



EMISSIONS MANAGEMENT AND REDUCTION PLAN

Toitū carbonreduce and Toitū carbonzero programme



Waikato Regional Council

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Base year: 01 July 2016 to 30 June 2017

Verification status: Reasonable (Scope 1, 2 and mandatory Scope 3 sources) and Limited (Scope 3 Additional)



Approved for release by:

Karen Bennett, Manager of the Chief Executive's Office

A handwritten signature in black ink, appearing to read "Karen Bennett", with a period at the end.

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INTRODUCTION

This report is the annual greenhouse gas (GHG) Emissions Management and Reduction Plan prepared for Waikato Regional Council and forms the manage step part of the organisation's application for Programme certification.¹²

RATIONALE

The Waikato Regional Council's (WRC) mission "working together to build a Waikato region that has a healthy environment, strong economy and vibrant communities" signals the council's commitment to valuing our natural capital and the ecosystem services it provides for people's wellbeing and economic activity. Sustainability principles and values are interwoven into our policies, the services we provide, and the way we operate. The United Nations Sustainable Development Goals were the starting point for the council's 2016-2019 Strategic Direction, and tackling climate change is an integral part of this. The updated Waikato Regional Council Strategy 2020-2030 has further embedded climate change consideration, mitigation and adaptation in all aspects of council's operations and services.

As well as having many direct and indirect effects on the communities we work in, climate change will directly affect the work of the Waikato Regional Council.

In New Zealand, regional councils have statutory responsibilities regarding climate adaptation, particularly with a view to natural hazards, infrastructure and assets management. In addition, it has been recognised that regional and local councils can also contribute to climate mitigation and transition to a low carbon economy, and address the opportunities and risks that climate change presents.

WRC is a signatory to the Local Government New Zealand's 2017 Leaders Climate Change Declaration outlining the key commitments and actions that councils plan to undertake to support action on climate change. We are working with others to lead the transition to a low carbon, climate resilient Waikato Region. Aligned to this, WRC completes a regional greenhouse gas inventory to enhance its understanding of the region's carbon profile and facilitate discussion regarding options and pathways for transition to a lower carbon regional economy.

At a corporate level, WRC has committed to managing and reducing greenhouse gas emissions. Council has committed to pursuing a leadership approach to climate change mitigation and adaptation. This means that as well as reducing our emissions to help mitigate climate change, we will also need to adapt our services and operations to changing weather and climate conditions.

In order to manage and reduce greenhouse gas emissions and other environmental impacts of our operations, the Waikato Regional Council encourages staff (and the wider Waikato community) to engage with sustainability issues and initiatives. The organisation also seeks to ingrain environmental best practices into all operations, systems and decision-making. Details of council's path towards emissions reductions can be found in the Corporate Emissions Reduction Plan (CERP). This document is an appendix to the Emissions Inventory Report.

The council's Climate Action Committee has been set up to:

- Receive scientific evidence and Mātauranga Māori to inform strategic leadership on how the Waikato region could achieve climate change mitigation and adaptation, and
- Inform the development of climate change adaptation and mitigation objectives, share information and facilitate collaborative action to reduce greenhouse gas emissions and prepare for climate change impacts.

¹Throughout this document 'emissions' means 'GHG emissions'.

²Programme means the Toitū carbonreduce and Toitū carbonzero certification programme.

Details of commitments and sustainability policies are publicly available and can be found online or through hard copies of documents located at the organisation's main office (160 Ward St, Hamilton Central, Kirikiriroa Hamilton).

This emissions management and reduction programme applies only to WRC's corporate activities and does not include regional policy interventions.

TOP MANAGEMENT COMMITMENT

Waikato Regional Council aims for sustainability to be integral to all activities, including its customer and stakeholder relationships and approach to risk management. Sustainability is part of the organisational values of doing the right thing for people and planet, and making a positive difference to Waikato and New Zealand by making sure our activities add value environmentally, socially, economically, and culturally. As part of its commitment to improving its sustainability performance, the council has committed to managing and reducing emissions, and reporting on progress, through participation in the Toitū carbonreduce programme.

