

1. Introduction

The report is the annual greenhouse gas (GHG) emissions inventory report for the New Zealand Green Building Council (NZGBC). 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 stated boundary and scope for the specified reporting period.

The inventory has been prepared in accordance with the requirements of the *Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004)* and *Measuring Emissions: A Guide for Organisations, 2019 Detailed Guide*.

2. Statement of Intent

This document outlines NZGBC's approach to greenhouse gas calculation and displays NZGBC's commitment to measure, manage and report our emissions.

3. Organisation description

The New Zealand Green Building council (NZGBC) is a not-for-profit, industry organisation. Our vision is "All homes and buildings in Aotearoa green and sustainable, making healthier, happier New Zealanders."

We do this through:

- Promoting the benefits of sustainable buildings by creating a common language and demonstrating the value.
- Assisting the property and construction sector to acquire the skills and knowledge to be able to deliver a sustainable built environment.
- Motivation and rewarding the sustainable development and operation of buildings across New Zealand

The NZGBC was established in July 2005 and in 2006 became a member of the World Green Building Council (WorldGBC). The WorldGBC is an international not-for-profit organisation that aims to move the global property industry and built environment towards sustainability, with Green Building councils being established in various countries around the world.

As an active driver for sustainability in New Zealand, NZGBC is eager to take responsibility in its own GHG emissions. We are committed to work towards a low carbon operation and lifestyle and contribute to the national carbon reduction targets.

4. Organisational boundaries included for this reporting period

Organisational boundaries were set with reference to the methodology described in the GHG Protocol and Guidance document from the Ministry for Environment. The GHG Protocol allows two distinct approaches to consolidate GHG emissions: the equity share and control (financial or operational) approach. NZGBC is a not-for-profit organization, therefore an operational control consolidation approach was used. For the majority of the reporting, calculations were done using the interactive workbook provided by MfE. However, in cases where this was not possible methods given in the Guidance document from the Ministry for Environment were followed. This issue arose particularly when reporting on the company's land travel. Almost all the trips were recorded in dollar value rather

than distance, making it difficult to log in the interactive workbook. Therefore, the method outlined in the MfE guide was followed.

5. Measuring period and base year

The carbon emissions for the 2018/2019 financial year (1 July 2018 to 30 June 2019) was measured. Since it is the first year for NZGBC to measure its emissions, it will also serve as the base year.

6. GHG emission source inclusions

The GHG emissions sources included in this inventory were identified with reference to the methodology in the GHG Protocol and ISO14064-1:2006 standards. As adapted from the GHG Protocol, these emissions were classified under the following categories:

- Direct GHG emissions (Scope 1): emissions from sources that are owned or controlled by the company. NZGBC does not own assets with direct emissions, therefore Scope 1 is not applicable.
- Indirect GHG emissions (Scope 2): emissions from the generation of purchased electricity, heat and steam consumed by the company.
- Indirect GHG emissions (Scope 3): emissions that occur as a consequence of the company's activities but from sources not owned or controlled by the company.

Business unit	GHG emission source	GHG emissions level scope	Data source	Data collection unit	Uncertainty (description)
NZGBC Travel	Land Travel i.e. Road vehicles	3	Accounts	\$NZD	Calculated using dollars which is less accurate than per km. Distances not provided so followed guidance from MfE. On almost all occasions the vehicle make is unknown.
	Domestic Air Flights	3	Accounts	km	Distances determined using calculators provided by MfE. Exact aircraft models unknown.
	International Air Flights	3	Accounts	km	Distances determined using calculators provided by MfE. Exact aircraft models unknown.

	Accommodation	3	Accounts	By country as per MfE guidance	Total nights stayed unknown - determined for each residence by average cost of one-night stay. Average emissions for each country provided by MfE.
NZGBC Office	Electricity	2	Accounts	kWh	It is assumed the provider reports are complete and accurate. However, the contributions of renewable energy schemes are only taken at as a national average provided by MfE.
	T&D Losses	3	Accounts	kWh	It is assumed the provider reports are complete and accurate
	Water	3	Calculated per capita	Per person	This was taken from the national average provided by MfE
	Waste	3	Waste Audit	kg	This was an initial waste audit conducted to find an average outflow of waste from the NZGBC office

