PGG Wrightson

Greenhouse Gas Disclosure Report 2025

FY25: 1 July 2024 – 30 June 2025

Version:	1.1
Document Owner:	Michael Anderson, Sustainability Manager
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1. GREENHOUSE GAS EMISSIONS INVENTORY SUMMARY

Total Greenhouse gas emissions for PGG Wrightson Limited by ISO category and business activity:

Category	Business Activity	FY21 tCO_2-e	FY22 tCO_2-e	FY23 tCO_2-e	FY24 tCO_2-e	FY25 tCO_2-e
Scope 1 (Direct Emissions)						
Stationary Combustion						
	Diesel used for heating	36	29	21	35	31
	Natural gas used for heating	9	9	7	9	10
Mobile Combustion						
	Diesel used in fleet vehicles	6,984	6,487	6,604	6,477	5,945
	Petrol used in fleet vehicles	70	66	72	81	140
	LPG used in forklifts	131	137	125	102	95
Fugitive Emissions						
	HFCs used in AC and refrigeration	212	212	212	79	37
Scope 2 (Indirect Emissions)						
Imported Energy						
	Electricity consumption (location based)	623	564	372	377	500
	Electricity consumption (market based)	623	564	204	0^	0^
Total Direct and Indirect Emissions (location-based)		8,065	7,503	7,413	7,161	6,756
Total Direct and Indirect Emissions (market-based)		8,065	7,503	7,245	6,784^	6,257
Absolute Change from FY21 Baseline (market-based)		-	-7.0%	-10.2%	-15.9%	-22.4%
Emissions Intensity (tCO2-e/$1M NZD Revenue) (market-based)		9.51	7.88	7.42	7.41	6.42

Greenhouse gas emissions by individual greenhouse gas (location based):

Greenhouse Gas	FY21		FY22		FY23		FY24		FY25	
	tonnes	tCO_2-e	tonnes	tCO_2-e	tonnes	tCO_2-e	tonnes	tCO_2-e	tonnes	tCO_2-e
Scope 1										
CO_2	7,119	7,119	6,624	6,624	6,724	6,724	6,602	6,602	6,119	6,119
CH_4	0.5	15	0.5	14	0.5	14	0.5	14	0.5	13
N_2O	0.4	100	0.4	93	0.4	94	0.4	93	0.3	87
HFCs	0.120	212	0.120	212	0.120	212	0.048	79	0.019	37
Subtotal		7,446		6,943		7,044		6,788		6,256
Scope 2 (location-based)										
CO_2	607	607	549	549	362	362	363	363	485	485
CH_4	0.6	16	0.5	15	0.4	10	0.5	13	0.5	13
N_2O	0.0	1	0.0	1	0.0	1	0.0	0	0.0	1
Subtotal		624		565		372		376		500
Total (location-based)		8,070		7,508		7,417		7,164		6,756

Scope 1 and 2 energy usage by type:

Category	Business Activity	FY21	FY22	FY23	FY24	FY25
Scope 1 (Direct Emissions)						
Stationary Combustion						
	Diesel used for heating (litres)	13,259	10,750	7,797	13,216	11,458
	Natural gas used for heating (MJ)	166,144	159,152	132,005	175,424	175,630
Mobile Combustion						
	Diesel used in fleet vehicles (litres)	2,577,280	2,393,685	2,436,833	2,416,921	2,217,632
	Petrol used in fleet vehicles (litres)	28,497	26,958	29,116	33,677	57,696
	LPG used in forklifts (litres)	80,795	84,295	77,310	63,237	58,523
Fugitive Emissions						
	HFCs used in AC and refrigeration (kg)	120	120	120	48	19
Scope 2 (Indirect Emissions)						
Imported Energy						
	Electricity consumption (kWh)	5,191,781	4,901,209	5,017,308	5,165,067	4,940,950
	Renewable energy certificates (MWh)	0	0	1,296	5,165^	4,941^

Notes:

Global Warming Potential (GWP) based on the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5). $CO_2 = 1$, $CH_4 = 28$, $N_2O = 265$.

Table totals may not match due to variation in component emissions factors used for each table and rounding of figures.

^ Market-based emissions for FY24 & FY25 have not been subject to external assurance.

2. INTRODUCTION

PGW knows that agriculture is one of the most vulnerable sectors to the impacts of climate change. As one of the largest and oldest agricultural and horticultural supplies businesses in New Zealand, PGW has an important role to play to influence its suppliers and to assist its customers to address sustainability.