PERSON RESPONSIBLE

Karen Bennett, Manager of the Chief Executive's Office, is the member of the Executive Leadership Team responsible for overseeing overall emissions management and reduction. She is supported by a team of sustainability champions (Emissions and Energy Reduction Group), comprising members with functional responsibility for emissions management and reduction, and other staff with a passion for improving sustainable practices throughout the organisation. Expertise and support is also provided by contractors and external organisations (including eBench and Toitū).

AWARENESS RAISING AND TRAINING

Staff and contractors are made aware of our commitment to sustainability through organisation culture and purpose. Information on emissions reduction commitments is shared through internal communications and campaigns, as well as publicly available reports and communications. New staff are informed via the staff induction process.

Staff who provide emission source data or who have major influence on the management and reduction of emissions are invited to be part of the Corporate Sustainability Team, and more recently the Climate Action Roadmap Advisory Group. Both groups meet on a regular basis to discuss options for and progress towards emissions reduction. All staff have opportunities to engage in campaigns and/or workshops and/or training to support them reduce the emissions and other environment-related impacts of their role and activities.

SIGNIFICANT EMISSIONS SOURCES

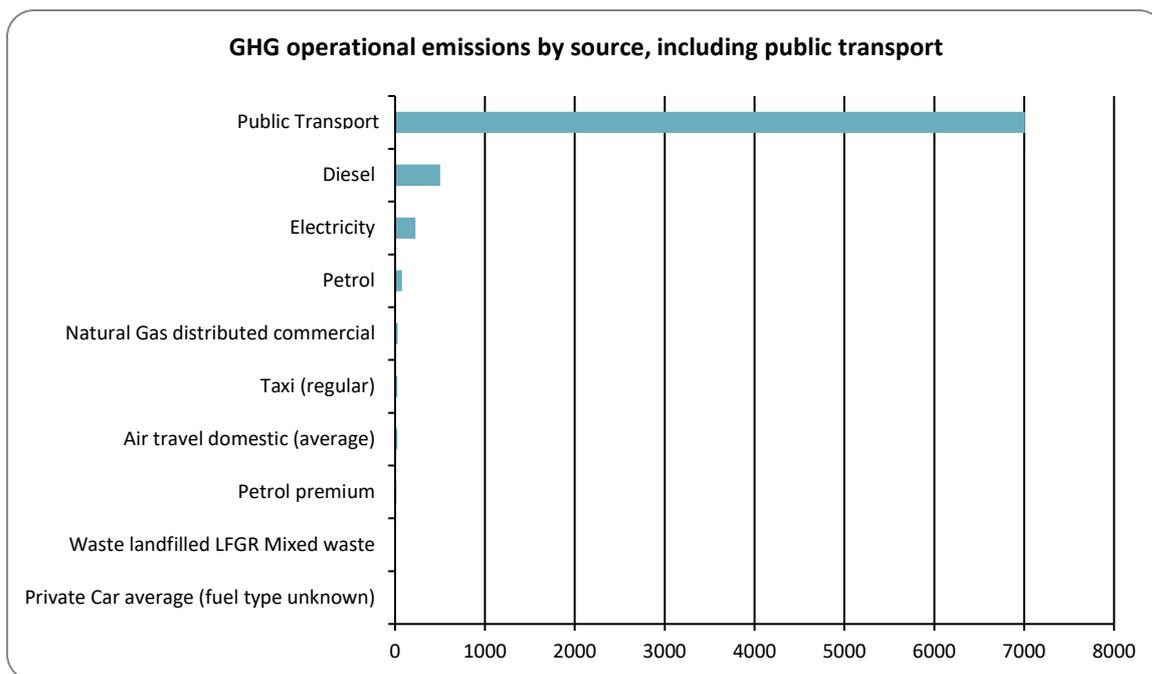


Figure 1a: GHG emissions by source, including public transport.

