

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



The Warehouse Group (excluding overseas Group Sourcing Support)

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Dated: 27 September 2022

Verification status: Reasonable

Measurement period: 01 August 2021 to 31 July 2022 Base year period: 01 August 2014 to 31 July 2015

Approved for release by:

David Benattar, Chief Sustainability Officer

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

AVAILABILITY

Elements of this report may be made public via our annual reporting.

REPORT STRUCTURE

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

Chapter 1, the Emissions Inventory Report, includes the inventory details and forms the measure step of the organisation's application for Programme certification. The inventory is a complete and accurate quantification of the amount of GHG emissions and removals that can be directly attributed to the organisation's operations within the declared boundary and scope for the specified reporting period. The inventory has been prepared in accordance with the requirements of the Programme¹, which is based on the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004) and ISO 14064-1:2018 Specification with Guidance at the Organization Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals². Where relevant, the inventory is aligned with industry or sector best practice for emissions measurement and reporting.

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

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

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

¹ Programme refers to the Toitū carbonreduce and the Toitū carbonzero programmes.

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 The Warehouse Group (excluding overseas Group Sourcing Support) covering the measurement period 01 August 2021 to 31 July 2022.³

Table 1: Inventory summary

Category	Scopes	2015	2021	2022
(ISO 14064-1:2018)	(ISO 14064- 1:2006)			
Category 1: Direct emissions	Scope 1	3,505.71	3,015.55	2,799.50
Category 2: Indirect emissions from imported energy (location-based method*)	Scope 2	13,972.14	9,276.34	9,534.93
Category 3: Indirect emissions from transportation		20,653.89	22,909.52	22,604.85
Category 4: Indirect emissions from products used by organisation	Scope 3	1,685.94	1,570.07	1,578.48
Category 5: Indirect emissions associated with the use of products from the organisation	Scope 3	0.00	0.00	0.00
Category 6: Indirect emissions from other sources		0.00	0.00	0.00
Total direct emissions		3,505.71	3,015.55	2,799.50
Total indirect emissions*		36,311.98	33,755.93	33,718.27
Total gross emissions*		39,817.68	36,771.48	36,517.77
Category 1 direct removals		0.00	0.00	0.00
Purchased emission reductions		0.00	0.00	0.00
Total net emissions		39,817.68	36,771.48	36,517.77

 $[\]hbox{*Emissions are reported using a location-based methodology}.$

 $^{^{\}rm 3}$ Throughout this document "emissions" means "GHG emissions".

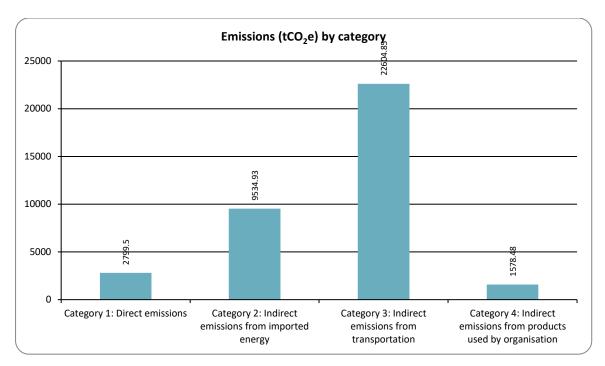


Figure 1: Emissions (tCO_2e) by Category for this measurement period

CHAPTER 1: FMISSIONS INVENTORY REPORT

1.1. INTRODUCTION

This report is the annual greenhouse gas (GHG) emissions inventory and management report for The Warehouse Group (excluding overseas Group Sourcing Support).

This report is the annual greenhouse gas (GHG) emissions inventory prepared for The Warehouse Group Limited covering the New Zealand-based businesses of The Warehouse (including emissions related to corporate business activities), Warehouse Stationery, Noel Leeming Group, Torpedo 7 Group, The Market, Group Sourcing Support and TWG Investments. Excluded are the overseas offices of Group Sourcing Support - located in India, China and Bangladesh.

The purpose of the report is to track, report and inform of progress against various emission reduction initiatives and strategies including our CLC commitments - 32% reduction (scope 1, 2 and selected scope 3 emission sources) by FY30 against an FY15 baseline year. We will also use this report (and seek to certify) emission reduction performance against our 2021 Sustainability Linked Loan scope 1 and 2 targets: 5% reduction on absolute scope 1 and 2 emissions by July 31 FY22 against a FY20 baseline year.

The methodology followed when collating, reporting and assessing data follows the guidelines of ISO 14064:2018

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

1.2. EMISSIONS INVENTORY RESULTS

Table 2: GHG emissions inventory summary for this measurement period

Measurement period: 01 August 2021 to 31 July 2022.

