CARBON REDUCTION INSTITUTE

NoCO2 Audit Report

FIELDWORK PROJECTS

FY2024 Annual Audit

Prepared by: Tracy Man

Reviewed by: Oli Stradling

Authorised by: Stefan Bafatakis

CERTIFICATION #NC486

NO CO2

WWW.NOCO2.COM.AU

Completed on: 20 February 2025

CARBON REDUCTION INSTITUTE Unit 33, 20-28 Maddox Street, Alexandria NSW 2015

P: +61 2 8228 7300 | F: +61 2 8228 7350 | www.noco2.com.au | info@noco2.com.au | ABN: 26 122 969 233

EXECUTIVE SUMMARY

The Carbon Reduction Institute (CRI), through its certification and logo system, aims to assist organisations reduce their Greenhouse Gas (GHG) emissions and provide those organisations and consumers with a simple way of identifying carbon neutral and low carbon products and services.

Fieldwork is a Melbourne-based architecture and interior design studio founded in 2013. It works in the residential housing, workplace design, education, and creative space sectors. Fieldwork Projects commissioned a NoCO2 audit from CRI to measure their carbon footprint, through the determination of the GHG emissions that resulted from their operations over the 2024 financial year (FY2024).

This report provides the results of this audit, and delivers an understanding of the organisation's GHG inventory. Fieldwork Projects will then be able to use this knowledge to plan future reductions of its carbon footprint, as well as determine whether they have any reporting obligations under energy and emissions reporting legislation. This report is valid within the FY2024 period, subject to Fieldwork Projects' compliance with the terms and conditions outlined by CRI.

CRI's NoCO2 audit follows the standards outlined by the World Business Council for Sustainable Development's Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (1), in addition to the international standard ISO 14064.1 (2).

The emissions from Fieldwork Projects' operations were calculated through the application of numerous published life cycle emission factors along with the use of multi-regional input-output tables (3) derived figures. Each emissions factor is scaled to a level of consumption for its impact area, for example a kilowatt-hour of electricity or a litre of fuel.

It has been determined that the total GHG emissions from Fieldwork Projects' relevant operations and activities, within the boundaries of the NoCO2 program, were **99.62 tonnes of CO2e** (tCO2e) over the FY2024 period.

A breakdown of Fieldwork Projects' emissions by source is summarised in the chart immediately below.

Figure 1: Breakdown of Fieldwork Projects' GHG Emissions, FY2024

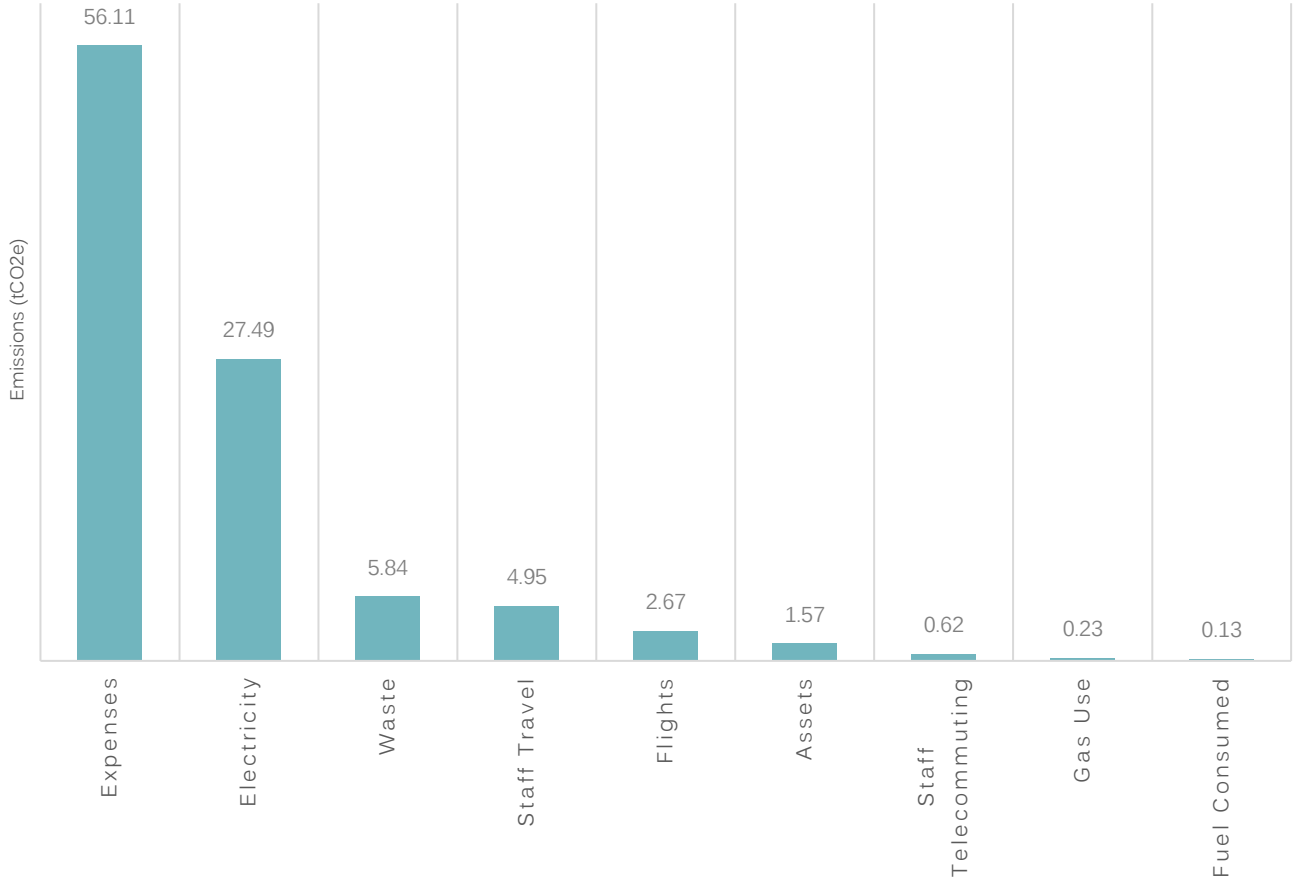
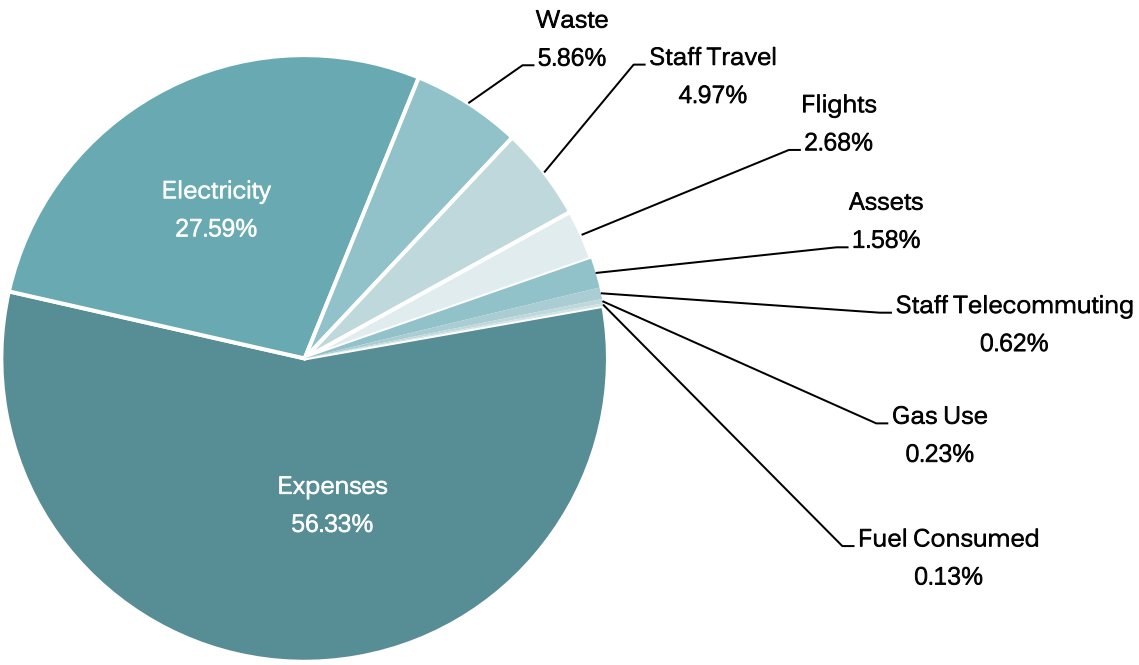


