

2024-2025 Pharmac Greenhouse Gases Emissions Report

ISO 14064-1:2018(E) Guidelines

Summary

In 2023/24 Pharmac reached its 2030 42% reduction target early by reducing their carbon emissions by 53% compared to their 2018/19 base year. The goal for 2024/25 was to maintain this reduction.

In 2023/24 Pharmac's total emissions were 207.1 tCO₂-e. For this reporting year another 19 tonnes of emission reductions were found with the total for 2024/25 at 188.21 tCO₂-e. That is a 57% reduction compared to the base year.

In 2024/25 there was a significant increase in emission factor (EF) for electricity due to unfavourable weather conditions, which led to a rise in fossil-based generation. This increase flowed on to EF increases in freight, travel and working from home. Additionally, Pharmac staff numbers increased from 167 to 190.45 FTE. Achieving reductions in a year with higher EF and more staff is an incredible result for Pharmac.

Reductions were achieved across many areas compared to the previous reporting year including:

- A 90% reduction in Business Class travel
- A reduction of 43,000 km flown domestically
- A 15% decrease in Taxi use
- 50 fewer nights spend in New Zealand accommodation

With the increase in staff numbers came increases in office electricity usage, the number of working from home days and the amount of commuting kilometres travelled. Since the largest source of carbon emissions (28%) comes from commuting via light vehicles, a focus for 2025/26 will be promoting public transport and cycling options to reduce these figures.

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Emissions Inventory Summary

Table 1: Greenhouse gases (GHG) qualified separately for 2024/25 reporting year (please note emission factors are not split into individual gasses for Hotels, so Scope 3 will not total exactly by adding up the row).

tCO ₂ e	CO ₂	CH ₄	N ₂ O	HFCs	PFCs	SF ₆	Other	Total
Scope 1	-	-	-	-	-	-	-	-
Scope 2	18.594	0.517	0.036	-	-	-	-	19.147
Scope 3	159.554	2.639	2.232	-	-	-	-	169.064
Total	178.148	3.156	2.268					188.211

Table 2: Total tonnes CO₂ equivalent (tCO₂e) by scope and FTEs for base year (2018/19) and reporting years.

	2018/19	2022/23	2023/24	2024/25
FTE	119	157	167	190.45
Greenhouse Gas Emissions				
Scope 2	20.93	20.86	13.09	19.15
Scope 3	415.66	259.04	193.98	169.06
Total tCO₂e	436.59	279.90	207.07	188.21

