GREENHOUSE GAS EMISSIONS INVENTORY AND MANAGEMENT REPORT

Toitū net carbonzero programme

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

Lawson's Dry Hills Wines Limited

Prepared by (lead author): Julia Ames

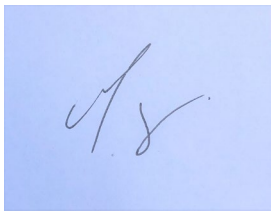
Dated: 02 March 2026

Verification status: Reasonable for categories 1 & 2 and Limited for remaining categories

Measurement period: 01 July 2024 to 30 June 2025

Base year period: 01 July 2019 to 30 June 2020

Approved for release by:



Sion Barnsley

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AVAILABILITY

Internal use only

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 Programme[1], 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 Removals[2]. 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 Lawson's Dry Hills Wines Ltd covering the measurement period 01 July 2024 to 30 June 2025.[3]

Table 1: Inventory summary

Category (ISO 14064-1:2018)	**Scopes (ISO 14064-1:2006)**	**2020**	**2024**	**2025**
Category 1: Direct emissions (tCO_2e)	Scope 1	114.07	96.88	100.29
Category 2: Indirect emissions from imported energy (location-based method*) (tCO_2e)	Scope 2	31.84	17.02	21.17
Category 3: Indirect emissions from transportation (tCO_2e)	Scope 3	55.82	58.89	76.06
Category 4: Indirect emissions from products used by organisation (tCO_2e)		75.78	13.83	13.34
Category 5: Indirect emissions associated with the use of products from the organisation (tCO_2e)		0.00	0.00	0.00
Category 6: Indirect emissions from other sources (tCO_2e)		0.00	0.00	0.00
Total direct emissions (tCO_2e)		**114.07**	**96.88**	**100.29**
Total indirect emissions* (tCO_2e)		**163.45**	**89.75**	**110.57**
Total gross emissions* (tCO_2e)		**277.52**	**186.63**	**210.86**
Category 1 direct removals (tCO_2e)		0.00	0.00	0.00
Total net emissions (tCO_2e)		**271.46**	**186.63**	**210.86**

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

[3] Throughout this document "emissions" means "GHG emissions". Unless otherwise stated, emissions are reported as tonnes of carbon dioxide equivalent (tCO_2e).

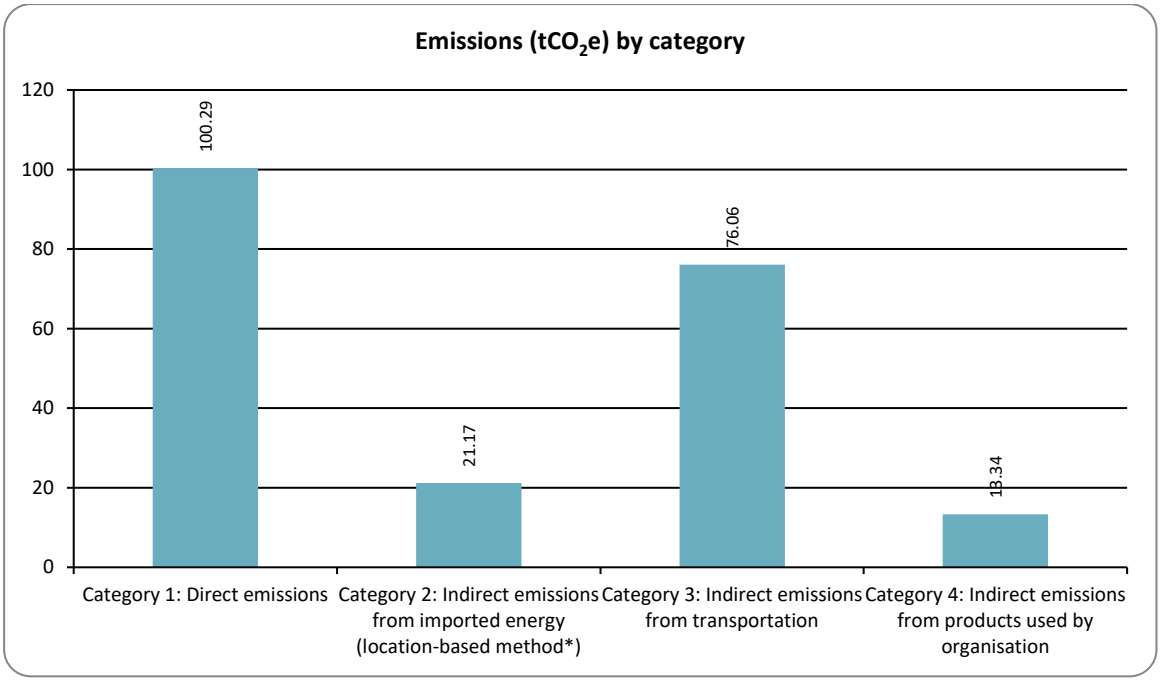

Figure 1: Emissions (tCO_2e) by Category for this measurement period

CHAPTER 1: EMISSIONS INVENTORY REPORT

1.1. INTRODUCTION

This report is the annual greenhouse gas (GHG) emissions inventory and management report for Lawson's Dry Hills Wines Ltd.

This report is the annual greenhouse gas (GHG) emissions inventory report for the named organisation. 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. The inventory has been prepared in accordance with the requirements of the measure-step of the Programme, which is based on the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004) and ISO 14064-1:2006 Specification with Guidance at the Organization Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals. Where relevant, the inventory is aligned with industry or sector best practice for emissions measurement and reporting.

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 2024 to 30 June 2025.

Category	Toitū carbon mandatory boundary (tCO_2e)	Additional emissions (tCO_2e)	Total emissions (tCO_2e)
Category 1: Direct emissions	100.29 Diesel, Fertiliser Lime, CO_2, LPG	0.00	100.29
Category 2: Indirect emissions from imported energy (location-based method*)	21.17 Electricity - Annual factor	0.00	21.17
Category 3: Indirect emissions from transportation	76.06 Air travel domestic (average), Air travel long haul (econ+), Air travel short haul (econ), Freight Road all trucks (average), Freight Shipping container (average)	0.00	76.06
Category 4: Indirect emissions from products used by organisation	13.28 Electricity distributed T&D losses, Waste landfilled LFGR Mixed waste	0.06 Waste disposal recycling of Glass, Waste disposal recycling of Paper, Waste disposal recycling of Plastic, Water treatment	13.34
Category 5: Indirect emissions associated with the use of products from the organisation	0.00	0.00	0.00

Category	Toitū carbon mandatory boundary (tCO_2e)	Additional emissions (tCO_2e)	Total emissions (tCO_2e)
Category 6: Indirect emissions from other sources	0.00	0.00	0.00
Total direct emissions	**100.29**	**0.00**	**100.29**
Total indirect emissions*	**110.52**	**0.06**	**110.57**
Total gross emissions*	**210.81**	**0.06**	**210.86**
Category 1 direct removals	0.00	0.00	0.00
Total net emissions	**210.81**	**0.06**	**210.86**
Litres produced (gross tCO_2e / litres)		0.00014	0.00014
Operating revenue (gross tCO_2e / $Millions)		17.04	17.05