Table 1: Sources of Fieldwork Projects' emissions (NoCO2 Boundaries)

Scope	Emission Source	Emissions (tCO2e/year)
Scope 1	Fuel Consumed	0.10
	Gas Use	0.21
	Refrigerants	0.00
Scope 2	Electricity	25.25
Scope 3	Supply of Electricity	2.24
	Supply of Gas	0.02
	Staff Travel	4.95
	Supply of Fuel	0.03
	Assets	1.57
	Expenses	56.11
	Cost Of Sales	0.00
	Flights	2.67
	Waste	5.84
	Staff Telecommuting	0.62
	Total Footprint:	99.62
	Carbon Neutral Expenses	1.19
	Green Power	25.14
	Carbon Neutral Flights	0.59
	Total FY2023 Offset Requirement:	72.70

The table above encapsulates Fieldwork Projects' total carbon footprint as per Figure 1 on page 2 before accounting for Carbon Neutral Expenses and offsets purchased through third parties. These results are subsequently summarized in Figure 2 below where it should be highlighted that Carbon Neutral Expenses account for a total of 26.93 tCO2e and 37.04% of Fieldwork Projects's footprint.

Figure 2: Emission Sources for Fieldwork Projects, FY2024



Fieldwork Projects' FY2024 net carbon footprint for certification purposes under CRI's NoCO2 Program is **72.70 tCO2e**.

Full details of the terms and conditions of certification will be forwarded separate to this audit report.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

GLOSSARY

Term	Description
CO2-e	CO2 equivalent. This unit reflects the impact of the emission of all greenhouse gases, including CO2 (carbon dioxide), CH4 (Methane), N2O (Nitrous Oxide), Sulphur Hexafluoride (SF_6) as well as fluorocarbons PFCs and HCFCs and expresses their varying global warming impacts in terms of a weighted CO2 equivalent.
EF	Emissions Factor. The amount of CO2-e emitted (in kg or tonnes) per unit of according factor.
GHG	Greenhouse Gases (methane, CO2, N2O, etc.). Gases that contribute towards global warming.
p.km	Person kilometres. A value expressing the total distance travelled by multiple individuals (i.e. one individual travelling 50km plus one individual travelling 60km is 110 p.km).
RFI	Radiative Forcing Index. A factor that references the global warming multiplier effect of releasing GHGs in the upper atmosphere as opposed to ground level. This is relevant to commercial flights. Approximately equal to 1.9 (4).
FY2024	Financial year of 2024 commencing July 2023, ending June 2024.
Uplift Factor	Uplift Factor. This value is an inflating factor (1.09 or, in other words, an addition of 9%) (5) that accounts for uncertainties associated with air travel such as indirect paths, delays and varying weather conditions.

1. INTRODUCTION

The Carbon Reduction Institute (CRI), through its NoCO2/LowCO2 certification program, aims to help businesses reduce their greenhouse gas (GHG) emissions and demonstrate their pro-active approach toward the threats posed by climate change. This program allows businesses to position themselves within industry and community as leaders in the fight against climate change and become part of the growing 'low carbon economy'.

As part of Fieldwork Projects' commitment to increase the sustainability of its business practices, it is having its overall greenhouse gas impact assessed by CRI. This audit will enable Fieldwork Projects to identify areas where emissions are greatest and calculate the carbon offset requirement that Fieldwork Projects must fulfil in order to achieve NoCO2 certification.

1.1. OPERATIONAL EMISSIONS

In order for Fieldwork Projects to negate the impact of its greenhouse gas emissions, it must first quantify them. CRI does this by conducting an emissions assessment and then applying the methodologies outlined within the World Business Council for Sustainable Development's (WBCSD) Greenhouse Gas Accounting Protocol. (6)

1.1.1. GHG PROTOCOL

The protocol contains universally recognised accounting methods and boundaries that can be applied to different levels, sizes and types of organisations when creating their GHG inventory. This includes multinational organisations, energy intensive primary industry, as well as small to medium enterprises (SME). Boundaries are important when compiling a GHG inventory, as they give organisations consistency and scope when accounting for their emissions.

1.2. EMISSIONS BOUNDARIES

There are two 'types' of boundaries that need to be set when compiling a GHG inventory; an organisational boundary and an operational boundary. Organisational boundaries allow a business to distinguish between GHG emitting activities that are attributable to their organisation, and those that are not. Operational boundaries allow an organisation to define the emissions that they own or control and categorise them into different scopes (as either direct or indirect). Dividing emissions up into different scopes allows an organisation to determine opportunities for emissions reduction, as well as knowing where their emissions are occurring along the value chain.

1.2.1. ORGANISATIONAL BOUNDARIES

When setting organisational boundaries, CRI applies a financial control rationale, which states that businesses account for emissions generated from activities over which they have financial control, and derive the majority of financial benefits and/or risks as a result of these activities (6). CRI uses this rationale as we believe that the consumer (in this case Fieldwork Projects) is responsible for the products and services that they consume, and that the purchase is an endorsement of the conditions under, and methods used to produce the goods and services consumed. This rationale is both comprehensive and simple; if you bought it, then the emissions produced and embodied within it are your responsibility. This straightforward demarcation will ensure the best outcome for Fieldwork Projects, and other certified businesses as consumers will have confidence in the authenticity of organisations certified with CRI.

1.2.2. OPERATIONAL BOUNDARIES

The main function of operational boundaries is to create different scopes for organisations to separate and define the emissions produced from their operations. The three scopes are described in detail below.

- **Scope 1: Direct GHG emissions** - Emissions that occur from sources that are owned or controlled by the company, for example, emissions from combustion in owned or controlled boilers, furnaces and vehicles. (6)
- **Scope 2: Electricity indirect GHG emissions** - Emissions from the generation of purchased electricity consumed by the company. (6)
- **Scope 3: Other indirect GHG emissions –** Emissions that are a consequence of the activities of the company, but occur from sources not owned or controlled by the company. These include emissions from waste, the extraction and production of purchased materials; transportation of purchased fuels and transportation of employees to and from work. (6)

The GHG protocol describes scopes 1 and 2 as mandatory reporting categories, and scope 3 as a voluntary reporting category. Under CRI's NoCO2 certification program, it is mandatory for organisations to include scope 3 emissions. This is due to the large amount of embodied emissions associated with the sale, delivery and purchase of products and services of a company. "Embodied emissions" refer to the emissions generated in the manufacture and distribution of a product. All products require energy in production and distribution. This energy is most commonly provided through the use of fossil fuels, which have a greenhouse emissions impact. Embodied emissions are included due to the products and services that Fieldwork Projects has bought and used. See section 2.3 for an in-depth description of scope 3 emissions.