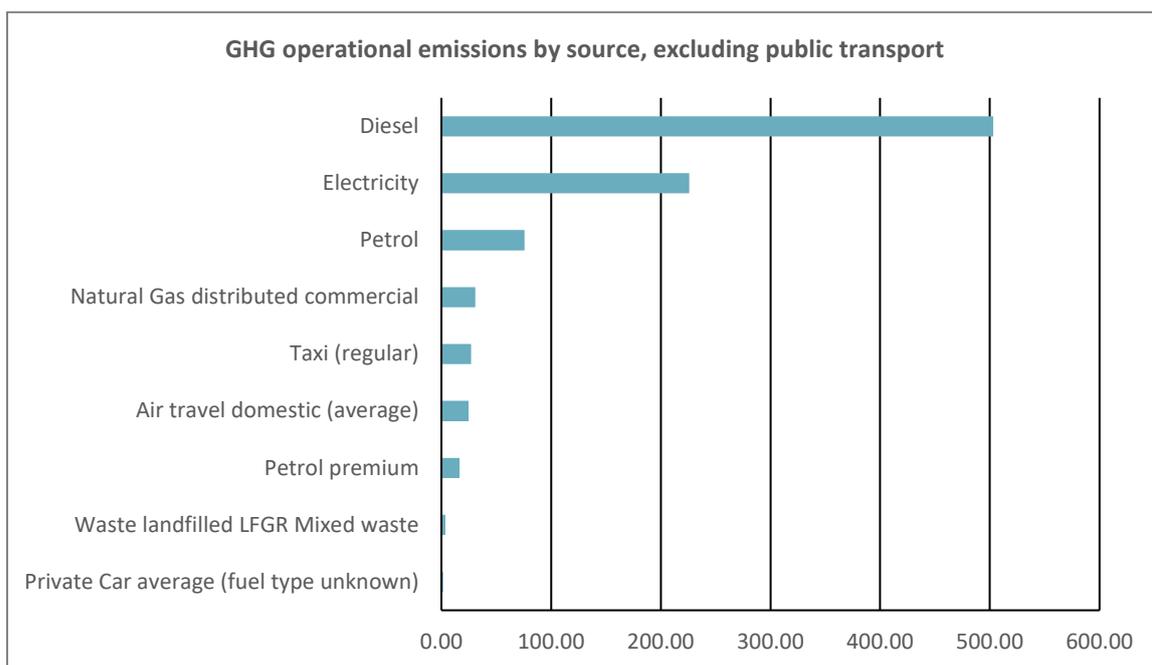


Figure 2b: GHG emissions by source, excluding public transport.

The 2020/21 reporting period saw the inclusion of emissions from Waikato Regional Council's regional public transport service in the Emissions Inventory. This is a significant source of emissions and makes up 88.3% of the total emissions portfolio. A strategy towards net zero emissions from public transport services is already in development, and specific targets relating to reducing emissions from public transport services will be included in the EMRP in future reporting years.

Aside from emissions from public transport services, the Emissions Inventory Report identifies the most significant ongoing emissions sources as diesel (54%) and electricity (24%). Emissions from petrols contribute 10% to the emissions portfolio. Waikato Regional Council has direct control over these emissions sources mentioned above, and the organisation is using a mix of behaviour, operational and investment interventions to reduce emissions from these areas.

Looking closely at emissions sources through data available on eBench over the past years, it has been noted that flood pumps, diesel tanks, and diesel vehicle use are the greatest sources of emissions. Other large contributors to emissions are electricity use in buildings, and petrol vehicle use.

All these factors have been considered in order to develop an Emissions Management and Reduction Plan that is appropriate and effective for the organisation (this document). This plan is supported by the CERP, which was developed to provide medium to long-term plans for emissions reductions. The CERP provides detailed analysis and yearly reduction targets to 2030, with actions to reduce emission intensity by 70% over the next 10 years.

TARGETS FOR EMISSIONS REDUCTION

The organisation is committed to managing and reducing its emissions in accordance with the Programme requirements. Table 1 provides details of the emission reduction targets to be implemented. These are 'SMART' targets (specific, measurable, achievable, realistic, and time-constrained).

