ORGANISATIONAL GREENHOUSE GAS EMISSIONS INVENTORY (CARBON FOOTPRINT) FY 2020/21

For Cannings Free Range Butchers

Final 1.0



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SUMMARY

Organisation Name:	Cannings Free Range Butchers		
Period:	1 July 2020 to 30 June 2021		
Disclosure type:	Organisational Carbon Neutrality		
Total Gross Greenhouse Gas (GHG) Emissions:	1,231.66 t CO ₂ -e		
Carbon neutral electricity	-94.19 t		
Total Net GHG Emissions (prior to offsetting):	1,137.47 t CO ₂ -e		

ABOUT THE ORGANISATION

Cannings Free Range Butchers is a family owned and operated business that offers free range meats and products for retail sale. Meats supplied are sourced from 100% grass fed stock and this small business started on 18 July 2010. The business operated nine facilities during the reporting period including its head office and eight retail outlets.

Cannings Free Range Butchers believes in supplying 'ethical' meat products to customers and selling only free range meats and products containing free range meat ingredients. Cannings Free Range Butchers also stocks fresh seafood that is sustainably sourced and not in threat of overfishing.

Cannings Free Range Butchers has been offsetting its operational greenhouse gas emissions (GHG) with Carbon Neutral since commencing business.

EMISSIONS SCOPE & OPERATIONAL BOUNDARY

The emissions scope and organisational boundary for the GHG inventory has been developed in accordance with the GHG Protocol and includes GHG emitting activities considered to be under the operational control of the business.

Cannings Free Range Butchers' GHG Emissions Inventory includes aspects of operations that the business has operational control over, as well as activities which the business could influence. The six GHG sources covered by the Kyoto Protocol: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂0), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆) are included and reported as units of carbon dioxide equivalents (CO₂-e).

Operating locations and GHG emissions from the facilities listed overleaf in Figure 1 have been included in this GHG Emissions inventory.



FIGURE 1: Facilities included in carbon footprint study

Hawthorn

100 Burwood Rd Hawthorn Kew

16 Woodford Ave Kew Malvern

195 Glenferrie Rd Malvern **Ivanhoe**

1 / 4-12 Livingstone St Ivanhoe

South Yarra

670 Chapel St South Yarra Head office

1/79 High Street Kew Tooronga

766 Toorak Rd Glen Iris Toorak

Shop 12/459 Toorak Rd Toorak

Burwood

70 Middleborough Rd, Burwood

METHODOLOGY & EMISSIONS FACTORS

Except where otherwise stated in this report, Carbon Neutral has calculated Cannings Free Range Butchers' scope 1 and 2 emissions using the Department of the Environment's National Greenhouse Accounts (NGA) Factors (October 2020).

Scope 3 emissions are generally much harder to quantify as these emissions came from various activities often with no direct way to easily measure the contribution to climate change. In these cases, in addition to the NGA Factors and Technical Guidelines, Carbon Neutral has used external, credible sources to perform its calculations.

Cannings Free Range Butchers provided Carbon Neutral with activity data that has been used to calculate GHG emissions.

Where data at a facility level was not available, estimates have been used.

The veracity of this data is taken to be complete and accurate and has not been audited or independently verified by Carbon Neutral.

FY2021 GHG EMISSIONS BOUNDARY

FIGURE 2: Activity inclusions and exclusions for 2020/21

Scope 1 Emissions

Fleet vehicle fuel

Refrigerant leaks

Scope 2 Emissions

Electricity

Exclusions

Capital equipment & building works

Staff commuting

Incoming freight

Base building energy use

Product (embodied & use)

Scope 3 Emissions

Fleet vehicle fuel (Indirect)

Electricity (Indirect)

Water use & disposal

Consumables (Office paper) (Bags and film) (Detergents & disinfectants)

Waste

Stationery & printing

Deliveries (new)



TABLE 1: Activity allowances and GHG emissions (2020/21)