Category	Toitū carbon mandatory boundary (tCO₂e)	Additional emissions (tCO ₂ e)	Total emissions (tCO ₂ e)
Category 1: Direct emissions	2,799.50 Diesel, Petrol premium, Petrol regular, R-407C, R-410A, R-438A, LPG	0.00	2,799.50
Category 2: Indirect emissions from imported energy (location-based method*)	9,534.93	0.00	9,534.93
Category 3: Indirect emissions from transportation	18,529.02 Car Average (unknown fuel type), Air travel (pre-verified tCO₂e), Freight Road all trucks (average), Freight Shipping Ro−Ro ferry (freight, average), Private Car average (fuel type unknown), Freight Rail, Diesel, Freight Air travel long haul (average), Freight Air travel short haul (average), Freight Shipping container (average)	4075.83 Jet A1 (high altitude), Diesel	22,604.85
Category 4: Indirect emissions from products used by organisation	1,567.52	10.97 Electricity	1,578.48

Category	Toitū carbon mandatory boundary (tCO₂e)	Additional emissions (tCO ₂ e)	Total emissions (tCO ₂ e)
	Electricity distributed T&D losses, Waste landfilled - Kate Valley, Waste landfilled - MDL Bonny Glen Landfill, Waste landfilled - Redvale and Whitford, Waste landfilled - Silverstream, Waste landfilled - Tirohia, Waste landfilled LFGR Mixed waste, Waste landfilled No LFGR Mixed waste		
Category 5: Indirect emissions associated with the use of products from the organisation	0.00	0.00	0.00
Category 6: Indirect emissions from other sources	0.00	0.00	0.00
Total direct emissions	2,799.50	0.00	2,799.50
Total indirect emissions*	29,631.47	4086.80	33,718.27
Total gross emissions*	32,430.97	4086.80	36,517.77
Category 1 direct removals	0.00	0.00	0.00
Purchased emission reductions	0.00	0.00	0.00
Total net emissions	32,430.97	0.00	36,517.77
Emissions intensity		Mandatory emissions	Total emissions
Operating revenue (gross t	CO₂e / \$Millions)	9.85	11.09

^{*}Emissions are reported using a location-based methodology.

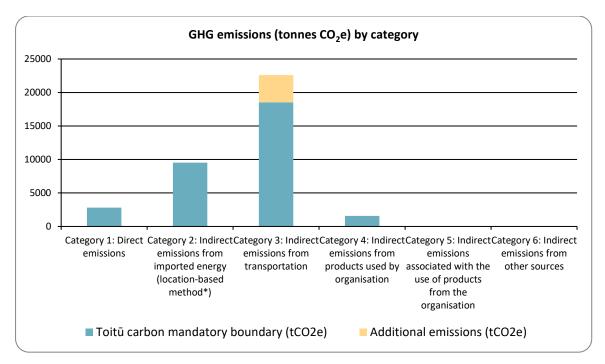


Figure 2: GHG emissions (tonnes CO₂e) by category

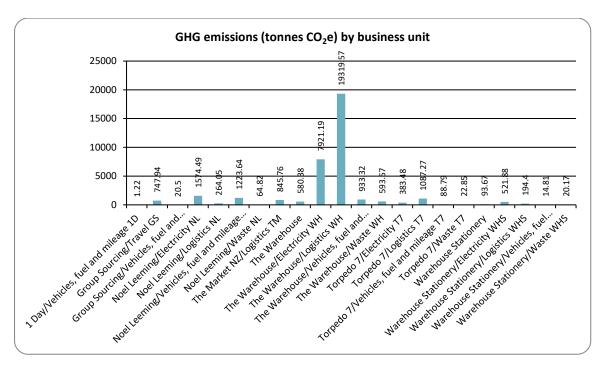


Figure 3: GHG emissions (tonnes CO2e) by business unit

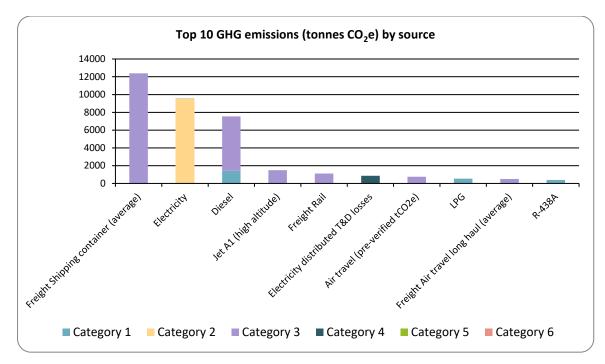


Figure 4: Top 10 GHG emissions (tonnes CO2e) by source

1.3. ORGANISATIONAL CONTEXT

1.3.1. Organisation description

As New Zealand's largest general merchandise retailer with a footprint that touches every Kiwi, The Warehouse Group (TWG) are harnessing our resources to drive towards a low carbon, circular economy that benefits our business, our people, our communities, and our planet. TWG is New Zealand's largest general merchandise retail group with over 250 retail stores and several online stores, supported by a small number of distribution centres and a head office (Store Support Office). At The Warehouse Group, we recognise that choices we make today affect the future environment. We need to play our part in ensuring that growth today does not compromise opportunities for future generations. To be a sustainable business, we need to extend our perspective beyond immediate commercial objectives. We believe that this is good for business and for the long-term interests of our shareholders and other stakeholders. It is this belief that led to The Warehouse Group's goal of reducing carbon emissions 32% by 2030 and seeking to become carbon neutral by 2025. It has also inspired us to set emissions reduction targets aligned to SBT criteria.