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

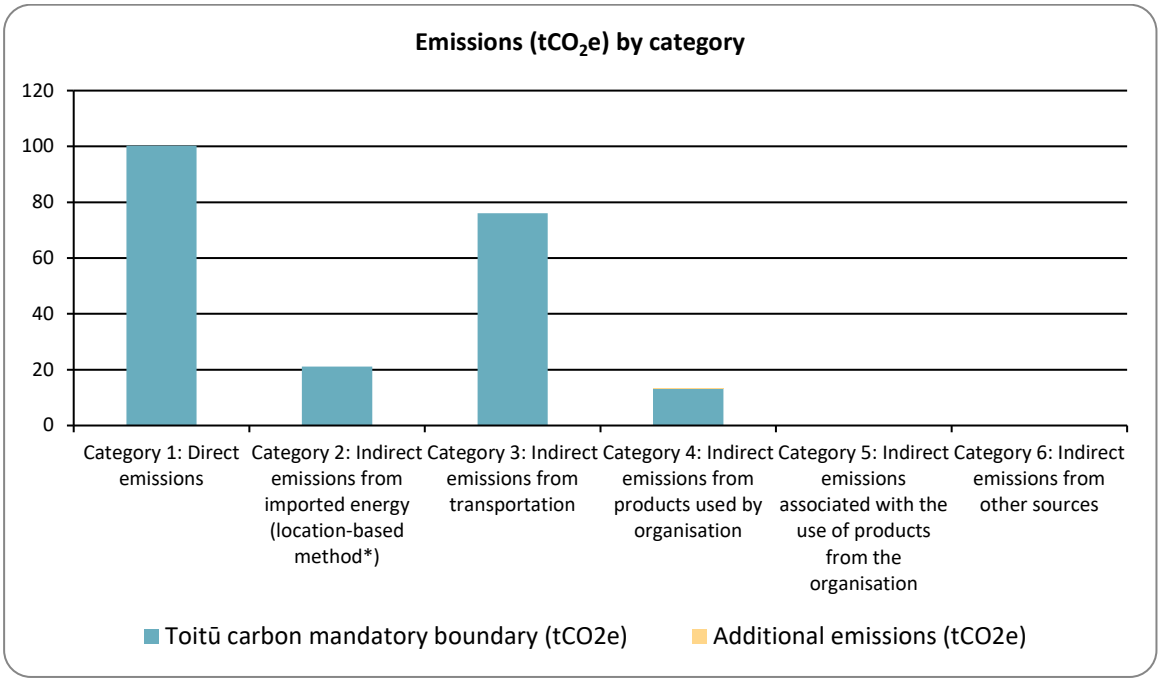

Figure 2: Emissions (tCO_2e) by category

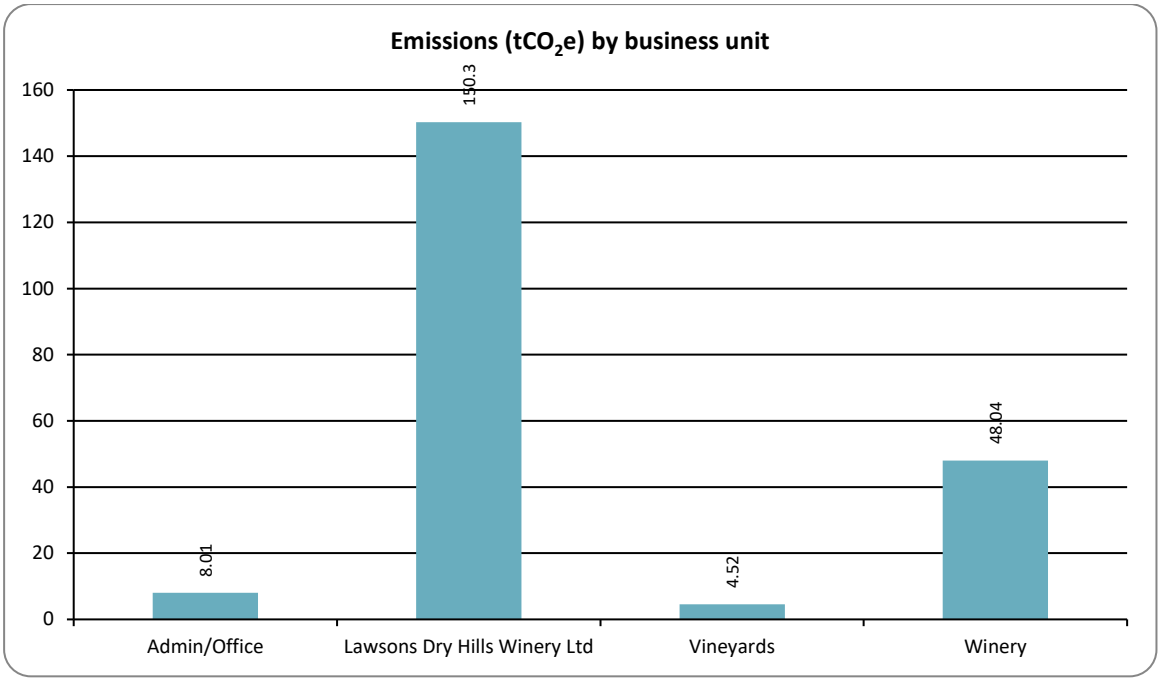

Figure 3: Emissions (tCO_2e) by business unit

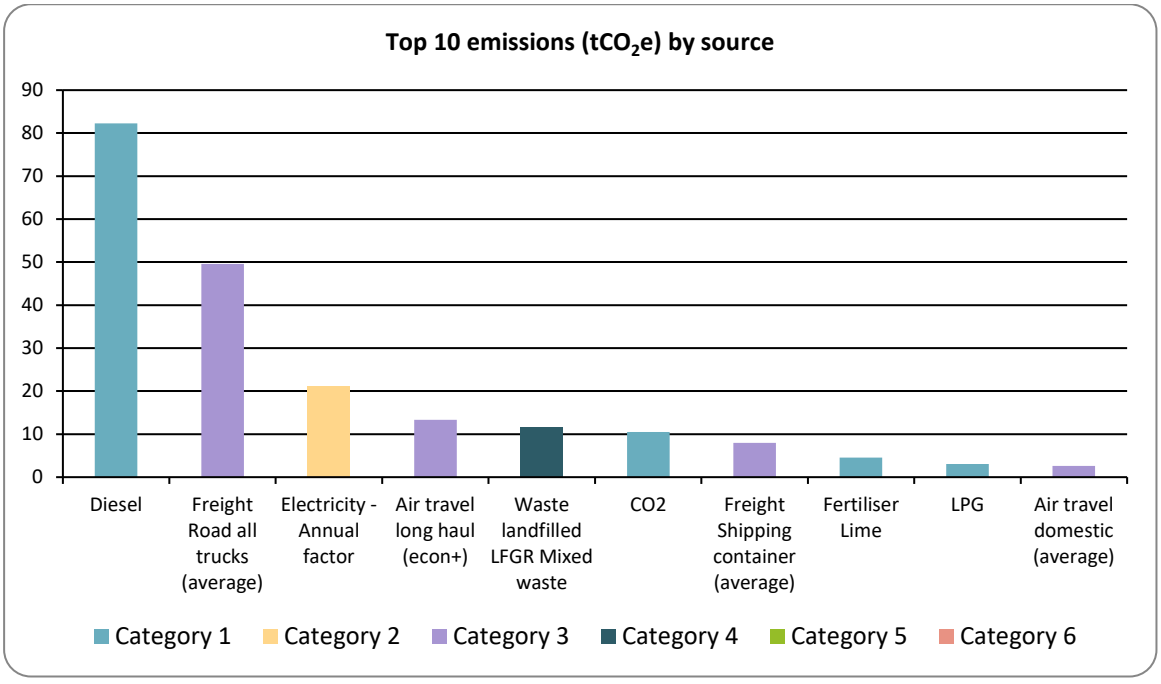

Figure 4: Top 10 emissions (tCO_2e) by source

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.

Lawsons Dry Hills Winery Ltd aligns to location-based reporting for tracking energy related emissions and reductions over time.

From August 2020 we started drawing renewable energy from our solar panels for our winery's electricity needs.

We purchase additional energy from Manawa Energy. Ninety-nine % of their electricity comes from renewable sources (hydro).

For the 2026 FYE we will be moving to a new supplier, Meridian, for our additional energy needs. 100% of their electricity comes from renewable sources.

Table 3. Dual reporting of indirect emissions from imported energy

Category	Location-based methodology (tCO_2e)	Market-based methodology (tCO_2e)
Category 1: Direct emissions	100.29	100.29
Category 2: Indirect emissions from imported energy	21.17	22.25
Category 3: Indirect emissions from transportation	76.06	76.06
Category 4: Indirect emissions from products used by organisation	13.34	13.34
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	**100.29**	**100.29**
Total indirect emissions	**110.57**	**111.65**
Total gross emissions	**210.86**	**211.95**
Category 1 direct removals	0.00	0.00
Total net emissions	**210.86**	**211.95**

1.3. ORGANISATIONAL CONTEXT

1.3.1. Organisation description

The Lawson's Dry Hills business was launched in 1992 by Ross and Barbara Lawson who planted the original company vineyard in 1982. The company owns four vineyards in Marlborough (58.7ha planted area) located in the Wairau, Southern and Awatere Valleys. It leases a further 20.6ha and also sources grapes from contract growers located across the region.

Lawson's Dry Hills' wine portfolio includes Sauvignon Blanc, Riesling, Chardonnay, Pinot Gris, Pinot Noir and Gewürztraminer.

The company is vertically integrated. It owns an 1,800 tonne winery in Blenheim, Marlborough. It is majority owned by long time shareholders, Pauline and Timothy Evill (79.4%) who increased their shareholding in December 2014, along with Sion and Biddy Barnsley. At the same time, Marcus Wright (Chief Winemaker) also became a shareholder.

