Greenhouse Gas Emissions Inventory Report

Prepared in accordance with the Greenhouse Gas Protocol and ISO 14064-1 and Category Reporting in ISO 14064-1:2018

Waikato District Council – FY2025

Waikato District Council

Person responsible: Rachael Goddard

Prepared by: Martin Lynch

Dated: 19 August 2025

Verification status: Not Verified

For the period: 1/7/2024 to 30/6/2025

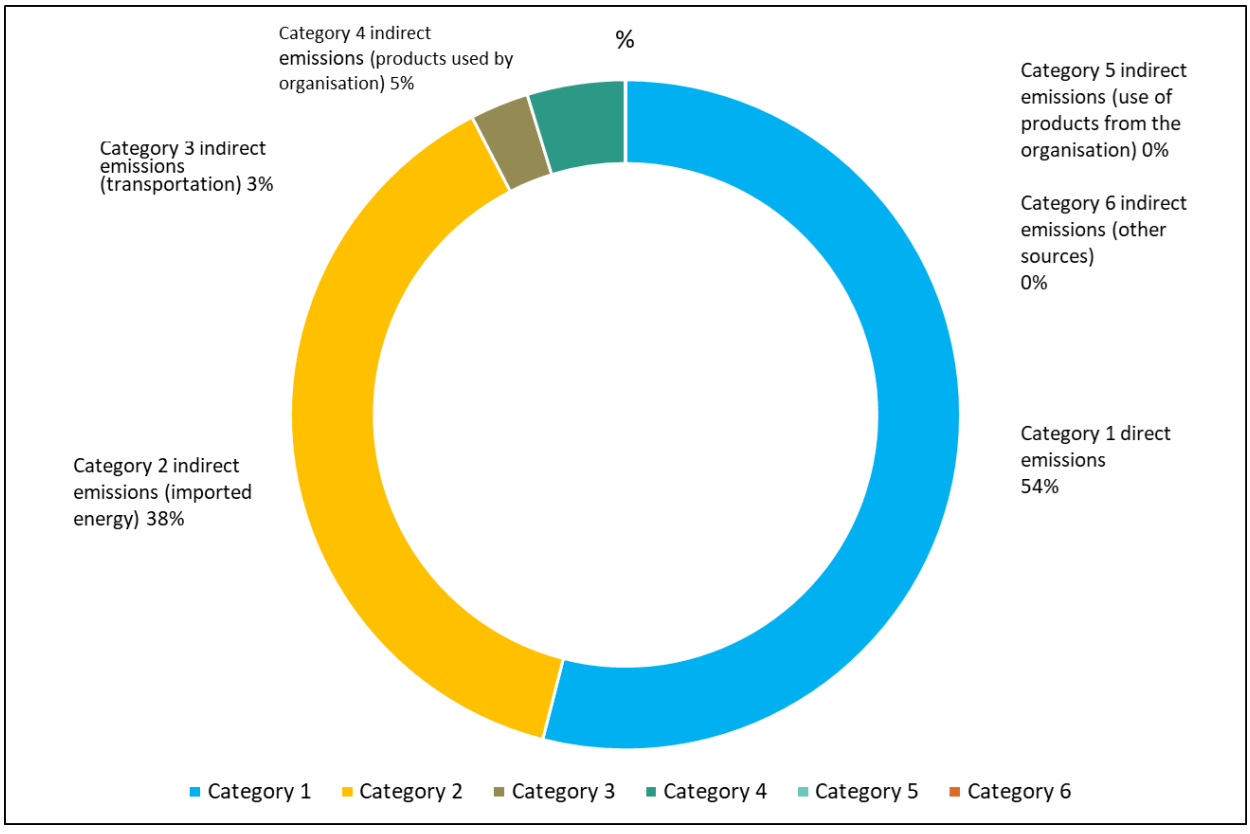
Base year: 1/7/2019 to 30/6/2020

Contents

Table 1: Summary emissions and removals (tCO_2e) by Category for this measurement period 1/7/2024 to 30/6/2025

Category	FY25 (tCO2e)
Scope 1, Category 1 direct emissions	509.20
Scope 2, Category 2 indirect emissions (imported energy)	362.63
Scope 3, Category 3 indirect emissions (transportation)	26.74
Scope 3, Category 4 indirect emissions (products used by organisation)	44.76
Scope 3, Category 5 indirect emissions (use of products from the organisation)	0.00
Scope 3, Category 6 indirect emissions (other sources)	0.00
Total direct emissions	**509.15**
Total indirect emissions	**434.12**
Total gross emissions	**943.27**
Scope 1, Category 1 direct removals	0.00
Certified renewable energy certificates	0.00
Total net emissions	**943.27**

Figure 1: Emissions by Category for all measured emissions for 1/7/2024 to 30/06/2025