PGW has committed to measure, report and reduce its GHG emissions. To achieve this PGW seeks to report on progress publicly and transparently. This GHG Disclosure Report details PGW's existing emissions inventory and will expand over time to capture all available sources.

3. STATEMENT OF INTENT

PGW intends to demonstrate best practice account for GHG emissions accounting. This report has been prepared following:

- The GHG Protocol Corporate Accounting and Reporting Standard (Revised Edition);
- The GHG Protocol Scope 2 Guidance; and
- ISO 14064-1:2018 Greenhouse gases – Part 1: Specification with guidance at the organisation level for quantification and reporting of greenhouse gas emissions and removals.

4. DESCRIPTION OF PGG WRIGHTSON LIMITED

PGW is a large agricultural and horticultural supplies business, operating across multiple markets in New Zealand. The company profile is broadly split into two areas – Retail & Water and Agency. The two areas are then split into seven business units as shown below. For the purposes of GHG reporting all PGW business units are reported as a consolidated inventory.

Figure 1 PGW Company Profile (September 2025)

5. SUSTAINABILITY STRATEGY AND TARGETS

PGW's Sustainability Strategy to 2030 (*Te Rautaki mō te Toitūtanga*) outlines commitments across a range of environmental, social and governance topics. In relation to its GHG inventory PGW has committed to:

- Reduce operational (scope 1 & 2) market-based GHG emissions profile by 30% by FY30 from a FY21 base.
- Improve scope 3 emissions calculation methodologies, disclosures and set targets.
- Improving energy efficiency through PGW's network of stores, offices and other premises by 20% by FY30 from a FY21 baseline; and to
- Transition the vehicle fleet to more efficient options to target an annual improvement in emissions per kilometre driven.

The publishing of this GHG Disclosure Report supports these targets by providing transparency in reporting. PGW applies a market-based methodology for determining scope 2 emissions associated with the operational (scope 1 & 2) GHG emissions reduction target.

PGW also reports on GHG emissions intensity, which PGW defines as the total tCO_2-e (market-based) per $1M of revenue. This performance metric is specific to PGW, as the nature of activities are unique to our business profile – making external comparisons difficult.

6. PERSONS RESPONSIBLE

The preparation and disclosure of this GHG inventory is ultimately the responsibility of the Board of Directors. The person responsible for compiling this GHG inventory is:

- Michael Anderson, Sustainability Manager.

In addition, GHG reporting requires data collection and supporting information. The following team members have contributed to substantive elements of this inventory:

- Brian Harrison, Group Financial Controller
- Amanda Dick, Group Investment and Media Relations Analyst
- Robert Janssen, Corporate Operations Manager
- Mike Lavender, Procurement Manager
- Megan McCulloch, Procurement Specialist
- Doug Cartridge, National Property Manager
- Tracey Beavan, National Property Lease and Facility Manager

7. REPORTING PERIOD

This GHG inventory covers the following reporting period:

- 1 July 2024 – 30 June 2025 (FY25)

8. INVENTORY BOUNDARY

This current GHG Disclosure report is currently limited to only scope 1 & 2 emissions. Future reports will expand to cover scope 3 emissions.

9. ORGANISATIONAL BOUNDARY

Subsidiaries and Joint Ventures

PGG Wrightson Limited is a New Zealand Limited Company registered with the New Zealand Companies Office (company number 142962). PGW has its registered office at 1 Robin Mann Place, Christchurch Airport, Christchurch 8053.

All registered subsidiaries (NZ Companies Register) are shown below and group ownership is 100% unless otherwise indicated. For the purposes of GHG emissions reporting all subsidiaries are included in reporting and PGW does not operate any joint ventures.

PGG Wrightson Limited	Bidr Limited
	Bloch & Behrens Wool (NZ) Limited
	NZ Agritrade Limited
	PGG Wrightson Employee Benefits Plan Trustee Limited
	PGG Wrightson Trustee Limited
	PGG Wrigtson Investments Limited
	PGG Wrightson Real Estate Limited

Figure 2 PGW List of Registered Subsidiaries (September 2025)

Saleyard Operations

Saleyards are often owned by multiple parties for cost sharing, risk mitigation, industry co-operation, expertise, networking, regional considerations, governance and decision-making reasons. PGW keeps a list of all saleyard sites where PGW operates, accompanied with an operational control assessment.

10. OPERATIONAL BOUNDARY

PGW accounts for 100 percent of the GHG emissions under its control. For the purposes of assessing this control, PGW applies the operational control assessment criteria.