This year we have accelerated the deployment of sustainability throughout our value chain and expanded our efforts to engage our stakeholders on the risks and opportunities of sustainability leadership. We continue to adapt our business to changing consumer behaviours and government regulation which are impacting our business and the retail industry at large. Our efforts continue to build on the programmes we have established over the past few years.

Commitment to certification

At The Warehouse Group, we recognise the choices we make today affect the future environment. We need to play our part in ensuring that growth today does not compromise opportunities for future generations. To be a sustainable business, we need to extend our perspective beyond immediate commercial objectives. We believe that this is good for business and for the long-term interests of our shareholders and other stakeholders. It is this belief and our commitment to one of The Warehouse Group's values 'Here for Good' that lead the Group's ongoing carboNZero recertification.

Supporting the Group's carbon neutral stance is a multitude of emissions reduction initiatives targeting emissions sources throughout the entire value chain. In FY 22 we reviewed the Groups sustainability - incl. climate change - commitments, ultimately resulting in a new expression of our company vision "To make sustainable living easy and affordable for everyone".

We are also actively monitoring domestic and international policy developments as they relate to New Zealand and The Warehouse Group, this is especially relevant to our domestic offsetting strategy, and the role native forestry sequestration projects will play. The Emissions Trading Scheme, Zero Carbon Bill and Paris Agreement legislation, National Adaptation Plan and NZ's First Emissions Reduction Plan will all play a material role in TWGs future strategy and tactics as they relate to emissions reduction.

The Warehouse Group has in the last year incorporated 'sustainability' into its Vision to "build New Zealand's most sustainable, convenient and customer-first company" realisation of the vision helps us deliver on our purpose to "help Kiwis live better every day."

In FY22 we submitted to deliver Science Based Targets, aligning our decarbonisation pathway to Paris Agreement targets and no more than 1.5 degrees of warming. The SBT process will also deliver clear strategies and goals for supplier engagement throughout TWGs entire value chain.

We hope to deliver our Resilience and Adaptation Plan in FY23 providing us with a clear understanding and quantification of climate-related risks for TWG.

GHG Reporting

This report is a critical document ensuring TWG satisfy the requirements of recent changes to ISO 14064, align with our public reporting obligations (we will release our EIR and this report as part of our annual reporting disclosures), and as a means of reporting progress against publicly disclosed emissions reduction targets and sector commitments, including those referred to in Climate Leaders Coalition 2019 and 2022 statements.

Climate Change Impacts

The Warehouse Group has observed the direct impacts of climate change on its business over the near and long-term. The main impacts are:

- * The reputational impact of not actively addressing climate change.
- * Changes in consumer perception related to sustainability and climate related products.
- * Increased frequency and severity of climate related weather events have the potential to disrupt supply chain activities and also the ability of our staff and customers to access our stores impacting TWGs ability to trade.
- * Greater scrutiny on our products and the efforts we're making in reducing waste in our business operations. Wherever possible we now actively design out plastics from our packaging and products.
- * TWG has recognised it has a leadership obligation to educate and inform staff, customers and value chain partners on the impacts of climate change and the broader sustainability agenda. In doing so we enhance the sustainability and climate change fluency of our most important stakeholders and shareholders, helping drive decision making and behaviors that support the sustainability objectives of our communities, our business and Aotearoa

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 users of this report include, but are not limited to:

- The Warehouse Group Board
- Executive leadership team

- Internal stakeholders
- General public via our website
- The CarbonZero programme, for assessing compliance with the CarbonZero certification

Other schemes and requirements

This inventory forms part of the TWGs commitment to retain its carboNZero certification.

This inventory aligns to the requirements of the Toitū carbonreduce and Toitū carbonzero programmes. We intend to use this report's content to help us respond to other reporting requirements and industry engagements, including our annual CLC obligations and responses to CDP and SBT surveys. We have recently submitted The Warehouse Groups first emissions reduction target reflecting best-practice requirement of the Science Based Targets initiative. We expect to have our target validated in September 2021.

1.3.3. Person responsible

Yi You, Sustainability Partner, The Warehouse Group is responsible for overall emission inventory measurement and reduction performance, as well as reporting results to top management.

David Benattar has the authority to represent top management and has financial authority to authorise budget for the sustainability strategy, including projects and mitigation objectives and initiatives. David is responsible for overall sustainability strategy, emissions reduction performance and reporting to Senior Management and TWG Board.

State any other people/entities involved

Tom Kelly

External suppliers: Energy Pro

Internal stakeholders: Logistics (transport and distribution), HR (personal vehicle mileage)

Top management commitment

The business' commitment to emissions reductions is best illustrated by our formal and voluntary commitment to science-based targets and our public commitment to a 32% reduction on our 2015 emissions by 2030.

This reduction goal is referred to in our annual reporting (https://www.thewarehousegroup.co.nz/application/files/4715/6935/8944/AR_2019_p36-37_Our_Environment.pdf) and is aligned with our formal obligations as a founding signatory to New Zealand's Climate Leaders Coalition.