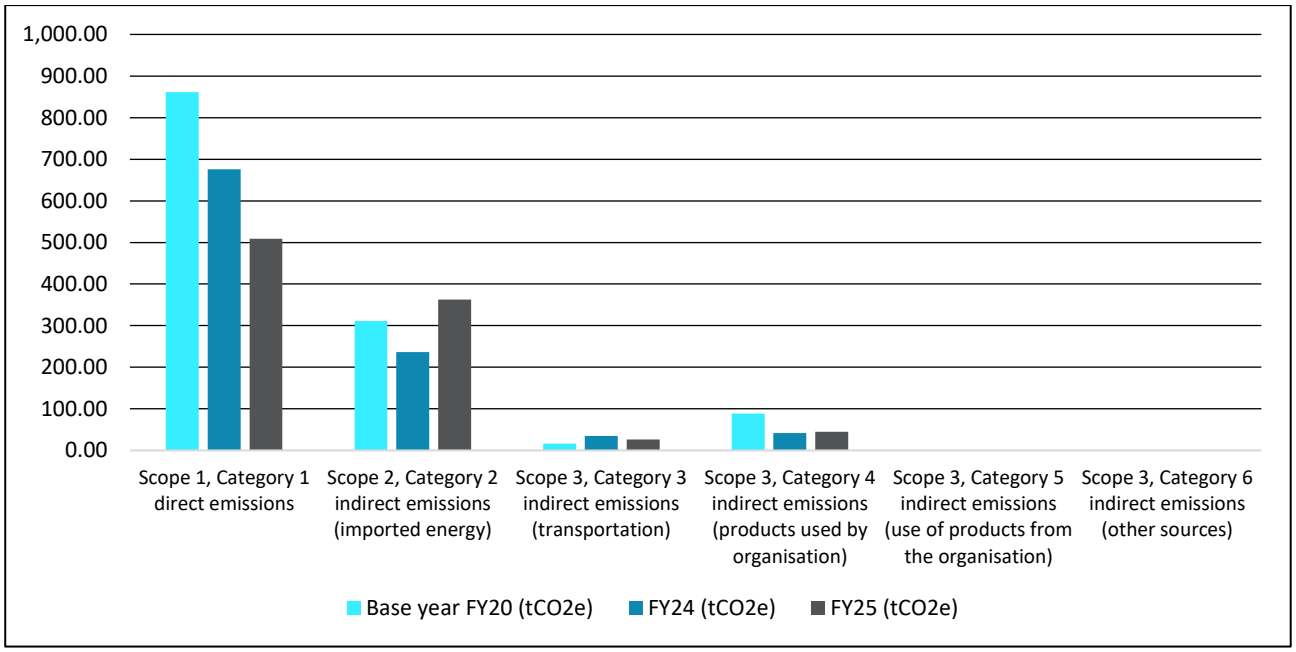


Comparison to Previous Inventories

Table 2: Historical GHG inventory summary comparisons

Category	Base year FY20 (tCO2e)	FY24 (tCO2e)	FY25 (tCO2e)
Scope 1, Category 1 direct emissions	861.35	675.82	509.15
Scope 2, Category 2 indirect emissions (imported energy)	310.71	236.51	362.63
Scope 3, Category 3 indirect emissions (transportation)	16.28	34.61	26.74
Scope 3, Category 4 indirect emissions (products used by organisation)	88.57	41.63	44.75
Scope 3, Category 5 indirect emissions (use of products from the organisation)	0.00	0.00	0.00
Scope 3, Category 6 indirect emissions (other sources)	0.00	0.00	0.00
Total direct emissions	861.35	675.82	509.15
Total indirect emissions	415.56	312.75	434.12
Total gross emissions	1,276.91	988.58	943.27
Scope 1, Category 1 direct removals	0	0.00	0.00
Certified renewable energy certificates	0	0.00	0.00
Total net emissions	1,276.91	988.58	943.27

Figure 2: Summary of historical emissions inventories

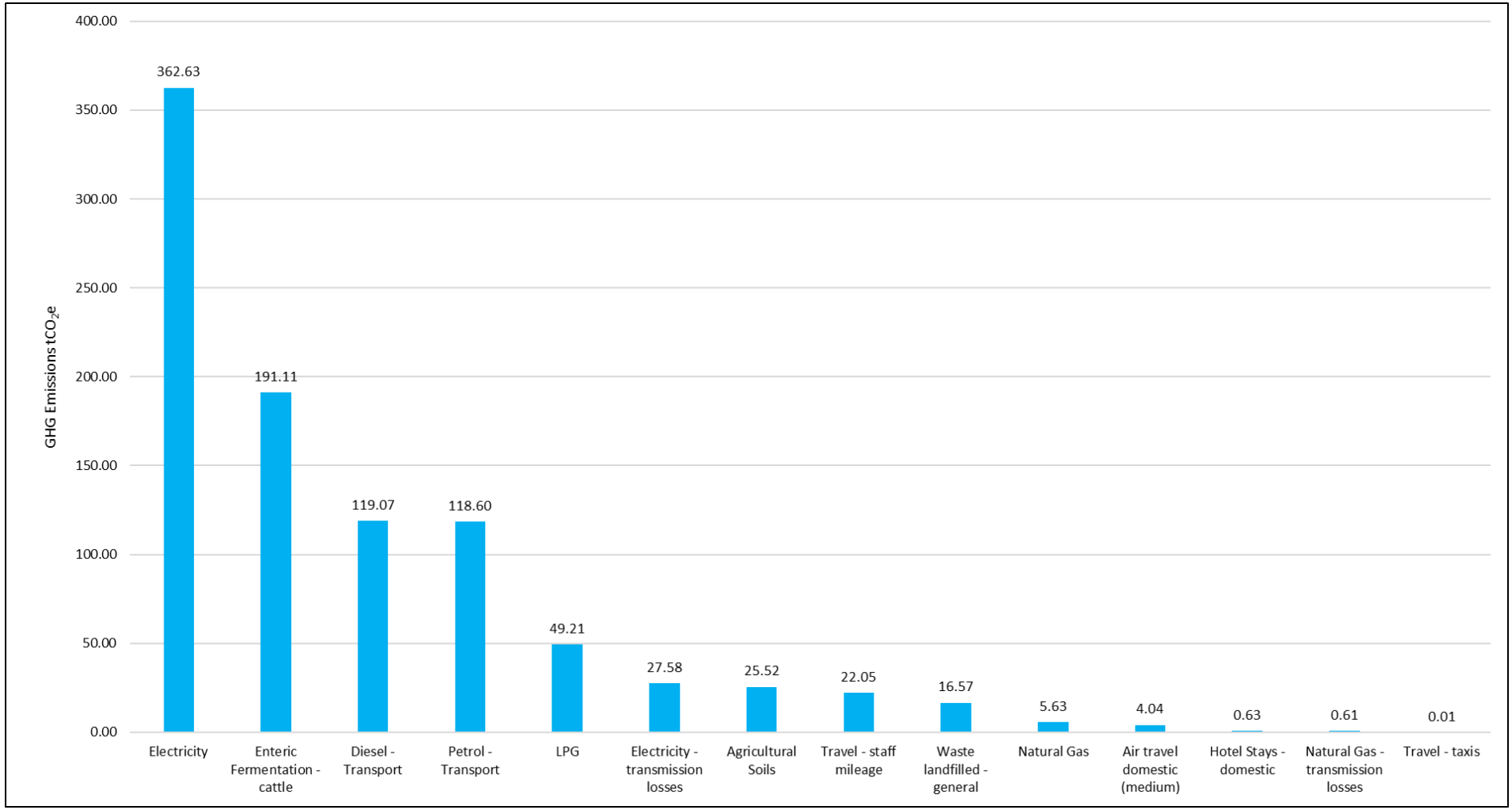


Emission Source Inventory Results

Table 3: GHG emissions inventory summary, for this measurement period 1/7/2024 to 30/06/2025

Category	Emission sources	All measured emissions (tCO2e)
Scope 1, Category 1 direct emissions	Diesel (transport), Petrol (transport), LPG, Natural Gas, Agricultural Soils (cattle), Enteric Fermentation (cattle)	509.15
Scope 2, Category 2 indirect emissions (imported energy)	Electricity	362.63
Scope 3, Category 3 indirect emissions (transportation)	Air travel domestic (medium), Hotel stays (domestic), Travel (staff mileage), Travel (taxis)	26.74
Scope 3, Category 4 indirect emissions (products used by organisation)	Transmission Losses (electricity and natural gas), Waste to landfill – general.	44.75
Scope 3, Category 5 indirect emissions (use of products from the organisation)	None	0
Scope 3, Category 6 indirect emissions (other sources)	None	0
Total direct emissions		**509.15**
Total indirect emissions		**434.12**
Total gross emissions		**943.27**
Total net emissions		**943.27**
Emissions intensity	**Intensity unit**	**tCO_2e per intensity unit**
Full Time Employee	453	2.08
$M Revenue	228	4.14

Figure 3: FY25 GHG emissions (tonnes CO_2e) by source



Organisation Context

1 Introduction

This report is the annual greenhouse gas (GHG) emissions inventory report for Waikato District Council. The inventory is a complete and accurate quantification of the amount of GHG emissions that can be directly attributed to the organisation's operations within the declared boundary and scope for the specified reporting period (1 July 2024 to 30 June 2025).

