



EMISSIONS MANAGEMENT AND REDUCTION PLAN

Toitū carbonreduce and Toitū carbonzero programme



Goodman (NZ) Limited, Goodman Property Services (NZ)
Limited and Goodman Property Trust

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Andy Eakin

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INTRODUCTION

This report is the annual greenhouse gas (GHG) Emissions Management and Reduction Plan prepared for Goodman Property Services (NZ) Limited and forms the manage step part of the organisation's application for Programme certification.¹²

RATIONALE

The organisational boundary for emissions reporting includes the investment and operational activities of Goodman in New Zealand relating to Goodman Property Trust.

With a \$3.8 billion portfolio (at 31 March 2021), Goodman Property Trust is the country's largest industrial property investor. The Trust is listed on the NZX where it is a constituent in the leading NZX 20 index.

As a listed vehicle that owns, develops and manages a substantial industrial property portfolio Goodman Property Trust has obligations to a wide range of stakeholders. A sustainable real-estate business model, that minimises adverse environmental, economic and social impacts, is essential if the Trust is to be successful over the long-term. Acknowledging that its corporate performance is integral to its reputation and longevity, Goodman has integrated these core sustainability principles into its business strategy and brand values.

Environmental sustainability is a key part of this commitment.

Mitigating the impacts of climate change by measuring and minimising greenhouse gas emissions has become an essential business activity. Priority has been given to reducing the organisation's carbon emissions to a level that is consistent with limiting global warming to less than 2 degrees, in accordance with the Paris Agreement.

This focus includes optimising the performance of the buildings and spaces within the portfolio (where Goodman has operational control), minimising the energy consumed, the waste produced, and the emissions generated. Goodman is also focused on reducing the environmental footprint of its corporate operations and everyday business activities.

While the organisation is responding to the risks and opportunities of climate change with formal strategies and policies, it is also empowering staff to implement the everyday changes that, collectively, will help achieve its sustainability objectives.

All environment-related policies can be found on the Greenroom, Goodman's internal information portal. Targets and commitments, and progress toward these goals, are publicly available within the sustainability section of the annual report and corporate website.

TOP MANAGEMENT COMMITMENT

A sustainability committee, that includes senior executives and technical experts from Property Services, Corporate and Development will meet regularly to oversee the implementation and ongoing performance of the organisation's sustainability initiatives. Progress against emissions reduction targets and opportunities to further reduce the environmental footprint of the business are standing agenda items.

Formal sustainability reporting is provided to the Board of Goodman (NZ) Limited at each of its quarterly meetings.

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

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

PERSON RESPONSIBLE

Chief Financial Officer, Andy Eakin has overall responsibility for Goodman’s sustainability performance including its emissions reduction programme.

AWARENESS RAISING AND TRAINING

The organisation’s emissions reduction commitments and other sustainability targets are communicated to staff on a regular basis. Company meetings, digital newsletters, case studies and the annual report are all channels used to keep staff informed on progress toward these goals.

For those staff directly involved in emissions measurement and reduction projects, training and development opportunities are actively encouraged. Through its corporate membership of the Green Building Council and relationship with EECA and other industry partners the technical expertise of the business is being extended. This has already included a Goodman Project Manager adding to their professional qualifications by becoming a Green Star Accredited Practitioner.