2. FIELDWORK PROJECTS' GHG EMISSIONS INVENTORY

2.1. SCOPE 1 EMISSIONS

2.1.1. FUEL USE

Fuel purchased as a company expense, for combustion in vehicles and onsite is classed as a Scope 1 emission source. Fuel also incurs a Scope 3 emission impact from the fuel's extraction, processing and transportation prior to use.

The emissions generated due to fuel use were based on fuel purchase details supplied by Fieldwork Projects and calculated using emission factors outlined in the Department of Climate Change's National Greenhouse Account Factors (7) Equation 1 illustrates this method.

Equation 1: Fuel Combustion Emissions Formula

$$Fuel\ Emissions = Fuel\ Quantity\left(\frac{Litres}{Year}\right) \times EF\left(\frac{tCO_2e}{L}\right)$$

Table 2 shows a breakdown of the emissions incurred.

Table 2: Emissions from Fuel Combustion

Fuel Type	Purpose	Litres of fuel Per Year	CO2 EF (kgCO2e /Litre)	CH4 EF (kgCO2e /Litre)	N2O EF (kgCO2e /Litre)	Total Scope 1 Emissions (tCO2e)	Scope 3 EF (kgCO2e /Litre)	Total Scope 3 Emissions (tCO2e)	Total Emissions (tCO2e)
Petrol	Transportation	44.96	2.31	0.00	0.01	0.10	0.59	0.03	0.13
Totals:		44/96				0.10		0.03	0.13

2.1.2. GAS USE

Data regarding the amount of gas used was converted into an equivalent number of gigajoules (GJ) and appropriate emissions factors were applied. This method allowed resultant scope 1 and scope 3 emissions from gas use to be calculated, as shown in Table 3.

Table 3: Summary of Emissions from Gas Use

Address	State /Location	Gas Use (GJ)	Scope 1 EF (kgCO2e/GJ)	Total Scope 1 Emissions (tCO2e)	Scope 3 EF (kgCO2 /GJ)	Total Scope 3 Emissions (tCO2e)	Total Emissions (tCO2e)
144 Langridge ST Collingwood VIC 3066	VIC	4.13	51.53	0.21	4.00	0.02	0.23
Totals:		4.13		0.21		0.02	0.23

2.1.3. REFRIGERANTS

It was indicated to CRI that over the reporting period Fieldwork Projects did not operate any significant commercial or industrial refrigeration equipment, and thus no emissions have been attributed to this sub scope.

2.2. SCOPE 2 EMISSIONS

2.2.1. ELECTRICITY USE (SCOPE 2 & 3)

Frameworks and data sets exist both within Australia and internationally that enable calculations of emissions from electricity, which follow the formulae below.

Equation 2: Emissions from Electricity Use (Scope 2 & 3)

$$Electricity\ Emissions(Scope\ 2) = kWh\ consumed \times Scope\ 2\ EF\left(\frac{kgCO_2e}{kWh}\right)$$

$$Electricity\ Emissions(Scope\ 3) = kWh\ consumed \times Scope\ 3\ EF\left(\frac{kgCO_2e}{kWh}\right)$$

The Department of Climate Change's National Greenhouse Accounts Factors detail the emission factors for electricity used in each state (7). These values are shown in Table 21 (Appendix D. Electricity). The following table shows a summary of the accounting implemented by CRI and resulting emissions as calculated using the described method. A more comprehensive breakdown is available in Appendix D. Electricity

Table 4: Summary of Emissions from Electricity Use

Address	State	Electricity Usage (kWh)	Scope 2 kgCO2e/kWh	Scope 2 Emissions tCO2e	Scope 3 kgCO2e/ kWh	Scope 3 Emissions tCO2e	Total Emissions tCO2e
144 Langridge Street, Collingwood	VIC	31,965.90	0.79	25.25	0.07	2.24	27.49
	Total:	31,965.90		25.25		2.24	27.49

2.3. SCOPE 3 EMISSIONS

Scope 3 emissions are defined as indirect emissions that occur from sources offsite. Scope 3 emission sources are assessed through the application of life-cycle emissions coefficients in the case of cost of sales, expenses, assets, waste, flights and staff travel.

The emissions impact and calculations behind scope 3 sources are depicted in the following sections, with the exclusion of scope 3 impacts from fuel use and electricity, addressed in sections 2.1.1 and 2.2.1.

Scope 3 emissions from cost of sales, expenses and assests were calculated using Input-Output tables (9) which equate dollar values spent, within particular industries in Australia, to GHG emissions. More information on this particular method is available in Cost of Sales, Expenses & Assets

2.3.1. COST OF SALES

Due to the nature of Fieldwork Projects' business, no cost of sales were incurred over the reporting period, and thus no emissions are attributed to this sub scope.

2.3.2. EXPENSES

Using the profit and loss statements supplied, the embodied emissions from Fieldwork Projects' expenses were calculated. The following tables and figures show a summary of the type of expense items that generated the most emissions.

Table 5: Summary of Embodied Emissions from Expenses, (by General Type)[1]

Type of Expense	Amount Spent ($)	tCO2e/year
General Expenses	$4,015,464.38	3.65
Direct Project Costs	$80,766.60	1.02
399 - Project disbursement expense	$2,478,023.40	18.95
410 - Cleaning & Waste Collection	$32,385.90	2.91
414 - Computer Consumables	$3,867.90	1.17
415-Consultancy Fees	$41,832.25	0.32
Depreciation	$24,986.32	0.00
420 - Entertainment	$21,143.48	3.23
420-1 - Entertainment - Bonding external functions	$5,056.13	0.77
420-2 - Entertainment - Christmas Party	$12,467.30	3.27
420-3 - Entertainment - Friday Night Drinks	$3,907.42	0.79
422 - Employee Amenities	$24,622.65	7.87
422-2 - Employee Amenities - Fruit Box	$4,433.24	1.79
422-3 - Employee Amenities - FNA	$256.79	0.04
423 - FBT Expense	$17,413.50	0.00
424-1 - Fitness - Archi Soccer	$994.00	0.05
426 - Filing Fees	$310.00	0.00
427 - Gas	$644.62	0.00
445 - Marketing	$109,669.02	1.43
446 - Materials	$120.90	0.02
449 - Meals	$3,773.22	0.62
461 - Office supplies	$6,233.75	0.92
473 - Repairs and Maintenance	$13,782.60	3.91
474 - Search Fees	$258.40	0.00
493 - Travel - National	$23,287.45	2.58
494 - Travel - International	$1,462.63	0.00
495 - Water	$352.97	0.00
422-1 - Employee Amenities - Birthdays/Farewells	$1,568.46	0.81
Totals:	$6,929,085.28	56.11

[1] The total monetary sum in Table 5 differs from that in Table 6 as categories with zero emissions are excluded.