Targets for emissions reduction are developed to coincide with updates for the Long Term Plan (LTP), which take place every three years. Progress will be monitored continuously and reviewed on an annual basis to ensure the organisation is staying on track to meet these targets.

Our original target was to reduce emissions intensity by 2% per year from the base year, which may involve steady reductions and/or larger reductions followed by maintenance of reductions. Note: reductions are to be compared to base year, rather than the previous year.

However, in recent years we have also been exploring the development of targets that are more aligned with science-based target setting (especially considering that the original target has been exceeded considerably for each year we have been reporting for the CEMARS/Toitū carbonreduce programme).

The review of the LTP took place in June 2021. According to the CERP, the organisation needed to achieve at least a 26% reduction in emissions compared to the base year. WRC exceeded this target considerably, with the organisation reporting emissions at 45% lower than the base year.

WRC is on track to meet and exceed its 2022 target of 35% reduction compared to the base year, as well as its targets in time for the next LTP in June 2024 (reduction of 45% compared to the base year).

Table 1 shows specific sub-targets at a more detailed level, by emission source. By achieving each sub-target, the aggregated results will mean we achieve our original target for the total inventory. The current targets were developed in October 2020 as part of the CERP and will be reviewed before the next reporting year.

Table 1: Emission reduction targets

Emissions reduction initiative	Target	Baseline (tCO ₂ e)	Target date	Metrics/ KPI	Responsibility	Rationale
Total Scope 1, Scope 2 and Scope 3 (mandatory) emissions	45%	1685	30/06/2024	\$ M turnover	Karen Bennett, Manager of Chief Executive's Office, and Emissions and Energy Reduction Group	Achievable through the application of the reduction projects discussed further below and detailed in the CERP. The \$ M turnover metric was selected as it is linked to the capacity of the organisation to engage in different activities.
Electricity	56%	718	30/06/2024	\$ M turnover	Karen Bennett, Manager of Chief Executive's Office, and Emissions and Energy Reduction Group	Achievable through operational changes (by optimising time of use of flood pumps, HVAC and lighting systems), and supported by behavioural changes (engagement of staff in energy-efficient practices). Also ensuring active support of Government's target of being 90% renewable by 2030 and 98% renewable by 2050.
Diesel	32%	646	30/06/2024	\$ M turnover	Fleet Management Coordinator, and personal responsibility of staff using vehicles. Also Director of ICM	Achievable through a programme of managing levels of fleet utilisation and the reduction of numbers of fleet vehicles, regular servicing and maintenance of fleet vehicles, active monitoring of fleet management system (use of most appropriate vehicle), transitioning fleet to low carbon, and staff support for more fuel efficient driving. Also through operational changes and/or investment into flood pump and diesel generator fuel efficiency measures.
Petrol	45%	114	30/06/2024	\$ M turnover and/or FTE staff	Fleet Management Coordinator, and personal responsibility of staff using vehicles.	Achievable through transition to lower emission vehicles where suitable, a programme of managing levels of fleet utilisation and the reduction of numbers of fleet vehicles, regular servicing and maintenance of fleet vehicles, active monitoring of fleet management systems (use of most appropriate vehicle) and staff support for more fuel efficient driving. Also achievable through encouragement of virtual meetings.
Air travel (all)	28%	127	30/06/2024	\$ M turnover	Managers of Directorates	Achievable through behavioural changes, reviewing travel options, and encouraging use of video conference facilities. Target is base year as air travel increased in the following two years. Next step will be to finalise air travel emissions budget.

SPECIFIC EMISSIONS REDUCTION PROJECTS

In order to achieve the reduction targets identified in Table 1 specific projects have been evaluated to achieve these targets. These are detailed below.