The inventory has been prepared in accordance with the requirements of the publication Measuring Emissions: A Guide for Organisations, Ministry of Environment 2024. The most recent emission factors have been used and these were updated by the Ministry of Environment in June 2025. This guidance is in accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard and ISO 14064-1. Emission sources have been further allocated into categories in accordance with ISO 14064-1:2018.

2 Statement of intent

This inventory forms part of Waikato District Council's commitment to measure and manage our emissions.

3 Organisation description & reduction activities

Waikato District Council is the local government authority for the Waikato District in the north island of New Zealand. The Council supplies infrastructure and community services across a wide area bounded by the west coast of Raglan to Port Waikato and across to the eastern Hauraki Plains. Council's main office is in the township of Ngaruawahia, twenty kilometres north of Hamilton, the nearest city. Council had total revenue of $228 million (provisional) and employed 453 full time equivalent staff in the financial year ending 30 June 2025.

Council has reported its organisation GHG emissions since 2019. The Base Year reporting period was reset to FY2020 to take into account the change in operational responsibility for water treatment and wastewater treatment activities – these are now operated and managed by Watercare. Council has undertaken a number of initiatives to reduce its emissions over the past five years including replacing LPG and natural gas hot water systems with electric hot water heat pumps, managing livestock, reduction of fleet, and purchase of hybrid and electric vehicles.

Council has reduced its fleet by two vehicles this financial year, to sixty nine. The fleet is made up of 32 hybrid, 6 plug-in electric vehicles, and 11 electric vehicles, making up 71% of the total fleet. The remaining vehicles are diesel. The number of fully electric vehicles increased from 8 to 11.

Electric vehicle charging located at the Ngaruawahia Office fleet compound were increased to 16 charging stations this year with a total charging capacity of 117kVA.

The Procurement, Entitlement and Disposal of Council Vehicle Policy introduced a sinking lid on personal use vehicles, removed the ability for existing personal use vehicles to be replaced with

internal combustion engine vehicles and also set out the preference for low carbon vehicles for pool and team vehicle replacement.

Council's Aquatic Centre in Huntly had its first year of full operation with its new hot water heat pump system displacing an existing gas fired boiler. The switch from natural gas to electricity has reduced GHG emissions at the facility by two thirds and also led to significant cost savings. Previously emissions from natural gas across Council's operations comprised 21% of reported emissions and this is now less than 1%.

Council has invested in improved reporting of energy and carbon and added an additional module "Carbonmanage" to its existing energy reporting platform Energypro. This has enabled quarterly reporting of emission sources and a "one source" of truth for Council's carbon inventory.

The Climate Response and Resilience Strategy, the Climate Action Plan (corporate emissions) and the Climate Response and Resilience Policy are the key documents that guide our actions and set our aims and outcomes.

The Strategy is an overarching document that sets direction, aims and key projects that align with annual emission reduction targets. The Climate Action Plan sets specific internal targets to deliver on operational emissions reduction.

Council established a Sustainability and Wellbeing Committee in 2022. The Climate Action and Sustainability team report regularly to the council committee and Executive Leadership Team.

4 Organisational boundaries included for this reporting period

Organisational boundaries were set with reference to the methodology described in the GHG Protocol and ISO 14064-1:2018 standards. The GHG Protocol allows two distinct approaches to be used to consolidate GHG emissions: the equity share and control (financial or operational) approaches. We used an operational control consolidation approach to account for emissions.

Figure 4 shows the organisational structure for the Waikato District Council and its main Groups. Councillors lead high level decision-making for the organisation. The Executive Leadership Team oversees management of the organisation and fulfilment of the decisions made by Council. The Executive Leadership Team does this by managing and co-ordinating the work of the four Groups. Each Group employs staff and contractors split into Business Units. For clarification, this inventory encompasses all of Waikato District Council activities shown in Figure 1 unless otherwise noted.

Organisations not included are shaded crimson:

- Council Controlled Organisations being Strada Corporation Ltd, Waikato Regional Airport Ltd, Waikato Local Authority Shared Services Ltd, Waikato District Community Wellbeing Trust.

Figure 4: Organisational structure (as at June 2025)

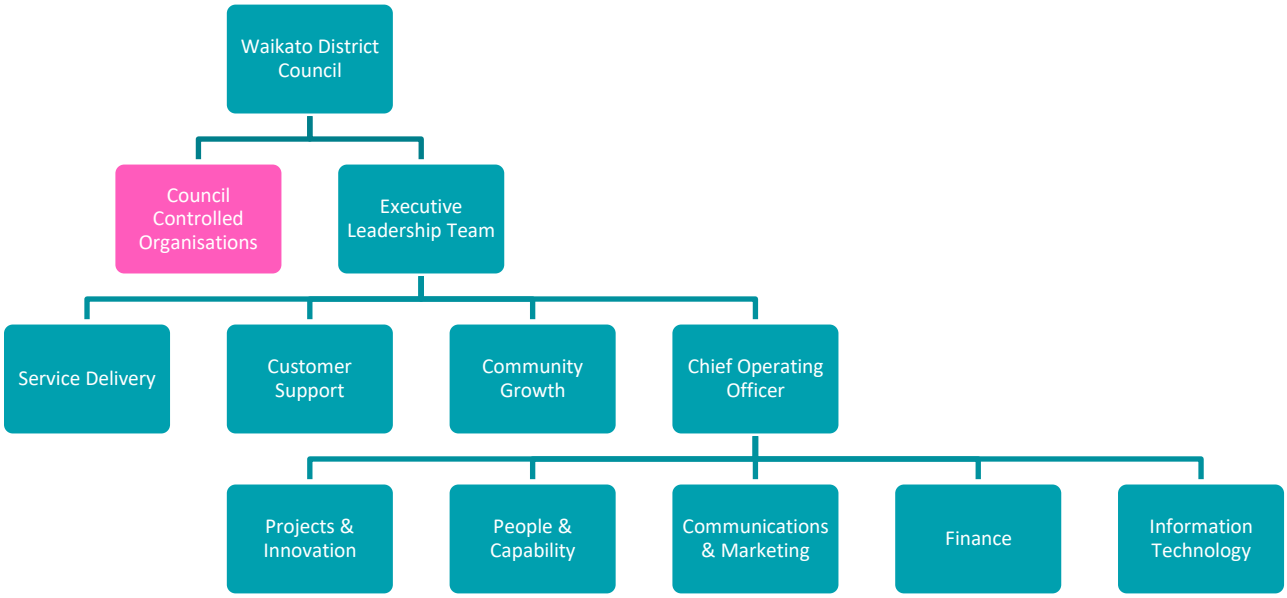


Figure 5 shows the Waikato District Council boundary in bold. Service centres and other facilities are spread across the district.