Figure 3: Summary of Embodied Emissions from Expenses (by General Type)

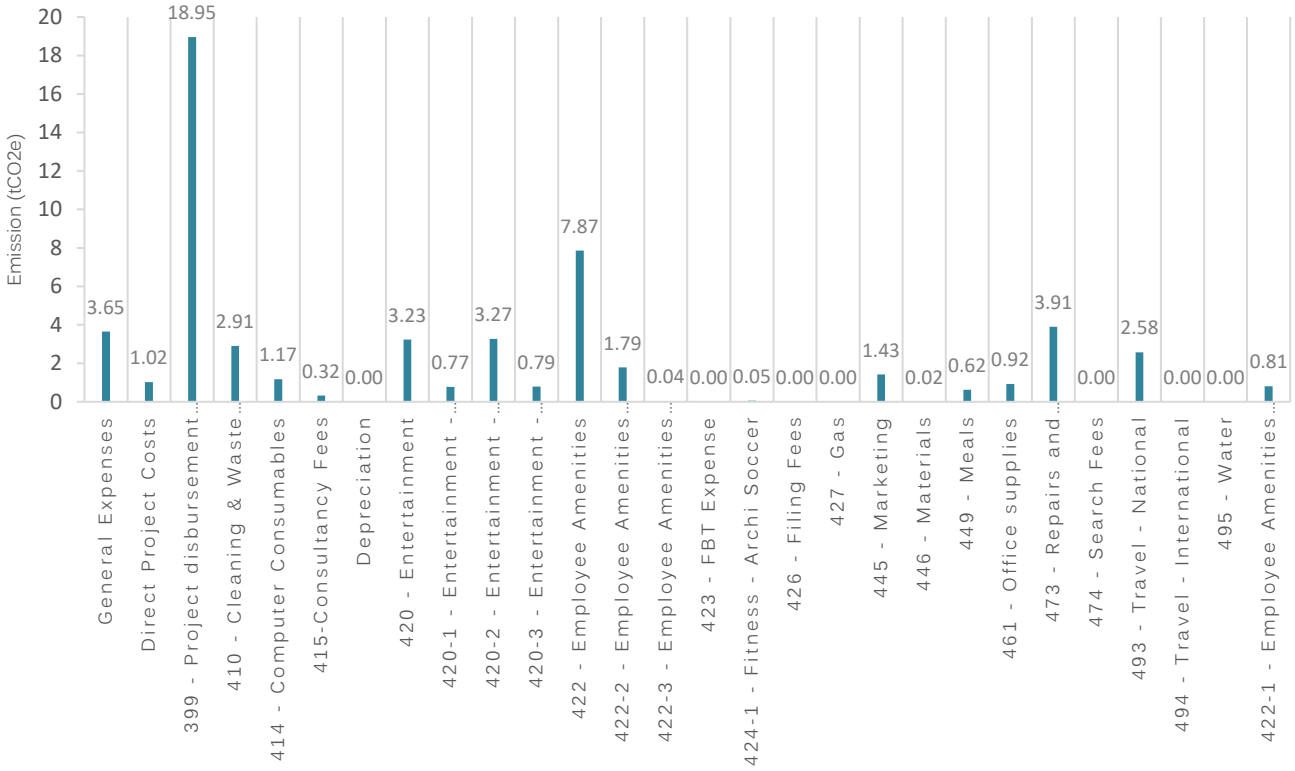
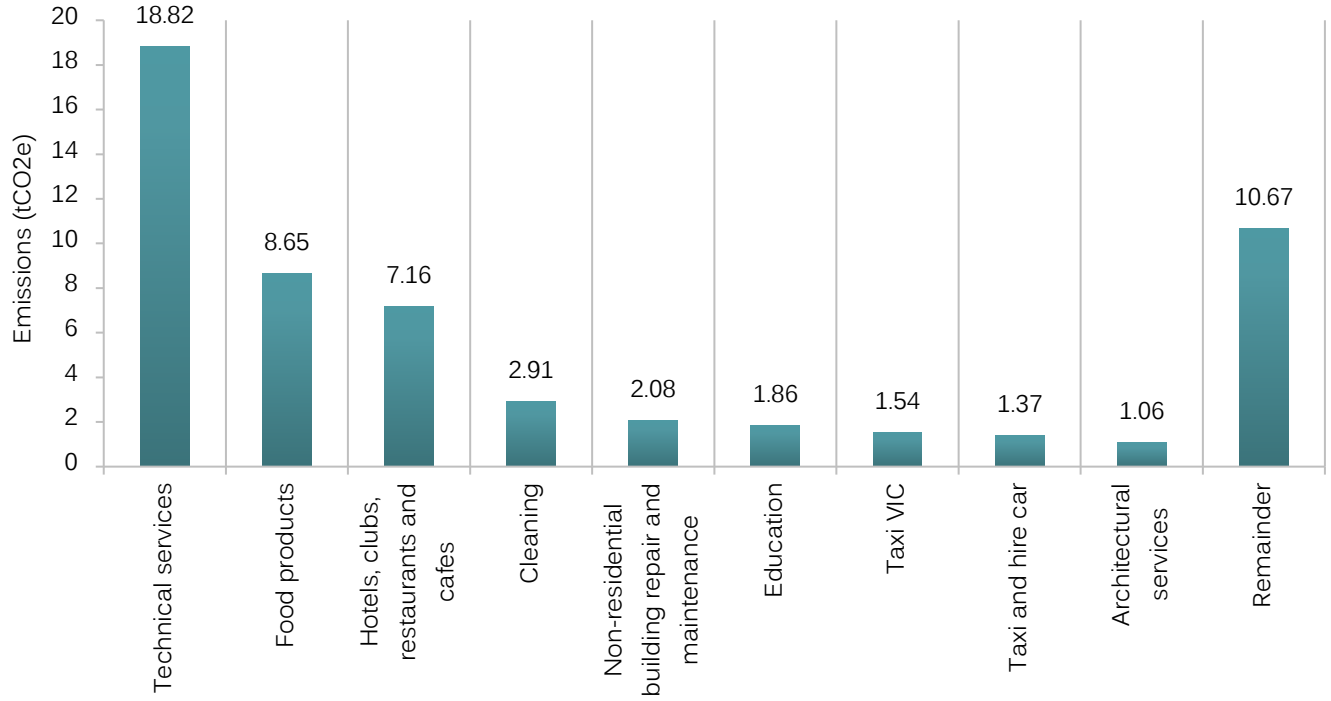


Table 6: Summary of Embodied Emissions from Expenses (by MRIO Categories)

Category	Expense ($AUD)	Emissions (tCO2e)
Technical services	$2,386,080.47	18.82
Food products	$21,447.53	8.65
Hotels, clubs, restaurants and cafes	$46,774.97	7.16
Cleaning	$29,939.98	2.91
Non-residential building repair and maintenance	$5,890.80	2.08
Education	$18,025.73	1.86
Taxi VIC	$11,307.69	1.54
Taxi and hire car	$1,635.91	1.37
Architectural services	$98,125.32	1.06
Electronic equipment	$3,200.05	1.05
Industrial machinery repairs	$3,579.84	1.01
Printing and stationery	$8,002.80	0.99
Wine	$4,112.42	0.83
Advertising services	$103,492.50	0.76
Cakes	$1,268.46	0.74
Insurance	$98,327.09	0.66
Air conditioning	$1,420.10	0.65
Paper products	$2,104.95	0.46
Motor vehicle hire	$3,390.10	0.41
Fabricated metal products	$857.74	0.32
Computer and technical services	$46,525.15	0.30
Legal services	$42,874.70	0.26
Soap and other detergents	$922.38	0.25
Employment placement	$30,339.41	0.23
Business services	$24,471.20	0.20
Domestic telecommunication services	$24,790.15	0.17

