



# **PUBLIC DISCLOSURE STATEMENT**

XXXX ZERO

PRODUCT CERTIFICATION  
CY2022 (TRUE UP)

Australian Government  
**Climate Active**  
**Public Disclosure Statement**



An Australian Government Initiative



NAME OF CERTIFIED ENTITY	Lion Pty Ltd
REPORTING PERIOD	1 January 2022 – 31 December 2022 [True-up]
DECLARATION	<p><i>To the best of my knowledge, the information provided in this public disclosure statement is true and correct and meets the requirements of the Climate Active Carbon Neutral Standard.</i></p> <p><i>Tamara Sling-Ronen</i></p>
	<p>Tamara Sling-Ronen            Environment Director            30/5/2023</p>



**Australian Government**  
**Department of Climate Change, Energy,  
 the Environment and Water**

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Version March 2023.



# 1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	606 tCO2-e
THE OFFSETS BOUGHT	100% ACCUs
RENEWABLE ELECTRICITY	85.23 %
TECHNICAL ASSESSMENT	4/02/2022 Paola Martinez Ndevr Environmental Next technical assessment due: CY2025
THIRD PARTY VALIDATION	Type 3 Date: 25/02/2022 Name: Edge Environment

## Contents

1. Certification summary .....	3
2. Carbon neutral information .....	4
3. Emissions boundary .....	5
4. Emissions reductions.....	9
5. Emissions summary.....	10
6. Carbon offsets .....	12
7. Renewable Energy Certificate (REC) summary .....	14
Appendix A: Additional information.....	15
Appendix B: Electricity summary .....	16
Appendix C: Inside emissions boundary .....	19
Appendix D: Outside emission boundary .....	19

## 2. CARBON NEUTRAL INFORMATION

### Description of certification

This certification covers all XXXX ZERO produced at our Toohey's Brewery Facility (Lidcombe NSW), owned, and operated by Lion Pty Ltd.

### Product description

The story of XXXX starts back in 1878 when brothers Nicholas and Edward Fitzgerald had one goal in life; to create the finest ales known to Australians, loved by generations across this sun-drenched land.

With over 144 years of history brewing thirst-quenchers, XXXX has now crafted XXXX ZERO with the next generation in mind. XXXX ZERO is proudly Australia's first certified carbon neutral zero alcohol beer product.

As a full flavoured, easy drinking, alcohol free lager, XXXX ZERO is made to represent the very best of the modern Aussie lifestyle.

XXXX ZERO - 0.0% alcohol, 100% carbon neutral.

Cradle to gate approach was used as it was not possible to map the stages between gate to grave as this would have required us to estimate data for a product that is yet to be distributed to the market. This approach is allowed under the Product & Services standard if function of the final product is not known or there are significant barriers to collecting data. The certification is full coverage. The functional unit for this certification is 1 litre of alcohol-free beer produced. The cradle-to-gate inventory covers the calendar year 2022 as the base year and first year of certification. The projections for the inventory were based on FY2021 data.

*“For 144 years, XXXX has been there when consumers are in need; and right now, our purpose as champions of the great Australian outdoors is as relevant as ever.*”

*With our drinkers consistently claiming environmental concerns as the biggest crisis we face today, as a brand with such a long and proud history we want to help build awareness and drive change to ensure the next generation of consumers can enjoy the outdoors just as we have.”*

## 3. EMISSIONS BOUNDARY

### Inside the emissions boundary

All emission sources listed in the emissions boundary are part of the carbon neutral claim.

**Quantified** emissions have been assessed as 'attributable processes' that become the product, make the product and carry the product through its life cycle. These have been quantified in the carbon inventory.

**Non-quantified** emissions have been assessed as attributable and are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. All material emissions are accounted for through an uplift factor. Further detail is available at Appendix C.

### Outside the emissions boundary

**Non-attributable** emissions have been assessed as not attributable to a product or service. They can be **optionally included** in the emissions boundary and therefore have been offset, or they can be listed as outside of the emissions boundary (and are therefore not part of the carbon neutral claim). Further detail is available at Appendix D.

