilograms	37.00
R-407C	2,888.00	kilograms	4,690.72
R-410A	361.97	kilograms	696.25
Total potential liability			6,011.80

A1.2.3 Supplementary results

Holdings and transactions in GHG-related financial or contractual instruments such as permits, allowances, verified offsets or other purchased emissions reductions from eligible schemes recognised by the Programme are reported separately here.

⁵ If emission factors have been derived from recognised publications approved by the programme, which still use earlier GWPs, the emission factors have not been altered from as published.

A1.2.3.1 DOUBLE COUNTING AND DOUBLE OFFSETTING

There are various definitions of double counting or double offsetting. For this report, it refers to:

- Parts of the organisation have been prior offset.
- The same emissions sources have been reported (and offset) in both an organisational inventory and product footprint.
- Emissions have been included and potentially offset in the GHG emissions inventories of two different organisations, e.g. a company and one of its suppliers/contractors. This is particularly relevant to indirect (Categories 2 and 3) emissions sources.
- Programme approved 'pre-offset' products or services that contribute to the organisation inventory
- The organisation generates renewable electricity, uses or exports the electricity and claims the carbon benefits.
- Emissions reductions are counted as removals in an organisation's GHG emissions inventory and are counted or used as offsets/carbon credits by another organisation.

Double counting / double offsetting has been included in this inventory.

Details

Emissions from a hydrogen supplier are reported in this inventory. The supplier offset their electricity emissions for hydrogen production with renewable energy certificates (REC).

In FY26 emissions relating to AT staff public transport were removed to reduce double accounting as these emissions are accounted for in public transport.

APPENDIX 2: SIGNIFICANCE CRITERIA USED

Table 17. Significance criteria used for identifying inclusion of indirect emissions

Emission source	Magnitude	Level of influence	Risk or opportunity	Sector specific guidance	Outsourced	Employee engagement	Intended Use and Users	Include in inventory?
1. Purchased goods and services	>1%	Medium	Supply chain risk	Yes	Yes	Include	Yes	Yes
2. Capital Goods	>1%	High	Reputational risk	Yes	Yes	Yes	Yes	Yes
3. Fuel- and energy-related activities (not included in scope 1 or scope 2)	>1%	High	Reputational risk	Yes	Yes	Yes	Yes	Yes
4. Upstream transportation and distribution	>1%	Medium	Supply chain risk	Yes	Yes	Yes	Yes	Mosltly captured as part of capital goods A4 stage
5. Waste generated in operations	<1%	Low	None identified	N/a	N/a	N/a	N/a	Yes
6. Business travel	<1%	High	Reputational risk	No	Yes	Yes	Risk or opportunity	Yes
7. Employee commuting	<1%	Medium	Reputational risk	No	No	Yes	Supply chain materiality	No
7. Working from home	<1%	Low	Reputational risk	No	No	Yes	Supply chain materiality	Yes
8. Upstream leased assets	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
9. Transportation and distribution of sold products	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
10. Processing of sold products	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
11. Use of sold products	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a

Emission source	Magnitude	Level of influence	Risk or opportunity	Sector specific guidance	Outsourced	Employee engagement	Intended Use and Users	Include in inventory?
12. End-of-life treatment of sold products	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
13. Downstream leased assets	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
14. Franchises	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
15. Investments	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a

APPENDIX 3: CERTIFICATION MARK USE

Certification marks are used by AT in disseminating internal and social media communications, in particular when AT received TOITU awards.

APPENDIX 4: REFERENCES

International Organization for Standardization, 2018. ISO 14064-1:2018. Greenhouse gases – Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals. ISO: Geneva, Switzerland.

World Resources Institute and World Business Council for Sustainable Development, 2004 (revised). The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard. WBCSD: Geneva, Switzerland.

World Resources Institute and World Business Council for Sustainable Development, 2015 (revised). The Greenhouse Gas Protocol: Scope 2 Guidance. An amendment to the GHG Protocol Corporate Standard. WBCSD: Geneva, Switzerland.

APPENDIX 5: REPORTING INDEX

This report template aligns with ISO 14064-1:2018 and meet Toitū carbonreduce programme Organisation Technical Requirements. The following table cross references the requirements against the relevant section(s) of this report.

Section of this report	ISO 14064-1:2018 clause	Organisational Technical Requirement rule
Cover page	9.3.1 b, c, r 9.3.2 d,	TR8.2, TR8.3
Availability	9.2 g	
Chapter 1: Emissions Inventory Report		
1.1. Introduction	9.3.2 a	
1.2. Emissions inventory results	9.3.1 f, h, j 9.3.3	TR4.14, TR4.16, TR4.17
1.3. Organisational context	9.3.1 a	
1.3.1. Organisation description	9.3.1 a	
1.3.2. Statement of intent		TR4.2
1.3.3. Person responsible	9.3.1 b	
1.3.4. Reporting period	9.3.1 l	TR5.1, TR5.8
1.3.5. Organisational boundary and consolidation approach	9.3.1.d	TR4.3, TR4.5, TR4.7, TR4.11
1.3.6. Excluded business units		
Chapter 2: Emissions Management and Reduction Report		
2.1. Emissions reduction results	9.3.1 f, h, j, k 9.3.2 j, k	TR4.14, TR6.18
2.2. Significant emissions sources		
2.3. Emissions reduction targets		TR6.1, TR6.2, TR6.4, TR6.6, TR6.8,
2.4. Emissions reduction projects	9.3.2 b	TR6.8, TR6.11, TR6.12, TR6.13, TR6.14, TR6.15
2.5. Staff engagement		TR6.1, TR6.9
2.6. Key performance indicators		TR6.19
2.7. Monitoring and reporting	9.3.2 h	TR6.2
Appendix 1: Detailed greenhouse gas inventory	9.3.1 f, g	TR4.9, TR4.15
A1.1 Reporting boundaries		
A1.1.1 Emission source identification method and significance criteria	9.3.1 e	TR4.12, TR4.13
A1.1.2 Included emissions sources and activity data collection	9.3.1 p, q 9.3.2 i	TR5.4, TR5.6, TR5.17, TR5.18,
A1.1.3 Excluded emissions sources and sinks	9.3.1 i	TR5.21, TR5.22, TR5.23
A1.2 Quantified inventory of emissions and removals		
A1.2.1 Calculation methodology	9.3.1 m, n, o, t	
A1.2.2 Historical recalculations		
A1.2.3 GHG Storage and liabilities		
A1.2.3.1 GHG stocks held on site		TR4.18
A1.2.3.2 Land-use liabilities	9.3.3.	TR4.19

A1.2.4 Supplementary results		
A1.2.4.1 Carbon credits and offsets	9.3.3.3	
A1.2.4.2 Purchased or developed reduction or removal enhancement projects	9.3.2 c	
A1.2.4.3 Double counting and double offsetting		
Appendix 2: Significance criteria used	9.3.1.e	TR4.12
Appendix 3: Certification mark use		TR3.6
Appendix 4: References		
Appendix 5: Reporting index		