In 2021 we integrated the GRI framework into our Integrated Reporting expanding on the Groups sustainability reporting efforts. Integrated Reporting shows us that using our resources wisely and managing our networks, expertise, people, relationships, responsibilities to the environment and financial capital to best effect is not just about driving financial benefits; it is also about creating benefits across all aspects of the business and our broader stakeholder groups. Our emissions performance is regularly reported to the CEO Group Executive Team (direct reports of the CEO). TWG's CEO report is included here https://www.thewarehousegroup.co.nz/application/files/8415/6935/8944/AR_2019_p12-17 CEOs Report.pdf,and expressly refers to our Environmental Capital.

Management involvement

The annual report will be done to our board and executive leadership team.

The Leadership team provides resources and budget for the collection and processing of data and inventory report development. The lead author of this report is supported by a team of designated staff from across the business.

1.3.4. Reporting period

Base year measurement period: 01 August 2014 to 31 July 2015

Our base year is 2015, when set our target for emission reduction.

Measurement period of this report: 01 August 2021 to 31 July 2022

Annually

The 01 August to 31st July measurement period is selected to align with our financial year cycles.

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.

The inventory covers The Warehouse Group Limited businesses of The Warehouse (including emissions related to corporate business activities), Warehouse Stationery, Noel Leeming Group, Torpedo 7 Group, The Market and Group Sourcing. The business unit not covered in these emissions is overseas-based Group Sourcing Support which includes sourcing offices in China, India and Bangladesh.

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

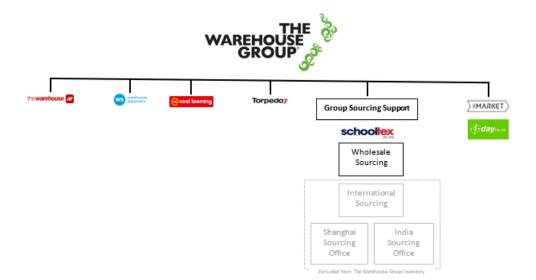


Figure 5: Organisational structure

Table 3. Brief description of business units, sites and locations included in this emissions inventory

Business unit	Address	Purpose
The Warehouse (incl. The Market)	26 The Warehouse Way, Northcote, Auckland	General Merchandise Retail
Warehouse Stationery	26 The Warehouse Way, Northcote, Auckland	General Merchandise Retail
Noel Leeming Group	26 The Warehouse Way, Northcote, Auckland	General Merchandise Retail
Torpedo 7 Group	26 The Warehouse Way, Northcote, Auckland	General Merchandise Retail
The Warehouse Group Sourcing Services	26 The Warehouse Way, Northcote, Auckland	Wholesale

1.3.6. Excluded business units

International offices (part of Group Sourcing based in India, China and Bangladesh) are excluded based on geographic boundary as per the programme requirements Rule 26.

CHAPTER 2: EMISSIONS MANAGEMENT AND REDUCTION REPORT

2.1. EMISSIONS REDUCTION RESULTS

Table 4: Comparison of historical GHG inventories

Category	2015	2016	2017	2018	2019	2020	2021	2022
Category 1: Direct emissions	3,505.71	2,954.28	2,479.69	2,962.66	2,931.92	2,678.35	3,015.55	2,799.50
Category 2: Indirect emissions from imported energy (location-based method*)	13,972.14	13,957.80	11,521.82	11,920.50	9,702.64	9,028.64	9,276.34	9,534.93
Category 3: Indirect emissions from transportation	20,653.89	21,713.19	23,448.91	23,819.03	25,432.87	23,208.01	22,909.52	22,604.85
Category 4: Indirect emissions from products used by organisation	1,685.94	1,690.97	2,062.47	2,149.47	1,131.08	1,117.72	1,570.07	1,578.48
Category 5: Indirect emissions associated with the use of products from the organisation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Category 6: Indirect emissions from other sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total direct emissions	3,505.71	2,954.28	2,479.69	2,962.66	2,931.92	2,678.35	3,015.55	2,799.50
Total indirect emissions*	36,311.98	37,361.96	37,033.20	37,889.00	36,266.60	33,354.38	33,755.93	33,718.27
Total gross emissions*	39,817.68	40,316.24	39,512.89	40,851.66	39,198.52	36,032.73	36,771.48	36,517.77
Category 1 direct removals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Purchased emission reductions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total net emissions	39,817.68	40,316.24	39,512.89	40,851.66	39,198.52	36,032.73	36,771.48	36,517.77

Category	2015	2016	2017	2018	2019	2020	2021	2022
Emissions intensity								
Operating revenue (gross tCO₂e / \$Millions)	14.37	13.69	13.14	13.64	12.76	11.26	10.77	11.09
Operating revenue (gross mandatory tCO₂e / \$Millions)	13.90	13.28	12.69	13.14	12.40	10.82	10.38	9.85

^{*}Emissions are reported using a location-based methodology.