## Inside emissions boundary

### Quantified

Electricity  
Natural gas  
Fuels  
Water  
Wastewater  
Raw materials  
Packaging (primary)  
Other packaging  
Freight and Transport  
Warehousing  
waste

### Non-quantified

Hop malt extract  
(flavouring)

### Optionally included

None

## Outside emission boundary

### Non-attributable

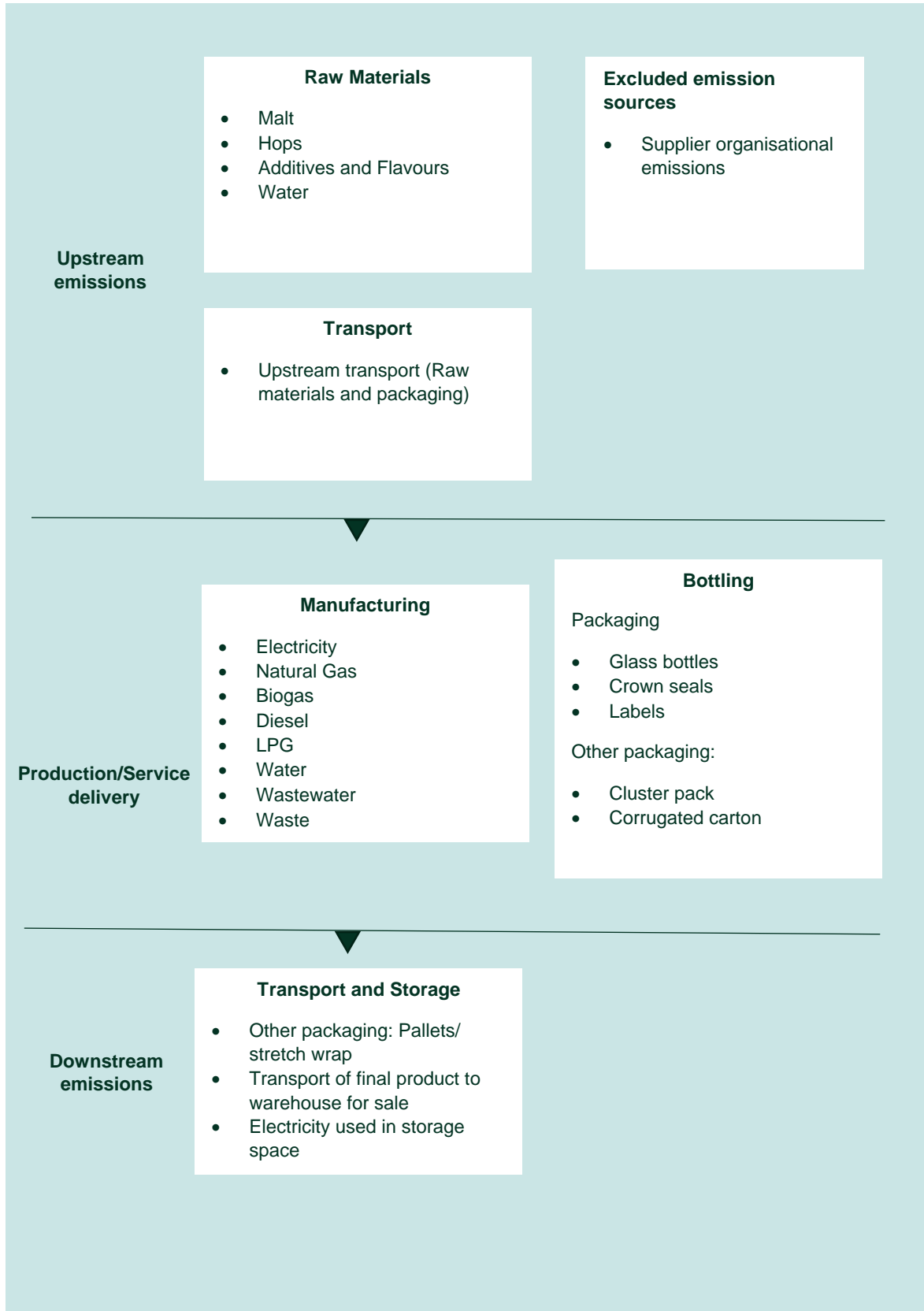
Organisation operations

Emissions related to activities/sources after the 'gate' stage:

- Retailing
- Consumer phase
- Post-consumer waste disposal.

These items are not part of this certification claim as the cradle-to-gate approach is taken.

## Product process diagram



## **Data management plan for non-quantified sources**

Although activity data exists, due to the inability to find an appropriate emission factor to determine the emissions associated with one of the flavorings added during the brewing process, the ingredient has been listed as non-quantified.