> ***Operational Control*** *– A company has operational control over an operation if it has the full authority to introduce and implement its operating policies at the operation. It is expected that except in very rare circumstances, if the company or one of its subsidiaries is the operator of a facility, it will have the full authority to introduce and implement its operating policies and thus has operational control. Under the operational control approach, a company accounts for 100% of emissions from operations over which it or one of its subsidiaries has operational control.*
>
> - The GHG Protocol, World Business Council for Sustainable Development & World Resources Institute, 1998.

Operational control is assessed across all locations where PGW operates to determine whether a facilities' emissions should be included or excluded from GHG reporting. As above, these assessments are based on PGW's ability to introduce and implement operational, health and safety and environmental policies at each location. Operational control assessments for all PGW locations are held internally.

11. EMISSIONS SOURCE INCLUSIONS

The following table details the emissions sources included in PGW's GHG Inventory:

Category	Subcategory	GHG Emissions Source
Company Vehicles	Fleet diesel	Diesel used within the PGW fleet of vehicles
	Fleet petrol	Petrol used within the PGW fleet of vehicles
	Forklift LPG	LPG used in PGW forklifts within properties under PGW operational control
Company Facilities	Stationary natural gas	Natural gas used for heating in properties under PGW operational control
	Stationary diesel	Diesel used for heating in properties under PGW operational control
	Fugitive emissions from air conditioning systems	HFC replacement quantities from leakage in air conditioning systems in properties under PGW operational control
	Fugitive emissions from refrigeration systems	HFC replacement quantities from leakage in refrigeration systems in properties under PGW operational control
Purchased Energy	Electricity consumption	Electricity used in properties under PGW operational control

12. EMISSIONS SOURCE EXCLUSIONS

The following table details the emissions sources excluded in PGW's GHG Inventory:

Category	Subcategory	GHG Emissions Source
Company Facilities	Stationary firewood	Firewood used for heating in properties under PGW operational control

Stationary firewood use is excluded from the GHG Inventory as the data is not available due to the use of unconventional suppliers. An estimation of the size of this source has been undertaken based on the number of working appliances across the business – the source is considered immaterial and has been excluded based on de minimis principles.

PGW currently excludes all scope 3 sources from GHG reporting, these are intended to be included in future reporting.

13. DATA COLLECTION AND SOURCES

Data is sourced directly from suppliers to PGW where activity-based data is available. Alternatively, qualified estimates may be used where activity data is not available – these are outlined below. Data quality is self-assessed based of the sources available.

Data Quality

PGW uses a matrix to qualitatively self-assess the level of data quality associated with each source:

High	Medium-High	Medium	Low-Medium	Low
Data expected to be over 99% complete with very little inaccuracy expected	Data expected to be over 95% complete (or higher) with little inaccuracy expected	Data expected to be 90% complete (or higher) with only minor inaccuracy expected	Data expected to be 80% complete (or higher) with some inaccuracy expected	Data expected to be below 80% complete and inaccuracy expected

Additional notes to include if the data includes estimates, non-standard data manipulation or if interpolation or extrapolation methods are used.

Data Sources and Availability

Category	Subcategory	GHG Emissions Source	Data Source	Data Quality	Data Availability FY25
Scope 1 – Direct Emissions					
Company Vehicles	Fleet diesel	Diesel fuel used within the PGW fleet of vehicles	Records from suppliers of volumes purchased via fuel cards	High – A very low level of data leakage expected from those not using fuel cards	✓
	Fleet petrol	Petrol used within the PGW fleet of vehicles	Records from suppliers of volumes purchased via fuel cards	High – A very low level of data leakage expected from those not using fuel cards	✓
	Forklift LPG	Fuel used in PGW forklifts within properties under PGW operational control	Records from suppliers of volumes purchased via fuel cards	Medium-High – A low level of data leakage expected through staff using corporate cards for store expenses (discouraged for fuel purchases)	✓
Company Facilities	Stationary natural gas	Fuel used for heating in properties under PGW operational control	Records from suppliers of volumes consumed	High – No data leakage expected as there are only a small number of sites with natural gas supply	✓
	Stationary diesel	Diesel fuel used for heating in properties under PGW operational control	Records from suppliers of volumes purchased	High – Records supplied by a single retailer for a single PGW site	✓
	Firewood	Firewood used for heating in fireplaces under PGW operational control	Records from suppliers of volumes purchased	Low – No records available due to unconventional supplier sources	*
	Fugitive emissions from air conditioning systems	Leakage and replacement quantities	Record from suppliers of 'top-up' amounts	Medium-High – Data collected from multiple subcontractors	✓
	Fugitive emissions from refrigeration systems	Leakage and replacement quantities	Record from suppliers of 'top-up' amounts	Medium-High – Data collected from multiple subcontractors	✓
Scope 2 – Indirect Emissions					
Purchased Energy	Electricity consumption	Electricity used in properties under PGW operational control	Records from electricity suppliers	High – Supplier provide a summary of the consumption used by each ICP	✓