Category	Expense ($AUD)	Emissions (tCO2e)
Ceramic products	$404.73	0.13
Books, maps, magazines	$982.24	0.12
Sheet metal products	$284.66	0.10
Pest control	$1,353.00	0.10
Plastic products	$651.35	0.10
Flowers	$737.55	0.08
Glass products	$210.00	0.07
Electrical equipment	$201.34	0.06
Security and investigation	$1,456.36	0.06
Household appliances	$108.15	0.06
Cosmetics and toiletry preparations	$382.49	0.05
Inks	$125.80	0.05
Textile products	$72.04	0.04
Creative arts	$208.72	0.04
Taxi TAS	$352.26	0.04
Confectionery	$92.00	0.04
Advertising signs	$126.50	0.03
Pumps	$77.94	0.03
GPs, dentists, optometrists, ambulance	$585.75	0.03
Music and theatre production	$229.00	0.02
Taxi NSW	$238.33	0.02
Transport services	$100.00	0.02
Banking	$5,078.41	0.01
Pesticides, insecticides and medicinal goods	$24.76	0.01
Entertainment	$100.00	0.01
Manufactured wood	$70.95	0.01
Plant nurseries	$82.50	0.01
Sport and recreation services (incl horse and dog racing, sports grounds, services)	$700.00	0.01
State government	$1,128.73	0.01
Treated milk	$13.00	0.00
Water supply; sewerage and drainage services	$656.57	0.00
Parking services	$319.95	0.00
Market research and other business management services	$309.59	0.00
Postal services	$404.21	0.00
Federal government	$8.18	0.00
Carbon Neutral Goods/Service	$4,091.98	0.00
Totals:	$ 3,040,876.48	56.11

Figure 4: Summary of Embodied Emissions from Expenses (by MRIO Categories)



2.3.3. CARBON NEUTRAL EXPENSES

Fieldwork Projects indicated that some of their expenses and/or purchased items and services were certified as Carbon Neutral under CRI's certification program or other valid certification system. As a result, the associated emissions from these items, as depicted below, have been reduced from Fieldwork Projects' total offset requirement as highlighted in Table 1 (Executive Summary).

Table 7 Carbon Neutral Expense Offsets

General Carbon Neutral Expenses	Amount Spent ($)	tCO2e/year
Practice and staff memberships	$13,370.50	0.14
Flights carbon offset pp	$3.78	0.00
100% GreenPower Electricity	$10,437.15	0.00
Mobile phone services	$4,140.06	0.03
Life insurance	$21,127.28	0.14
Carbon Neutral Consultancy	$111,375.83	0.88
Totals:	$160,454.60	1.19

2.3.4. ASSETS

CRI used Fieldwork Projects' depreciation schedule to calculate the embodied emissions attributed to current assets. When accounting for embodied emissions of assets, CRI scales the impact of an asset over the period in which it is depreciated for tax purposes. An asset depreciating at 50% per year, with total embodied emissions of 10 tCO2e, will register as 5 tCO2e each year of its two-year depreciable lifetime. This method ensures Fieldwork Projects can update its emissions inventory with its tax reports. Written off assets are thus excluded from the assessment.

The tables below show a summary of the types of assets and their attributed emissions. The full breakdown of the calculations performed can be found in Cost of Sales, Expenses & Assets.

Table 8: Summary of Embodied Emissions from Assets (by General Type)

Type of Assets	Value Depreciated ($)	tCO2e/year
Furniture and Fittings	$4,086.70	1.46
Office and Computer	$334.58	0.11
Leasehold Improvements	$160.97	0.00
Totals:	$4,582.25	1.57

Figure 5: Summary of Embodied Emissions from Assets (by General Type)

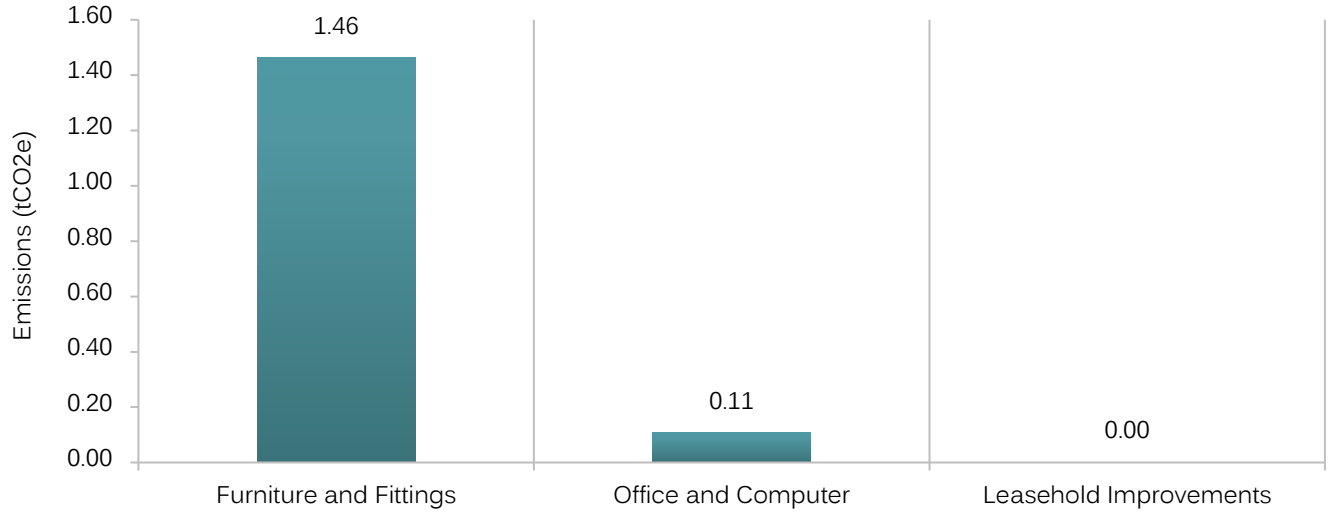
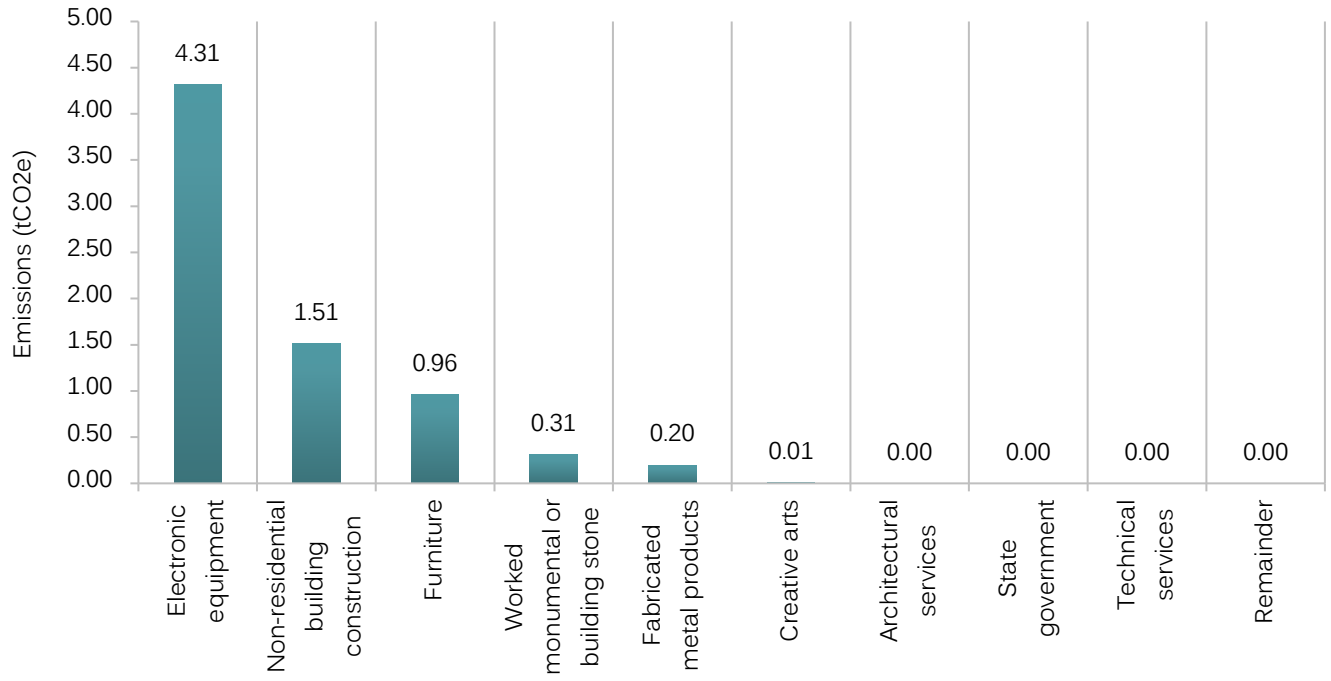