Lawson's Dry Hills primarily utilises a direct sales model in key markets to ensure it has control of its brand presence (and reduce distribution costs). Distributors are also used where necessary in smaller markets.

Lawson's Dry Hills Wines Ltd is committed to sustainable winemaking and viticulture including protection of the environment and prevention of pollution. The company integrates environmental objectives into all relevant business decisions to ensure best sustainable practices in winemaking.

Lawson's Dry Hills is committed to fulfilling compliance obligations and continues to strive for ongoing improvements to the company's Environment Management System (ISO 14001).

To achieve this, the company:

- Sets annual goals, objectives and strategies to ensure minimisation of environmental impact and continual improvement of best practice related to resource use, waste management, and pollution.
- Complies with all statutory and non-statutory requirements applicable to our winemaking business in Marlborough and New Zealand
- Maintains SWNZ accreditation of its vineyards (both company and contract growers) and winery
- Maintains ISO14001 certification for the company as a whole
- Maintains ISO14064 certification for the company as a whole
- Be part of the global community of organisations committed to benefiting people and communities as well as the planet, through B Corp certification attainment.
- Communicate goals to all staff and makes available to the public and other interested parties

Commitment to certification

Lawson's Dry Hills Wines Ltd (LDH) is a small privately owned winery based in Marlborough, that produces the equivalent of 140k cases of wine primarily (95%) for export.

LDH has long held a commitment to sustainable practices across its entire business, been an early adopter of the once voluntary Sustainable Winegrowing NZ (SWNZ) programme and gained ISO 14001 (Environment Management) certification in 2010.

Given the long history of sustainability being an inherent part of LDH, each business decision is made with consideration of how it may impact the environment and the businesses sustainability credentials. This can be making choices on packaging, using light weight NZ produced bottles, purchasing EV and PHEV vehicles, to installing a solar system that provides 30% of the wineries power needs.

Today, all staff at LDH are involved day to day in maintaining the businesses sustainability practices and take pride in what has been achieved – whether it will be drawing 30% of our energy needs from our solar panels or drawing 54% less water from the aquifer than the average winery our size (per litre of wine produced) as benchmarked by SWNZ, (over the last 5 years).

From this strong foundation of environment commitment, LDH wanted to ensure the business continued along this sustainability journey by undertaking the process to gain Carbon Zero certification.

Continuing our ongoing commitment to sustainability, we are proud to also have recently in December 2024, we added B Corporation Certification to our accreditations, putting us among businesses that are proving to the world that it's possible to be commercially successful while benefiting people, communities and the planet.

GHG Reporting

This report forms a key foundation document for recording our performance against base year, along with identifying opportunities for ongoing improvement. Our goals and targets are the barometer we measure our success towards our net carbon zero status, and is used to identify ways in which to lessen the number of carbon credits we must purchase each year. Our company strategy is reduce our carbon footprint from an environmental impact and financial point of view, and forms part of our wider sustainability certifications programme in reducing GHG and carbon emissions.

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Climate Change Impacts

Climate change, over a relatively short period of time, is having a dramatic effect on grape growers. The list of changes of how we grow grapes, mitigate risk and manage resources is long and we cannot adapt fast enough. The ultimate threat is that current planted grape varieties will become unsuitable, requiring replanting, while inputs (diesel, fungicides) to combat warmer growing conditions continue to increase.

Parent Company Targets

We do not have any global parent company.

1.3.2. Statement of intent

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

Intended use and users

Intended Use:

Compliance to Toitū carbonreduce or carbonzero programme certification - Essential

Reduce emissions - High priority

Responding to customer demands - High priority

Responding to public expectations/social license to operate - Medium priority

Manage emissions related risks - High priority

Contribute to staff culture - High priority

Inform operational decisions - Medium priority

Save money - Medium priority

Contribute to brand value - High priority

Intended users:

Internal - Management - Essential

External - suppliers - Medium priority

External - regulators - Medium priority

External - Non-government organisations (NGOs) - Medium priority

External - general public - High priority

External - financial community and/or investors - Medium priority

External - customers - High priority

Other schemes and requirements

B Corp and Telarc ISO 14000

1.3.3. Person responsible

Sion Barnsley is responsible for overall emission inventory measurement and reduction performance, as well as reporting results to top management. Sion Barnsley 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

Julia Ames, Marketing and Sustainability Leader, is responsible for managing LDH's sustainability/environment programmes and reports directly to the General Manager.

Julia Ames is fairly new to the sustainability reporting space, since joining LDH almost a year ago. She had successfully completed the Telarc ISO 14001 certification audit in July 2025, and has strong marketing and commercial background acquired working the last 20 years in various energy and fmcg organisations. Her qualifications include BSc and BCom, and she did a short stint as an oil chemist.

Top management commitment

The General Manager/Director, Sion Barnsley, is heading the carbon zero project as he did for the Environment Management ISO 14001 certification that commenced 2011.

Further, Sion plays an active part in ensuring the business maintains sustainable practices as a member of the Environment Management Team (EMT) that meets quarterly.

Management involvement

Sion contributed and reviewed the IMR report plus data entry questions and queries as needed.

1.3.4. Reporting period

Base year measurement period: 01 July 2019 to 30 June 2020

Base year measurement period: 01 July 2019 to 30 June 2020

Measurement period of this report: 01 July 2024 to 30 June 2025

Annually

Alignment with companies financial reporting year

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

Organisational boundaries were set with reference to the methodology described in the GHG Protocol and ISO 14064-1:2006 standards. The GHG Protocol allows two distinct approaches to be used to consolidate GHG emissions: the equity share and control (financial or operational) approaches. The Programme specifies that the operational control consolidation approach should be used unless otherwise agreed with the Programme.

Organisational structure

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

General Manager Sion Barnsley heads all four departments (winemaking, viticulture, logistics and marketing).

[4]control: 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.

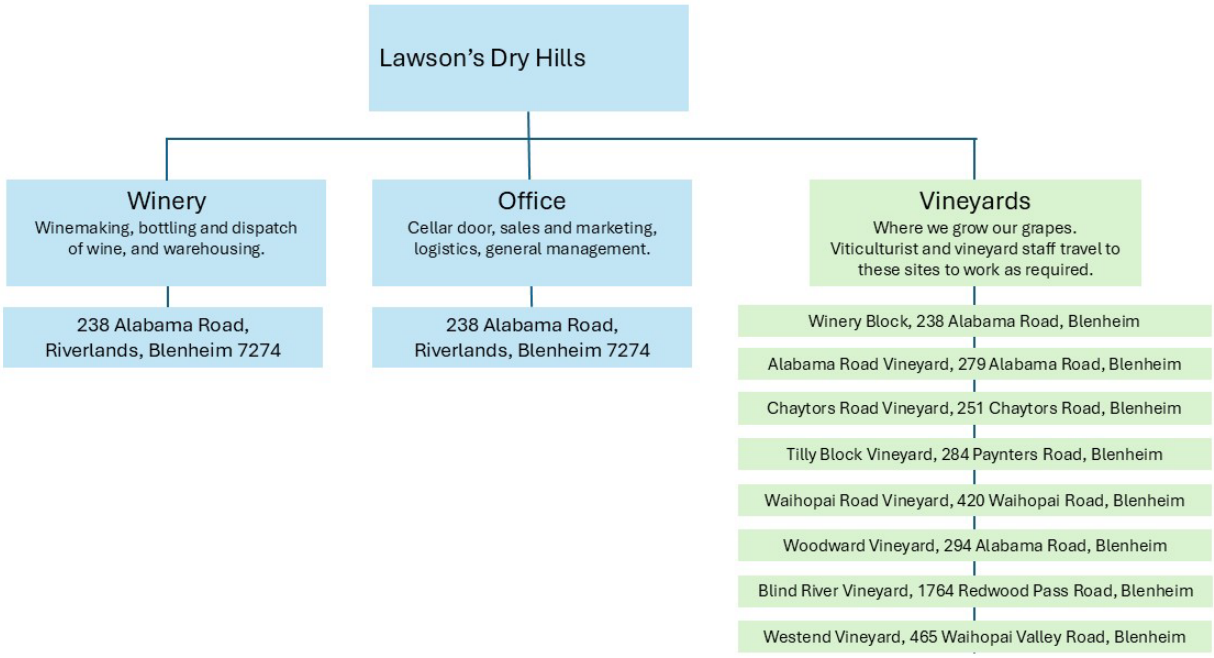

Figure 5: Organisational structure

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

Business unit	Address	Purpose
Lawson's Dry Hills Office/Admin	238 Alabama Road, Blenheim 7274, New Zealand	Office
Alabama Road Vineyard	279 Alabama Road, Blenheim 7274, New Zealand	Vineyard
Blind River Vineyard	1764 Redwood Pass Road, Blenheim 7274, New Zealand	Vineyard
Chaytors Road Vineyard	251 Chaytors Road, Blenheim 7273, New zealand	Vineyard
Tilly Block Vineyard	284 Paynters Road, Blenheim 7272, New Zealand	Vineyard
Waihopai Road Vineyard	420 Waihopai Road, Blenheim 7276, New Zealand	Vineyard
Woodward Vineyard	294 Alabama Road, Blenheim 7274, New Zealand	Vineyard
Winery	238 Alabama Road, Blenheim 7274, New Zealand	Winery
Winery Block	238 Alabama Road, Blenheim 7274, New Zealand	Vineyard
Westend Vineyard	465 Waihopai Valley Road, RD6, Blenheim, New Zealand	Vineyard

1.3.6. Excluded business units

None to report.