** Firewood excluded, refer to Emissions Source Exclusions.*

PGW aims to improve the quality of GHG emissions inventory data where available or practical. PGW actively appoints preferred suppliers for the majority of service providers and enforces compliance across the business – these activities promote cost efficiencies through negotiated pricing and reduces data leakage for reporting purposes.

Estimated Data

Activity data that is obtained directly from suppliers is the preferred source of information for GHG emissions calculations. Supplier sourced information provides the highest level of integrity and reduces re-calculation and a transcription errors. When data is not available from suppliers an estimation may be used. No estimated data was used in FY25.

Emissions Factors

Available emissions factors are sourced from the most recently available New Zealand publication of national greenhouse emissions factors – Ministry for the Environment. June 2025. *Emissions Factors Workbook 2025*. Wellington: Ministry for the Environment.

In FY25, one external emissions factor was sourced for a commercial zeotropic refrigerant blend that was used to top-up refrigerant in a PGW freezer. The specific refrigerant was R452A, which developed by Honeywell and Chemours as a lower GWP refrigerant replacement. The GWP for R452A was sourced directly from the Honeywell Refrigerants database, where the GWP (AR5) is listed as 1,945.

Reference: Honeywell. (2025, September 4). Solstice® 452A (R-452A) | European Refrigerants. https://www.honeywell-refrigerants.com/europe/product/solstice-452a/

PGW utilises both location-based and market-based emissions reporting for scope 2 emissions. Location-based emissions are calculated using the underlying electricity consumption data multiplied by the grid emissions factor for the location, regardless of contract. Whereas market-based emissions are calculated using the underlying electricity consumption data multiplied by contract emissions factors, typically associated with renewable energy supply agreements.

Renewable Energy Certificates

PGW utilised a market-based emissions factor for scope 2 emissions reporting – reporting zero (0) tonnes of CO_2-e associated with all electricity consumption in FY25. PGW purchases Meridian's Certified Renewable Energy product and are backed by appropriate evidence and New Zealand Energy Certificate System (NZECS) statements of position.

The NZECS enables a certificate to be issued against one megawatt-hour (MWh) of electricity generated, capturing the characteristic attributes of generation and enabling these attributes to be traded and redeemed against the electrical consumption of an Energy User.

Certificates equivalent to 100% of the volume of PGW's annual electricity consumption for all installation control points (ICPs) were redeemed. In FY25 the applicable production device that generated the certificates was Te Uku Wind Farm (TWH5001) which was commissioned in 2010.

Information Management

A PGW GHG Reporting Basis of Preparation document is reviewed annually, this defines the data reporting processes used to collate the information for the emissions inventory. Data is collected from suppliers and collated by PGW to be used for all external reporting purposes. PGW utilises the BraveGen platform for consolidating GHG information into a single source.

14. UNCERTAINTY

There is always a level of uncertainty in calculating and preparing a GHG inventory. Uncertainty can be introduced through the business operations, the source data, the supplier information or emissions factors used. PGW take a precautionary approach to the calculation of GHG emissions, ensuring emissions calculations are conservative and tend to lead to an overestimation of emissions, rather than an underestimation.

Data quality self-assessments are included in under Data Collection and Sources. Uncertainty associated with each individual emissions factor is published by the Ministry for the Environment. June 2025. *Emissions Factors Workbook 2025*. Wellington: Ministry for the Environment.

15. BASE YEAR

The base year is FY21 (1 July 2020 – 30 June 2021). This is the most recent year for which PGW has complete data. The base year is the year for which PGW will record progress against targets.

Base Year Emissions (Scope 1 & 2)	8,065 tCO_2-e

16. RESTATEMENTS

PGW will restate the emissions in a previous reporting year if there is deemed to be a material change to the previously reported emissions number (this includes the Base Year). A material change is defined as **greater than a 5% increase or decrease** to our total reported emissions.