Lion expects to work with our supplier over the coming years to ensure we can include the flavoring as a quantified emission source for future reporting periods. An uplift factor has been added to the total inventory to account for this emission source.



## 4. EMISSIONS REDUCTIONS

### Emissions reduction strategy

At Lion, sustainability is a key part of who we are and is embedded in everything we do. Ultimately, we aim to bring to life Lion's core purpose in a way that ignites and engages our people, drives net positive change in our environment, and creates strong and resilient communities in which we operate. We are committed to playing a leading role in reducing carbon emissions.

In line with science-based targets to limit global warming to under 1.5°C, Lion has committed to a 55% reduction of Scope 1 and 2 emissions from a 2019 baseline by 2030. As part of this strategy, Lion has committed to using 100% renewable electricity across sites in the Australian and New Zealand network by 2025. In 2020, we commenced a 100% renewable Power Purchase Agreement (PPA) with our electricity supplier in NSW, including Toohey's Brewery in Lidcombe.

At the same time as addressing our direct emissions, Lion recognizes that most of our products' lifecycle emissions come from Scope 3 (indirect) emissions sources. These emissions sources include ingredients and packaging used in our products as well as logistics services throughout the supply chain. We have set a science-based target to reduce our Scope 3 emissions by 30% by 2030, as compared to a 2019 baseline. To achieve this, we are engaging with our key suppliers to understand what causes these emissions to identify opportunities for reducing them.

## 5. EMISSIONS SUMMARY .

### Emissions over time

Emissions since base year		Total tCO <sub>2</sub> -e	Emissions intensity of the functional unit
Base year:	2021	1,189	1.17
Year 1:	2022	594	1.08

Total emissions have reduced in CY2022 from CY2021 as the production volume was lower than predicted.

### Significant changes in emissions

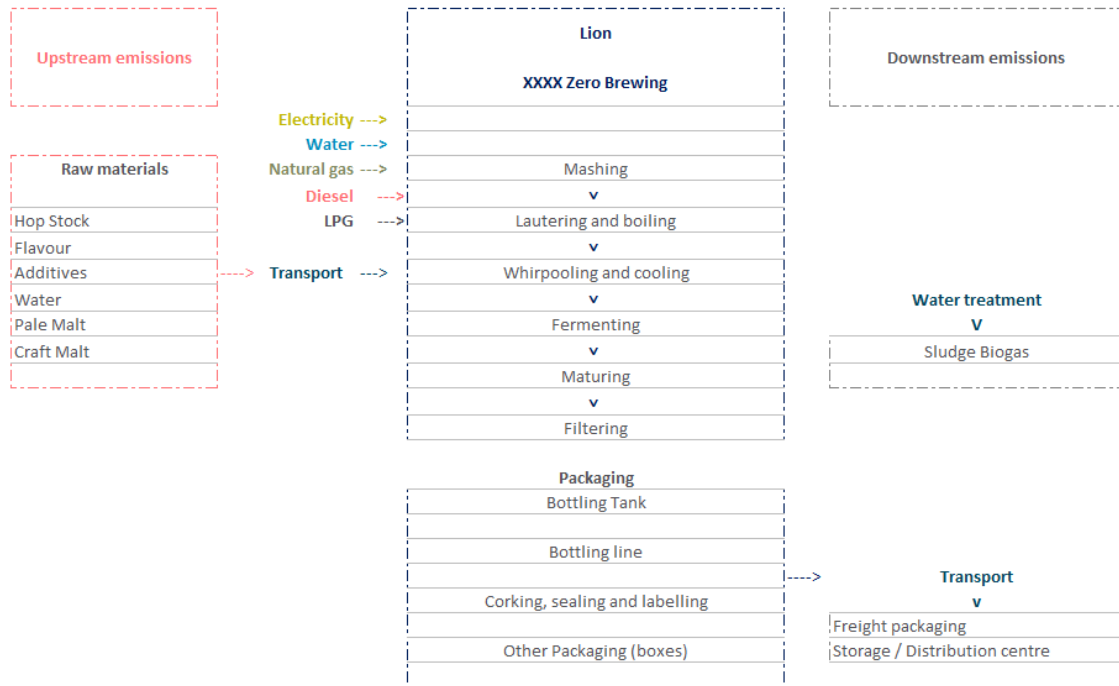
Emission source name	Previous year emissions (kg CO <sub>2</sub> -e)	Current year emissions (kg CO <sub>2</sub> -e)	Detailed reason for change
Malt	123,691	61,543	Production volume reduction
O-I Glass Packaging	615,488	306,238	Production volume reduction
Natural Gas NSW/ACT (metro) (GJ)	137,876	66,832	Production volume reduction
Downstream Road Freight (articulated truck)	184,081	94,275	Production volume reduction

The reduction in emissions in CY2022 from CY2021 is due to lower production volume as it is shown in all emission sources.