CHAPTER 2: EMISSIONS MANAGEMENT AND REDUCTION REPORT

2.1. EMISSIONS REDUCTION RESULTS

Year on year we are steadily reducing our overall emissions but have seen a 14% increase overall on the top 5 emissions this period vs previous year.

In 2024-25 our tCO_2 is 218 compared to 278 in base year (2019-20). That's a reduction of 29%. The above increase in 2025 has been predominantly driven by higher use of electricity, more freight shipped to Nelson Port by road and an additional long-haul flight.

This year we see flat use in diesel use, but we hope to see further reductions in the future through the deduction of personal mileage and proposed changes in tractor consolidation and use going forward. We saw higher harvester diesel use due to the record harvest size in 2025, including harvesting fruit we may not have harvested in previous years, that was dropped on the ground in the vineyards. In 2025, our wine production is up 40% YOY, (450,371L), the difference being driven by a combination of a small 2024 harvest and a huge 2025 vintage. When we compare the size of the 2025 harvest to our base year, the wine produced was 27% higher, demonstrating a much higher yield than previous years.

We have seen uplift in electricity (+8% YOY), driven by the Winery's higher processing levels during harvest, as a result of the significantly higher grape yield, versus 2024. We have seen a 4% uplift in freight by road YOY, but when we compare the tCO_2e per litre of wine produced, this figure shows a reduction of 1%. The YOY uplift in freight has been driven by record sales of finished wine to port for overseas markets. We are still significantly down on 2023, as we no longer trucky wine to Eurowine in Auckland for distribution, which is now direct from our warehouse in Blenheim.

Our domestic travel continues to decrease year on year, by using digital communication wherever possible. Long-haul travel has increased 54% over 2024 but less than in 2023. This is due to in 2024, we had no one attend Prowein and in 2025 we had additionally our winemaker complete trips to Australia. It may also be possible that differences have occurred due to the time of year these trips may have occurred.

Table 5: Comparison of historical GHG inventories

Category	2020	2021	2022	2023	2024	2025
Category 1: Direct emissions (tCO_2e)	114.07	121.85	148.42	123.57	96.88	100.29
Category 2: Indirect emissions from imported energy (location-based method*) (tCO_2e)	31.84	29.74	29.21	16.01	17.02	21.17
Category 3: Indirect emissions from transportation (tCO_2e)	55.82	49.10	56.22	107.51	58.89	76.06
Category 4: Indirect emissions from products used by organisation (tCO_2e)	75.78	85.35	31.21	12.75	13.83	13.34

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Category	2020	2021	2022	2023	2024	2025
Category 5: Indirect emissions associated with the use of products from the organisation (tCO_2e)	0.00	0.00	0.00	0.00	0.00	0.00
Category 6: Indirect emissions from other sources (tCO_2e)	0.00	0.00	0.00	0.00	0.00	0.00
Total direct emissions (tCO_2e)	**114.07**	**121.85**	**148.42**	**123.57**	**96.88**	**100.29**
Total indirect emissions* (tCO_2e)	**163.45**	**164.20**	**116.65**	**136.26**	**89.75**	**110.57**
Total gross emissions* (tCO_2e)	**277.52**	**286.04**	**265.06**	**259.83**	**186.63**	**210.86**
Category 1 direct removals (tCO_2e)	0.00	0.00	0.00	0.00	0.00	0.00
Total net emissions (tCO_2e)	**271.46**	**286.04**	**265.06**	**259.83**	**186.63**	**210.86**
Emissions intensity						
Litres produced (gross tCO_2e / litres)	0.00022	0.00027	0.00017	0.00018	0.00017	0.00014
Litres produced (gross mandatory tCO_2e / litres)	0.00022	0.00026	0.00017	0.00018	0.00016	0.00014
Operating revenue (gross tCO_2e / $Millions)	26.43	25.31	25.49	19.88	14.36	17.05
Operating revenue (gross mandatory tCO_2e / $Millions)	25.62	25.06	25.47	19.86	14.34	17.04

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

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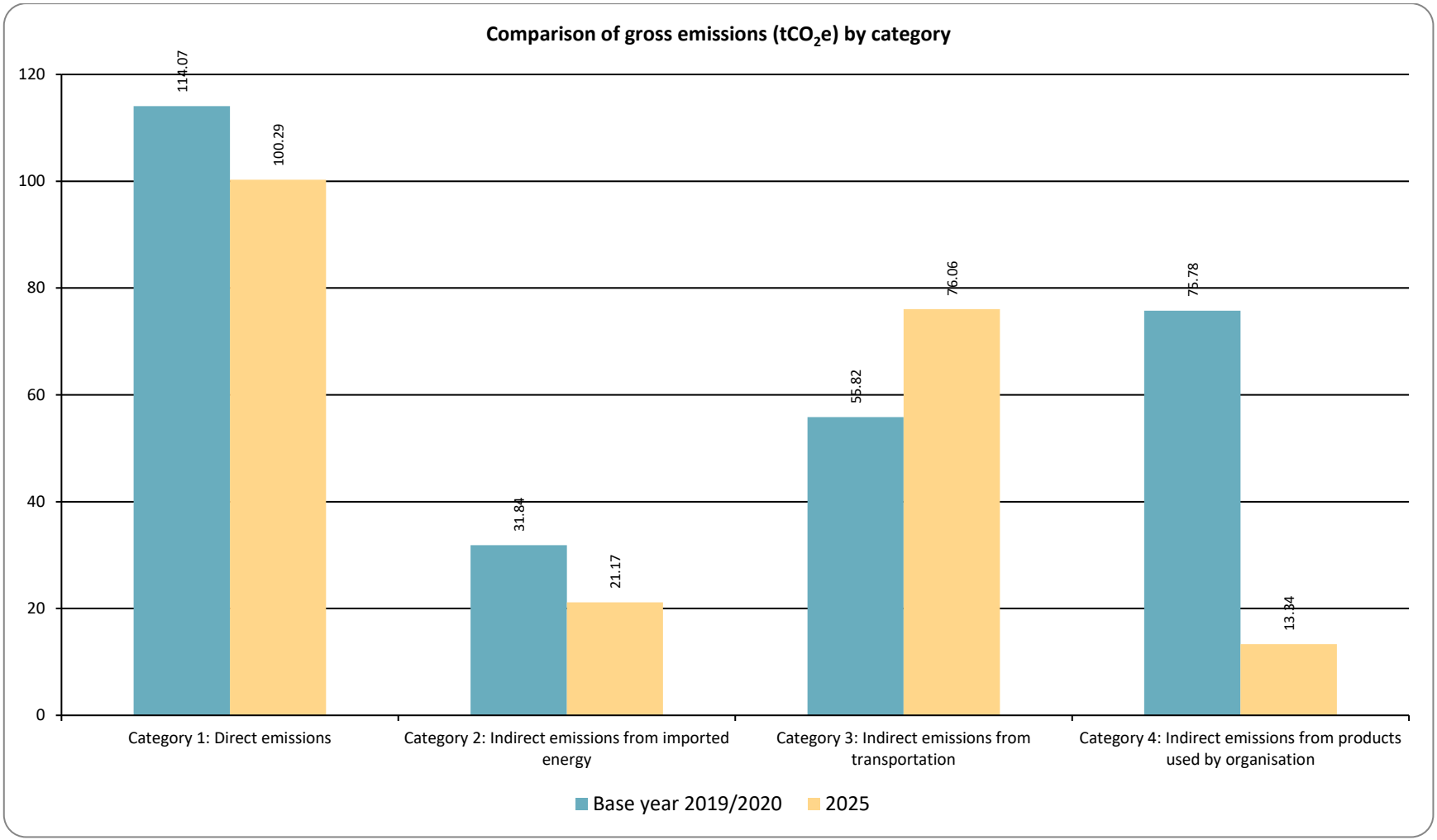