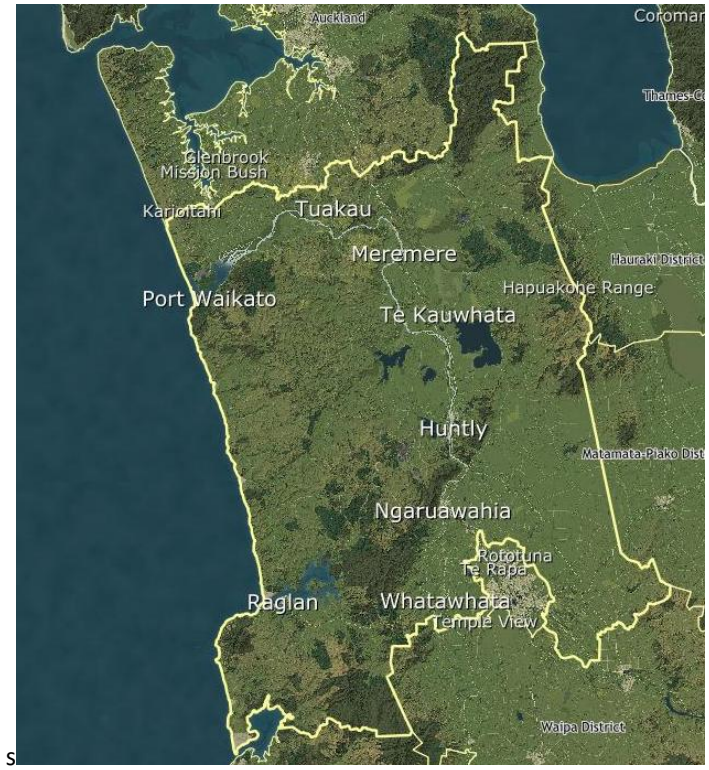


Figure 5: Waikato District Council Bordered By Bold Yellow Line.

Table 4: Brief description of business units in the certifying entity.

Group/Unit	Address	Purpose
Service Delivery Community Connections	Multiple addresses for sites, but staff are principally based at Head Office, 15 Galileo Street, Ngaruawahia.	This includes teams for Venue and Events, Facilities, and Open Spaces. These teams operate, manage and maintain key facilities such as cemeteries and halls, Woodlands venue, holiday parks (overview only), offices, libraries, service centres, toilets, and parks.
Service Delivery Strategic Property	Principally based at Head Office, 15 Galileo Street, Ngaruawahia.	To secure and manage land and property required for strategic development.
Service Delivery Community Projects	Principally based at Head Office, 15 Galileo Street, Ngaruawahia.	To manage the design, development, project delivery of community projects.
Service Delivery Contracts & Partnering	Principally based at Head Office, 15 Galileo Street, Ngaruawahia.	Management of roading contracts and road safety, management of waste management and minimisation.
Service Delivery Community Assets	Principally based at Head Office, 15 Galileo Street, Ngaruawahia with multiple plants located in key towns.	Management of assets including water, wastewater, facilities and roading.
Customer Support Consents	Principally based at Head Office, 15 Galileo Street, Ngaruawahia.	Management of consenting processes and land development.
Customer Support Customer Delivery	Based at Service Centres including Raglan, Tuakau, Huntly, TeKauwhata, Meremere, and Ngaruawahia.	Operation of service centres including libraries.
Customer Support Regulatory Manager	Principally based at Head Office, 15 Galileo Street, Ngaruawahia.	This includes the animal control team, regulatory administrators, environmental health and monitoring and compliance officers.
Customer Support Building Quality	Principally based at Head Office, 15 Galileo Street, Ngaruawahia.	This includes the building review and building inspection teams and administration.
Community Growth Analytics	Principally based at Head Office, 15 Galileo Street, Ngaruawahia.	Analysis of community growth and development contributions.
Community Growth Economic and Community	Principally based at Head Office, 15 Galileo Street, Ngaruawahia.	Economic development and youth engagement in the Waikato district.

Group/Unit	Address	Purpose
Community Growth Planning and Policy	Principally based at Head Office, 15 Galileo Street, Ngaruawahia.	Strategic, environmental and policy planning for the Waikato District.
COO Projects and Innovation	Principally based at Head Office, 15 Galileo Street, Ngaruawahia.	This covers procurement, project management, risk & innovation, and business improvement.
COO People & Capability	Principally based at Head Office, 15 Galileo Street, Ngaruawahia.	Management of human resources and training within the organisation.
COO Communications & Marketing	Principally based at Head Office, 15 Galileo Street, Ngaruawahia.	Delivery of communications across the organisation and engagement with the community.
COO Finance	Principally based at Head Office, 15 Galileo Street, Ngaruawahia.	Financial management and accounting, rates administration and payroll, and legal counsel.
COO Information Technology	Principally based at Head Office, 15 Galileo Street, Ngaruawahia.	To provide business intelligence, records and property information, analysis and IT infrastructure support.

5 Organisational business units excluded from inventory

There are no business units excluded from the inventory. There are a number of activities that have oversight by the organisation which are operated by third parties and include Scope 1 and Scope 2 emission sources paid for directly by the third party. This includes Raglan Holiday Park and a number of aquatic facilities.

Activity	Operated By Third Party	Emission Sources
Raglan Holiday Park	Raglan Holiday Park Trust	Electricity, LPG
Huntly, Tuakau, Ngaruawahia Pools	Belgravia Leisure	Electricity

Council has a high level of influence on the operation and asset replacement of these activities and chosen to include them as part of Council's corporate greenhouse gas inventory.

From 1 October 2019, water operations including treated water, wastewater and storm water are managed and operated by WaterCare Ltd. This report excludes emissions arising from water operations. From 1 October 2019 onwards, emissions from these activities are reported separately by Watercare.

6 Emission source identification method and significance criteria

The GHG emissions sources included in this inventory are those that are referenced to the methodology described in the ISO 14064-1:2018 standard. This included personal communications with relevant staff, review of operational expenditure records, review of asset registers, and site walkarounds.