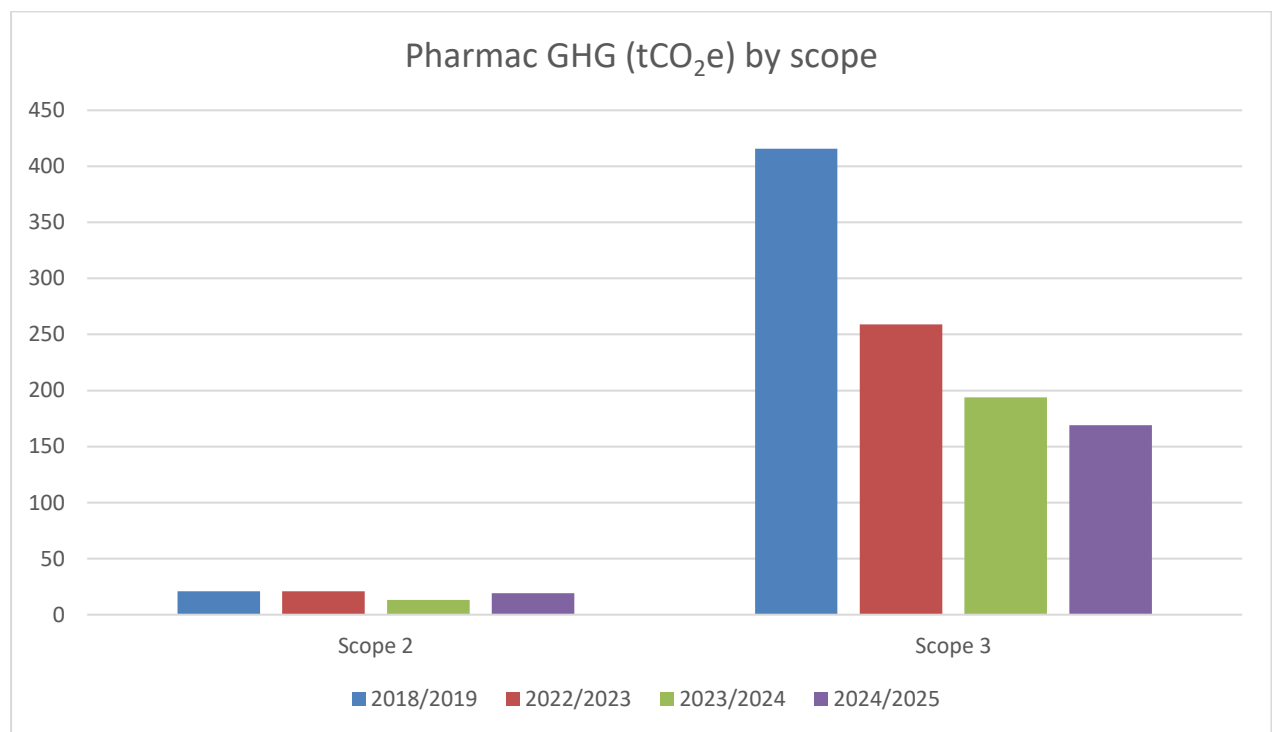


Figure 1: Total scope 2 and 3 emissions from base year and reporting years.

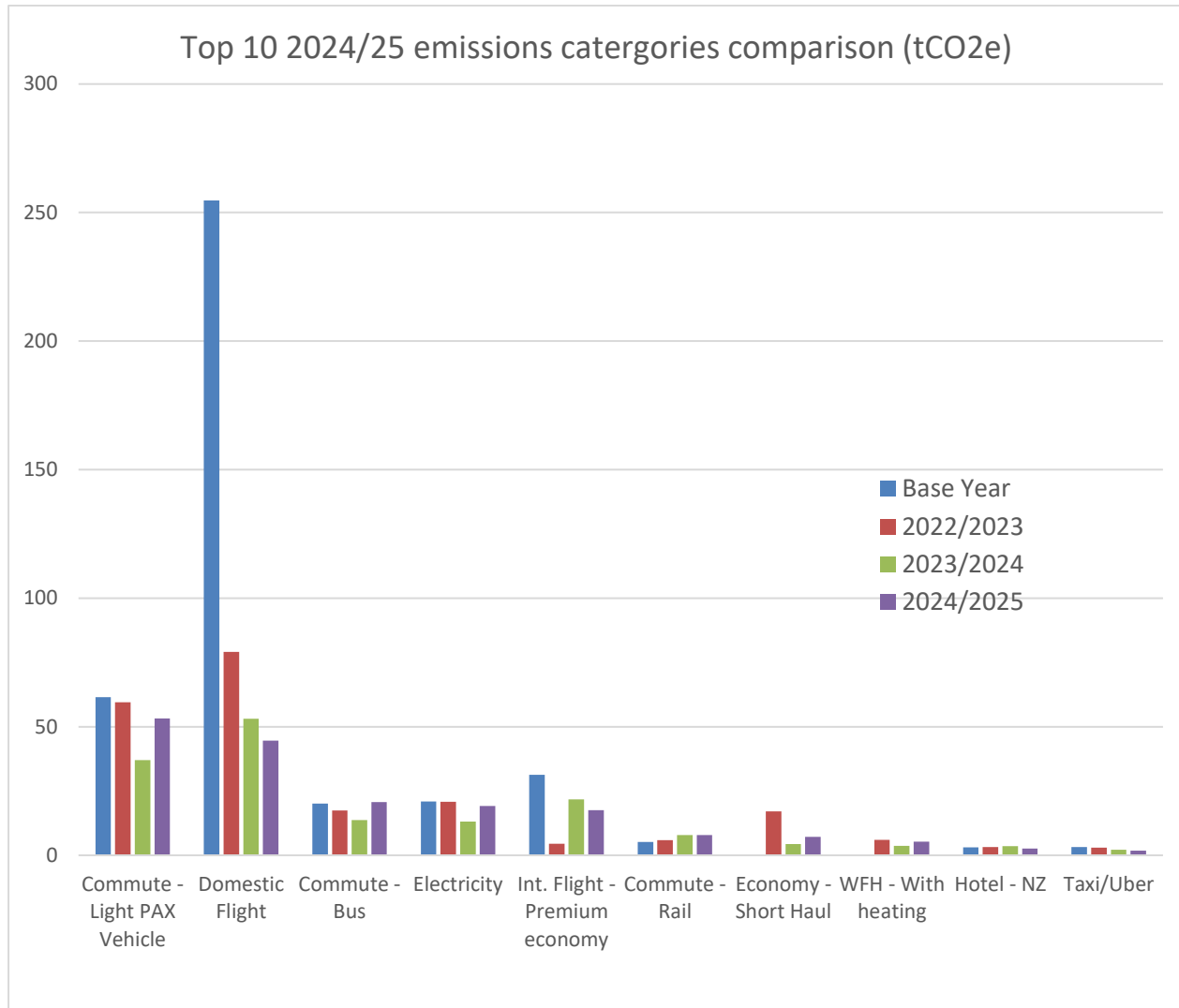


Figure 2: Top 10 GHG emissions for 2024/25 compared to previous years.