Examples of events that could cause a material restatement could include:

- If emission factors change and apply retrospective (for example if the science behind a factor changed),
- If PGW bought or sold a business that has a impact on its business profile,
- If PGW change the scope of what is measured in the value chain, or
- If any errors, or cumulative errors are uncovered that would alter the emissions profile.

There have been no restatements of information in the FY25 reporting year.

In FY24 PGW restated the GHG emissions associated with LPG used in forklifts for the FY21, FY22 and FY23 reporting years. The restatement has occurred following the identification of two issues with the inventory compilation during FY24 reporting processes:

- An additional supplier of LPG to the business was discovered and it was determined that the quantity of LPG supplied by this supplier was material to the inventory category.
- An inconsistency was noted in the calculation methodology where a density conversion did not take place, as LPG is primarily reported in kilograms, but when used as a transport fuel this primary unit needs to be converted to litres.

The impact of the FY24 restatement resulted in approximately a 1% increase to the overall GHG emissions inventory for PGW applied across FY21, FY22 and FY23 reporting years. This restated information has been reported consistently from the FY24 reporting year onwards.

17. GREENHOUSE GAS REDUCTIONS

PGW implemented GHG reduction initiatives to address the inventory listed in this report. These initiatives have been focused to address the material contributing sources of GHG emissions.

As fleet emissions comprise the single largest source of emissions within its operational (scope 1&2) profile, PGW has implemented a range of changes to the vehicle fleet in FY25:

- Permanent inclusion of a hybrid options (1 out of 2) within the vehicle offerings.
- Mandatory improvement in emissions per kilometre (intensity) for any change to the vehicle options during the refresh of the fleet options.
- Tighter vehicle selection criteria to ensure the provided vehicles better match the roles of staff.

To address energy consumption across the building portfolio, PGW has undertaken the following actions:

- **LED Lighting Upgrades**: Through a strategic, multi-year approach to upgrading lighting across the building portfolio PGW has seen significant reductions in electricity consumption. PGW has invested in 86 LED lighting projects since 2017 realising over 960,000kWh of electricity savings per year. In FY25 a further 9 LED lighting upgrade projects delivered under PGW's energy efficiency investment funding and capital upgrade program.
- **Electric Forklifts**: PGW is progressively replacing forklifts across all operations (retail stores, wool stores, Agritrade distribution centres) with electric equivalents. Assets are being replaced as they reach end of life and alongside major operations refurbishments and new builds.
- **Renewable Energy Purchasing**: PGW began purchasing Meridian Energy's Certified Renewable Energy product from April 2023 onwards, supporting the development of renewable energy in New Zealand and demonstrating its commitment to taking climate action. This purchase allows PGW to report zero emissions from electricity using a market-based approach to GHG emissions.

18. GHG PROTOCOL AND ISO 14064-1:2018

This GHG inventory report for FY21, FY22 and FY23 has been prepared following the GHG Protocol Corporate Accounting and Reporting Standard (Revised Edition), GHG Protocol Scope 2 Guidance and ISO 14064-1. A reporting index is provided in Appendix 1 - Reporting Index.

19. ASSURANCE OF THE GREENHOUSE GAS INVENTORY

Oxygen Consulting Limited issued an unqualified limited assurance opinion over the Scope 1 and Scope 2 (location-based) GHG emissions inventory for the year ended 30 June 2025. PGW's Scope 2 (market-based) GHG emissions for the year ended 30 June 2025 have not been assured.

See Appendix 4 – External Assurance Statement.

20. APPENDIX 1 - REPORTING INDEX

The GHG Protocol: A Corporate Accounting and Reporting Standard – Revised Edition.

The following table details the relevant components for reporting purposes to ensure reporting is in accordance with the GHG Protocol Corporate Accounting and Reporting Standard (Revised Edition):

GHG Protocol Standards	Reference
Chapter 1 GHG Account and Reporting Principles	Appendix 2 – Reporting Principles
Chapter 3 Setting Organisational Boundaries	9. Organisational Boundary 10. Operational Boundary
Chapter 4 Setting Operational Boundaries	8. Inventory Boundary
Chapter 5 Tracking Emissions Over Time	7. Reporting Period 15. Base Year
Chapter 9 Reporting GHG Emissions	1. Greenhouse Gas Emissions Inventory Summary 7. Reporting Period 8. Inventory Boundary 9. Organisational Boundary 10. Operational Boundary 15.Base Year

Scope 2 emissions reporting, including both location-based and market-based methods have been prepared in accordance with the requirements and best practices outlined in the GHG Protocol Scope 2 Guidance.