Figure 6: Comparison of gross emissions (tCO_2e) by category between the reporting periods

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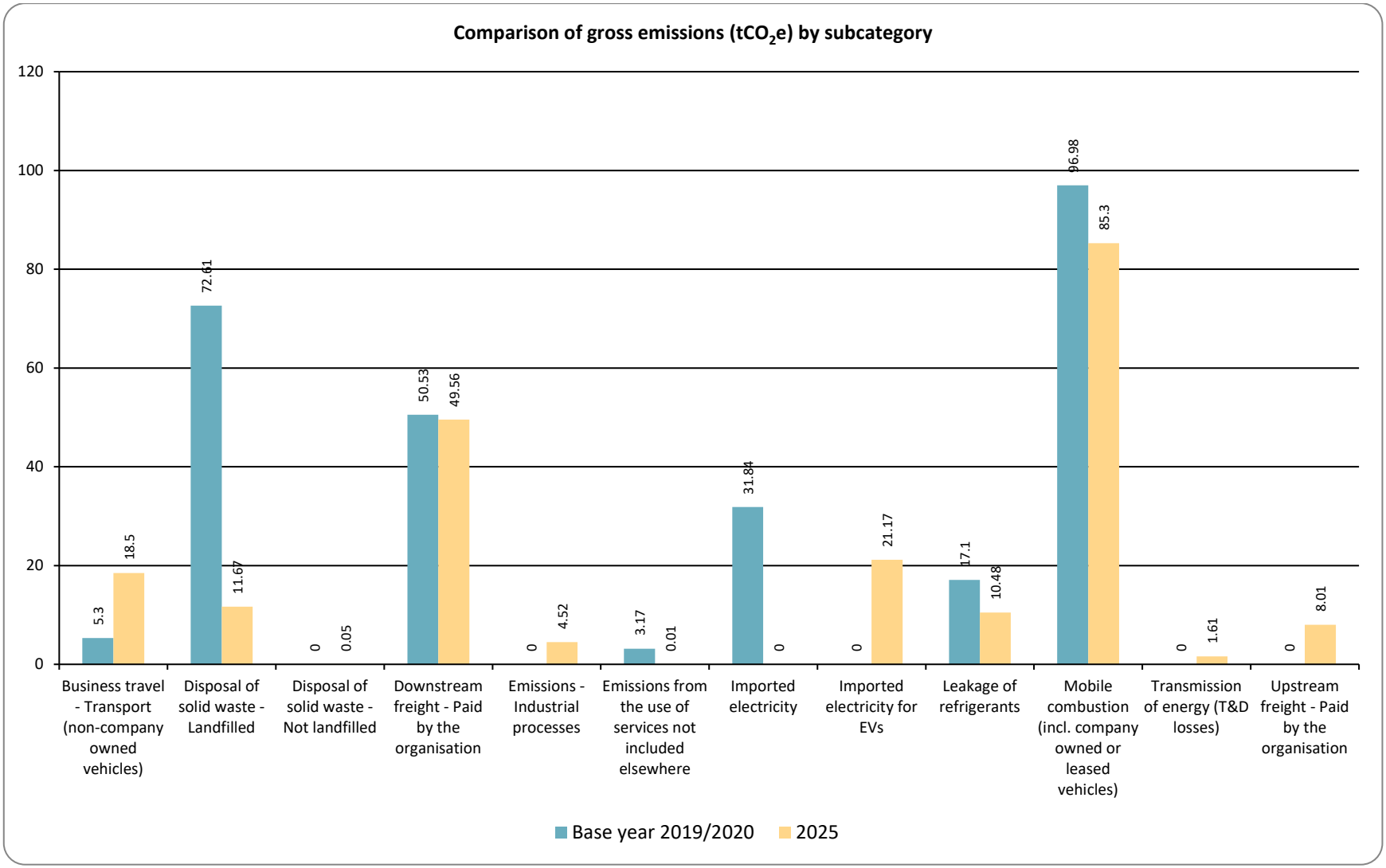

Figure 7: Comparison of gross emissions (tCO_2e) by subcategory between the reporting periods

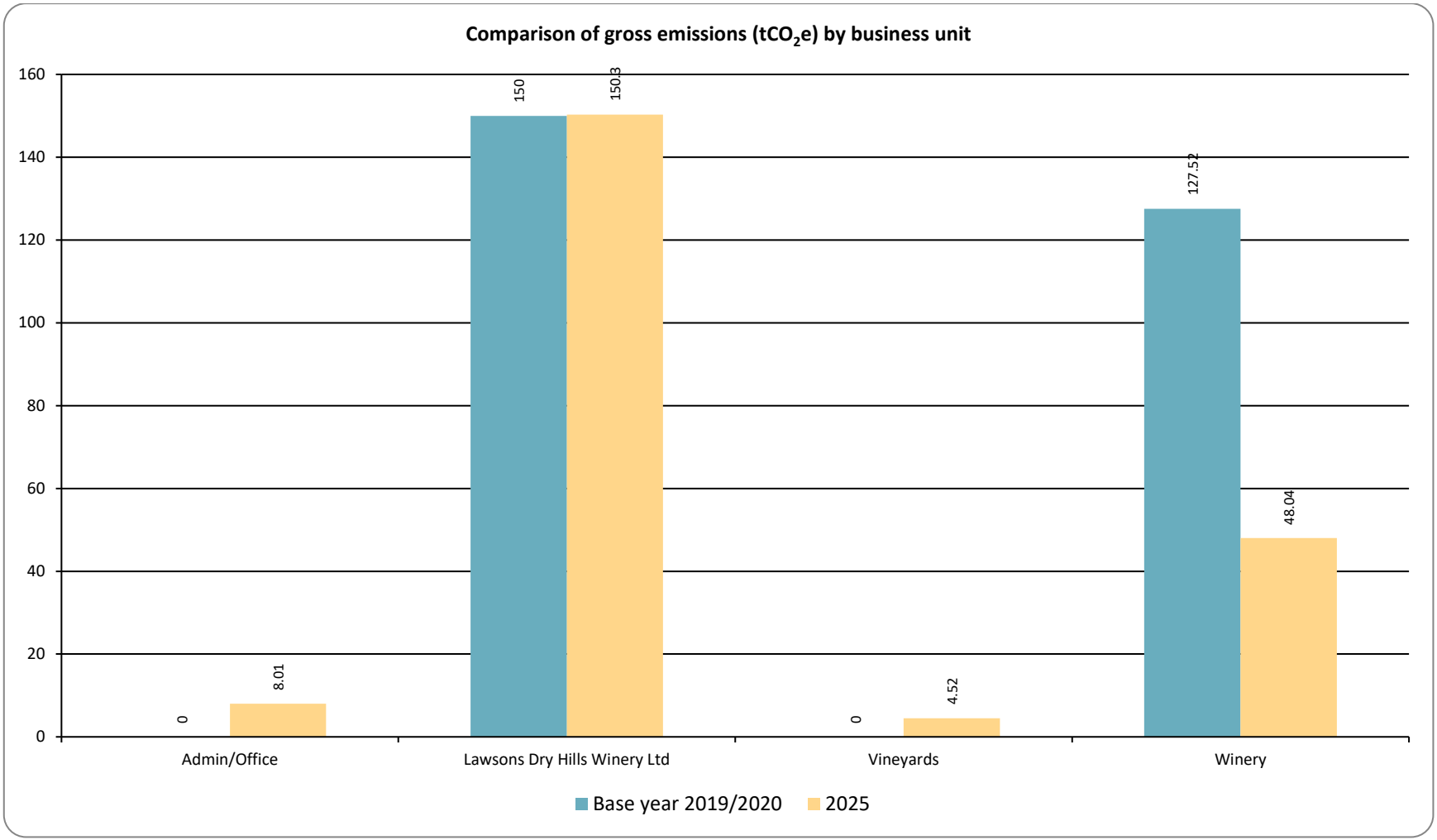

Figure 8: Comparison of gross emissions (tCO_2e) by business unit between the reporting periods