Table 3: GHG emissions by ISO14064-1:2018(E) categories

Category (ISO 14064-1:2018)	Scopes (ISO 14064-1:2006)	tCO2-e
Category 2 - Indirect GHG emissions from imported energy <i>Electricity</i>	Scope 2	19.15
Category 3 - Indirect GHG emissions from transportation <i>Business Travel, Commuting, Freight, Work From Home (WFH)</i>	Scope 3	167.11
Category 4 - Indirect GHG emissions from products used by an organisation <i>Waste, Water</i>		1.95

Introduction

This report is the annual greenhouse gas (GHG) emissions inventory report for the Pharmaceutical Management Agency (Pharmac). The inventory is a complete and accurate quantification of the amount of GHG emissions that can be directly attributed to the organisation's operations within the declared boundary and scope for the specified baseline period.

The inventory has been prepared in accordance with the requirements of the ISO 14064-1:2018(E) Part 1: Specification with Guidance at the Organization Level for Quantification and Reporting of GHG and Removals.

Statement of Intent

Our mandate

Pharmac's legislative objective is set out in the New Zealand Public Health and Disability Act 2000 – 'to secure for eligible people in need of pharmaceuticals, the best health outcomes that are reasonably achievable from pharmaceutical treatment and from within the amount of funding provided'. As a Crown Entity, Pharmac is governed by a board of directors. The Board provides governance over our strategy and future operating intentions and monitors organisational performance.

Governance

Pharmac is a crown entity. So as set out in legislation; there is a Board who are appointed by the Minister of Health. A Governance Manual guides the Board's operations and sets out legal obligations, relevant procedures, and the delegation's framework for Pharmac's decision-making. Pharmac receives an annual letter of expectation directly from the Associate Minister of Health (Pharmac).

Environmental sustainability

The global pharmaceutical industry causes environmental impacts through the manufacture, disposal and packaging of medicines and medical devices. While very little pharmaceutical manufacturing occurs in New Zealand there are opportunities to improve sustainability through procurement. Wherever possible Pharmac will signal our preferences for more environmentally sustainable packaging from suppliers and for options that minimise the volume of packaging.

As a Crown entity we actively support New Zealand's GHG emissions reduction goals to levels that meet international agreements. Pharmac is a member of the Carbon Neutral Government Programme to reduce net carbon emissions. We encourage innovative thinking to find smarter ways of being more energy efficient, increase environmental awareness in our activities, and implement sustainable procurement initiatives.

We are required to report annually on our progress to reduce carbon emissions. Our Carbon Emissions Reduction Plan provides the basis for setting our emissions reporting, reduction targets, and meeting the Government's broader objective of achieving carbon neutrality by 2025.

Description of the reporting organisation

Pharmac is the New Zealand government agency that decides which medicines and related products are funded in New Zealand. We work hard to give New Zealanders access to medicines and related products they need. Our role includes:

- managing the list of vaccines, medicines and devices that get subsidised in the community (part of the cost is paid by government so it is cheaper for the user)
- promoting responsible use of medicines
- managing which hospital medicines are funded, and national contracts for some devices used in public hospitals.

Person responsible

This report has been put together by the Business Services Manager and Sustainability Lead Corey Moir.

Reporting period covered

The reporting period covers the 2025 financial year, 1 July 2024 to 30 June 2025. This will be compared to the Base Year, 1 June 2018 to 30 June 2019.

Pharmac Greenhouse Gas Emission Reports, once noted at the September board meeting, are published on the Pharmac website and accessible to the public:

<https://www.pharmac.govt.nz/about/what-we-do/the-carbon-neutral-government-programme>

Organisational boundaries

Organisational boundaries were set with reference to the methodology described in the ISO 14064-1:2018(E) standards. The standard describes two distinct approaches to consolidate GHG emissions: the equity share and control (financial or operational) approaches. This report used an operational control consolidation approach to account for emissions. This approach was chosen because it provides a clear and comprehensive view of the emissions directly influenced by our operational activities. All business units and facilities under Pharmac's operational control are included in the report, ensuring a complete and accurate representation of our emissions inventory

Pharmac offices occupy a single location at Simpl House, 40 Mercer Street, Wellington, 6011. The office spans five levels, with a combined floor area of 2,298.36m², including 200 workstations, 25 meeting rooms and a public facing area.