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 that contribute more than 1% of total emissions and we can influence.

The significance criteria has not changed for the FY2025 year compared to our base year emissions sources in FY2020.

7 GHG emissions source inclusions and uncertainties

The GHG emissions sources included in this inventory were identified with reference to the methodology in the *GHG Protocol* and *ISO14064-1:2006* standards. As adapted from the *GHG Protocol*, these emissions were classified under the following categories:

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

Table 5 provides detail on emissions sources included in the GHG emissions inventory, an overview of how activity data were collected for each emissions source, and an explanation/assessment of any uncertainties or assumptions made.

A calculation methodology has been used for quantifying the emissions inventory using emissions source activity data multiplied by emission or removal factors. All emission factors were sourced from the Ministry for the Environment's 2024 Measuring Emissions: A Guide for Organisations (emission factors updated June 2025), and if applicable, Market Economics Ltd, 2023, Consumption Emissions Modelling, report prepared for Auckland Council.

<u>Information management and monitoring procedures</u>

All information used for compiling the inventory is stored in a dedicated folder on the Council server system under the sustainability programme (ECM, CiA software). Records are stored and managed in compliance to the organisation's Standard Operating Procedures for document retention practices. Specifically, emissions source data is collated into one central workbook for performing final calculations into sources and sink totals. This includes any pre-work such as unit conversions, filtering, and pro-rating.

Table 5: GHG emissions sources included in the inventory.

Group/Business unit	GHG emissions source	GHG emissions level scope	Data source	Data collection unit	Uncertainty (description)
All Council	Air travel domestic (medium)	Scope 3, Category 3	Data was received from Council officer Emily Joyce. All air travel information is compiled through Orbit Travel who provide detailed environmental reports including passenger numbers, passenger kilometres, aircraft type, departure and arrival destinations.	pkm	Low. The adoption of Orbit to manage travel data has streamlined the collection of information.
All Council	Hotel Stays (NZ)	Scope 3, Category 3	Data was received from Council officer Emily Joyce. Hotel Stays are compiled through Orbit Travel who provide detailed environmental reports including room nights and locations.	nights	Low. The adoption of Orbit to manage travel data has streamlined the collection of information.
All Council	Staff – Personal Cars Taxi	Scope 3, Category 3	Mileage data was received from Council's Finance team. This detailed the mileage claimed by staff and Councillors. Emissions were calculated using the default emissions factor for a private car. Taxi data was reported from taxi company invoicing. The emissions produced from taxi use has typically been low and not material.	km	Low. It is assumed that staff and councillors claimed all personal car travel. Low. Emissions reported are typically less than 0.5 tonne.
All Council	Waste	Scope 3, Category 4	Data was received from Council officer Emily Joyce. This applies to Council buildings and Raglan Holiday Park. Reporting has been improved to include a wider selection of buildings. Waste volumes are calculated based on bin size, collection frequency, and weight to volume diversity factor.	Bins collected and volume data to calculate "kgs"	Medium. There is inherent inaccuracy in this calculation, however previous checks measuring weight versus volume give credibility to the diversity factor used.

Group/Business unit	GHG emissions source	GHG emissions level scope	Data source	Data collection unit	Uncertainty (description)
All Council	Diesel Petrol	Scope 1, Category 1	Data was received from Council officer Emily Joyce. Fuel Supplier, BP Fuel provided a detailed list of all fuel transactions for the financial year.	L	Low. The supplier reports are assumed to be accurate.
All Council	LPG	Scope 1, Category 1	Data was received from Council officer Emily Joyce. Reports were received from Genesis Energy, Vector Ongas, and Elgas for the delivery of LPG bottles. Bottle size (typically 45kg) and number of bottles delivered was used to calculate the kg of LPG gas used across Council.	kg	Low. Data was based on the number of bottles used at sites multiplied by rated fill weight and is assumed to be accurate.
All Council	Natural Gas	Scope 1, Category 1	Data was received from Council officer Emily Joyce. Consumption report supplied from Genesis Energy. Natural gas is only used at Hakanoa Lake Caravan Park.	kWh	Very low. The supplier reports are complete and accurate.
All Council	Electricity	Scope 2, Category 2	Online consumption report downloaded from EnergyPro (holds supplier's invoices, Meridian). Copies of invoices are available on request.	kWh	Very low. The supplier reports are complete and accurate.
All Council	Enteric Fermentation Agricultural Soils	Scope 1, Category 1	Data was received from Council officer Emily Joyce. Based on head of cattle held shown in invoices relating to the period 30 June 2025. Updated information was provided by herd manager Noel Barber.	Head	Very low. We are confident data is accurate.
All Council	Transmission Losses – electricity	Scope 3, Category 4	Online consumption report downloaded from EnergyPro (holds supplier's invoices, Meridian). Copies of invoices are available on request.	kWh	Very low. We are confident data is accurate.

Group/Business unit	GHG emissions source	GHG emissions level scope	Data source	Data collection unit	Uncertainty (description)
All Council	Transmission Losses – natural gas	Scope 3, Category 4	Data was received from Council officer Emily Joyce. Consumption report supplied from Genesis Energy. Natural gas is only used at Hakanoa Lake Caravan Park.	kWh	Very low. We are confident data is accurate.

8 GHG emissions source exclusions

Waikato District Council recognises the extent of Scope 3 emissions can be significant. We have chosen to declare the following notable emissions sources that have been excluded from the emissions inventory.

Table 6: GHG emissions sources excluded from the inventory

Business unit	GHG emissions source	GHG emissions level scope	Reason for exclusion
All Council	Working From Home	Scope 3	There is no quantifiable data as to how many staff work from home. Historically, estimates have been made and emissions found to be low and de minimis.
All Council	Materials (Concrete, Steel, Aluminium)	Scope 3	The quantity of materials is not monitored on a regular basis. The cost and effort of obtaining the information retrospectively was considered too high.
All Council	HCFC - HVAC	Scope 3	Staff were not able to provide records of any refrigerant replacement in time for this reporting period. Refrigerant holdings are available for some systems and reported as liabilities.
All Council	Indirect Services	Scope 3	Council has not investigated the indirect emissions associated with goods and services supplied to Council.

9 GHG emissions calculations and results

GHG emissions for the organisation in this measurement period are provided in the GHG Inventory summary section at the start of this report. Compared to FY24 emissions of 989 tCO_2e, total emissions in FY25 fell 5% to 943 tCO_2e. Figure 6 demonstrates the percentage reductions achieved year on year for the last 5 years.