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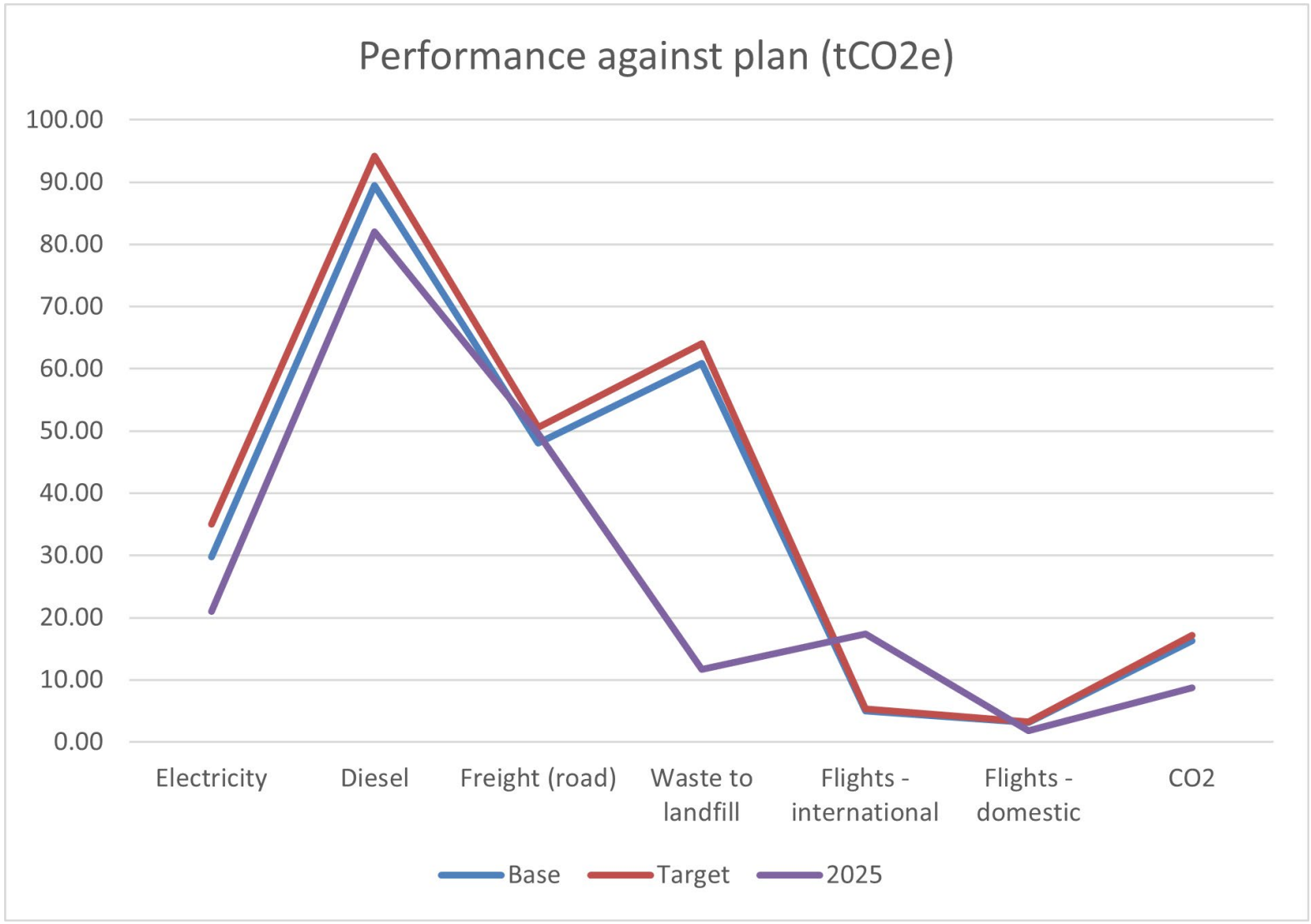

Figure 9: Performance against target since base year

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Table 6. Performance against plan

2023-24 workings														
Target name	Baseline period	Target date	Target	2019-20 (tCO_2e)	2020-21 (tCO_2e)	2021-22 (tCO_2e)	2022-23 (tCO_2e)	2023-24 (tCO_2e)	2024-25 (tCO_2e)	2024-25 change from prev yr	2024-25 change from baseline	Target reduction from base year to current year	Target 2025	Comments
Electricity	July 2019 - June 2020	30/06/2025	29.76	35.01	32.48	31.89	17.86	18.27	21.00	15%	-40%	15%		We continue to exceed our target, due to solar panels installed 2020. We saw reductions with the commission of a new ammonia refrigeration plant in 2023. All lighting in the winery was converted to the more efficient LED.
Diesel	July 2019 - June 2020	30/06/2025	89.47	94.18	99.96	91.05	85.49	82.12	82.00	0%	-13%	5%		We are meeting our target, having reduced emissions 13% since base year. We need to continue to look for improvements here with more efficient vehicles, logging personal mileage and less tractor vineyard passes.
Freight (road)	July 2019 - June 2020	30/06/2025	48.00	50.53	45.37	55.46	73.83	47.60	49.60	4%	-2%	5%		A lift in global sales of finished wine to port and high grape yield has driven freight up on land.
Waste to landfill	July 2019 - June 2020	30/06/2025	60.87	64.07	79.71	28.31	10.66	12.44	11.67	-6%	-82%	5%		Changes in processing grape marc to extract more and divert from ponds, has resulted in uplift in sludge disposal

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2023-24 workings														
Flights - international	July 2019 - June 2020	30/06/2025	5.03	5.30	3.73	0.76	33.68	11.27	17.40	54%	228%	5%		As borders were closed in the base year, we may need to revisit the target since international travel is required to visit LDH markets. This period two staff members travelled to China and Europe, increasing travel from year previous but not as high as the year before that, mainly driven by not attending Prowein.
Flights - domestic	July 2019 - June 2021	30/06/2025	3.09	3.26	3.73	0.76	3.01	2.10	1.80	-14%	-45%	5%		We have exceeded our target by using digital communications where possible
CO_2	July 2019 - June 2020	30/06/2025	16.24	17.10	18.43	14.38	15.72	11.78	8.70	-26%	-49%	5%		We continue to look for alternatives to reduce CO_2, and also we ensure that tanks are as full as possible. The ammonia plant installed in 2022 also reduces need for CO_2.
		Total	252.47	269.44	283.41	222.61	240.25	185.58	192.17	4%	-29%			We are over halfway there to reducing our emissions from base year by 50% since base year by 2030.

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2.2. SIGNIFICANT EMISSIONS SOURCES

Significant sources

ISO 14001 requires LDH to monitor and measure the key characteristics and environmental performance associated with operations that have significant environmental impact. All measures are compiled on a master spreadsheet and reviewed at the quarterly EMT meetings with the goal of reducing inputs and waste to landfill.

Our three largest emission sources continue to be Diesel (68 tCO_2e), followed by freight (50 tCO_2) and Electricity (21 tCO_2).

Although diesel is the largest contributor, it has remained constant at 82tCO_2 from last year. We are hoping for a reduction in diesel use in 2026 due to a change in Viticulturist and his approach to less tractor passes in the vineyards and changes in methodology of recording personal mileage.

LDH in previous years made significant inroads in reducing the distance travelled in delivering finished product to port for export (representing 80% of production), by stipulating shipping terms ex Port Nelson as opposed to the larger export ports in the upper North and lower South Islands. The distance to Nelson is 125km vs 765km to Auckland. Unfortunately, there is no rail network to Nelson. Freight is up due to increases in overseas export sales slightly. We only have one shipment to the UK vs two last year, due to timing, the second leaving in July outside this reporting period.

Another initiative to reduce freight is limiting the number of movements by building a warehouse on the winery/bottling site, that enables one movement from bottling/warehouse to port. Lastly, freight movements to port are consolidated to optimize large volume movements in truck and trailer units as opposed to a truck unit with 50% less carrying capacity.

The weight, not the cubic area, of the freight has reduced due to LDH changing to a bottle that is the lightest available at 390gms, approximately 27% lighter than the industry standard bottle. We now have approximately 90% of our brands bottled in the 390g lighter weight bottle, contributing to reducing our carbon emissions per litre of wine produced.

We harvest approximately 30% of electricity from our solar panels. This reduced purchased electricity in previous years, but compared to last year, our consumption is up by 8%, due to the larger harvest processing at the Winery in 2025. Other electricity gains in reducing emissions in recent years, has included the commissioning of an ammonia refrigeration unit in the winery in 2023.