Table 2: Projects to reduce emissions

Objective	Actions	Responsibility	Completion date
Reduction of emissions from electricity	Installation of up to five enclosed Archimedes screw pumps, which are critical to the ongoing flood protection of farmland, to enable the safe passage of native fish (tuna/eels). The current infrastructure is due for replacement and this pump design offers many benefits over conventional pumping assets: they rotate very slowly, deliver very high efficiency, and their design means the screw does not inflict damage on fish, even significantly large tuna/eels. We expect the high efficiency design will reduce our emissions through less energy consumption.	ICM	30/6/2024
Reduction of vehicle fuel use	Staff engagement campaign and training offered in fuel-efficient driving. Includes only using specialist vehicles (V8, landcruiser and SUVs) for specialist tasks. Includes minimising unnecessary trips and putting in place easy access to alternative modes of transport.	Fleet Management Coordinator and WRC Communications	Annual campaign
Reduction of vehicle fuel use	Transition WRC fleet to lower emissions vehicles. Includes purchasing electric 4WD vehicles when they become available (assuming safety and other functional requirements are met).	Fleet Management Coordinator	Continued review
Reduction of air travel	Investigate whether an air travel emissions budget for WRC is necessary, or if targets be achieved through voluntary measures (see below).	Executive team	30/06/2023
Reduction of air travel	Review of each air travel request to determine necessity and whether no or lower emissions alternative is possible/reasonable.	All staff wishing to travel by air	Ongoing

Table 3: Highlights emission sources that contributed to poor data quality and describes the actions that will be taken to improve the data quality in future inventories.

Data quality projects for currently measured emissions sources have been completed and there is high confidence in the data collected by the organisation.

We are currently investigating data gathering options for accommodation and consumption during work-related travel, and land use changes, so that they can be included in future emissions inventories and reports.

Table 3: Projects to improve data quality

Emissions source	Actions to improve data quality	Responsibility	Completion date
Fugitive emissions from drainage of organic soils	Work with a number of stakeholders to better understand emissions and increase data certainty	Soil scientists from Science, Policy and Information Directorate	30/06/2024
Waste	Annual waste audit, collect data from waste management contractors	Facilities Projects Advisor	30/06/2022

Emissions source	Actions to improve data quality	Responsibility	Completion date
Heating and cooling services for WRC tenancy at 160 Ward St	Identify data required, in order to enable inclusion of emissions source in 2021-22 reporting	Facilities Projects Advisor	30/06/2022
Taxi travel	Ensure taxi travel is coded in a way to enable distinction between taxi travel associated with Total Mobility and staff use	Finance Directorate	1/09/2021
Various	Carry out analysis to identify data requirements to meet the ISO 14064-1:2018 reporting standard	Karen Bennett and contractors	1/10/2021

The emissions inventory identified various emissions liabilities. Table 4 details the actions that will be taken to prevent GHG emissions from these potential emissions sources.

Table 4: Projects to prevent emissions and reduce liabilities

Emissions source	Actions to reduce liabilities	Responsibility	Completion date
Air conditioning units	Regular servicing and preventing damage to units	Facilities Management Coordinator	Quarterly
Building lighting and heating systems	Regular night audits to identify inefficiencies	Facilities Management Coordinator	Annually
Fleet vehicles	Regular servicing and preventing damage to vehicles	Fleet Management Coordinator	Ongoing

UNINTENDED ENVIRONMENTAL IMPACTS

The projects to reduce emissions (as listed above) have been assessed to identify any impacts on other aspects of the environment. Additional measures, based on guiding principles from our sustainability policy, will be implemented to ensure that any negative impacts are minimised.

ENVIRONMENTAL IMPACTS	Installation of high-efficiency pumps	Staff engagement in fuel-efficient driving	Transition WRC fleet to lower emissions vehicles	Develop air travel emissions budget	Review air travel requests
Resource use					
Electricity consumption					
Fuel consumption					
Water consumption					
Wastewater discharge					
Waste to landfill					

Air, land and water quality															
Transport congestion															
Biodiversity															
Land use															
Flooding															
Local economy															
<table border="1"> <tr> <td>Dark Green</td> <td>Significant positive impact</td> </tr> <tr> <td>Light Green</td> <td>Some positive impact</td> </tr> <tr> <td>White</td> <td>No change</td> </tr> <tr> <td>Yellow</td> <td>Some adverse impact</td> </tr> <tr> <td>Red</td> <td>Significant adverse impact</td> </tr> </table>						Dark Green	Significant positive impact	Light Green	Some positive impact	White	No change	Yellow	Some adverse impact	Red	Significant adverse impact
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KEY PERFORMANCE INDICATORS