Emissions inclusions

No business units have been excluded from this inventory.

Emission breakdown

The GHG emissions sources included in this inventory were identified with reference to the methodology in the ISO14064-1:2018(E) standard. As adapted from the standard these emissions were classified under the following categories:

- **Direct GHG emissions (Scope 1):** emissions from sources that are owned or controlled by the company (category 1 in ISO Standard (B.2))
- **Indirect GHG emissions (Scope 2):** emissions from the generation of purchased electricity, heat and steam consumed by the company (category 2 in ISO Standard (B.3))
- **Indirect GHG emissions (Scope 3):** emissions that occur because of the company's activities but from sources not owned or controlled by the company. These have been further categorised using the ISO14064 standard categories:
 - Category 3 – Indirect GHG emissions from transportation (B.4)
 - Category 4 – Indirect GHG emissions from products used by organization (B.5)

Table 4: Calculation table of raw data with emission factors with tCO₂e per emission type

	Unit	Amount	Emission factor	tCO ₂ -e
Scope 2				
Electricity	kWh	189,353	0.10112	19.15
Scope 3 Mandatory				
Transmission and distributions losses (electricity)	kWh	189,353	0.00769	1.46
Business travel				75.805
Air travel domestic	km	229,628	0.19428	44.61
Air travel short haul - Economy	km	46,609	0.15094	7.16
Air travel short haul - Premium Economy	km	2,295	0.15345	0.35
Air travel short haul - Business	km	4,455	0.22640	1.01
Air travel long haul - Premium economy	km	72,625	0.23646	17.17
Transport - Ferry	km	44	0.34626	0.02
Transport - Private Car	km	2,275	0.24437	0.56
Transport - Rental Car	km	1,216	0.18389	0.22
Transport - Taxi	\$	37,661	0.04482	1.69
Transport - Train	km	175	0.02682	0.005
Transport - Uber	\$	3,178	0.04482	0.14
Other - Hotel - Argentina	nights	9	15.32537	0.14
Other - Hotel - Australia	nights	23	34.11942	0.78
Other - Hotel - Norway (using Finland EF)	nights	3	10.76387	0.03
Other - Hotel - New Zealand	nights	259	10.30785	2.67
Other - Hotel - Spain	nights	5	11.51795	0.06
Staff WFH				6.11
Without heating	days	11,156	0.07162	0.80
With heating	days	5,051	1.05090	5.31
Freight rail, road, coastal shipping and couriers				1.22
All trucks	tkm	7,530	0.13500	1.02
Domestic flights	tkm	43	4.67340	0.20
Waste and water				1.95
Wastewater	m3	1,133	0.51558	0.40
Water supply	m3	1,259	0.04855	0.04
Waste (to landfill)	kg	2,594	0.58405	1.51
Scope 3 Plus				
Staff commuting				81.71
Bus	km	133,853	0.15459	20.69
Rail	km	292,428	0.02682	7.84
Taxi	km	7,643	0.16226	1.24
Light PAX Vehicle	km	353,938	varied	51.94
Total				188.21