7. GHG emission source exclusions

Business unit	GHG emission source	GHG emissions level scope	Data source	Data collection unit	Uncertainty (description)
Freight	Couriers	3	Accounts	\$	Freight is provided by urgent couriers (in kg CO2e) and we do not know the details that are needed to be inputted in the workbook to get emission data for individual GHGs (e.g. type of freight vessel, distance, freight weight)

					etc.). But protocols require individual GHGs to be listed. On the other hand, since the emissions for Freight is so low, it can be seen as de minis and be ignored.
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8. Results

The emissions summary is as follows:

Component gas (expressed as tCO ₂ e)							
	CO ₂	CH ₄	N ₂ O	HFCs	PFCs	SF ₆	Total tCO ₂ e
Scope 1	Not applicable						
Scope 2	1.209	0.057	0.001	-	-	-	1.267
Scope 3	24.384	0.361	0.394	-	-	-	25.941
Total				-	-	-	27.210

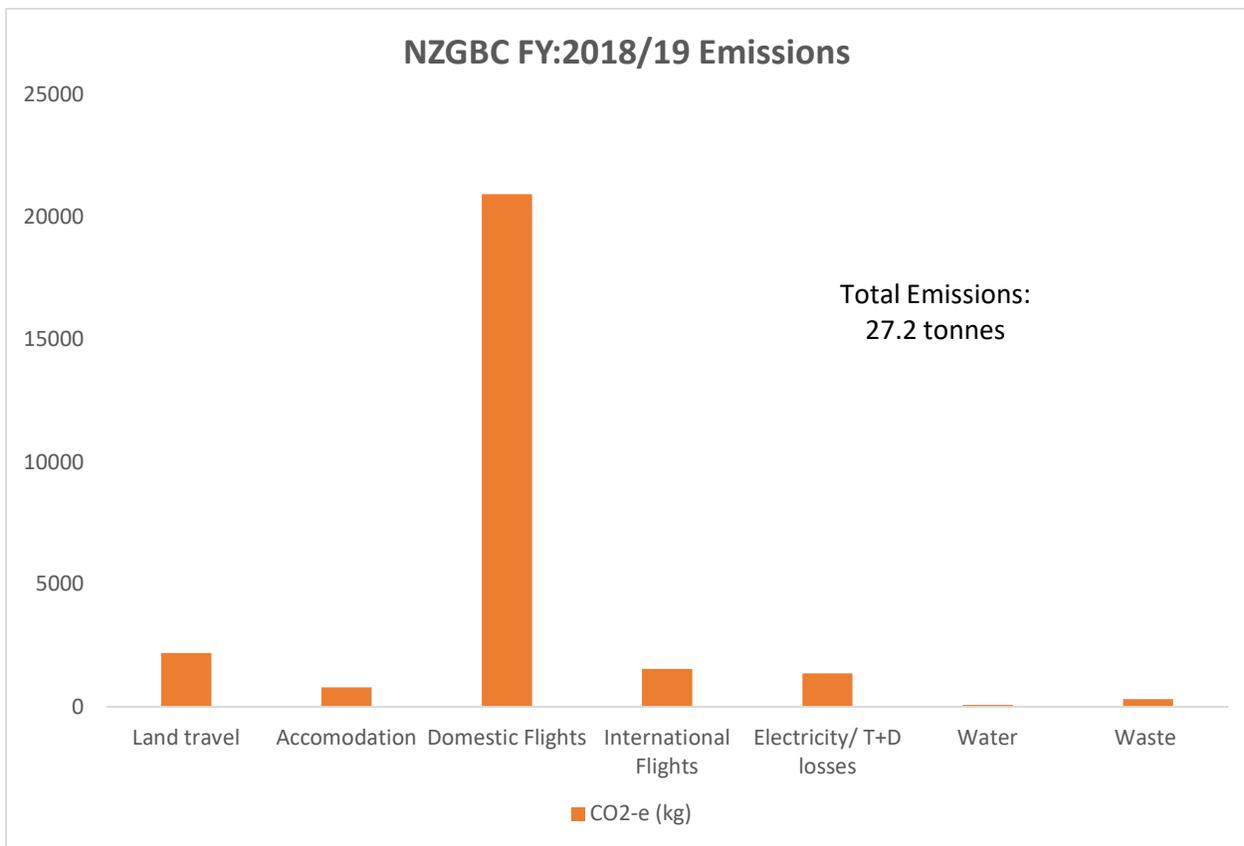


Figure 1.