### Use of Climate Active carbon neutral products and services

No carbon neutral products were used in the manufacturing process.

## Product emissions summary



Stage	tCO2-e
Bottling & packaging	338.13
Downstream transport & wholesale storage	101.26
Brewing	78.08
Raw material sourcing	67.92
Upstream transport	8.93
<b>2% Uplift</b>	<b>11.89</b>

2% uplift factor has been implemented:

- 1% to account for hop malt extract (flavouring) as it's been identified as a non-quantified source as the emission factor was not found from any credible sources.
- 1% to address for regional uncertainty, and due to the likelihood that most internationally sourced factors are less intensive than local factors.

Emissions intensity per functional unit	1.08 kgCO2-e/L
Number of functional units to be offset	Confidential
Total emissions to be offset	606

## 6. CARBON OFFSETS

### Offsets strategy

This certification has taken an in-arrears offsetting approach. The total emission to offset is 606 t CO<sub>2</sub>-e. The total number of eligible offsets used in this report is 606. Of the total eligible offsets used, 1217 were previously banked and 0 were newly purchased and retired. 560 are remaining and have been banked for future use.

### Co-benefits

#### Project Type: Human-Induced regeneration of native forests

Widespread land clearing across Queensland has significantly impacted local ecosystems. Past land management has resulted in native vegetation loss, soil compaction and reduced water quality. This degradation and loss of plant species threatens the food and habitat on which other native species rely. Clearing native forests allows weeds and invasive animals to spread, contributes to greenhouse gas emissions and leads to soil erosion and salinity.

Lion is supporting a land regeneration project in south-west Queensland. Located near Quilpie, the project works with the landholder to establish and protect permanent native forests through assisted regeneration from local seed sources. The area harbours a number of indigenous plant species which provide important habitat and nutrients for native wildlife. By erecting fencing and actively and humanely managing invasive species, the project avoids emissions caused by clearing and achieves positive climate, environmental and biodiversity benefits.

Regenerating vegetation, supporting local waterways and increasing biodiversity is boosting the resilience of the landscape while delivering significant reductions in greenhouse gas emissions.

100% of XXXX Zero's off-sets are covered by the Mulga Lands Woodland regeneration projects, including the portion of XXXX Zero's emissions covered by the Lion organizational carbon neutral certification.

## Offsets summary

### Proof of cancellation of offset units

Offsets cancelled for Climate Active Carbon Neutral Certification										
Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Eligible Quantity (tCO <sub>2</sub> -e)	Quantity used for previous reporting periods	Quantity banked for future reporting periods	Quantity used for this reporting period claim	Percentage of total (%)
Eastern Creek Landfill Gas Project	ACCUs	ANREU	25 February 2022	<a href="#">3.809,626,998 – 3.809,628,214</a>	2021	1,217	0	611	606	100%
<b>Total offsets retired this report and used in this report</b>									606	
<b>Total offsets retired this report and banked for future reports</b>								611		
Type of offset units			Quantity (used for this reporting period claim)				Percentage of total			
Australian Carbon Credit Units (ACCUs)			606				100%			

## 7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

### Renewable Energy Certificate (REC) Summary

The following RECs have been surrendered to reduce electricity emissions under the market-based reporting method, as reported in the CY2022 Lion Organisation Climate Active PDS. The electricity used in the facility where XXXX Zero is produced has been accounted for in the Lion Organisation Climate Active PDS, see below for all of Lion's electricity and LGC accounting:


<b>1. Large-scale Generation certificates (LGCs)*</b>	13,027
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\* LGCs in this table only include those surrendered voluntarily (including through PPA arrangements), and does not include those surrendered in relation to the LRET, GreenPower, and jurisdictional renewables.