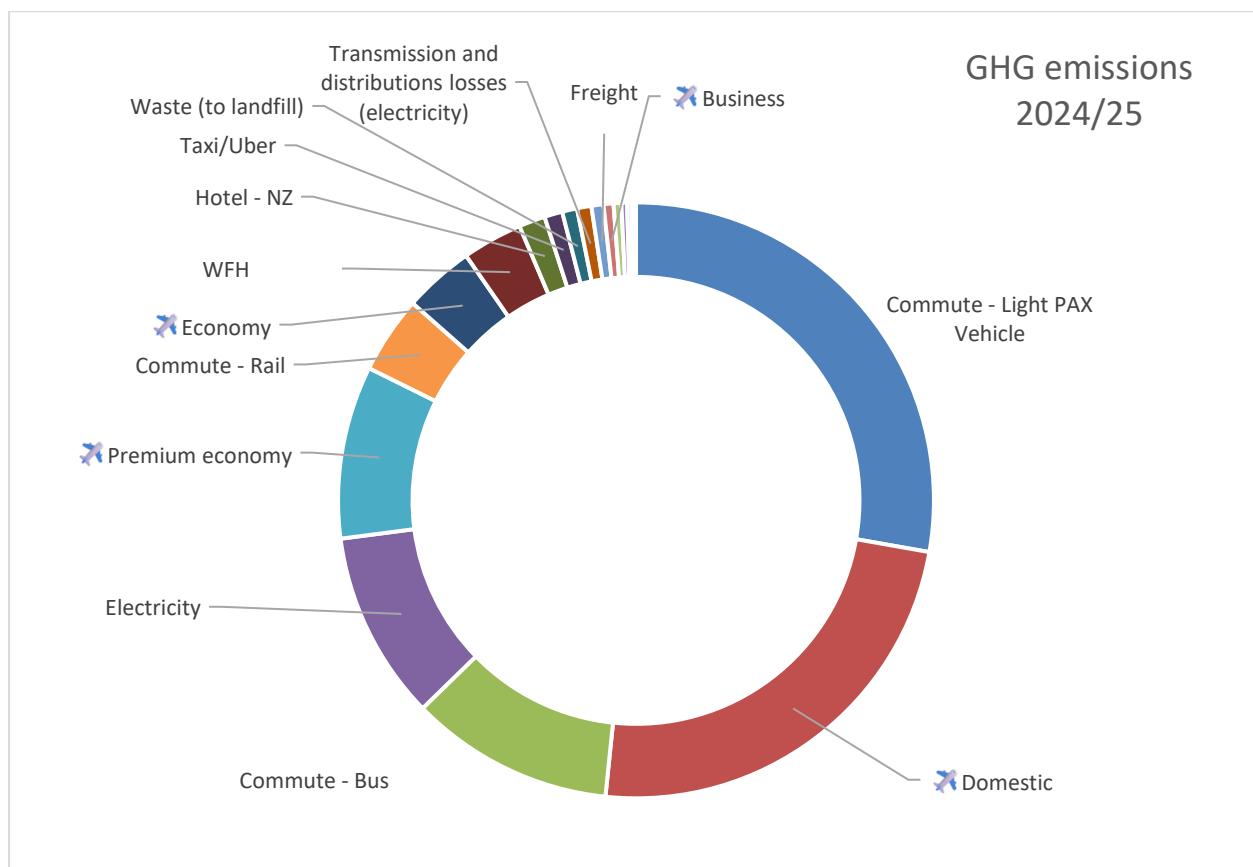


Figure 3: 2024/25 GHG emissions by description.

GHG emission source exclusions

Pharmac recognises the extent of Scope 3 emissions is significant. We have chosen to declare the following notable emissions sources that have been excluded from the emissions inventory.

Table 5: Excluded data sources

Scope	Source	Reason for exclusion
1	Refrigerant leaks	No refrigerant top-ups reported by the landlord in 2024/25
3	International staff	There are two staff working internationally for 20 hours a week. The emissions for the two staff working are less than 1% of the total emissions and can be excluded.

Base year comparison

Table 6: Comparison of tCO₂e for base year and reporting years by emission type.

	2018/19	2022/23	2023/24	2024/25
Scope 2				
Electricity	20.93	20.86	13.09	19.15
Scope 3 Mandatory				
T&D losses (electricity)	2.16	1.92	0.96	1.46
Business travel	314.20	157.67	106.78	75.805
Air travel domestic	254.70	79.12	53.15	44.61
Air travel international - Economy	17.53			
Air travel - Economy - Short Haul		17.14	5.73	7.16
Air travel - Economy - Long Haul		14.95	0.77	-
Air travel international - Premium economy	31.33	4.44		
Air travel - Premium economy - Short Haul			0.25	0.35
Air travel - Premium economy - Long Haul			21.39	17.17
Air travel international - Business class	-	32.32		
Air travel - Business class - Short Haul			0.80	1.01
Air travel - Business class - Long Haul			17.65	-
Transport - Ferry	-	-	-	0.02
Transport - Private Car	-	-	0.27	0.56
Transport - Private Motorcycle	-	-	0.10	-
Transport - Rental Car	2.50	0.09	0.23	0.22
Transport - Taxi	3.20	2.92	2.17	1.69
Transport - Train	-	-	-	0.005
Transport - Uber	-	-	-	0.14
Other - Hotel - Argentina	-	-	-	0.14
Other - Hotel - Australia	1.75	3.27	0.39	0.78
Other - Hotel - Canada			0.04	-
Other - Hotel - Germany	0.11			-
Other - Hotel - New Zealand	3.08	3.21	3.60	2.67
Other - Hotel - Norway	-	-	-	0.03
Other - Hotel - Spain	-	-	0.12	0.06
Other - Hotel - UK	-	0.09	-	-
Other - Hotel - USA	-	0.12	0.12	-
Staff WFH		6.62	4.15	6.11
Without heating	-	0.57	0.41	0.80
With heating	-	6.05	3.73	5.31
Freight rail, road, coastal shipping and couriers	10.04	7.88	1.29	1.22
All trucks	10.04	7.52	1.09	1.02
Domestic flights		0.36	0.20	0.20
Waste and water	2.49	2.1	2.24	1.95
Waste (to landfill)	1.85	1.46	1.84	1.51
Wastewater	0.60	0.60	0.37	0.40
Water supply	0.04	0.04	0.03	0.04
Scope 3 Plus				
Staff commuting	86.77	82.85	78.56	81.71
Light PAX Vehicle	61.52	59.56	54.98	51.94
Bus	20.10	17.39	13.71	20.69
Rail	5.15	5.90	7.84	7.84
Taxi	-	-	-	1.24
Flight	-	-	2.03	-
Total	436.59	279.90	207.07	188.21