SIGNIFICANT EMISSIONS SOURCES

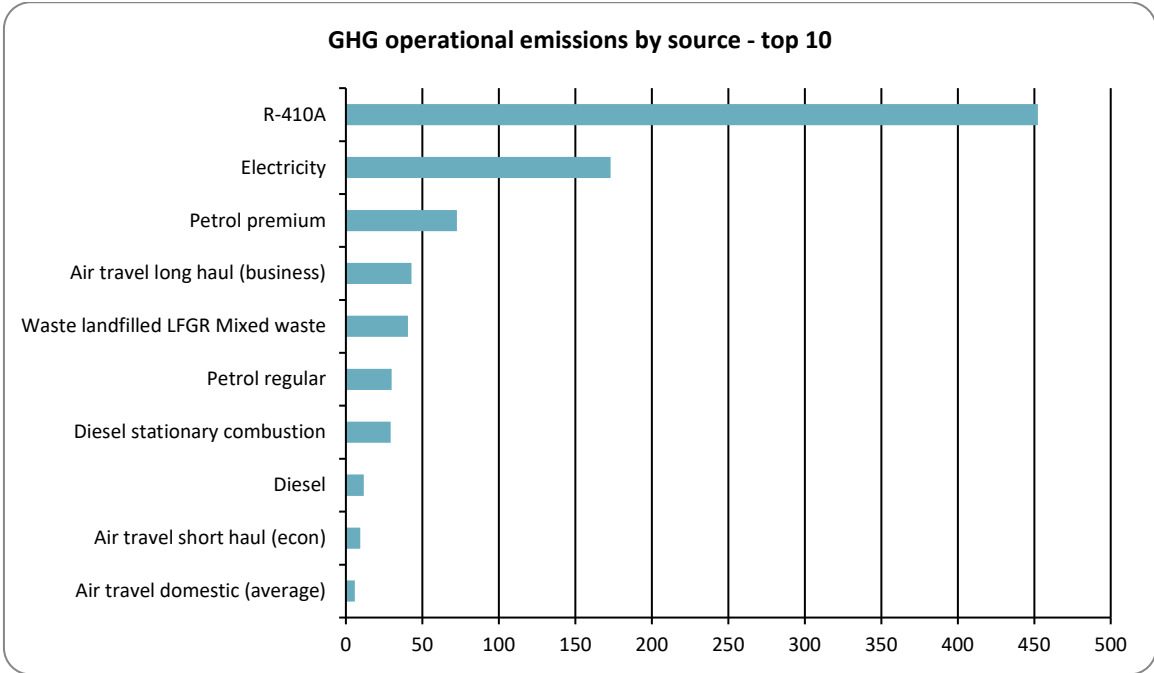


Figure 1: GHG emissions by source.

The Emissions Inventory Report identifies the organisations emissions sources, the five largest being:

1. refrigerant losses (HVAC system failures),
2. electricity consumption,
3. fleet vehicle use,
4. corporate travel, and
5. waste.

Goodman has responsibility for maintaining almost all the air-conditioning units within the portfolio. The reported emissions relate to the failure of a small number of these systems with a resulting loss of refrigerant. Additional preventative maintenance, better fault reporting and system upgrades are all opportunities to reduce these emissions

Electricity includes the energy consumed by Goodman's two management offices and the common areas within the portfolio. Energy efficiency projects including the retrofitting of LED lighting, smart switching technology and the optimisation of building management systems will complement education programmes to reduce consumption over time. Goodman has committed to sourcing its electricity from 100% renewable sources by 2025, expectations are that certification will be achieved in 2021.

Goodman provides eight building services staff with company vehicles. It also provides fuel cards for 14 other team members who are required to use their own vehicles for work purposes. The company fleet is being electrified, with two pool cars already electric. As operating leases expire over the next few years the remaining eight petrol vehicles are to be replaced with battery powered electric vehicles (BEV). Opportunities to further reduce emissions relate to fuel card use – educating these staff members around driving habits and encouraging them to upgrade to BEV's will provide further emission reductions.

Goodman executives and directors travel both domestically and internationally for work purposes. While much of this travel is essential, greater use of technology for online meetings will help minimise the emissions attributable to air travel.

Waste minimisation and recycling are already entrenched behaviours within the Goodman management offices. Regular training will help maintain these positive habits. There is opportunity to extend recycling across the common areas of the portfolio, reducing the volume of waste that is currently being consigned to landfill.

TARGETS FOR EMISSIONS REDUCTION

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

The target is to reduce absolute emissions by 19.4% by 2025 (within five years of the 2020 base year). Using an alternative intensity-based measure this target equates to a 30.5% reduction in emissions, on a square metre (sqm) of net lettable area (NLA) basis (portfolio size).