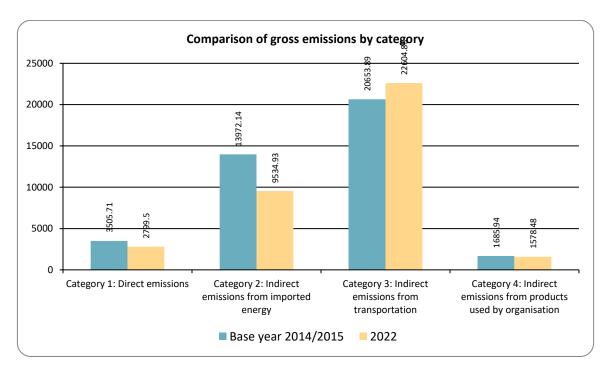


Figure 6: Comparison of gross emissions by category between the reporting periods

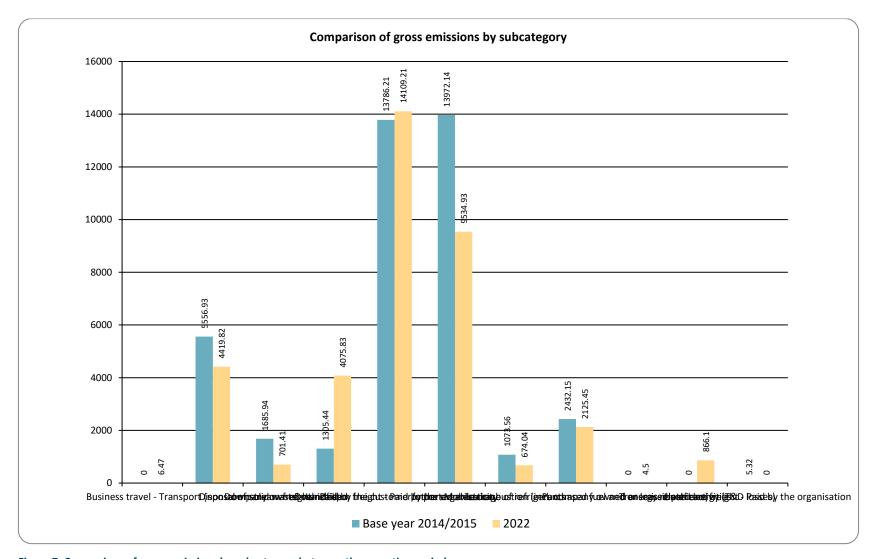


Figure 7: Comparison of gross emissions by subcategory between the reporting periods

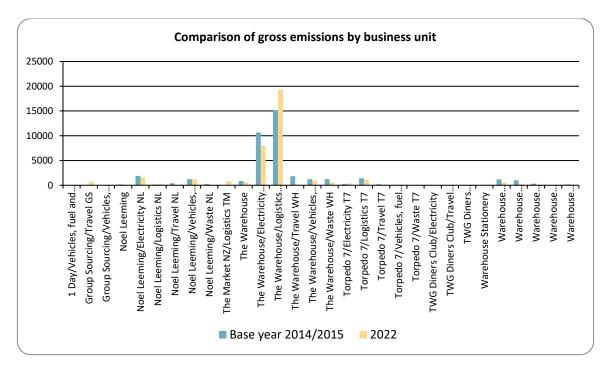


Figure 8: Comparison of gross emissions by business unit between the reporting periods

Performance against target has not been provided

Figure 9: Performance against target since base year

Table 5. Performance against plan

Performance (No information supplied)

2.2. SIGNIFICANT EMISSIONS SOURCES

Significant sources

Electricity use is the largest emissions source across all business units that we have direct control over. The greatest electricity activity is from stores for store lighting, HVAC (heating, ventilation, and air conditioning), and product displays. Additionally, two non-store sites are significant electricity users: head office (TWL SSO, significant activities include head office lighting, HVAC, and computing equipment) and our North Island Distribution Centre (NIDC - virtually 24-hour operation, significant lighting and mechanical conveyor equipment usage). Data quality is high but is dependent on the timely provision of invoices.

Freight container shipping is outsourced and so is not in direct control of The Warehouse Group. However, it can be influenced by The Warehouse Group through logistics policy and procedures and through our shipping partner selection. Currently, there are no lower emission international transportation substitutes for freight container shipping. Note that sea freight is predominately for The Warehouse, with some attributed to Warehouse Stationery. There is minimal sea freight for Noel Leeming. Data quality is high. We are currently liaising with our sea freight suppliers to ascertain: their emissions calculation methodology and quality assurance processes. We currently use DEFRA emissions factors to determine sea freight emissions, this is a default EF that we'd like to replace with shipping company-specific factors. We have also surveyed all of our major shipping partners requesting from them information relating to emission reduction targets, public reporting and voluntary commitments. Over the next 12 months, we will be working closely with our main suppliers in an effort to influence their emissions reporting behaviours, although we have very limited opportunity to influence the partners.

In 2022 we will look to partner with strategic shipping partners to trial biofuels that estimate an 85% reduction on emissions. Should this trial prove successful, it would lead to material savings for this source of emissions.

Diesel for transport comes from two main activities, in order of contribution: road freight and company vehicle use.