Quantification methodologies

Emission factors were sourced from the Ministry for the Environment guides.

- Base year (2018/19) and 1st reporting year (2022/23) used emission factors from August 2022 guide – *Measuring emissions: A guide for organisations 2022 detailed guide*.
- 2nd reporting year (2023/24) use emission factors from May 2024 guide – *Te ine tukunga: He tohutohu pakihi | Measuring emissions: A guide for organisations 2024 detailed guide*
- 3rd reporting year (2024/35) use emissions factors from June 2025 Guide - *MfE Measuring Emissions: A guide for organisations – 2025 – Emission Factor Workbook*

Table 7: Comparison of carbon emission factor (EF) for second and third reporting years

	EF 2024 guide	EF 2025 guide	
Scope 2			
Electricity	0.07289	0.10112	↑39%
Scope 3 Mandatory			
Transmission and distributions losses (electricity)	0.00533	0.00769	↑44%
Business travel			
Air domestic	0.19405	0.19428	
Economy - Short Haul	0.15094	0.15094	
Economy - Long Haul	0.14779	0.14779	
Premium economy - Short Haul	0.15345	0.15345	
Premium economy - Long Haul	0.23646	0.23646	
Business class - Short Haul	0.22640	0.22640	
Business class - Long Haul	0.42859	0.42859	
Rental Car default petrol	0.18308	0.18389	
Private Car <3000 cc petrol	0.24329	0.24437	
Transport - Taxi/Uber	0.04543	0.04482	↓1%
Transport - Train	0.02224	0.02682	↑21%
Transport - Ferry	0.28399	0.34626	↑22%
Hotel - Argentina	23.76887	15.32537	↓36%
Hotel - Australia	43.22550	34.11942	↓21%
Hotel - Finland	n/a	10.76387	
Hotel - New Zealand	11.59990	10.30785	↓11%
Hotel - Spain	11.13335	11.51795	↑3%
Staff WFH			
Without heating	0.0515	0.07162	↑39%
With heating	0.756	1.05090	↑39%
Freight rail, road and couriers			
All trucks	0.13500	0.13500	
Domestic flights	4.67340	4.67340	
Waste and water			
Wastewater	0.47644	0.51558	↑8%
Water supply	0.03490	0.04855	↑39%
Waste (to landfill) - class 1 gas recovery	0.66582	0.58405	↓12%
Scope 3 Plus			
Staff commuting			
Bus	0.15500	0.15459	
Rail	0.02224	0.02682	↑21%
Taxi	0.04543	0.04482	↓1%
Light PAX Vehicle	varied	varied	

Uncertainties

In this section, we provide the data sources, assumptions, and methodologies used to calculate/estimate the activity data for certain emissions sources:

- **Pharmac** has no Scope 1 emissions as the organisation has no company vehicles, gas usage, or emissions associated to refrigerants used.
- **Electricity** – the data was gathered from the Meridian website for the energy usage by floor. Manual reads were completed for the Level 11, that has yet to receive a smart meter. The data is recorded well so there is a low uncertainty with this data.
- **Freight Transport** – monthly data gathered from Healthcare Logistics. Excellent data collected so uncertainty low.
- **Staff WFH** and **Staff Commuting** – a May 2025 survey collected information on commuting distance, mode of transport and WFH days. A total of 103.23 FTE were surveyed which was used to estimate the emissions for 190.45 FTE. With errors associated with staff self-reporting there is a higher uncertainty with this data. WFH data has less variation compared to transport, so uncertainty is moderate.
- **Office Waste** – the cleaner carried out a total weight measurement for the waste to landfill for one week at five random times during the year. Using five weekly measurements to estimate landfill for the 49.2 weeks the office was open leads to high uncertainty.
- **Water and Wastewater** – water invoices from the landlord have been used to determine the m³ water usage for the organisation. Since the water supply isn't metered this is an estimate so has a moderate uncertainty.
- **Air Travel** and **Hotel stays** – data reported by Orbit, capturing all business travel, so low uncertainty with this data.
- **Taxi travel** – data reported by TaxiCharge so low uncertainty.

Table 8: Data sources for GHG emissions with uncertainties

Scope	GHG Emission Source	Data source	Data collection unit	Uncertainty (description)
2	Purchased electricity	Meridian Invoices and level 11 monthly meter reads	kWh	low
3	Transmission and distributions losses (electricity)		kWh	low
3	Staff commuting (public transport)	Staff survey conducted in May 2025 (103.23 FTE respondents)	passenger.km	high
3	Staff commuting (light passenger vehicle)		km	high
3	WFH		days	moderate
3	Taxi travel	Spend data comes from TaxiCharge	\$	low
3	Rental cars	Data provided by Orbit Travel	km	moderate
3	Domestic air travel		passenger.km	low
3	International air travel		passenger.km	low
3	Hotel stays		room per night	low
3	Freight	Data provided by Healthcare Logistics	tonne.km	low
3	Water supply	Landlord (CBRE)	m ³	moderate
3	Wastewater treatment		m ³	moderate
3	Office waste	Bimonthly week weighing's by cleaner	kg	high

Statement

This report has been prepared in accordance with the ISO 14064-1:2018(E) standard for GHG reporting.

Verification

This report is verified by Toitū Envirocare. The assurance for the audit was Reasonable and Limited (Table 9).

Table 9: Level of assurance from Toitū Envirocare audit

Category	Scope	Assurance
Category 2 - Electricity	Scope 2	Reasonable
Category 3 - Business travel and freight	Scope 3	Reasonable
Category 3 - Commuting and WFH		Limited
Category 4 - Waste and T&D losses		Reasonable
Category 4 - Water and wastewater		Limited

References

International Organization for Standardization. (2018). ISO14064-1:2018(E). Greenhouse gases – Part 1: Specification with guidance at the organisation level for quantification and reporting of greenhouse gas GHG emissions and removals. Geneva: ISO.

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Pharmac. (2024). Statement of Intent 2024/25 – 2027/28
<https://www.pharmac.govt.nz/assets/SOI-2024-2028.pdf>

Pharmac. (2024). Statement of Performance Expectations | Te Tauākī o Ngā Mahi Hei Whakatutuki, 2024/25 <https://www.pharmac.govt.nz/assets/Pharmac-SPE-24-25.pdf>

Appendix 1 – Measured raw data from the reporting years

Table 10: Raw data from emission categories

Scope 2	Unit	2018/19	2022/23	2023/24	2024/25
Electricity	kWh	205,809	173,718	179,579	189,353
Scope 3 Mandatory					
T&D losses (electricity)	kWh	205,809	173,718	179,579	189,353
Business travel					
Air travel domestic	km	835,079	259,403	273,969	229,628
Economy - Short Haul	km	113,714	113,490	37,969	47,418
Economy - Long Haul	km	2,377	101,090	5,214	-
Premium economy	km	132,437	18,772		
Premium economy - Short Haul	km			1,618	2,295
Premium economy - Long Haul	km			90,640	72,625
Business class	km	-	75,367		
Business class - Short Haul	km			3,552	4,455
Business class - Long Haul	km			41,139	-
Transport - Ferry	km	-	-	-	44
Transport - Private Car	km	-	-	1,109	2,275
Transport - Private Motorcycle	km	-	-	902	-
Transport - Rental Car	km	11,843	450	1,245	1,216
Transport - Taxi	\$	45,504	41,531	47,946	37,661
Transport - Train	km	-	-	-	175
Transport - Uber	\$	-	-	-	3,178
Other - Hotel - Argentina	nights	-	-	-	9
Other - Hotel - Australia	nights	45	84	9	23
Other - Hotel - Canada	nights	-	-	3	-
Other - Hotel - Germany	nights	6	-	-	-
Other - Hotel - New Zealand	nights	329	342	310	259
Other - Hotel - Norway	nights	-	-	-	3
Other - Hotel - Spain	nights	-	-	11	9
Other - Hotel - UK	nights	-	7	-	-
Other - Hotel - USA	nights	-	-	8	-
Staff WFH					
Without heating	days	-	8,587	8,053	11,156
With heating	days	-	6,179	4,940	5,051
Freight rail, road, coastal shipping and couriers					
All trucks	tkm	74,390	55,702	8,073	7,530
Domestic flights	tkm		81	43	43
Waste and water					
Waste (to landfill)	kg	3,120	2,451	2,767	2,594
Wastewater	m ³	1,243	1,243	769	773
Water supply	m ³	1,380	1,380	854	859
Scope 3 Plus					
Staff commuting					
Light PAX Vehicle	km	232,440	225,056	318,729	353,938
Rail	km	277,056	317,182	353,367	292,428
Bus	km	129,480	112,022	88,452	133,853
Taxi		-	-	-	7,643
Flight	km	-	-	13,919	-