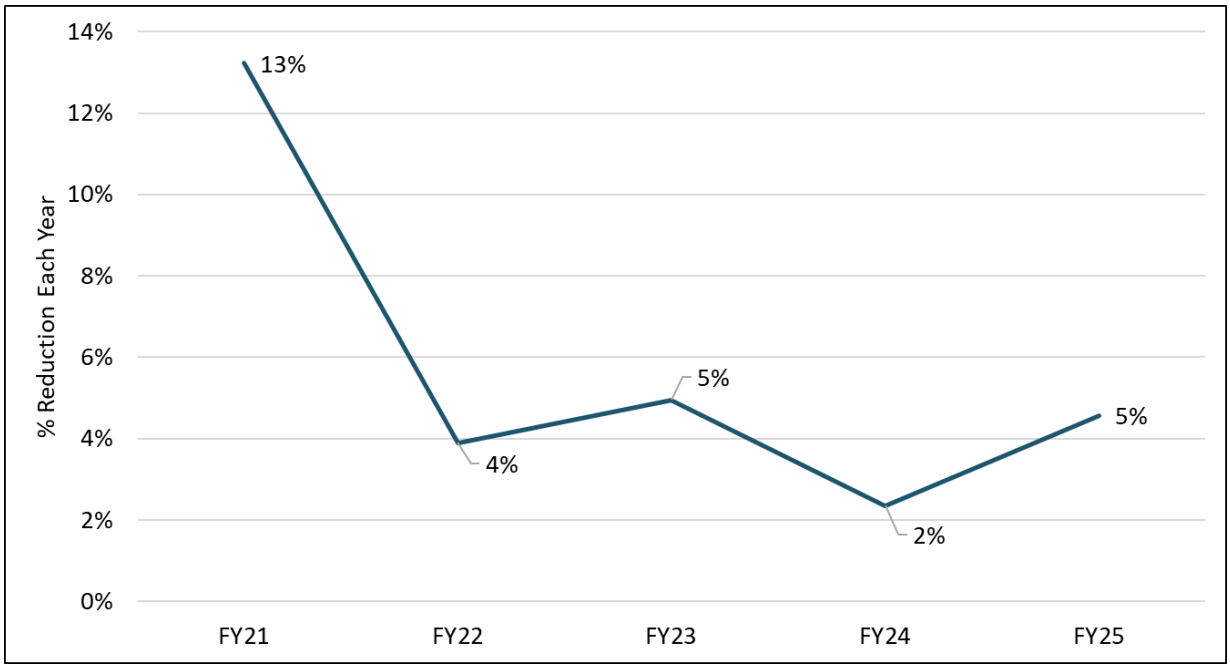


Figure 6: Percentage reduction in GHG emissions year on year

The two largest emission sources in FY25 were electricity and cattle being 390 and 217 tCO_2e respectively. This includes the transmission losses in delivering electricity to site and for cattle, enteric fermentation and associated agricultural soils.

Electricity

The largest emission source is electricity. In FY25 electricity emissions were 390 tCO_2e compared to 254 tCO_2e in FY24. Electricity is used for many applications, and some of Council's largest loads include streetlighting, the municipal offices building, Raglan holiday park, and the Huntly pool. The switch to hot water heat pumps at the Huntly pool led to a doubling of electricity use at that facility in the last year. Overall across Council, electricity use is now 17% higher compared to base year FY20 and 10% higher than FY24. Emissions from electricity fluctuate year to year depending on the amount of fossil fuelled thermal power generation. The latest electricity emissions factor increased 38% due to renewable energy supply constraints across 2024 and more coal and natural gas required. This pushed reported electricity emissions well over the average long term outlook for Council's carbon road map. By way of comparison, if the electricity emissions factor had stayed static between the two years, emissions from electricity would only have increased by 25 tCO_2e instead of the 136 tCO_2e.

Grid electricity will become more renewable with new generation coming on stream in the next ten years and will be a key low carbon energy source.

Cattle

The second largest emission sources are enteric fermentation and agricultural soils (nitrous oxide) (collectively 217 tCO_2e) arising from cattle grazing at Wainu Reserve in Raglan. Enteric fermentation is the process by which ruminant animals produce methane through digesting feed. Agricultural soils emit nitrous oxide due to the addition of nitrogen to soils through manure, dung and urine.

In FY25 cattle numbers were 98 head compared to 85 head in FY24. As well as the increase in stock numbers, the emissions factor for enteric fermentation increased by 5% and the factor for agricultural soils increased by 7%. Consequently, emissions from cattle increased significantly, rising from 178 tCO_2e in FY24 to 217 tCO_2e in FY25.

Prior to this year, cattle numbers had been trending downwards. With natural gas emissions diminished, emissions from stock have become a significant priority to investigate further.

Diesel

The third largest emissions source is diesel. Emissions from diesel crept upwards from 113 tCO_2e in FY24 to 119 tCO_2e in FY25. Diesel use has been steady from FY23 to FY25 following large reductions across the period FY20 to FY22.

Petrol

The fourth largest emission is petrol. In FY25 petrol emissions reduced from 129 tCO_2e to 119 tCO_2e. There continues to be a consistent reduction in petrol emissions reflecting the shift of fleet vehicles from internal combustion engine to hybrid, PHEV and full electric.

LPG

LPG emissions were 49 tCO_2e in FY25 compared to 44 tCO_2e in FY24. The majority of LPG use is at the Raglan Holiday Park with much smaller consumption at the Hakanoa camp ground. An increase in LPG use in FY25 is

thought to be due to increased patronage of the park. As noted in last year's report, an alteration to the onsite hot water heat pump system to deliver improved hot water supply did result in more LPG being used on site. It is noted that emissions from LPG have doubled since base year FY20.

Natural Gas

Emissions from natural gas have dropped significantly. Previously natural gas was Council's second largest emission source. The last 12 months of natural gas emissions at Huntly pool totalled 266 tCO_2e. No natural gas has been used at the pool since May 2024. Conversely the emissions from the use of electricity to heat the pool and operate pumps and lighting in the following 12 months were only 50 tCO_2e. A significant reduction in emissions has occurred. A small amount of natural gas is used at the Lake Hakanoa Caravan Park totalling 5.63 tCO_2e.

Electricity, cattle, diesel, petrol, LPG and natural gas make up 95% of Council's operational emissions. Travel and waste to landfill, make up the remaining 5%.

Travel

Emissions from Travel for F25 are similar to FY24 and appear to have stabilised following the resumption of domestic air travel curtailed during the Covid pandemic. Mileage claims by staff and councillors is a significant contributor to the Travel emissions. Of the 27 tCO_2e reported for FY25, 5 tCO_2e are related to air travel and hotel stays, whereas 22 tCO_2e are related to staff and councillor mileage claims for use of private vehicles on Council business.

Intensity Metrics

Operational emissions are reported using two indicators, $M revenue and number of Full Time Equivalent (FTE) staff.