Project supported by LGC purchase	Project location	Eligible unit type	Registry	Surrender date	Accreditation code	Certificate serial number	Generation year	Fuel source	Quantity (MWh)
Solar Farm	NSW	LGC	REC Registry	13 April 2023	SRPVNS90	37588 – 37601	2022	Solar	14
Solar Farm	NSW	LGC	REC Registry	13 April 2023	SRPVNS90	29853 – 29866	2022	Solar	14
Solar Farm	NSW	LGC	REC Registry	13 April 2023	SRPVNS88	66002 – 72408	2022	Solar	6,407
Solar Farm	NSW	LGC	REC Registry	13 April 2023	SRPVNS88	47006 – 52549	2022	Solar	5,544
Solar Farm	NSW	LGC	REC Registry	13 April 2023	SRPVNS88	52550 – 52588	2022	Solar	39
Solar Farm	QLD	LGC	REC Registry	17 May 2023	SRPVQLV0	1-1009	2023	Solar	1,009
<b>Total LGCs surrendered this report and used in this report</b>									<b>13,027</b>

# APPENDIX A: ADDITIONAL INFORMATION

## Offset Retirement



### Australian National Registry of Emissions Units

Logged in as: Andrew Grant / Industry User

ANREU Home

Account Holders

Accounts

Unit Position Summary

Projects

Transaction Log

CER Notifications

Public Reports

My Profile

#### Transaction Details

Transaction details appear below

Transaction Successfully Approved

Transaction ID	AU21421
Current Status	Completed (4)
Status Date	25/02/2022 17:02:35 (AEDT)
	25/02/2022 06:02:36 (GMT)
Transaction Type	Cancellation (4)
Transaction Initiator	Grant, Andrew William Thorold
Transaction Approver	Grant, Andrew William Thorold
Comment	Retired on behalf of Lion Ply Ltd to meet carbon neutral claim against the Climate Active Carbon Neutral standard for product certification.

**Transferring Account**

Account Number: AU-2734

Account Name: Tasman Environmental Markets Ply Ltd

Account Holder: Tasman Environmental Markets Ply Ltd

**Acquiring Account**

Account Number: AU-1068

Account Name: Australia Voluntary Cancellation Account

Account Holder: Commonwealth of Australia

Party	Type	Transaction Type	Original CP	Current CP	ERF Project ID	NGER Facility ID	NGER Facility Name	Safeguard	Kyoto Project #	Vintage	Expiry Date	Serial Range	Quantity
AU	KACCU	Voluntary ACCU Cancellation			<a href="#">ERF02100</a>					2020-21		3,809,626,998 - 3,809,628,214	1,217



## APPENDIX B: ELECTRICITY SUMMARY

Electricity emissions are calculated using a market-based approach

### Location-based method

The location-based method provides a picture of a business's electricity emissions in the context of its location, and the emissions intensity of the electricity grid it relies on. It reflects the average emissions intensity of the electricity grid in the location (State) in which energy consumption occurs. The location-based method does not allow for any claims of renewable electricity from grid-imported electricity usage.

### Market-based method

The market-based method provides a picture of a business's electricity emissions in the context of its renewable energy investments. It reflects the emissions intensity of different electricity products, markets and investments. It uses a residual mix factor (RMF) to allow for unique claims on the zero emissions attribute of renewables without double-counting.



## Market-based approach summary

Market Based Approach	Activity Data (kWh)	Emissions (kg CO2-e)	Renewable Percentage of total
Behind the meter consumption of electricity generated	0	0	0%
<b>Total non-grid electricity</b>	<b>0</b>	<b>0</b>	<b>0%</b>
LGC Purchased and retired (kWh) (including PPAs)	30,149	0	66%
GreenPower	0	0	0%
Climate Active precinct/building (voluntary renewables)	0	0	0%
Precinct/Building (LRET)	0	0	0%
Precinct/Building jurisdictional renewables (LGCs surrendered)	0	0	0%
Electricity products (voluntary renewables)	0	0	0%
Electricity products (LRET)	0	0	0%
Electricity products jurisdictional renewables (LGCs surrendered)	0	0	0%
Jurisdictional renewables (LGCs surrendered)	0	0	0%
Jurisdictional renewables (LRET) (applied to ACT grid electricity)	0	0	0%
Large Scale Renewable Energy Target (applied to grid electricity only)	8,532	0	19%
Residual Electricity	6,702	6,401	0%
<b>Total renewable electricity (grid + non grid)</b>	<b>38,681</b>	<b>0</b>	<b>85%</b>
<b>Total grid electricity</b>	<b>45,384</b>	<b>6,401</b>	<b>85%</b>
<b>Total electricity (grid + non grid)</b>	<b>45,384</b>	<b>6,401</b>	<b>85%</b>
Percentage of residual electricity consumption under operational control	100%		
<b>Residual electricity consumption under operational control</b>	<b>6,702</b>	<b>6,401</b>	
Scope 2	5,919	5,653	
Scope 3 (includes T&D emissions from consumption under operational control)	783	748	
<b>Residual electricity consumption not under operational control</b>	<b>0</b>	<b>0</b>	
Scope 3	0	0	