Appendix 2 – Month on month data collection

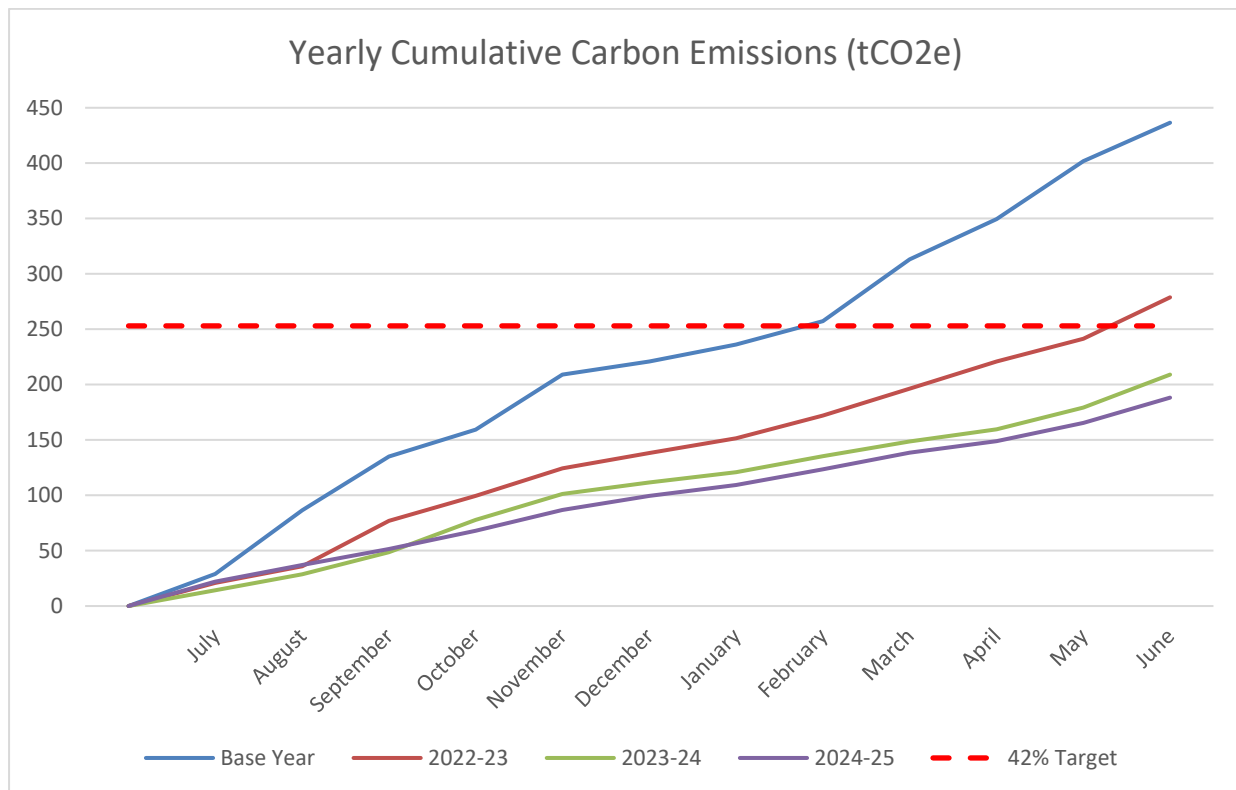


Figure 4: Yearly cumulative carbon emissions (tCO₂e) with 2030 42% reduction target.