- Per FTE, emissions reduced from 3.73 tCO_2e in FY20 to 2.08 tCO_2e in FY25.
- Per $M revenue, emissions reduced from 7.29 tCO_2e in FY20 to 4.14 tCO_2e in FY25.

For each year following base year FY20, Council has been able to demonstrate an intensity reduction in emissions per FTE and $M revenue.

Figure 7 compares emissions by general activity or source for the Base Year FY20, FY24 and the most recent year FY25. It also shows the magnitude of emissions by source.

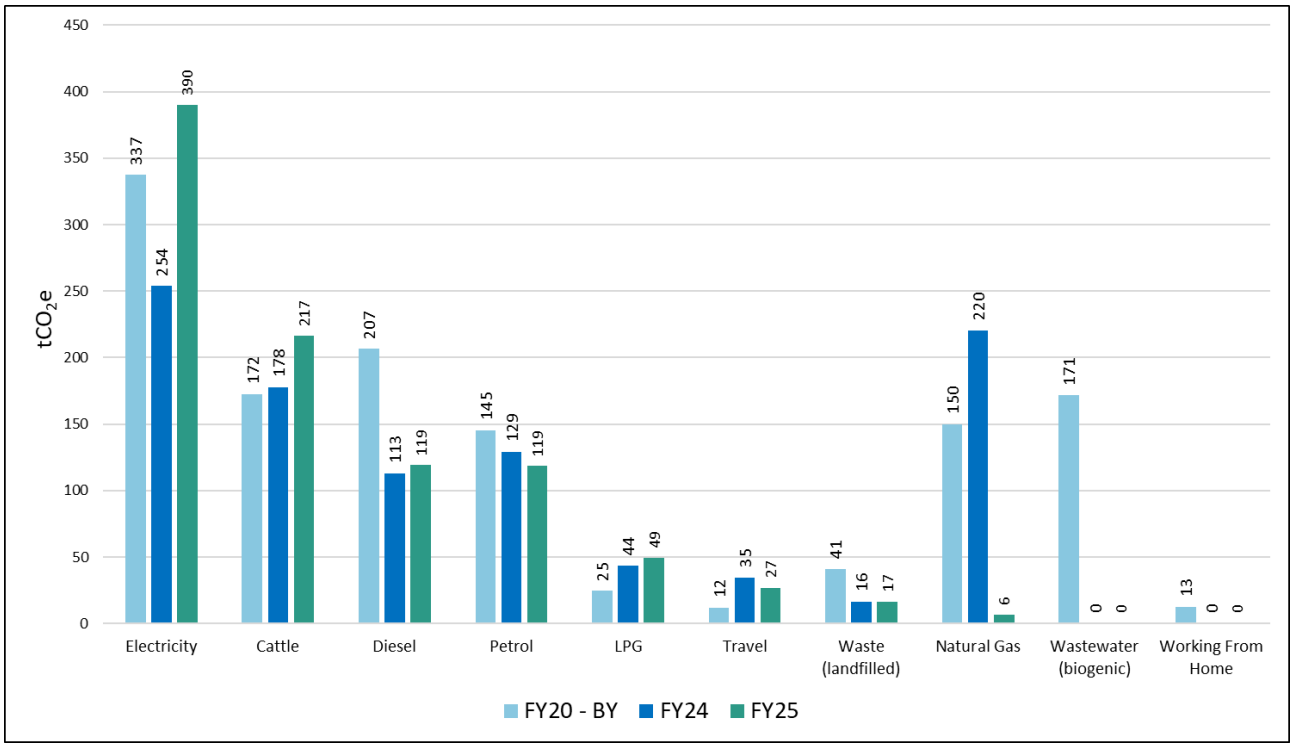


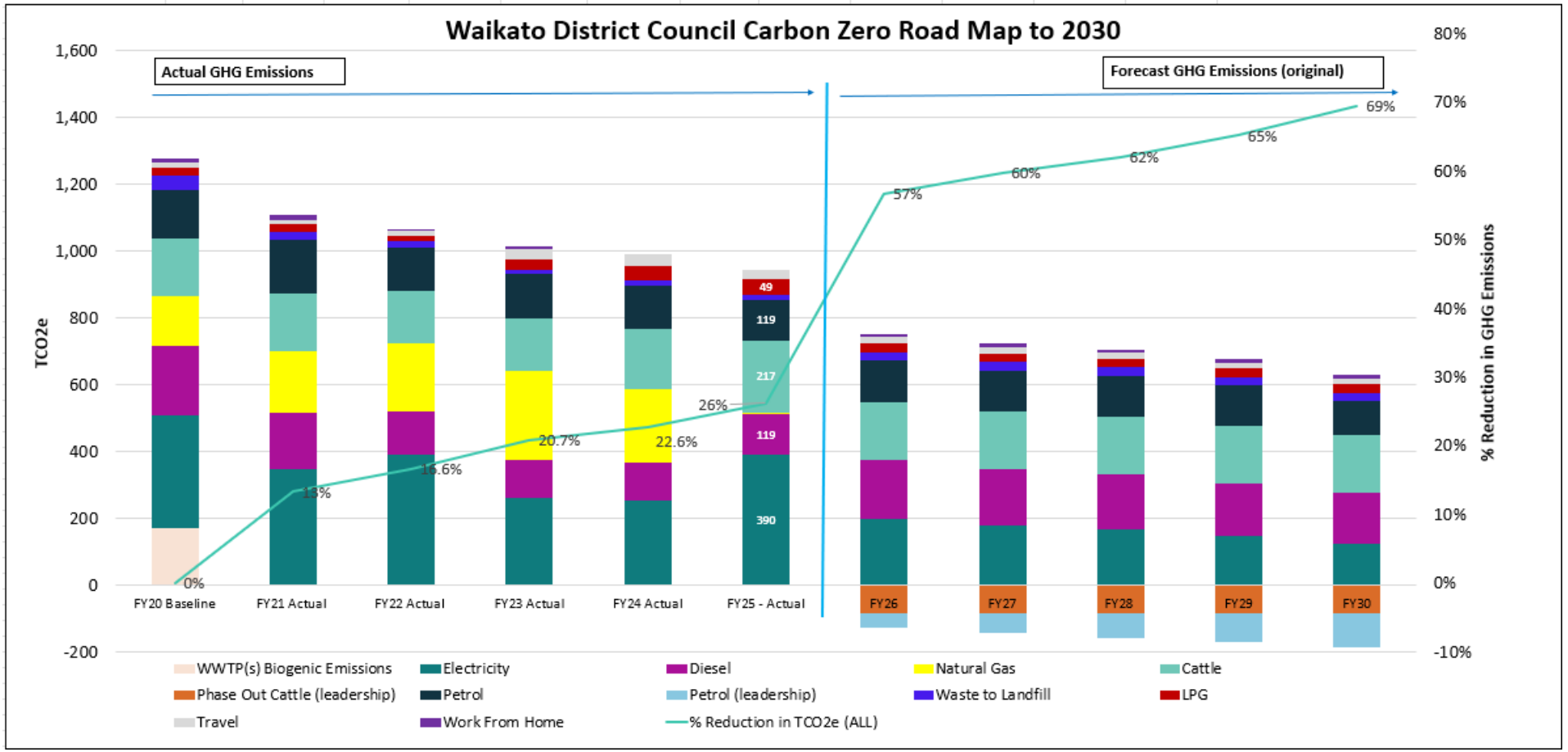
Figure 7: GHG emissions by source/activity (tCO_2e)