ISO 14064-1:2018 Greenhouse gases – Part 1: Specification with guidance at the organisation level for quantification and reporting of greenhouse gas emissions and removals.

The following table details the 'required information' for a GHG report as listed under ISO 14064-1:2018.

ISO 14064-1:2018 Greenhouse gases	Reference
9.3.1(a) description of the reporting organization	4. Description of PGG Wrightson Limited
9.3.1(b) person or entity responsible for the report	6. Persons Responsible
9.3.1(c) reporting period covered	7. Reporting Period
9.3.1(d) documentation of organizational boundaries	9. Organisational Boundary
9.3.1(e) documentation of reporting boundaries, including criteria determined by the organization to define significant emissions	8. Inventory Boundary
9.3.1(f) direct GHG emissions, quantified separately for CO2, CH4, N2O, NF3, SF6 and other appropriate GHG groups (HFCs, PFCs, etc.) in tonnes of CO2e	1. Greenhouse Gas Emissions Inventory Summary
9.3.1(g) a description of how biogenic CO2 emissions and removals are treated in the GHG inventory and the relevant biogenic CO2 emissions and removals quantified separately in tonnes of CO2e	Not applicable
9.3.1(h) if quantified, direct GHG removals, in tonnes of CO2e	17. Greenhouse Gas Reductions
9.3.1(i) explanation of the exclusion of any significant GHG sources or sinks from the quantification	12. Emissions Source Exclusions
9.3.1(j) quantified indirect GHG emissions separated by category in tonnes of CO2e	1. Greenhouse Gas Emissions Inventory Summary
9.3.1(k) the historical base year selected and the base-year GHG inventory	1. Greenhouse Gas Emissions Inventory Summary 15. Base Year
9.3.1(l) explanation of any change to the base year or other historical GHG data or categorization and any recalculation of the base year or other historical GHG inventory, and documentation of any limitations to comparability resulting from such recalculation	15. Base Year

9.3.1(m) reference to, or description of, quantification approaches, including reasons for their selection	13. Data Collection and Sources
9.3.1(n) explanation of any change to quantification approaches previously used	13. Data Collection and Sources
9.3.1(o) reference to, or documentation of, GHG emission or removal factors used	13. Data Collection and Sources
9.3.1(p) description of the impact of uncertainties on the accuracy of the GHG emissions and removals data per category	14. Uncertainty
9.3.1(q) uncertainty assessment description and results	14. Uncertainty
9.3.1(r) a statement that the GHG report has been prepared in accordance with this document	18. GHG Protocol and ISO 14064-1:2018
9.3.1(s) a disclosure describing whether the GHG inventory, report or statement has been verified, including the type of verification and level of assurance achieved	19. Assurance of the Greenhouse Gas Inventory
9.3.1(t) the GWP values used in the calculation, as well as their source. If the GWP values are not taken from the latest IPCC report, include the emissions factors or the database reference used in the calculation, as well as their source	13. Data Collection and Sources

21. APPENDIX 2 - REPORTING PRINCIPLES

The following reporting principles underpin all aspects of PGW GHG accounting and reporting, ensuring that the GHG inventory is a true and fair representation of the company's GHG emissions. The following reporting principles are defined by both the:

- GHG Protocol Corporate Accounting and Reporting Standard Revised Edition; and
- ISO 14064-1:2018 Greenhouse gases – Part 1: Specifical with guidance at the organisation level for quantification and reporting of greenhouse gas emissions and removals.

Principle	Description
Relevance	PGW GHG reporting contains information that all stakeholders need for decision making, the inventory boundary reflects the substance and economic reality of PGW's business relationships. PGW has considered the organisational structures (control, ownerships, legal agreements and joint ventures), operational boundaries (on-site and off-site activities, processes, services and impacts) and business context (the nature of activities, geographic location, industry sectors, purposes and users of information)
Completeness	PGW has included all relevant emissions sources within the inventory boundary so that a comprehensive and meaningful inventory is compiled. Materiality specifications have been applied with appropriate thresholds, including transparent estimates and justifications.
Consistency	PGW intends to track GHG emissions over time and aims to apply a consistent application of accounting approaches, inventory boundaries and calculation methodologies. GHG emissions data is compiled in a manner that ensures that aggregate information is internally consistent and comparable over time. Any changes to this will be transparently documented and justified.
Transparency	PGW is transparent with the processes, procedures, assumptions and limitations of the GHG inventory in a way that is clear, factual, neutral and understandable. A full audit trail of information will be kept for internal review and external verification to attest to its credibility. Specific exclusions or inclusions need to be clearly identified and justified, assumptions disclosed, and appropriate references provided for the methodologies applied and the data sources used.
Accuracy	PGW data is sufficiently precise to enable intended users to make decisions with reasonable assurance that the information is credible. GHG measurements estimates and calculations are accurate as far as can be judged and uncertainties are reduced as far as practicable.