Activity type	Facility	Emission factor reference	Activity data	Emission factor	TOTAL (t CO ₂ -e)
Fleet				'	
Diesel (post 2004 vehicle)	Group	NGA Factors 2020	6,918 l	2.857 kg CO ₂ -e/l	19.76
Petrol (post 2004 vehicle)	Group	NGA FACTOIS 2020	4,609 l	2.436 kg CO ₂ -e/l	11.23
Refrigerant leaks					
	Hawthorn		3.0 kg	3,985 kg CO ₂ -e/kg _	11.96
DE074	Kew	DBEIS/DEFRA 2020	10.0 kg		39.85
R507A	South Yarra	DBEIS/DEFRA 2020	7.0 kg		27.90
	Tooronga		6.0 kg		23.91
R448A	Burwood	NZ ETS regulation update 2018	2.5 kg	1,273 kg CO ₂ -e/kg	3.18
Electricity					
	Kew	NGA Factors 2020	197,161.40 kWh	1.09 kg CO₂-e/kWh	214.91
	Hawthorn		64,997.37 kWh		70.85
	Malvern		57,286.23 kWh		62.44
	Ivanhoe		62,445.90 kWh		68.07
Victoria (latest estimate)	Tooronga		78,706.47 kWh		85.79
Victoria (tatest estimate)	Head office		6,453.36 kWh		7.03
	South Yarra		122,209.39 kWh		133.21
	Toorak		62,688.12 kWh		68.33
	Burwood		86,417 kWh *carbon neutral		(94.19)
Waste (landfill)					
Commercial & industrial	Kew	NGA Factors 2020	24.31 t	1.3 t CO ₂ -e/t	31.61

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	Hawthorn		12.04		15.65
	Malvern		4.41		5.73
	Ivanhoe		11.48 t		14.92
	Tooronga		7.09 t		9.22
	Head office		Not reported		
	South Yarra		8.15 t		10.59
	Toorak		9.62 t		12.51
	Burwood		8.69 t		11.30
Consumables					
	Tooronga		\$2,314.30		0.99
	Ivanhoe		\$1,504.64		0.64
	Hawthorn	EPiC database 2019	\$1,742.13		0.74
Detergents (Cleaning Compounds and Toiletry	South Yarra		\$1,016.07	0.43 kg CO ₂ -e/\$	0.43
Preparation Manufacturing)	Kew	EFIC database 2019	\$2,782.12	. U.43 kg CO ₂ -e/\$.	1.19
	Toorak		\$991.21		0.42
	Burwood		\$1454.31		0.62
	Malvern		\$1,127.37		0.48
	Head office		\$33,636		18.04
	Tooronga		\$15,305		8.21
	Ivanhoe		\$13,901		7.46
Plastic (Polymer Product Manufacturing)	Hawthorn	EPiC database 2019	\$17,611	0.54 kg CO ₂ -e/\$	9.45
	South Yarra		\$11,277		6.05
	Kew		\$42,994		23.06
	Toorak		\$9,599		5.15
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	Burwood		\$6,474		3.47
	Malvern		\$10,267		5.51
	Head office		\$23,075		13.01
	Tooronga		\$10,500		5.92
	Ivanhoe		\$9,536		5.37
Paper (Paper Stationery and Other Converted Paper	Hawthorn		\$12,081		6.81
Product Manufacturing)	South Yarra	EPiC database 2019	\$7,736	0.56 kg CO ₂ -e/\$	4.36
	Kew		\$29,495		16.62
	Toorak		\$6,585		3.71
	Burwood	-	\$4,441		2.50
	Malvern		\$7,043		3.97
	Head office		\$3,979		3.65
	Tooronga		\$1,811		1.66
	Ivanhoe		\$1,645		1.51
	Hawthorn		\$2,083		1.91
Pulp (Pulp, Paper and Paperboard Manufacturing)	South Yarra	EPiC database 2019	\$1,334	0.92 kg CO ₂ -e/\$	1.22
	Kew		\$5,086		4.67
	Toorak		\$1,136		1.04
	Burwood		\$766		0.70
	Malvern		\$1,215		1.12
Office paper (imported recycled)	Group	Australian Paper 2020 & Indufor 2016	105 kg	3.38 kg CO ₂ -e/kg	0.35
Office paper (imported virgin)	3335	2010	34 kg	3.41 kg CO ₂ -e/kg	0.12
Water use & disposal					
Yarra Valley Water Corporation	Kew	BoM 2019-2020 dataset	1,012 kL	1,457 kg CO ₂ -e/kL	1.47

		Total GHG I	Emissions (t CO ₂ -e)		1,231.66
HDS Freight – diesel fuel use (post 2004 vehicle)	Group	NGA Factors 2020	471.3 l	2.857 kg CO ₂ -e/l	1.35
Deliveries					
Yarra Valley Water Corporation	Burwood		272 kL		0.03
Yarra Valley Water Corporation	Toorak		150 kL		0.22
Yarra Valley Water Corporation	South Yarra		172 kL		0.25
Yarra Valley Water Corporation	Head office		23 kL		0.35
Yarra Valley Water Corporation	Tooronga		344 kL		0.50
Yarra Valley Water Corporation	Ivanhoe		242 kL		0.40
Yarra Valley Water Corporation	Malvern		158 kL		0.23
Yarra Valley Water Corporation	Hawthorn		392 kL		0.57

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FIGURE 3: GHG emissions by facility for Cannings Free Range Butchers (t CO_2 -e; %) (2020/21) - prior to carbon neutral θ any carbon offset purchases