Activities responsible for generating significant emissions

Long- haul travel is our fourth largest emission. Long-haul travel increased in 2025 YOY since in 2024 we did not attend Prowein in Germany and we also had our winemaker make two in market trips to Australia, driving the uplift in distances travelled. Visiting our major customers, distributors and attending trade fairs in-person remains an important part in staying top of mind and our brand actively generating export sales for New Zealand. We continue to look for ways to minimalise the carbon footprint of our travel, by assessing who should travel and combining visits into one major trip per year for the Managing Director and Export Manager. Suggest we need to review our base year figure to meet our 5% reduction target, since it occurred during the international travel ban during the Covid19 pandemic in the 2019/2020 financial year, to that of the distances travelled in the year prior to base or 2023 to be more realistic and attainable.

Waste to landfill is our fifth largest emission. Following the inception of ISO 14001 in 2010, LDH saw a 30% reduction of waste to landfill due to the implementation of a recycling programme that separates waste streams to minimise contamination and volume sent to landfill. Our waste to landfill has increased from 53 tonne to 57 tonne from last year, despite our recycled waste reducing marginally (from 9.165 to 8.85 tonnes). The proportion of recycled waste was 17% last year, up from 9% in base year.

Bio-sludge makes up the majority share of our landfill and is driven by the increased use of the Rotary Drum Vacuum filter (RDV) to reduce solids to landfill. Historically we only used the RDV during harvest but now

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use year-round. This positively decreases liquid waste to the water waste ponds but increases landfill waste. We could look to purchase offset carbon credits when purchasing long-haul trips as an option.

Influences over the activities

In 2026, we will be exploring new approaches to viticulture management in revised philosophies around tractor passes, regenerative farming practices and replacing old tractors with a new more fuel-efficient model to decrease our diesel use over time.

Significant sources that cannot be influenced

N/A

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).

LDH is committed to continuing the journey, that was started 2011 with ISO 14001 Environmental Management Certification, to reduce its carbon emissions.

The target between financial year ending 2020 and 2024 is to reduce total emissions by a further 10%, with year one as the baseline (emission per litre of wine produced).

Beyond this period, the target reduction in greenhouse gas emissions (GHG) is 50% by 2030, aiming to become climate positive by 2050.

We have consistent reductions since base year. Electricity reductions are 40%, well above the target due to solar panel installation and commissioning of a new ammonia refrigeration unit in 2023. Waste to landfill also significantly reduced (by 82%) and CO_2 consumption also reduced by 49% due to initiatives. Challenges remain in identifying savings on freight driven by weight and international travel driven by the need to visit markets to drive our business forward, which is often trade fairs and face to face meetings. Our base year was Covid19 lockdown, so might not be representative of normal years and where digital technologies is not necessarily a good replacement. Diesel remains the same year on year at 30,679L per year, but shown a 40% reduction since base year, watch this space as we review our practices in the vineyard with new approaches being introduced by the new viticulturist.

Table 7. Emission reduction targets

Target name	Baseline period	Target date	Type of target (intensity or absolute)	Categories covered	Target reduction from baseline	Target in absolute terms	KPI	Responsibility	Rationale
Electricity	July 2019 - June 2020	30/06/2025	Absolute	Category 2	15%	239628	Total purchased electricity per year / litres produced	General Manager	Hold or surpass 15% reduction from base year. Solar installers to review performance of solar panels and clean panels October 2024.
Diesel	July 2019 - June 2020	30/06/2025	Absolute	Category 1	5%	47642	Total litres purchased per year / litres produced	General Manager	Reduce number of times vineyards mown, look for energy replacement in heating water in winery, use electric vehicles when possible
Freight	July 2019 - June 2020	30/06/2025	Absolute	Category 3	5%	321510	Tonnes/per km / litres produced	Logistics Officer/General Manager	Investigate bottling offshore ongoing, reducing number of stock movements (per litre) domestically.
Waste to landfill	July 2019 - June 2020	30/06/2025	Absolute	Category 3	5%	47	Cubic tonnes / litres produced	Winemaker	Continue to make 5% reduction initiatives. Result of recent recycling audit, ensuring no cross contamination and options for new compostable/recyclable products
Flights/Travel	July 2019 - June 2020	30/06/2025	Absolute	Category 3	5%	22687	Co2 tonnes / litres produced	General Manager	Essential travel only, when no other meeting options are available. Base year was during covid. As borders are reopened, international travel increased. Focus on how to limit these and impacts.
CO_2	July 2019 - June 2020	30/06/2025	Absolute	Category 1	5%	14795	Kg / litres produced	Winemaker	Ensure wine tanks are full as possible, reducing required CO_2. New ammonia plant installed reducing intensity of leaking CO_2. Investigate using nitrogen as an alternative to CO_2
									align with 14001

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
Staff air travel	Install videoconferencing at the meeting room as alternative to travelling to meetings. Provide training to all staff who regularly travel by air. Obtain commitment from winemakers and key staff to use videoconferencing as an alternative to air travel where appropriate.	General Manager	Completed - May-2020			
Electricity	Installation of solar panels	General Manager	Completed - Aug-2020			
CO_2	Investigate using nitrogen as an alternative to CO_2	Winemaker	ongoing			
Refrigeration	New refrigeration technology with less or no hydrofluorocarbons - ammonia/CO_2	Winemaker	Completed installation of new ammonia plant before harvest 2023			
Waste to landfill	Investigate spreading filtration earth to vineyards vs sending to landfill.	Winemaker	ongoing			
Freight	Investigate bottling offshore, increasing litres shipped per 20ft container by 50%.	General Manager	ongoing			
LPG/diesel	Investigate hot water recovery, negating use of LPG/diesel.	Winemaker	ongoing due to significant capital cost			
Diesel	Investigate viability of electric vehicles	General Manager	complete - April 22			
Diesel	Review tractor use, movements between vineyards and frequency of vineyard activities.	Viticulturist / General Manager	ongoing			

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Objective	Project	Responsibility	Completion date	Potential co-benefits	Potential unintended consequences	Actions to minimise unintended consequence
Diesel	Purchase a new double-sided Trimmer to half the vineyard passes for leaf removal	Viticulturist / General Manager	complete - 2022			
Reduce CO_2	Investigate Nitrogen Generation to replace CO_2 for gas cover.	Winemaker	ongoing			
Energy Use	Solar installers (goodyer) to review performance & clean panels	General Manager	1/10/2024			
Energy Use	Replacing gas with ammonia by upgrading the refrigeration plant	Winemaker	COMPLETED March 2023			
Electricity	Explore moving to 100% renewable electricity supply	General Manager	Completed Aug 2025			

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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	Completion date
Freight	Account for each movement, not consolidate movements over a given timeframe.	Logistics officer	1/02/2021
Waste to Landfill	Work with waste contractors to obtain actual waste weights.	Sustainability Consultant	1/04/2021
Electricity	Our Blind River vineyard kWh invoices have been confusing, we are now receiving actual meter readings each month from the power supplier which is then recorded into our tracking spreadsheet monthly.	Sustainability Admin	1/09/2022
Tracking spreadsheet	One tracking spreadsheet final version to be saved in Carbon Zero folder under the specific year - updated and checked only by sustainability admin, this stops several people updating the sheet. One person responsible with all questions and queries through this sheet.	Sustainability Admin	2022-2023
Waste to Landfill	New waste management reporting sheets have improved the data we receive for the various waste streams.	Sustainability Executive	2023-2024

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
Refrigeration units	Regular servicing and preventing damage to units and pipelines/connections to tanks. Suitable safe storage of refrigerant.	Winemaker	On-going
Air Conditioning units	Regular servicing and preventing damage to units	General Manager	On-going
Diesel tanks	Bunded tanks to capture any leaks or spillages.	General Manager	On-going
CO_2/LPG cylinders	Suitable storage to avoid damage and leaks.	Winemaker	On-going
Refrigeration units	Replaced with a new modern ammonia based plant, which is there was a leak would result in significantly less emissions/impact	Winemaker	completed Feb 2023

2.5. STAFF ENGAGEMENT

As part of the ISO 14001 programme, there is internal environment communications to ensure all staff are aware of their role in implementing the programme and the importance of conformance of the procedures and systems.

New staff are introduced to our sustainability goals and procedures as part of their induction.

2.6. KEY PERFORMANCE INDICATORS

The amount of emissions produced is directly correlated to the amount of wine (litres) produced. For this reporting period we had a much higher production (due to the high grape yield) in 2025 compared with 2024 last year; more on par but still greater than 2023.