Legislative Context

On 14 December 2022 the External Reporting Board (XRB) issued the Aotearoa New Zealand Climate Standard 1 – Climate-related Disclosures (NZ CS 1) under section 12(aa) of the *Financial Reporting Act 2013*. NZ CS 1 outlines a range of climate-related disclosures for organisations and applies for reporting periods begin after 1 January 2023. For PGW this applied for the FY24 reporting period (1 July 2023 – 30 June 2024) onwards.

22. APPENDIX 3 - EMISSIONS SCOPES

PGW follows the methodologies and guidelines of the GHG Protocol for the definitions of scopes for accounting and reporting purposes:

Scope 1: Direct Emissions

Scope 1 emissions occur from sources that are owned or controlled by the company, for example, emissions from combustion in owned or controlled boilers, furnaces, vehicles and emissions from chemical production in owned or controlled process equipment.

Scope 2: Indirect Emissions (Purchased Energy)

Scope 2 accounts for GHG emissions from the generation of purchased electricity, steam, heat or cooling consumed by the company. Purchased energy is defined as energy that is purchased or otherwise brought into the organisational boundary of the company. Scope 2 emissions physically occur at the facility where energy is generated.

Scope 3: Indirect Emissions (Value Chain)

Scope 3 accounts for all other indirect emissions from an organisation's value chain. Scope 3 emissions are a consequence of the activities of the company and occur from sources not owned or controlled by the company. Some examples of scope 3 activities are extraction and production of purchased materials; transportation of purchased fuels; and use of sold products and services.

23. APPENDIX 4 – EXTERNAL ASSURANCE STATEMENT

Independent Assurance Statement to the Management and Directors of PGG Wrightson Limited

Prepared by Oxygen Consulting NZ Limited

Assurance Conclusion

Oxygen Consulting NZ Limited ('Oxygen Consulting', 'we') was engaged by PGG Wrightson Limited ("PGG Wrightson") to undertake limited assurance procedures as defined by ISO 14064-3:2019, over PGG Wrightson's greenhouse gas ("GHG") emissions statement ("GHG Statement") (including Scope 1 and 2) within its GHG Disclosures Report and Climate Statement within its Sustainability Report for the year ended 30 June 2025.

In our unmodified opinion, based on our limited assurance procedures and the evidence we have obtained, nothing has come to our attention which may lead us to believe that PGG Wrightson GHG Statements for the financial year ending 30 June 2025, totalling 6,756 tCO_2e is not prepared or presented, in all material aspects, in accordance with the criteria below.

What our assurance covered

We have undertaken a limited assurance engagement over the GHG Disclosures included within pages 3 to 12 of the GHG Disclosures Report and within pages 11 to 28 of the Climate Statement within the Sustainability Report for PGG Wrightson for the financial period from 1 July 2024 to 30 June 2025:

- GHG Disclosures Report
  - Total Scope 1 GHG emissions of 6,256 tCO_2e on page 3;
  - Total Scope 2 (location-based) GHG emissions of 500 tCO_2e on page 3;
  - Additional required disclosures of gross GHG emissions on pages 7 to 12; and
  - Gross GHG emissions methods, assumptions, and uncertainties on pages 8 to 11.
- Climate Statement within the Sustainability Report
  - Total Scope 1 GHG emissions of 6,256 tCO_2e on page 26; and
  - Total Scope 2 (location-based) GHG emissions of 500 tCO_2e on page 26.

Our assurance engagement does not extend to any other information referred to or included within pages 3 to20 of the GHG Disclosures Report or within pages 11 to 34 of the Climate Statement within the Sustainability Report for the financial period ended 30 June 2025. Additionally, this does not extend to the Scope 2 (market-based) emissions or any targets discussed.

To determine if the GHG Statements meet the requirements of *ISO 14064-1:2018* to a limited level of assurance, we planned and performed the engagement to obtain the assurance with respect to the GHG statement in that it:

- Is without material misstatement between what is claimed and what occurred;
- Conforms to the requirements and principles of the *ISO 14064-1:2018* standard;
- Is accurate, complete, consistent, relevant and transparent; and
- Has supported data, controls and calculations to ensure accuracy.