Table 9: Summary of Embodied Emissions from Assets (by MRIO Categories)

Category	Depreciated Value ($AUD)	Emissions (tCO2e)
Electronic equipment	13,221.78	4.31
Non-residential building construction	7,184.32	1.51
Furniture	2,686.52	0.96
Worked monumental or building stone	874.75	0.31
Fabricated metal products	530.42	0.20
Creative arts	26.25	0.01
Architectural services	160.97	0.00
State government	181.54	0.00
Technical services	2.50	0.00
Totals:	$ 24,869.05	7.30

Figure 6: Summary of Embodied Emissions from Assets (by MRIO Categories)



2.3.5. WASTE

Fieldwork Projects provided information to CRI estimating its waste generated. The Department of the Environment and Energy's National Greenhouse Accounts provide factors for emissions generated per tonne of various waste types, along with conversion factors between mass and volume for different waste streams (7). These factors can be used to account for the emissions embodied in Fieldwork Projects' waste generation using the method illustrated in Equation 3 and Table 11 below.

Equation 3: Emissions from Waste

$$Waste\ Emissions = \frac{Waste\ Volume}{year} \times Waste\ Conversion\ Factor(m^3 \rightarrow tonnes) \times EF\left(\frac{kgCO_2e}{tonne}\right)$$

The following waste conversion factors were used to convert data provided in volume (m3) to weight (tonnes):

Table 10: Waste Conversion Factors (Volume To Weight)

Waste Type	Volume to Weight (t/m3)	Reference
Co-mingled	0.12	NGA (2024), Table 15

Table 11: Emissions from Waste (7)

Volume of Waste /Yr (m3)	Waste Type	Recycled Portion (%)	Conversion Factor (m3 to tonnes)	Tonnes Recycled	Tonnes Landfilled	Waste Type	tCO2e /tonne waste	tCO2e
37.44	Co-mingled	0%	0.120	0.00	4.49	Commercial & Industrial Waste	1.30	5.84
18.72	Co-mingled	100%	0.120	2.25	0.00		1.30	0.00
56.16				2.25	4.49			5.84

2.3.6. STAFF AIR TRAVEL (FLIGHTS)

The emissions from flights taken by Fieldwork Projects were calculated employing the distance between airports, the emissions factor associated with passenger flights, the RF Index factor and the Greater Circle Flight factor. This method is illustrated in Equation 4.

Equation 4: Emissions from Air Travel

$$Flight\ Emissions = Distance\ (km) \times RFI\ Factor \times GCF\ Factor \times EF\left(\frac{kgCO_2e}{km}\right)$$

Emission factors for air travel are sourced from the UK Department for Environment, Food and Rural Affairs' (11) data for air passenger emission factors per passenger kilometre, and are scaled for domestic flights, short haul flights and long haul flights. Such values are shown in Table 29 (Staff Air Travel).

Table 12 shows the recorded flights taken for work related affairs by individuals from Fieldwork Projects and the respective calculated emissions for each flight.

Table 12: Staff flights by Fieldwork Projects

Flight	Origin	Dest. 1	Return (Y/N)	# of Passengers	tCO2e from One-way Trip to Dest. 1	Total tCO2e	Total Flight Distance (pkm)	Third Party Offset (tCO2e)
1	Melbourne	Canberra	Y	1	0.13	0.26	939.13	0.12
2	Melbourne	Canberra	Y	1	0.13	0.26	939.13	0.12
3	Melbourne	Sydney	Y	2	0.19	0.77	2,821.58	-
4	Melbourne	Sydney	Y	1	0.19	0.38	1,410.79	-
5	Melbourne	Hobart (Aus)	N	1	0.17	0.17	616.98	-
6	Melbourne	Hobart (Aus)	N	1	0.17	0.17	616.98	-
7	Hobart (Aus)	Melbourne	N	2	0.17	0.34	1,233.97	0.19
8	Melbourne	Hobart (Aus)	Y	1	0.17	0.34	1,233.97	0.16
			# of Flights:	10	Total tCO2e:	2.67	9,812.55	0.59

2.3.7. STAFF GROUND TRAVEL

Staff travel includes emissions from private road travel that takes place due to Fieldwork Projects' operations, this includes commuting to work and any work-related travel. GHG emissions resulting from the use of public transport by Fieldwork Projects' staff are not attributed to Fieldwork Projects, as the emissions created from its utilisation of public transport cannot be affected by Fieldwork Projects' actions through policy, technology or through direct authority.

The formulae and methods used for calculating the emissions impact for small, medium and large cars are similar. Varying parameters are fuel type, fuel consumption, vehicle type and kilometres travelled. Calculations take into account any additional passengers in each carpool. Staff travel information from Fieldwork Projects is collected and figures for fuel use per kilometre (10) make calculations of emissions per kilometre possible. These figures were then increased by a factor of 15% to more accurately represent real world fuel uses (11) and are shown in Table 26 (Staff Ground Travel).

To obtain the final emission quantity for each employee's commuting, Scope 1 and Scope 3 emission factors for transport fuel combustion were used. Emission factors for the relevant fuel types used by Fieldwork Projects are available in Table 27 (Staff Ground Travel).

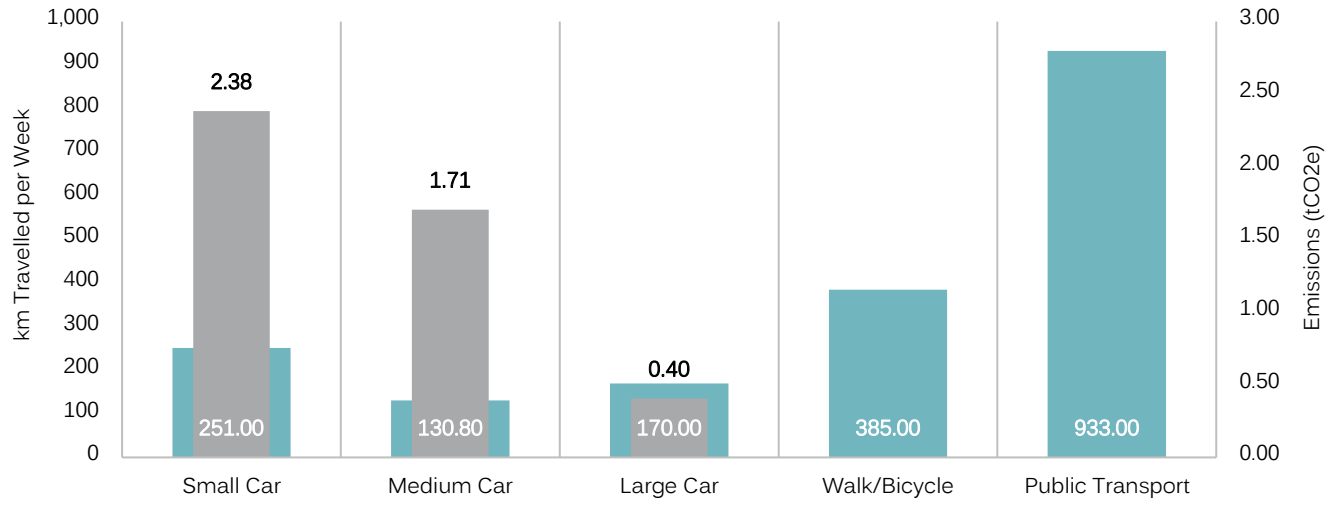
Emissions from ground travel are calculated using information provided by Fieldwork Projects' office staff and/or correspondents. A total of 27 staff answered a survey regarding their average number of kilometres travelled and their individual transport methods and Fieldwork Projects has indicated that a total of 30.2 Full-Time Equivalent (FTE) staff are employed. Where private vehicles were used, type of car and type of fuel used were also considered.