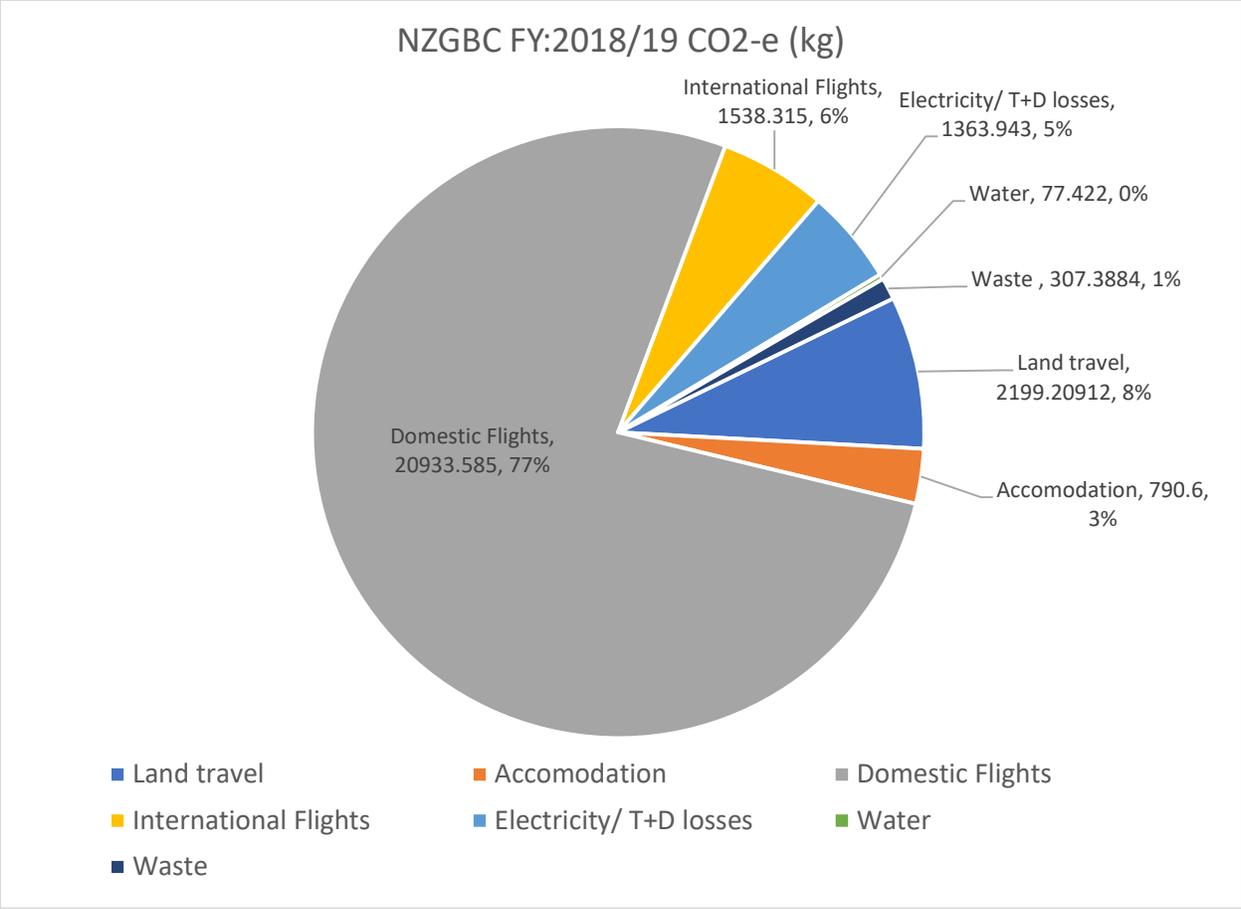


Figure 2.

9. Waste Audit

Recycling	Tetrapaks	2
	Aluminium cans	2
	Small soy sauce bottles	2
	Glass bottle	1
	#1 plastic bottles (unclean)	4
	#2 plastic bottles	1
	Aluminium Foil	1
	Cardboard	3
	Teabags	2
	Bread	
Landfill	Coffee cups	2
	Smoothie cup	1
	Biodegradable container	1
	Plastic knife	
	Chip bags	3
	Pen	1
	#5 plastic bottle (half full)	1

	Soft plastic bags	11
	Aluminium foil	1
	Battery package (cardboard + plastic)	1
	Napkins	
	Teabags	3
	Brown paper bags	2

10. References

- a. World Resources Institute and World Business Council for Sustainable Development. 2004. *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (revised)*. Geneva: WBCSD
- b. Ministry for the Environment, 2019. *Measuring Emissions: A Guide for Organisations. 2019 Detailed Guide*.