Table 1: Emission reduction targets

Scope of target	Target	Baseline (tCO ₂ e)	Target date	Metrics/ KPI	Responsibility	Rationale
Total Scope 1, Scope 2, and Scope 3 mandatory GHG emissions	19.40%	Base: 877.31	31/03/2025	Absolute	Andy Eakin, Chief Financial Officer	Achievable through the successful application of the reduction projects identified in the following table.
Total Scope 1, Scope 2, and Scope 3 mandatory GHG emissions	30.50%	Base: 0.83	31/03/2025	Per 1,000 sqm of NLA	Andy Eakin, Chief Financial Officer	Achievable through the successful application of the reduction projects identified in the following table. The selection of a second intensity-based metric reflects the potential for portfolio growth, through ongoing development activity and/or strategic acquisitions.
Refrigerant, Scope 1	20.00%	Base: 452.90	31/03/2025	Absolute	James Spence, Director - Investment Management	Achievable through the application of the education, preventative maintenance and upgrade programmes described in the following table.
Electricity, Scope 2	10.00%	Base: 173.05	31/03/2025	Absolute	Craig Stephens, Engineering and Building Services Manager	Achievable through the application of the education and upgrade programmes described in the following table.
Fleet Vehicle Use, Scope 1 - Petrol and Diesel	37% - petrol 35% - diesel	Base: 114.21	31/03/2025	Absolute	Andy Eakin, Chief Financial Officer	Achievable through the electrification of the company fleet and other initiatives described in the following table.

SPECIFIC EMISSIONS REDUCTION PROJECTS

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

Table 2: Projects to reduce emissions

Objective	Actions	Responsibility	Completion date
Refrigerant-minimise gas losses	Conduct inspection of HVAC systems within the portfolio to assess working condition and undertake preventative maintenance as required.	Craig Stephens, Engineering and Building Services Manager	31/03/2022
Refrigerant-minimise gas losses	Replace HVAC systems, typically those more than eight years old, with lower emissions alternatives on expiry of customers leases.	James Spence, Director - Investment Management	Ongoing
Refrigerant-minimise gas losses	Educate customers (tenants) on correct operation of their HVAC system and importance of reporting air-conditioning faults in a timely manner.	Various, Portfolio Managers	Ongoing
Refrigerant-minimise gas losses	Ensure procurement policy requires HVAC contractors to recover and dispose of spent refrigerant gasses safely - avoiding GHG emissions.	Procurement contracting	At each tender renewal
Electricity - reduce consumption	Optimise existing smart technologies to minimise energy use in the Goodman management offices.	Craig Stephens, Engineering and Building Services Manager	Ongoing
Electricity - reduce consumption	Audit lighting and other electrical systems in the common areas of the portfolio to identify energy reduction opportunities.	Craig Stephens, Engineering and Building Services Manager	31/03/2022
Electricity - reduce consumption	Implement education programmes internally and externally, in conjunction with third parties (where appropriate), to generate greater awareness around energy efficiency.	Mandy Waldin, Marketing Director	Ongoing
Vehicle fleet - reduce fossil fuel consumption	Electrification of vehicle fleet to be expedited with additional charging infrastructure to be provided.	Andy Eakin, Chief Financial Officer	31/03/2022
Vehicle fleet - reduce fossil fuel consumption	Staff with fuel cards to be incentivised to transition to lower emission transport alternatives.	Andy Eakin, Chief Financial Officer	31/03/2025

Objective	Actions	Responsibility	Completion date
Vehicle fleet - reduce fossil fuel consumption	Advise customers and other stakeholders that our preferred meeting format is virtual.	All staff, IT support	Ongoing
Vehicle fleet - reduce fossil fuel consumption	Invest in new technologies/ applications that facilitate online meetings.	Andy Eakin, Chief Financial Officer	Ongoing
Air Travel - reduce fossil fuel consumption	Implement travel policy where domestic and international flights are restricted to essential business only with online meetings being the default choice.	Andy Eakin, Chief Financial Officer	31/03/2022
Waste minimisation	Reactivate education programme to encourage recycling within Goodman Management offices. Work with office suppliers to minimise packaging waste.	Sam Dickey, Office Manager	Ongoing
Waste minimisation	Provide waste separated rubbish bins in the common areas of the portfolio and ensure post collection sorting of waste to minimise landfill.	Various, Portfolio Managers	31/03/2023

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

Table 3: Projects to improve data quality

Emissions source	Actions to improve data quality	Responsibility	Completion date
Refrigerant	Audit to determine the number of HVAC systems in the portfolio including the types of refrigerant used and the total capacity of each system to accurately determine emission liabilities.	Craig Stephens, Engineering and Building Services Manager	31/03/2022
Diesel	Audit to determine the number of fire systems within the portfolio that use back-up generators and the volume of diesel fuel stored in these systems, to accurately determine emission liabilities.	Craig Stephens, Engineering and Building Services Manager	31/03/2021

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

Table 4: Projects to prevent emissions and reduce liabilities

Emissions source	Actions to reduce liabilities	Responsibility	Completion date
Refrigerant	Initiatives listed earlier in table 2.	Craig Stephens, Engineering and Building Services Manager	Ongoing
Diesel	Regular servicing and preventative maintenance to minimise fuel losses.	Craig Stephens, Engineering and Building Services Manager	Ongoing

UNINTENDED ENVIRONMENTAL IMPACTS

The projects to reduce emissions were categorised into five focus areas in Table 2. While they all contribute positive outcomes in the form of lower carbon emissions, they can create additional demand for resources.