Criteria applied by PGG Wrightson

The criteria for our assurance engagement included:

- *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 14064-3:2019 Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements.*
- *Assurance Engagements over Greenhouse Gas Emissions Disclosures (NZ SAE 1).*
- *New Zealand Climate Standards (NZ CS 1 -3).*

Key responsibilities

Our responsibility was to provide an assurance opinion on the Scope 1 and Scope 2 GHG emissions reported in the GHG Disclosure Report, and on the underlying systems and processes used to collect, analyse, and input data into its GHG information systems, in accordance with *ISO 14064-1:2018 Greenhouse gases — Part 1: Specification with guidance at the organisation level for quantification and reporting of greenhouse gas emissions and removals*. This opinion is based on the analysis we have performed and the evidence we have obtained.

In accordance with NZ SAE 1, our responsibility is to plan and carry out this engagement to obtain the intended level of assurance. This involves assessing whether anything has come to our attention that would indicate the GHG Disclosures are not, in all material respects, fairly stated and prepared in line with the requirements of the New Zealand Climate Standards (NZ CSs), whether due to fraud or error, and to report our conclusion to PGG Wrightson's Directors.

PGG Wrightson's responsibility

PGG Wrightson has the responsibility to maintain its GHG information system and Scope 1 and Scope 2 emissions reported. The PGG Wrightson Management is responsible for the development and maintenance of records and reporting procedure in accordance with that system, including the calculations and determination of GHG emissions information and fair presentation of the resulting GHG Disclosure Report in accordance with the criteria.

The Directors of PGG Wrighton are responsible for the preparation and fair representation of the GHG Disclosures in accordance with NZ CS. This responsibility includes the design, implementation and maintenance of internal controls relevant to the preparation of GHG Disclosures that are free from material misstatement whether due to fraud or error.

Our approach to conducting the engagement
We conducted this review in accordance *ISO 14064-3:2019 Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements* and the terms of reference for this engagement as agreed with PGG Wrightson in April 2025.

Summary of assurance procedures performed
Our combined assurance engagement consisted of making enquiries and applying analytical, appropriate testing, and other evidence gathering procedures. Our review was carried out in accordance with the criteria stated in *ISO 14064-1:2018*.

Our procedures included:

- Conducting interviews with personnel to understand the business and reporting process;
- Checking organisational and operational boundaries to test completeness of greenhouse gas emissions sources;
- Checking that the flow of information from source data through to calculation spreadsheets is accurate and any calculations are appropriate;
- Identifying and testing assumptions supporting the calculations;
- Tests of calculation, aggregation and controls;
- Comparing year on year activity-based greenhouse gas data where possible;
- Checking that emissions factors and methodologies have been correctly applied as per the criteria;
- Reviewing the appropriateness of the presentation of disclosures.

We believe that the evidence obtained is sufficient and appropriate to provide a basis for our combined assurance conclusions.

Key matters
Through the limited assurance engagement and based on our professional judgement, no significant matters were identified within PGG Wrightson's GHG Disclosures for the financial period ended 30 June 2025.

Other matters
Comparative GHG Disclosures prepared by PGG Wrightson for previous financial periods (e.g., 1 July 2023 to 30 June 2024) have not been subject to this limited assurance engagement and are not covered by our assurance opinion.

Limitations
Within a limited assurance, we cannot guarantee that all material misstatements, including those resulting from fraud, error, and / or non-compliance, if any, will be detected. Furthermore, our conclusions are subject to the inherent limitations of any assurance engagement, as they are based on sampling, testing, and other procedures deemed appropriate by us in the circumstances.

There are additional inherent risks associated with assurance over non-financial information including reporting against standards which require information to be assured against source data compiled using definitions and estimation methods that are developed by the reporting entity. This has been identified within PGG Wrightson's GHG Disclosures Report on page 11.

Achieved level of Assurance
Limited – Scope 1 and 2 emissions

Limited Assurance
Procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

While we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

Use of our Assurance Statement
Our report is only issued to the Management and Directors of PGG Wrightson in accordance with the terms and conditions of our engagement. We do not accept any responsibility for any reliance placed on this statement by any other parties.

Oxygen Consulting NZ Limited

Sarah Holden
Director, Oxygen Consulting NZ Limited

16th September 2025