Table 5: Key Performance Indicators (KPI)

KPI	2017	2018	2019	2020	2021
Turnover/revenue (\$Millions)	122.0	125.5	135.3	155.3	163.4

Table 6: GHG emissions per KPI

KPI	2017	2018	2019	2020	2021
Total gross GHG emissions per Turnover/revenue (\$Millions), excluding public transport	13.71	11.31	8.65	7.01	5.69
Total gross GHG emissions per Turnover/revenue (\$Millions), including public transport	13.71	11.31	8.65	7.01	48.59
Total mandatory GHG emissions per Turnover/revenue (\$Millions)*	13.71	11.31	8.65	7.01	5.69

* Mandatory emissions exclude Scope 3 Additional and Scope 3 One Time. For this report it means taxi travel and public transport emissions are not included.

In the base year, turnover was \$122 million and total tCO₂e were 1673. Emissions/turnover were 13.71 tCO₂e/\$M.

In the last reporting year, turnover was \$155.3 million and total tCO₂e was 1088. Emissions/turnover were 7.01 tCO₂e/\$M.

In this reporting period, turnover is \$163.4 million and total mandatory tCO₂e was 930. Emissions/turnover were 5.69 tCO₂e/\$M.

This is a 58.5% reduction in emissions intensity compared to the base year.

MONITORING AND REPORTING

At an organisation-wide level, the emissions intensity has been calculated using the mandatory KPI of \$ turnover as defined in Rule 59b of the technical requirements. Additional KPIs of 'FTE' and 'absolute emissions' are being used to monitor performance in specific reductions projects.

Emissions will be reviewed regularly throughout the year, as will progress towards emissions reduction targets. The EMRP will be reviewed and updated annually in June.

Karen Bennett, Manager of the Chief Executive's Office, is responsible for overseeing overall emissions management and reduction. Karen is supported by appropriate staff, contractors, and external organisations (including eBench and Toitū).