Road freight is a combination of freight to stores (predominately The Warehouse and some for Warehouse Stationery) and courier services direct to customers (all business units). Road freight is outsourced and so is not in direct control of The Warehouse Group. However, it can be influenced by The Warehouse Group through logistics policy and procedures (e.g. considering alternatives such as rail), and through freight partner selection.

There is scope for improvement in data quality for both freight to stores (updating model assumptions) and courier services (model refinement and collecting data from all service providers).

Heavy freight transport within NZ represents a significant opportunity for reductions, and in FY22 we joined with other CLC and SBC members to define a Low Emissions Pathway for Heavy Transport within NZ. This report will include recommendations that will be taken to key stakeholders including NZTA, MfE and the IPCC.

Company vehicle use is greatest for Noel Leeming and is within the control of The Warehouse Group. The key activity driving use is the delivery of products to customers. Data quality is high. In 2021 introduced 4 fully electric trucks into the Noel Leeming customer delivery fleet; over the coming years we expect to further electrify Noel Leeming's fleet.

In FY22 we will also be targeting (for conversion to EV) the 70+ LPG forklifts that contribute nearly 2% of our total emissions.

Activities responsible for generating significant emissions

Significant emissions source activities TBC

Influences over the activities

Activity influence TBC

2.3. EMISSIONS REDUCTION TARGETS

The organisation is committed to managing and reducing its emissions in accordance with the Programme requirements. Table 6 provides details of the emission reduction targets to be implemented. These are 'SMART' targets (specific, measurable, achievable, realistic, and time-constrained).

To reduce our absolute emissions started with setting an ambitious, science-based target. A "science-based" target is one that provides the level of emissions reductions necessary to keep global temperature increase Well Below 2°C or ideally 1.5°C by 2050 – the level at which of the most significant impacts of climate change would be mitigated.

To meet the commitment, a science-based target takes into account several factors, for example, current and expected levels of carbon dioxide, maximum carbon dioxide levels to stay Well Below 2°C, and economic and population growth. The science-based target for TWG is 32% reduction on 2015 emissions by 2030.

In 2022 we will be moving from 'committed' targets to 'validated' targets and adjusting our level of reduction so that aligns with a global temperature increase of no more than 1.5°C. This commitment is aligned with international Paris Agreement Legislation, voluntary Climate Leaders Coalition obligations and what we expect of the Zero Carbon Bill and New Zealand Nationally Determined Commitments (NDC). Our yet-to-be-validated SBT targets include the following:

- 42% reduction on Scope 1 and 2 emissions by 2030 (baseline 2020).

Over the next 5 years, we aim to fully decarbonise our operations (where we have direct control): our light vehicle fleet will be 100% (as of the end of CY19 30% of this fleet will be EV), and we are currently evaluating solar opportunities leveraging the roof space of a portfolio of more than 260 sites across NZ and are reviewing electricity providers ability to increase our percentage of electricity from renewables. Over the next 24 months, we will also be expecting our shipping freight suppliers to adopt science base targets. We will have all stores upgraded to LED and have removed all R22 refrigerant (a potent Greenhouse Gas) from our owned properties within the next 5 years.

We are currently evaluating the merits of a market-based method of reducing electricity under the carboNZero program and would contribute more reductions of more than 9700 tonnes of emissions taking the business a long way to its 2030 reduction goals.

- By 31 July 2022: (1) Reduction in annual Scope 1 and Scope 2 GHG Emissions by at least 5% against Baseline; AND
- (2) Deliver a Scope 3 emissions reduction target covering 10% of all Private Label Suppliers that The Warehouse Group determines to be the most emissions-intensive by reference to spend ("pilot programme").
- By 31 July 2023:
- (1) Reduction in annual Scope 1 and Scope 2 GHG Emissions by at least 10% against Baseline; AND
- (2) Use the learnings from the Year 1 pilot programme to deliver a material Scope 3 Private Label Suppliers emissions reduction roadmap to 2030.
- By 31 July 2024, reduction in annual Scope 1 and Scope 2 GHG Emissions by at least 15% against Baseline.
- By 31 July 2025, reduction in annual Scope 1 and Scope 2 GHG Emissions by at least 20% against Baseline.

Table 6. Emission reduction targets

Targets

(No information supplied)

2.4. EMISSIONS REDUCTION PROJECTS

In order to achieve the reduction targets identified in Table 6, specific projects have been identified to achieve these targets, and are detailed in Table 7 below.

Table 7. Projects to reduce emissions

Projects

(No information supplied)

Table 8 highlights emission sources that have been identified for improving source the data quality in future inventories.

Table 8. Projects to improve data quality

Projects

(No information supplied)

The emissions inventory chapter identified various emissions liabilities (see Liabilities section). Table 9 details the actions that will be taken to prevent GHG emissions from these potential emissions sources.

Table 9. Projects to prevent emissions from liabilities

Projects

(No information supplied)

2.5. STAFF ENGAGEMENT

We enhance staff awareness through the use of regular intranet updates (reaching thousands of team members), staff email communications on our emission reduction activities and through sharing energy and waste performance reports. Given many of the emission reduction activities require the collaboration of multiple business units we are also able to rely on the natural communication within and among teams to organically raise awareness.