During the 2025 vintage we produced 1,505,208 litres wine compared with 1,130,470.00 litres in 2024 (450,371 litres more, or a 40% increase in wine production).

Despite this increase overall in carbon tonnes CO_2 emissions overall, as a percentage of wine produced, our emissions reduced from 15% in 2024 to 10% in 2025, mainly due to a reduction in diesel use by the tractors in the vineyards, the utes (we are offsetting personal mileage now) and in the winery, which is pleasing.

Table 11. Key Performance Indicators (KPIs).

KPI	Rationale of using the additional KPI
Litres of wine produced	The volume as a direct impact on the carbon emissions

2.7. MONITORING AND REPORTING

The monitoring and reporting is integral to our Quarterly EMT meetings. Staff that are responsible for each of the targets report to the Sustainability Lead, whom reports on actual vs targets at the EMT meetings.

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 Lawson's Dry Hills Wines Ltd.xls).

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

Category	CO_2	CH_4	N_2O	NF_3	SF_6	HFC	PFC	Desflurane	Sevoflurane	Isoflurane	Emissions total (tCO_2e)
Stationary combustion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile combustion (incl. company owned or leased vehicles)	83.94	0.20	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85.30
Emissions - Industrial processes	4.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.52
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	10.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.48
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	98.94	0.20	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.29

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Table 13. Non-biogenic, biogenic anthropogenic and biogenic non-anthropogenic CO_2 emissions and removals by category

Category	Anthropogenic biogenic CO_2 emissions	Anthropogenic biogenic (CH_4 and N_2O) emissions (tCO_2e)	Non-anthropogenic biogenic (tCO_2e)
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	11.68	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**	**11.68**	**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.

Communication with staff members around their area of emissions, site visits to double check invoices from supplier if required, reports from accounting team on air flights, live tracking spreadsheet of all logistics movements in logistics team.

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.

Monthly reports from suppliers

Monthly reports from accounts team of invoices and purchases from suppliers

Monthly reports and meter readings from one of our power companies

Website login for the other power company - to see actual kWh each month/live

Monthly reports from local waste management provider

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	Mobile combustion (incl. company owned or leased vehicles)	Diesel, LPG	Actual invoices have been used, so assuming accurately reflects our purchases, and that our end of year SOH is accurate.		
	Emissions - Industrial processes	Fertiliser Lime	This is also based on actual invoices so is likely correct.		
	Leakage of refrigerants	CO_2			
Overall assessment of uncertainty for Category 1 emissions and removals		13%	Medium		
Category 2: Indirect emissions from imported energy	Imported electricity for EVs	Electricity - Annual factor	Assuming that the supplier invoices are accurate in terms of kWh spent, all monthly invoices have been captured.		
Overall assessment of uncertainty for Category 2 emissions and removals		7%	Medium		
Category 3: Indirect emissions from transportation	Business travel - Transport (non-company owned vehicles)	Air travel domestic (average), Air travel long haul (econ+), Air travel short haul (econ)	Assuming that the distances provided by the airportdistancecalculator.com are accurate, and all flights have been accurately calculated.		
	Upstream freight - Paid by the organisation	Freight Shipping container (average)	Assuming that the distance provided by the freight companies is actual distance.		

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
	Downstream freight - Paid by the organisation	Freight Road all trucks (average)	Assuming that the distance travelled is the direct route from point A to point B.		
Overall assessment of uncertainty for Category 3 emissions and removals		31%	High		
Category 4: Indirect emissions from products used by organisation	Disposal of solid waste - Landfilled	Waste landfilled No LFGR Mixed waste	We receive a Toitū compatible report from Waste Management.	measured by weight.	We use a Toitū compatible report from Waste Management.
	Disposal of solid waste - Not landfilled	Waste disposal recycling of Glass, Waste disposal recycling of Paper, Waste disposal recycling of Plastic	Glass, newspaper, cardboard and mixed recyclables are recycled by Waste Management from their invoice data. The rest is collected in bins by us. The bins have a cubic measurement on them, but the accuracy depends on the compaction. We do not compact the material, so we are possibly overstating the amount. We converted the volume to weight using the branz.co.nz waste conversion table.	we are able to measure the volume, not weight.	
	Transmission of energy (T&D losses)	Electricity distributed T&D losses	this is calculated by Toitū		
Overall assessment of uncertainty for Category 4 emissions and removals		38%	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 or sink	GHG emissions category	Reason for exclusion
Lawson's Dry Hills Winery Ltd	Taxi usage	Scope 3	Minimal usage. Not accounted for.
Lawson's Dry Hills Winery Ltd	Petrol	Scope 1	Minimal usage. All vehicles are diesel.
Lawson's Dry Hills Winery Ltd	JM Harris	Scope 3	Immaterial percentage of the total commercial freight.
Lawson's Dry Hills Winery Ltd	Post Haste	Scope 3	Immaterial percentage of the total commercial freight.
Lawson's Dry Hills Winery Ltd	Fertiliser containing Nitrogen	Scope 1	Immaterial percentage

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:

Emissions = activity data x 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 conversion[5].

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 SF_6 are GHGs with high global warming potentials, so material volumes of these or fuel are reported as potential liabilities.

[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.

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

GHG gas stock held	Quantity	Unit	Potential liability (tCO_2e)
CO_2 (Refrigerant)	300.00	kilograms	0.30
Diesel	2,200.00	litres	5.90
LPG stationary commercial	180.00	kilograms	0.53
R-507A	75.00	kilograms	298.88
Total potential liability			305.61

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.

A1.2.3.1 CARBON CREDITS AND OFFSETS

Offsets will be purchased for this reporting period at time of net carbonzero certification, and detailed on the Toitū net carbonzero programme members directory public disclosure statement.

Reason for purchase

A1.2.3.2 PURCHASED OR DEVELOPED REDUCTION OR REMOVAL ENHANCEMENT PROJECTS

In 2022 we had a one-off refrigerant leak of R-407C. This has now been replaced with a new, modern ammonia-based refrigeration plant. This was up and running before the 2023 vintage in March/April of 2023. No incidents have been reported.

We diverted 800kg of plastic from landfill. Because we do our own bottling, we receive deliveries of bottles, each one covered in plastic shrink wrap. Rather than send the wrap to landfill, we bale it and send it to Replas in Auckland, who turn it into pallet slip sheets. These are lightweight ‘mats’ with a grippy top and slippery bottom, used to slip wine on and off pallets with help of a forklift. This means we can ship our wine overseas without using traditional pallets, making our freight lighter.

We manage long haul air travel carefully. Unless absolutely necessary, we use digital means to communicate within market. Long haul air travel was up from base year (a covid year where the country was shut). Last year there was only one person flying on one long haul trips to Europe, and they attended Prowein later in the year. Within the reporting period, we had two people attend meetings and trade shows in both Asia and Europe. These trips are vital to building relationships in person to maintain and develop growth in our markets, along with the need to attend trade fairs in person, that cannot be substituted for with digital alternatives.

A1.2.3.3 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 not been included in this inventory.

Details

(No information supplied)

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?		
Grape purchases	Significant (>5% of estimated total)	Moderate	Supply chain risk	No	Yes	No	Yes	Include	Outsourcing	freight movements measured in our current inventory
Wine Bottles	Significant (>5% of estimated total)	Moderate	Supply chain risk	Yes	No	Yes	Yes	Exclude	Intended Use and Users	more data needed
Labels, Caps, Packaging	Significant (>5% of estimated total)	Moderate	Supply chain risk	Yes	No	Yes	Yes	Exclude	Intended Use and Users	more data needed
Processing and Bottling	Significant (>5% of estimated total)	Low	Supply chain risk	No	No	n/a	n/a	Exclude	Outsourcing	off site - contract facility
Grape Juice Purchases	Significant (>5% of estimated total)	Moderate	Supply chain risk	No	Yes	No	Yes	Include	Outsourcing	freight movements measured in our current inventory
Freight (International shipping)	Significant (>5% of estimated total)	Low	Supply chain risk	Yes	No	No	Yes	Exclude	Intended Use and Users	more data needed

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APPENDIX 3: CERTIFICATION MARK USE

Company website

Printed pull up banners for at local events

Cellar door sign displaying our certification information for visitors to browse

Online advertising campaign targeted to The Netherlands - focus on choosing from a carbon zero/sustainable company

Social media

Printed material such as brochures

Digital presentations - PowerPoints

Company documents

Pricelists.

Sponsorship marketing collateral.

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.

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APPENDIX 5: REPORTING INDEX

This report template aligns with ISO 14064-1:2018 and meet Toitū net carbonzero 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		