EMISSIONS REDUCTION CALCULATIONS

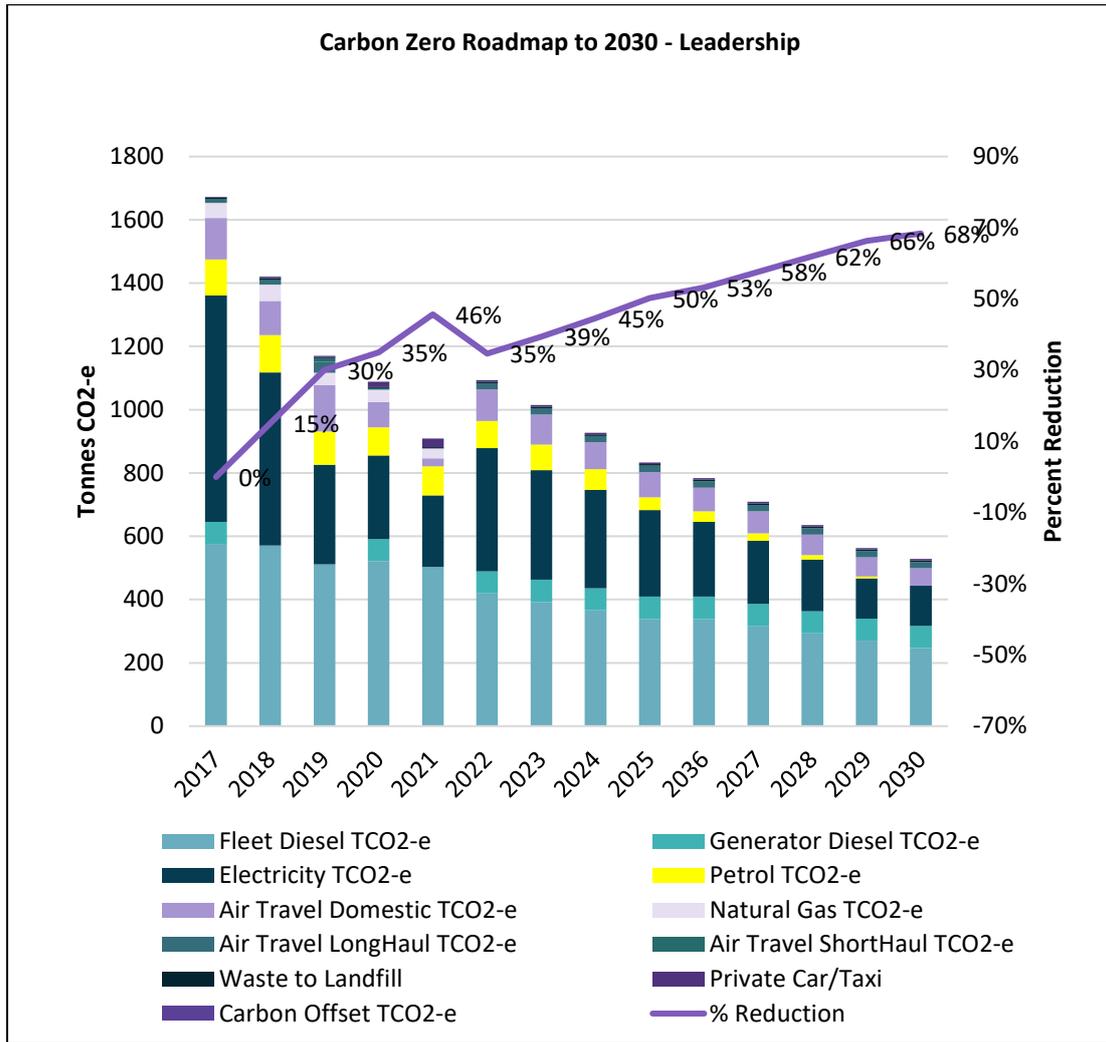
Table 7: GHG inventory results (including public transport emissions unless specified)

	2017	2018	2019	2020	2021
Scope 1	806.75	739.91	656.10	719.14	625.79
Scope 2	714.99	546.89	315.38	264.41	226.00
Scope 3 Mandatory	151.21	132.65	198.98	104.69	51.16
Scope 3 Additional	0.00	0.00	0.00	0.00	7,037.11
Scope 3 One time	0.00	0.00	0.00	0.00	0.00
Total gross emissions	1,672.95	1,419.45	1,170.47	1,088.24	7,940.06
Total gross emissions excluding public transport	1,672.95	1,419.45	1,170.47	1,088.24	930.06
Reporting reductions					
5-year average (tCO ₂ e)	1,672.95	1,546.20	1,420.96	1,337.78	2,658.23
5-year average (tCO ₂ e) (scope 1 & 2)	1,521.74	1,404.27	1,260.01	1,190.89	1,123.07
Emissions intensity reductions					
Turnover/revenue (\$Millions)	122.00	125.50	135.32	155.30	163.40
GDP deflator values Yr1 prices (assumed)					
Adjusted turnover (\$M)					
Emissions intensity (tCO ₂ e/\$M)	13.71	11.31	8.65	7.01	48.59
5-year average emissions intensity (tCO ₂ e/\$M)	13.71	12.51	11.22	10.17	17.85
Percentage change in absolute emissions	(no data)	-15.15	-17.54	-7.03	629.62
Percentage change in emissions intensity	(no data)	-17.52	-23.52	-18.99	593.46

PERFORMANCE AGAINST PLAN

The organisation has performed well against the original emissions reduction targets set in the base year (2016/17), as well as the updated targets set in June 2020 that are aligned to the CERP.

Waikato Regional Council has reduced its gross emissions by 45.67% since the 2016/17 base year, and is on track to meet its target of 70% CO₂e reductions compared to the base year by 2030.



Graph from CERP document included above to illustrate expected emissions reductions to 2030 based on WRC's Carbon Emissions Reduction Plan.