Council's Carbon Road Map

Council's carbon road map out to 2030 has been updated and shows how Council's emissions could reduce in line with internationally agreed 1.5 degree warming limits. A critical project to achieve this was the replacement of the Huntly pool gas boiler in May 2024 with an electric hot water heat pump system. Figure 8 (overleaf) demonstrates the impact of this project with the diminishing of the yellow area in FY25.

Council is forecast to achieve a 69% reduction in emissions in FY29-30 compared to Base Year FY20. In FY25 a 26% reduction was achieved compared to a target of 41%. Had the grid electricity emissions factor stayed static for FY25, Council would have achieved a reduction of 34%. While this is outside Council's control, grid electricity emissions are expected to reduce long term. Key initiatives in Council's control are measures that will deliver reductions in emissions from cattle, vehicle fuels and LPG.

Figure 8


Waikato District Council Carbon Zero Road Map to 2030
Actual GHG Emissions
Forecast GHG Emissions (original)
TCO2e
% Reduction in GHG Emissions
1,600
1,400
1,200
1,000
800
600
400
200
0
-200
80%
70%
60%
50%
40%
30%
20%
10%
0%
-10%
0%
13%
16.6%
20.7%
22.6%
26%
57%
60%
62%
65%
69%
49
119
217
119
390
FY20 Baseline
FY21 Actual
FY22 Actual
FY23 Actual
FY24 Actual
FY25 - Actual
FY26
FY27
FY28
FY29
FY30
WWTP(s) Biogenic Emissions
Electricity
Diesel
Natural Gas
Cattle
Phase Out Cattle (leadership)
Petrol
Petrol (leadership)
Waste to Landfill
LPG
Travel
Work From Home
% Reduction in TCO2e (ALL)

10 Liabilities

10.1 GHG stocks held

HFCs, PFCs and SF_6 represent GHGs with high global warming potentials. Their accidental release could result in a large increase in emissions for the reporting period. Therefore, any GHG stocks should be included in the greenhouse gas emissions inventory summary section at the start of this report to identify significant liabilities and implement procedures for minimising the risk of their accidental release. The refrigerant stocks shown relate to the new hot water heat pumps installed at Huntly Pool.

Table 7: HFCs, PFCs and SF_6 GHG emissions and liabilities.

GHG gas	Amount held - start of reporting period	Amount held - end of reporting period	Potential Liability tCO2e
Refrigerant	30.48	30.48	30.48
Diesel Fuel Tank 240L	0.65	0.65	0.65
Total	0.65	31.13	31.13

10.2 Land-use change

Organisations that own land subject to land-use change may achieve sequestration of carbon dioxide through a change in the carbon stock on that land. If a sequestration is claimed, this also represents a liability in future years should fire, flood or other management activities release the stored carbon.

11 References

International Organization for Standardization. ISO14064-1:2006/2018. Greenhouse gases – Part 1: *Specification with guidance at the organisation level for quantification and reporting of greenhouse gas GHG emissions and removals.* Geneva: ISO.

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

Appendix 1 – Supplementary Data

Tables 8 to Table 14 summarise the greenhouse gas (GHG) emissions for Waikato District Council covering the financial year July 2024 to June 2025 as per reporting guidance from the GHG Protocol. Total emissions were 943.27 tCO_2e. This inventory report is part of the framework for ongoing repeatable data collection which will allow Council to develop carbon reduction initiatives and measure progress over time.

Table 8: GHG emissions data summary.

Component Gas (expressed as tCO_2e)								
FY25	**$C0_2$**	**CH_4**	**N_2O**	**HFCs**	**PFCs**	**SF_6**	**Total tCO_2e**	**Percent By Scope**
Scope 1[1]	286	193	31	-	-	-	509.15	54%
Scope 2[2]	352	10	1	-	-	-	362.63	38%
Scope 3[3]	52	18	1	-	-	-	71.49	8%
Total	690	220	32	-	-	-	943.27	100%

Table 9: Biogenic CO_2

Source	Quantity (m^3)	T Biogenic CO_2
Wastewater Treatment Plant	0	0
Total	**0**	**0**

Table 10: Forestry

Source	Quantity	tCO_2e
Carbon lost (deforestation)	0	0
Carbon Sequestered (forest growth)	0	0
Net balance	**n/a**	**0**

[1] **Scope 1 - Direct** GHG emissions from sources that are owned or controlled by the company.

[2] **Scope 2 - Indirect** GHG emissions from the generation of purchased electricity, heat and steam consumed by the company.

[3] **Scope 3 - Indirect** GHG emissions that occur as a consequence of the company's activities but from sources not owned or controlled by the company.

Table 11: GHG stock liability (refrigerants and diesel storage)

Source	Unit	Quantity	Potential Liability tCO_2e
R32	kg	45.0	30.47
CO_2	kg	6.5	0.01
Diesel Fuel Tank Woodlands	l	240	0.65
Total			**31.13**

Table 12: Forestry liabilities.

Type of sequestration	Liability tCO_2e
Contingent liability (carbon sequestered since base year)	0

Table 13: Renewable electricity generation on-site[4]

Renewable generation on-site	kWh generated	tCO_2e avoided
Solar PV	0	0

Table 14: Emissions per KPI

KPI	Quantity						TCO_2e/KPI					
	FY20	FY21	FY22	FY23	FY24	FY25	FY20	FY21	FY22	FY23	FY24	FY25
Full Time Employee	342	351	376	400	431	453	3.73	3.16	2.84	2.53	2.29	2.08
$M	175	208	230	224	225	228	7.29	5.32	4.63	4.53	4.39	4.14

[4] Solar electricity is generated at the Te Kauwhata Library, however the quantities generated are not monitored.

Appendix 2 – Data Summary Workbook

Detailed GHG emissions data are available on the accompanying spreadsheet(s) to this report:

- Waikato District Council – Carbon Emissions Workbook FY25