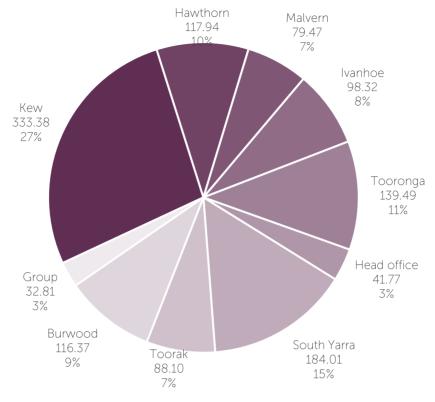
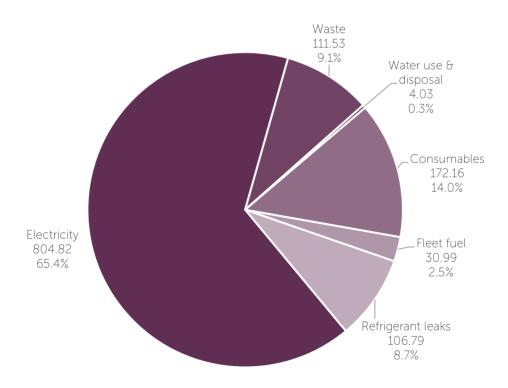


FIGURE 4: GHG emissions by activity for Cannings Free Range Butchers (t CO_2 -e; %) (2019/20) - prior to carbon neutral ϑ any carbon offset purchases





HISTORICAL GHG EMISSIONS

FIGURE 5: Historical GHG emissions (t CO₂-e)

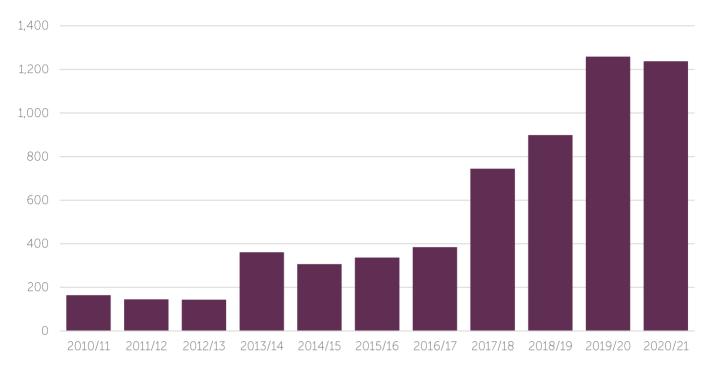
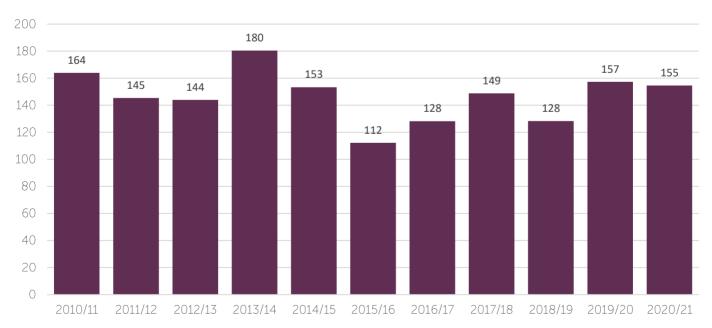


FIGURE 6: Historical GHG emissions per retail outlet (t CO₂-e/outlet)





CARBON OFFSETS

GHG emissions are calculated to be 1,231.66 tonnes CO_2 -e for 2020/21 (prior to the purchase of carbon neutral products and carbon offsets).

Net GHG emissions after allowances for the use of certified carbon neutral electricity are estimated at 1,137.47 t CO_2 -e.

REAL UTILITIES

Electricity for the Burwood outlet is supplied by Real Utilities. Real Utilities is certified carbon neutral under the Australian government's Climate Active Standard so net GHG emissions from electricity use $(94.19 \text{ t } \text{CO}_2\text{-e})$ are taken to be zero.

CARBON OFFSETS

Cannings Free Range Butchers has retired 1,138 tonnes of carbon credits to offset its GHG emissions for the FY21 period.

By offsetting its GHG emissions, Cannings can claim carbon neutrality as an organisation for the period.

Offset purchases by the business are shown in the following table.

TABLE 2: Carbon offsets and net GHG emissions (2020/21)

Details	t CO ₂ -e
FY2021 Gross GHG emissions	1,231.66
Greenpower purchases	-94.19
Carbon credits carried over from 2019/2020	-1,138.55
Net GHG emissions	-1.08

*Achieving carbon neutrality through the purchase of BRCOs: As it may be some years before actual carbon is sequestered, Carbon Neutral retires an equivalent number of verified carbon credits from an international project.