Summarized results for each relevant vehicle type are shown in Table 13 and the full log of received data and calculations available in Staff Ground Travel.

Table 13: Emissions from Staff Ground Travel by Vehicle Type (Summary)

Vehicle Type	Quantity	Total km /Week	Total tCO2e /Year
Small Car	4	251.00	2.38
Medium Car	6	130.80	1.71
Large Car	3	170.00	0.40
Walk/Bicycle	24	385.00	0.00
Public Transport	14	933.00	0.00
		Subtotal:	4.49
		Total (Adjusted for FTE Staff):	4.95

Figure 7: Summary of Staff Ground Travel Types and Emissions



2.3.8. STAFF TELECOMMUTING

While working remotely Fieldwork Projects employees consume electricity via the operation of their personal electronic devices and use of lighting. Recent trends in staff telecommuting habits would lead to significant amounts of leakage in Fieldwork Projects' GHG inventory were these emissions not accounted for. This includes electricity use from contingent staff and employees. As such, CRI has estimated these emissions through the use of conservative assumptions on the types of electronic equipment that would be in use in conjunction with estimates of the total number of hours worked from home by Fieldwork Projects employees per state. Staff telecommuting emissions were calculated using the following equation.

Equation 5: Emissions from Telecommuting

$$Telecommuting\ Emissions = Annual\ Working\ Hours \times Power(W) \times \left(Scope\ 2\ EF\left(\frac{kgCO_2e}{kWh}\right) + Scope\ 3\ EF\left(\frac{kgCO_2e}{kWh}\right)\right)$$

As mentioned in section 2.2.1, the emission factors for electricity used in each state (7) are shown in Table 21 (Appendix D. Electricity). The following table shows a summary of the accounting implemented by CRI and resulting emissions as calculated using the described method. The appliances assumed to be used for staff telecommuting and the respective power outputs can be found in Appendix H. Staff Telecommuting.

Table 14: Emissions from Staff Telecommuting by State

State	Number of FTE Staff	# Weeks WFH	Annual Hours	Power (kW)	Electricity Use (kWh)	Scope 2 kgCO2e/ kWh	Scope 2 Emissions tCO2e	Scope 3 kgCO2e/ kWh	Scope 3 Emissions tCO2e	Total Emissions tCO2e
VIC	30.21	5.96	6,747.75	0.11	715.26	0.79	0.57	0.07	0.05	0.62
Totals:	30.21		6,747.75		715.26		0.57		0.05	0.62

3. EMISSIONS ANALYSIS

This audit found that Fieldwork Projects' total emissions footprint in FY2024 was **99.62 tCO2e** and that the majority of these emissions were the result of Expenses (56%), followed by Electricity (28%) and Waste (6%).

The measure to which a company relies on a carbon-intensive economy can be deduced by looking at the average intensity of emissions per dollar spent and per full-time-equivalent employee. These two indicators have been calculated for Fieldwork Projects as shown below:

Table 15: Carbon Intensity Indicators for Fieldwork Projects, (FY2024)

Indicator	Value
Emissions per dollar spent (kgCO2e /$AUD) [2]	0.02
Emissions per FTE employee (tCO2e /FTE)	3.35

3.1. Emissions from **fuel use** (0.13 tonnes of CO2e) were a negligible source of GHG emissions in the context of Fieldwork Projects' total emissions. The entirety of fuel-based emissions, resulted from the combustion of Petrol with a combined (scope 1 & 3) emissions intensity of 2.90 kgCO2e/L.

3.2. The **combustion of gas** generated 0.23 tCO2-e (a negligible emissions source), resulting from a total gas consumption of 4,130.87 MJ.

3.3. **Electricity use** produced 27.49 tCO2-e over FY2024. These emissions were resultant from a total electricity consumption of 31,965.90 kWh which compares to 32,665.78 kWh in FY2022.

3.4. Emissions from **expenses** were attributed 56.11 tCO2-e in FY2024. The most emissions-intensive expense item recorded for the given audit period was 490 - Staff training, with an expense of $17,825.73 being attributed 1.84 tCO2-e.

3.5. Emissions from the depreciation of **assets** were attributed 1.57 tCO2-e in FY2024. The most emissions-intensive asset item recorded for FY2024 was Stone Design Group - Branco Carrara - Stone Fabrication & Install, with a depreciated value of $150.28 being attributed 0.26 tCO2-e.

3.6. Emissions attributed to **waste** contributed 5.84 tCO2-e to FY2024's carbon footprint (a small source) stemming from the 4.49 tonnes of waste that were sent to landfill (2.25 tonnes were recycled). CRI recommends referring to services like those offered in www.cleanup.org.au for the disposal and recycling of waste types.

3.7. **Staff travel**: A new staff travel survey was conducted for FY2024, the results of which have been presented in Table 26. An effective 27 full-time equivalent staff were surveyed from a total of 30.2 full-time-equivalent employed. Ultimately, emissions from staff travel decreased from 0.54 tCO_2-e in FY2022 to 4.95 tCO2-e in FY2024, a small contribution towards Fieldwork Projects's entire carbon footprint.

3.8. Work related **flights** generated 2.67 tCO2-e in FY2024, from the 10 flights that were recorded to have been taken by Fieldwork Projects' staff. These covered a total of 9,812.55 individual person kilometres and generated emissions equivalent to the combustion of 6 barrels of oil.

3.9. **Staff Telecommuting** produced 0.62 tCO2-e over FY2024. These emissions were resultant from a total electricity consumption of 715.26 kWh.

[2] Emissions per dollar spent were calculated by dividing the total carbon footprint from expenses (56.99 tCO2e) by the monetary sum of all valid expense entries (i.e. excluding entries marked as 'N/A').