We have also committed to the implementation of an Energy Steering Group involving key stakeholders within the business and a team of Sustainability Champions who will assist us in sharing our emissions reduction activities and messaging throughout our entire business.

The businesses 'Sustainable & Affordable' brand is a important mechanism for TWG to engage with our Teams, customers and the public on how we are improving our environmental performance by reducing unnecessary plastic and cardboard packaging. The brand was launched using print, digital and video mediums to help ensure the greatest reach possible.

We know that we must consider the impacts of our supply chain as well which is in 2021 we commenced a formal engagement program with our suppliers via a comprehensive 'Sustainability Capability Survey' which will eventually target thousands of suppliers accounting for more than \$2.3B of spend and covering \$00,000 - 900,000\$ tonnes of emissions.

Behavioral change and awareness building is a critical and ongoing challenge for The Warehouse Group and will remain a focus over the coming months. In FY21 we will deliver a comprehensive training and education program for all staff. This will be included in our induction training material for new and existing team members and will also consist of more detailed training for senior business leaders.

2.6. KEY PERFORMANCE INDICATORS

In FY21 emissions increased by 0.7% across the business. This is a reasonable result given the yoy comparison included a year in which the Covid pandemic meant \sim 98% of TWG stores were closed reducing electricity usage and associated emissions to nearly zero.

2.7. MONITORING AND REPORTING

Emissions reductions will be reported as frequently as half-yearly. These results will be presented to the senior leadership team, Tribe Leads and possibly the Board.

The Sustainability Partners will prepare half-yearly reports which will be presented to the Sustainability Lead and the Chief Executive Officer. The primary metric will be change in emissions - tCO₂-e.

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 The Warehouse Group (excluding overseas Group Sourcing Support).xls).

Table 10. Direct GHG emissions and removals, quantified separately for each applicable gas

Category	CO ₂	CH₄	N ₂ O	NF ₃	SF ₆	HFC	PFC	Desflurane	Sevoflurane	Isoflurane	Emissions total (tCO ₂ e)
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)	2,081.07	16.52	27.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,125.45
Emissions - Industrial processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Removals - Industrial processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Leakage of refrigerants	0.00	0.00	0.00	0.00	0.00	674.04	0.00	0.00	0.00	0.00	674.04
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

Category	CO ₂	CH₄	N₂O	NF ₃	SF ₆	HFC	PFC	Desflurane	Sevoflurane	Isoflurane	Emissions total (tCO ₂ e)
Total net emissions	2,081.07	16.52	27.86	0.00	0.00	674.04	0.00	0.00	0.00	0.00	2,799.50

Table 11. 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 ₂ O) emissions (tCO ₂ e)	Non-anthropogenic biogenic (tCO₂e)
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	701.41	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	701.41	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.

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 answer provided)

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 12 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.

We collect emission or consumption data from our suppliers and internal stakeholders regularly for the purpose of this report. Currently data is manually entered into emanage.

Table 12. 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
INSTRUCTIONS - Please complete all applicable rows as indicated in the instructions and example. It can be helpful to re-generate the inventory spreadsheet and have it open on another screen to ensure you have not missed an emission source. Upon completing the template, ensure you delete the first 2 rows before uploading These are the overall emissions categories under ISO 14064-1:2018	These are the subcategories as outlined in ISO 14064-1, GHG Protocol or other standards. The subcategories shown with bold text contain mandatory emissions sources. Where you are not reporting any emissions against a subcategory, the relevant row may be deleted from the table.	These are the emission sources that were reported in this subcategory. Each Category has a sub total row (in light purple) in which the quantitative uncertainty for the category's emissions have been calculated.	Please describe the ways your information may have some level of uncertainty, either from the nature of the activity data, the evidence available, assumptions made, or calculations you have used. If this varies for individual emissions sources please feel free to add as many rows as required to describe each sources uncertainties. In the Category subtotal row (the light purple row), please indicate the overall level of uncertainty as low, medium, or high based on how accurate the majority of your emissions are.	Where the EF used was not the most accurate, please explain why it was not practicable to use a more accurate factor. This applies if you used a spend based or other 'average' emissions factor but another more accurate factor is available	Was any of your data pre-verified? Please indicate if any of the data presented to audit was already verified according to state methodology or a compliance scheme. If you are unsure please enquire with your account manager
e.g. Category 1: Direct emissions and removals	e.g. Direct emissions from mobile combustion	e.g. Petrol, petrol premium, diesel coming from fuel card reports, invoices and GL codes	e.g. Assumed all supplier reports are accurate and all additional fuel spent has been captured within our internal financial tracking systems. There is a higher level of uncertainty in regards to the spent based data compared to the fuel card report but it represents a smaller proportion	e.g. The internal claim for fuel process does not yet allow us to export litres of fuel used. We are working on improving our GL code categorisation and tracking methodology to report more accurately in the future	e.g. Yes - My fuel card reports are pre-verified as a 'Toitū compatible report' but the rest is not.