The table below shows that unintended environmental impacts have also been considered in the organisation’s evaluation of the various initiatives. In each case the positive outcome outweighs the minor impacts.

For instance, the replacement of aging or faulty HVAC systems with more energy efficient alternatives will reduce electricity demand and help prevent refrigerant leaks. The cost of removing and disposing of the old refrigerants has a minor negative impact as it requires the gas to be decanted, stored and then transported to Australia to be safely disposed of through a plasma plant.

ENVIRONMENTAL IMPACTS	Refrigerant	Electricity	Vehicle Fleet	Air Travel	Waste
Resource use					
Electricity consumption	Green	Green	Yellow	Yellow	Yellow
Fuel consumption	Yellow		Green	Green	Yellow
Water consumption					
Wastewater discharge					
Waste to landfill	Yellow	Yellow			Green
Air, land and water quality	Green		Green	Green	Green
Transport congestion					
Biodiversity					
Land use					
Flooding					
Local economy					

ENVIRONMENTAL IMPACTS	Refrigerant	Electricity	Vehicle Fleet	Air Travel	Waste
Dark Green	Significant positive impact				
Light Green	Some positive impact				
White	No change				
Yellow	Some adverse impact				
Red	Significant adverse impact				

KEY PERFORMANCE INDICATORS

Table 5: Key Performance Indicators (KPI)

KPI	2020
FTE	66.00
Revenue - GHG emissions per revenue, property income (\$Millions)	145.30
Square meter	1,059,263.00
Turnover/revenue (\$Millions)	145.3000

Table 6: GHG emissions per KPI

KPI	2020
Total gross GHG emissions per FTE	13.30
Total mandatory GHG emissions per FTE	13.30
Total gross GHG emissions per Revenue - GHG emissions per revenue, property income (\$Millions)	4.76
Total mandatory GHG emissions per Revenue - GHG emissions per revenue, property income (\$Millions)	4.76
Total gross GHG emissions per Square meter	0.00065
Total mandatory GHG emissions per Square meter	0.00065
Total gross GHG emissions per Turnover/revenue (\$Millions)	6.04
Total mandatory GHG emissions per Turnover/revenue (\$Millions)	6.04

In addition to the mandatory Revenue KPI, two other emissions intensity measures are included. These have been selected as appropriate measures to monitor and assess performance should the size of the business change and an absolute target no longer be appropriate. They include, Portfolio Size (measured per 1,000 sqm of NLA) and FTE (Full Time Employee)

MONITORING AND REPORTING

Monitoring and reporting is being undertaken on a regular basis by the operations analyst, overseen by the Engineering and Building Services Manager. Reporting of these results and progress against targets will be provided to the Sustainability Committee and Board of Goodman (NZ) Limited on a quarterly cycle.

Annual emissions reporting will be included within the organisations corporate results. These results will be publicly available, included with the sustainability section of the annual report and corporate website.

EMISSIONS REDUCTION CALCULATIONS

Table 7: GHG inventory results

	2020
Scope 1	596.19
Scope 2	173.05
Scope 3 Mandatory	108.27
Scope 3 Additional	0.00
Scope 3 One time	0.00
Total gross emissions	877.50
Reporting reductions	
5-year average (tCO ₂ e)	877.50
5-year average (tCO ₂ e) (scope 1 & 2)	769.24
Emissions intensity reductions	
Turnover/revenue (\$Millions)	145.30
GDP deflator values Yr1 prices (assumed)	
Adjusted turnover (\$M)	
Emissions intensity (tCO ₂ e/\$M)	6.04
5-year average emissions intensity (tCO ₂ e/\$M)	6.04
Percentage change in absolute emissions	(no data)
Percentage change in emissions intensity	(no data)

PERFORMANCE AGAINST PLAN

This emissions management and reduction plan has been written for the base year period, 2020. An updated plan will be produced at the next recertification (2023), with performance targets reassessed and updated.