3.10. COMPARISON WITH PREVIOUS YEARS

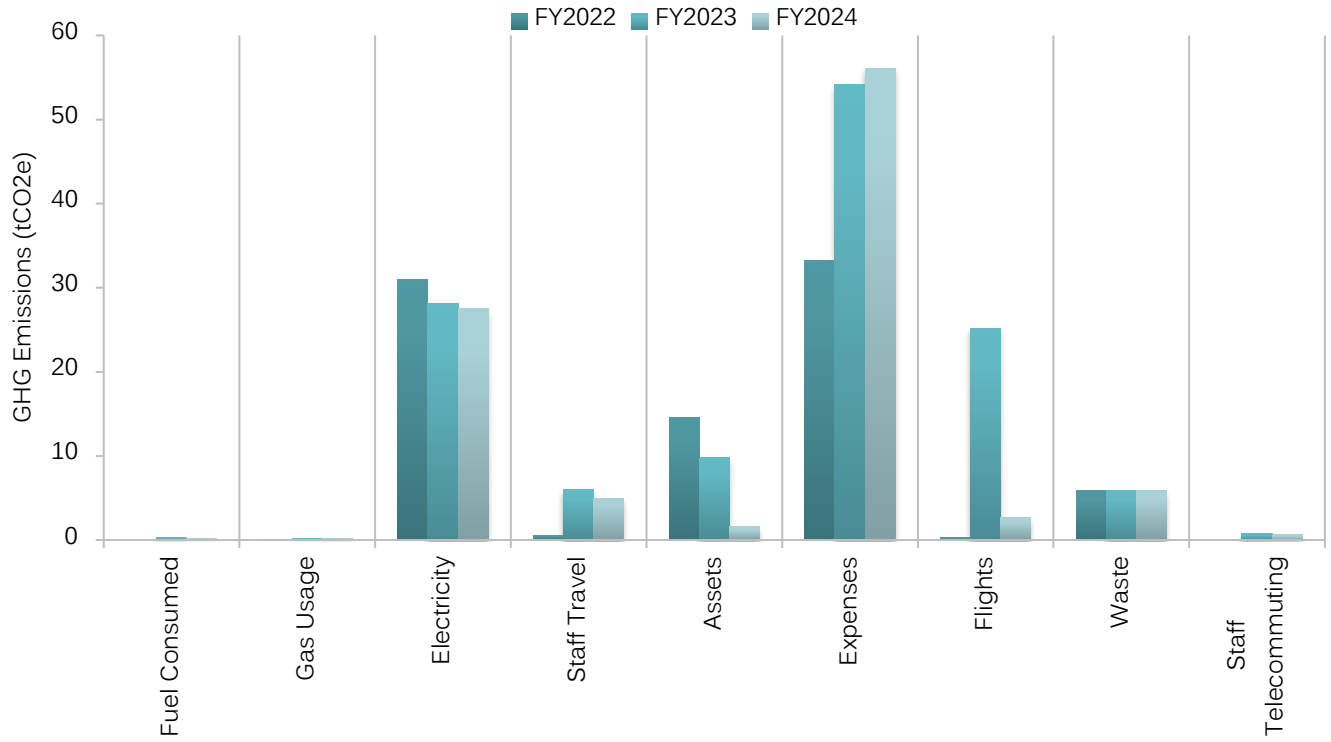
This audit found that Fieldwork Projects' total emissions footprint has decreased from 130.43 tCO2-e in FY2023, to 99.62 tCO2-e in FY2024.

The most significant change that has occurred during FY2024 is the decrease of emissions attributed to Flights, as these changed from 25.21 tCO2-e in FY2023 to 2.67 tCO2-e in FY2024. The second largest change in emissions was a decrease in those attributed to Assets.

Table 16: Sources of Fieldwork Projects' emissions for Audited Periods (NoCO2 Boundaries)

Scope	Emission Source	FY2022	FY2023	FY2024	% Difference From Initial Audit	% Difference From Previous Audit
Scope 1 & 3	Fuel Consumed	0.00	0.35	0.13	-	-63%
	Gas Usage	0.08	0.21	0.23	181%	9%
	Refrigerants	0.00	0.00	0.00	-	-
Scope 2 & 3	Electricity	30.94	28.09	27.49	-11%	-2%
Scope 3	Staff Travel	0.54	6.02	4.95	810%	-18%
	Assets	14.61	9.78	1.57	-89%	-84%
	Expenses	33.21	54.14	56.11	69%	4%
	Cost of Sales	0.00	0.00	0.00	-	-
	Flights	0.34	25.21	2.67	695%	-89%
	Waste	5.84	5.84	5.84	0%	0%
	Staff Telecommuting	0.00	0.78	0.62	-	-21%
	Total:	85.56	130.43	99.62	16%	-24%
	Carbon Deductions	31.01	28.39	26.93	-13%	-5%
	Net Total:	54.55	102.04	72.70	33%	-29%

Figure 8: Comparison of Emissions for Current and Previous Audit Periods



REFERENCES

1. **World Business Council for Sustainable Development, World Resources Institute.** *The Greenhouse Gas Protocol.* 2004.

2. **International Standards Organisation.** *ISO 14064-1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.* Geneva, Switzerland : International Standards Organisation, 2018.

3. **Lenzen, M., Moran, D., Kanemoto, K., Geschke, A.** Building Eora: A Global Multi-regional Input-Output Database at High Country and Sector Resolution. *Economic Systems Research.* 2013, Vol. 25, 1.

4. **Rober Sausen, Ivar Iseksen, et al.** *Aviation Radiative Forcing in 2000: An Update on IPCC (1999).* 2005.

5. **Intergovernmental Panel on Climate Change.** Aviation and the Global Atmosphere. [Online] http://www.ipcc.ch/ipccreports/sres/aviation/121.htm#8223.

6. **World Resources Institute and World Business Council for Sustainable Development.** *The Greenhouse Protocol.* Conchese-Geneva, Switzerland : s.n., 2004.

7. **Australian Department of Climate Change, Energy, the Environment and Water.** *National Greenhouse Accounts Factors.* 2023.

8. **F. Poggi, H. Macchi-Tejeda, D. Leducq, A. Bontemps.** *Refrigerant charge in refrigerating systems and strategies of charge reduction.* s.l. : Science Direct, 2008.

9. **Lenzen, Manfred, Foran, Barney and Dey, Christopher.** *Balancing Act; A Triple Bottom Line Analysis of The Australian Economy.* s.l. : CSIRO, 2005.

10. **Department of Sustainability, Environment, Water, Population and Communities.** *A study into commercial & industrial (C&I) waste and recycling in Australia by industry division.* s.l. : Encycle Consulting Pty Ltd & Encycle Consulting Pty Ltd, 2013.

11. **Department of Environment, Food and Rural Affairs (DEFRA).** *2023 Guidelines to DEFRA's GHG Conversion Factors for Company Reporting.* 2023.

12. **Australian Department of Infrastructure and Transport.** Green Vehicle Guide. [Online] 2010. www.greenvehicleguide.gov.au.

13. **Australian Bureau of Statistics.** Survey of Motor Vehicle Use, Australia, 12 Months Ended 30 June 2018. Canberra : Commonwealth of Australia, 2019.

14. —. 2071.0.55.001 - Census of Population and Housing: Commuting to Work - More Stories from the Census, 2016, 2016. *Australian Bureau of Statistics.* [Online] 25 May 2018. https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2071.0.55.001~2016~Main%20Features~Feature%20Article:%20Journey%20to%20Work%20in%20Australia~40.

15. **Lenzen, Manfred, et al.** *Shared producer and consumer responsibility - Theory and Practice.* 2006.

16. **Lenzen, M., Kanemoto, K., Moran, D., Geschke, A.** Mapping the Structure of the World Economy. *Environmental Science & Technology.* 2012, Vol. 46, 15.

17. **Reserve Bank of Australia.** Measures of Consumer Price Inflation. *Reserve Bank of Australia.* [Online] July 2023. http://www.rba.gov.au/inflation/measures-cpi.html.

18. **Intergovernmental Panel on Climate Change (IPCC).** *AR6 Synthesis Report: Climate Change 2023.* 2023.