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, Petrol premium, Petrol regular	No assumptions. Data is based on actual consumption data collected.		
	Leakage of refrigerants	R-407C, R-410A, R-438A	Directly supplied by the supplier McAlpine and Hussmann.		
Overall assessment of uncertainty for Category 1 emissions and removals		2%	Very low		
Category 2: Indirect emissions from imported energy	Imported electricity	Electricity	No assumptions. Data is based on actual consumption data collected.		
Overall assessment of uncertainty for Category 2 emissions and removals		5%	Medium		
Category 3: Indirect emissions from transportation	Business travel - Transport (non-company owned vehicles)	Car Average (unknown fuel type), Private Car average (fuel type unknown), Air travel (pre-verified tCO₂e), Diesel	Car average travel is based on the mileage of private car use, and it uses the emission factor built in emanage. Air Travel is directly supplied by travel supplier Flight Centre.		
	Downstream freight - Paid by the organisation	Freight Air travel long haul (average), Freight Air travel short haul (average), Freight Rail, Freight Road all trucks (average), Freight Shipping container (average), Freight Shipping Ro–Ro ferry (freight, average)	For these freights, information is provided in the form of actual mileage and weights.		

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 customer/others	Jet A1 (high altitude)	NZ Post is unable to supply tkm data, and data is calcualted based on the litre per parcel estimation, and number of parcel delivered provided by NZ Post.		
Overall assessment of uncertainty for Category 3 emissions and removals		23%	Medium		
Category 4: Indirect emissions from products used by organisation	Purchased fuel and energy related activities	Electricity, Electricity distributed T&D losses	Actual power consumption is provided.		
	Disposal of solid waste - Landfilled	Waste landfilled LFGR Mixed waste, Waste landfilled No LFGR Mixed waste, Waste landfilled - Kate Valley, Waste landfilled - MDL Bonny Glen Landfill, Waste landfilled - Redvale and Whitford, Waste landfilled - Silverstream, Waste landfilled - Tirohia	Waste is weighed on collection by suppliers and data supplied directly to us.		
	Transmission of energy (T&D losses)	Electricity distributed T&D losses	Actual power consumption is provided.		
Overall assessment of uncertainty for Category 4 emissions and removals		8%	Low		

A1.1.3 Excluded emissions sources and sinks

Emissions sources in Table 13 have been identified and excluded from this inventory.

Table 13. GHG emissions sources excluded from the inventory

Business unit	GHG emissions source	GHG emissions level scope	Reason for exclusion
All	Fuel from rental vehicles	Scope 1	Emissions are estimated to be de minimis (having compared data to previous years data which was excluded), so they have been excluded from the overall footprint.
All	Fuel from taxis	Scope 3 Mandatory	Emissions are estimated to be de minimis (having compared data to previous years data which was excluded), so they have been excluded from the overall footprint.
All	Fuel for own vehicles purchased outside of fuel cards	Scope 1	Emissions are estimated to be de minimis (having compared data to previous years data which was excluded), so they have been excluded from the overall footprint.
All	Diesel stationary combustion	Scope 1	Emissions are estimated to be de minimis (having compared data to previous years data which was excluded), so they have been excluded from the overall footprint.

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

(no answer provided)

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

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

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

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

A1.2.2 Liabilities

A1.2.2.1 GHG STOCKS HELD

HFCs⁶, PFCs and SF₆ represent GHGs with high global warming potentials. Their accidental release could result in a large increase in emissions for that year, and therefore the stock holdings are reported under the Programme (Table 14).

Table 14. HFCs, PFCs and SF₆ GHG emissions liabilities

GHG gas stock held	Quantity (kg)	Potential liability (tCO₂e)
Diesel commercial	25,110.00	66.89
HCFC-22 (R-22, Genetron 22 or Freon 22)	3,200.00	5,792.00
HFC-32	11.70	7.90
R-407C	12.00	21.29
R-410A	146.10	304.98
R-438A	194.00	439.41
Total	28,673.80	6,632.46

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 DOUBLE COUNTING AND DOUBLE OFFSETTING

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

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

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

Details

Double counting / double offsetting has been included in this inventory. We use Urgent Courier for some of our freights, and they are a Carbonzero certified service. So these emissions can be deducted from our offset requirements.

⁶ HFC stock liabilities for systems under 3 kg can be excluded.

APPENDIX 2: SIGNIFICANCE CRITERIA USED

Table 15. Significance criteria used for identifying inclusion of indirect emissions

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(No information supplied)

APPENDIX 3: CERTIFICATION MARK USE

Is this BCI (cotton), FSC (paper, wood), Climate Active Carbon Neutral Product (paper), PEFC (paper), NZ Made, etc what other certification marks are there.	

APPENDIX 4: REFERENCES

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

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

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

APPENDIX 5: REPORTING INDEX

This report template aligns with ISO 14064-1:2018 and meet Toit \bar{u} 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	
<u>Chapter 1: Emissions Inventory Report</u>		
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	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 Liabilities		
A1.2.3.1 GHG stocks held		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		