<b>Total renewables (grid and non-grid)</b>	<b>85.23%</b>
<b>Mandatory</b>	<b>18.80%</b>
<b>Voluntary</b>	<b>66.43%</b>
<b>Behind the meter</b>	<b>0.00%</b>
<b>Residual scope 2 emissions (t CO2-e)</b>	<b>5.65</b>
<b>Residual scope 3 emissions (t CO2-e)</b>	<b>0.75</b>
<b>Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO2-e)</b>	<b>5.65</b>
<b>Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO2-e)</b>	<b>0.75</b>
<b>Total emissions liability (t CO2-e)</b>	<b>6.40</b>

Figures may not sum due to rounding. Renewable percentage can be above 100%

## Location-based approach summary

Location Based Approach	Activity Data (kWh) total	Under operational control			Not under operational control	
		(kWh)	Scope 2 Emissions (kg CO2-e)	Scope 3 Emissions (kg CO2-e)	(kWh)	Scope 3 Emissions (kg CO2-e)
Percentage of grid electricity consumption under operational control	100%					
ACT	0	0	0	0	0	0
NSW	30,149	30,149	22,009	1,809	0	0
SA	0	0	0	0	0	0
VIC	0	0	0	0	0	0
QLD	15,234	15,234	11,121	2,285	0	0
NT	0	0	0	0	0	0
WA	0	0	0	0	0	0
TAS	0	0	0	0	0	0
<b>Grid electricity (scope 2 and 3)</b>	<b>45,384</b>	<b>45,384</b>	<b>33,130</b>	<b>4,094</b>	<b>0</b>	<b>0</b>
ACT	0	0	0	0		
NSW	0	0	0	0		
SA	0	0	0	0		
VIC	0	0	0	0		
QLD	0	0	0	0		
NT	0	0	0	0		
WA	0	0	0	0		
TAS	0	0	0	0		
<b>Non-grid electricity (behind the meter)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
<b>Total electricity (grid + non grid)</b>	<b>45,384</b>					

Residual scope 2 emissions (t CO2-e)	33.13
Residual scope 3 emissions (t CO2-e)	4.09
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO2-e)	33.13
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO2-e)	4.09
<b>Total emissions liability</b>	<b>37.22</b>

## APPENDIX C: INSIDE EMISSIONS BOUNDARY

### Non-quantified emission sources

The following sources emissions have been assessed as attributable, are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. These emissions are accounted for through an uplift factor. They have been non-quantified due to one of the following reasons:

1. **Immaterial** <1% for individual items and no more than 5% collectively
2. **Cost effective** Quantification is not cost effective relative to the size of the emission but uplift applied.
3. **Data unavailable** Data is unavailable but uplift applied. A data management plan must be put in place to provide data within 5 years.
4. **Maintenance** Initial emissions non-quantified but repairs and replacements quantified.

Relevant non-quantified emission sources	Justification reason
Extracts (flavouring)	Data unavailable

### Excluded emission sources

N/A

## APPENDIX D: OUTSIDE EMISSION BOUNDARY

Non-attributable emissions have been assessed as not attributable to a product or service (do not carry, make or become the product/service) and are therefore not part of the carbon neutral claim. To be deemed attributable, an emission must meet two of the five relevance criteria. Emissions which only meet one condition of the relevance test can be assessed as non-attributable and therefore are outside the carbon neutral claim. Non-attributable emissions are detailed below.

1. **Size** The emissions from a particular source are likely to be large relative to other attributable emissions.
2. **Influence** The responsible entity could influence emissions reduction from a particular source.
3. **Risk** The emissions from a particular source contribute to the responsible entity's greenhouse gas risk exposure.
4. **Stakeholders** The emissions from a particular source are deemed relevant by key stakeholders.
5. **Outsourcing** The emissions are from outsourced activities that were previously undertaken by the responsible entity or from outsourced activities that are typically undertaken within the boundary for comparable products or services.



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