



# **PUBLIC DISCLOSURE STATEMENT**

**LION PTY LTD**

**ORGANISATION CERTIFICATION  
CY2023**

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



<b>NAME OF CERTIFIED ENTITY</b>	Lion Pty Ltd
<b>REPORTING PERIOD</b>	1 January 2023 – 31 December 2023 Arrears report
<b>DECLARATION</b>	<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                  Date: 30 August 2024   1:48 PM AEST</p>



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

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Version August 2023.



# 1. CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	33,813 tCO <sub>2</sub> -e
CARBON OFFSETS USED	20% ACCUs, 6% VCU, 74% CERs
RENEWABLE ELECTRICITY	101.91%
CARBON ACCOUNT	Prepared by: Lion Pty Ltd
TECHNICAL ASSESSMENT	21/07/2023 NDEVR Environmental Pty Ltd Next technical assessment due: CY2025

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## 2. CERTIFICATION INFORMATION

### Description of organisation certification

This organisation certification is for the business operations of Lion Pty Ltd (Lion), ABN 50 128 004 268, including the subsidiaries listed in the table below.

This Public Disclosure Statement includes information for CY2023 reporting period.

### Organisation description

Lion is one of Australasia’s largest food and beverage companies, employing approximately 4,000 people across Australia and New Zealand. The company owns and operates various sites in Australia and New Zealand to produce beer, cider, wine, spirits, alcoholic ready-to-drink and non-alcoholic beverages. Lion premium brands are market leaders across several different categories.

Our business lines are Lion Beer Australia, Lion New Zealand and Lion Little World Beverages. The certification emission boundary, however, comprehend operations in Australia only, where we manage many of the best brands in the market.

The operational control approach was used to define the emissions boundary for the organisation’s Climate Active Carbon Neutral certification. The locations included in Lion’s emissions boundary are outlined in Table 1.

The following subsidiaries are also included within this certification:

Legal entity name	ABN	ACN
Healesville Distilling Pty Ltd		606 461 367
Fermentum Pty Limited		124 373 324
Lion - Beer, Spirits & Wine Pty Ltd	13 008 596 370	008 596 370



Table 1: Summary of sites included in the 2023 reporting boundary

Site Name	Address
Castlemaine Perkins Brewery	185 Milton Rd, Milton QLD 4064
James Boag Brewery	69 Esplanade St, Launceston TAS 7250
Tooheys Brewery	29 Nyrang St, Lidcombe NSW 2141
Bevy	The Camfield. Roger MacKay Drive, Burswood WA 6100
Byron Bay Brewing	1 Skinners Shoot Road
Eumundi Brewery	1 Etheridge St, Eumundi QLD 4562
Little Creatures Brewery Fremantle	40 Mews Rd, Fremantle WA 6160
Little Creatures Brewery Geelong	221 Swanston St, South Geelong VIC 3220
Little Creatures Packaging O'Connor	7 Jones St, O'Connor WA 6163
Malt Shovel Brewery	101 Pyrmont Bridge Road, Camperdown NSW 2050
Charming Squire	Charming Squire 3/133 Grey St, South Brisbane QLD 4101
Generous Squire	397 Murray St, Perth WA 6000
Kosi	1 Kosciuszko Rd, Jindabyne NSW 2627
Squire's Landing	Northern end of the Overseas Passenger Terminal, Circular Quay, The Rocks NSW 2000
York St, Sydney (Lion Head Office)	York St, Sydney (Lion Head Office) 68 York St, Sydney NSW 2000
Berrimah (Marine Stores)	33 Pruen Rd, Berrimah NT 0828
Royal Park (Marine Stores)	18 Wilson Street. Royal Park, SA 5014
Camberwell - Toorak Road	1183 Toorak Road, Camberwell, VIC 3124
Mount Waverly (Melbourne)	1/ 7- 9 Gilby Road, Mount Waverly VIC 3149
Four Pillars Healesville Distillery	2 Lilydale Rd, Healesville VIC 3777
Four Pillars Healesville Warehouse	15 Hunter Rd, Healesville VIC 3777
Four Pillars Gin Laboratory	410 Crown St, Surry Hills NSW 2010
Four Pillars Office (Sydney)	Level 1, 351 Crown St Surry Hills NSW 2010
Stone & Wood – Byron Bay Tasting Room	100 Centennial Circuit, Byron Bay, NSW
Stone & Wood – Byron Bay	4 Boronia Place Byron Bay, NSW
Stone & Wood - Murwillumbah Brewery	35-37 Kite Crescent, Murwillumbah, NSW
Stone & Wood - Warehouse	Units 2, 3& 4, 39-45 Kite Crescent, Murwillumbah, NSW
Stone & Wood - Fortitude Valley Tasting Room	99 Bridge Street, Fortitude Valley, QLD
Fixation Brewing	414 Smith Street, Collingwood, VIC
Two Birds Brewing	Unit 3 & 8 136 Hall Street, Spotswood, VIC Unit 4, 134 Hall Street, Spotswood VIC
Canningvale Warehouse	Mordaunt Circuit, Canningvale WA 6155
Cardiff Brewery	18 Munibung Rd, Cardiff QLD 2285
Lucky Squire	3 Oracle Blvd, Broadbeach QLD 4218
SA Sales Office	62 The Parade, Norwood
TAS Sales Office	Level 1, 152 Macquarie St, Hobart TAS 7000
Tiny Mountain	11 Anthony St, South Townsville QLD 4810
West End Brewery	107 Port Rd, Thebarton SA 5031
Bentley Warehouse	35 Alexandra Pl, Bentley WA 6102

## 3.EMISSIONS BOUNDARY

### Inside the emissions boundary

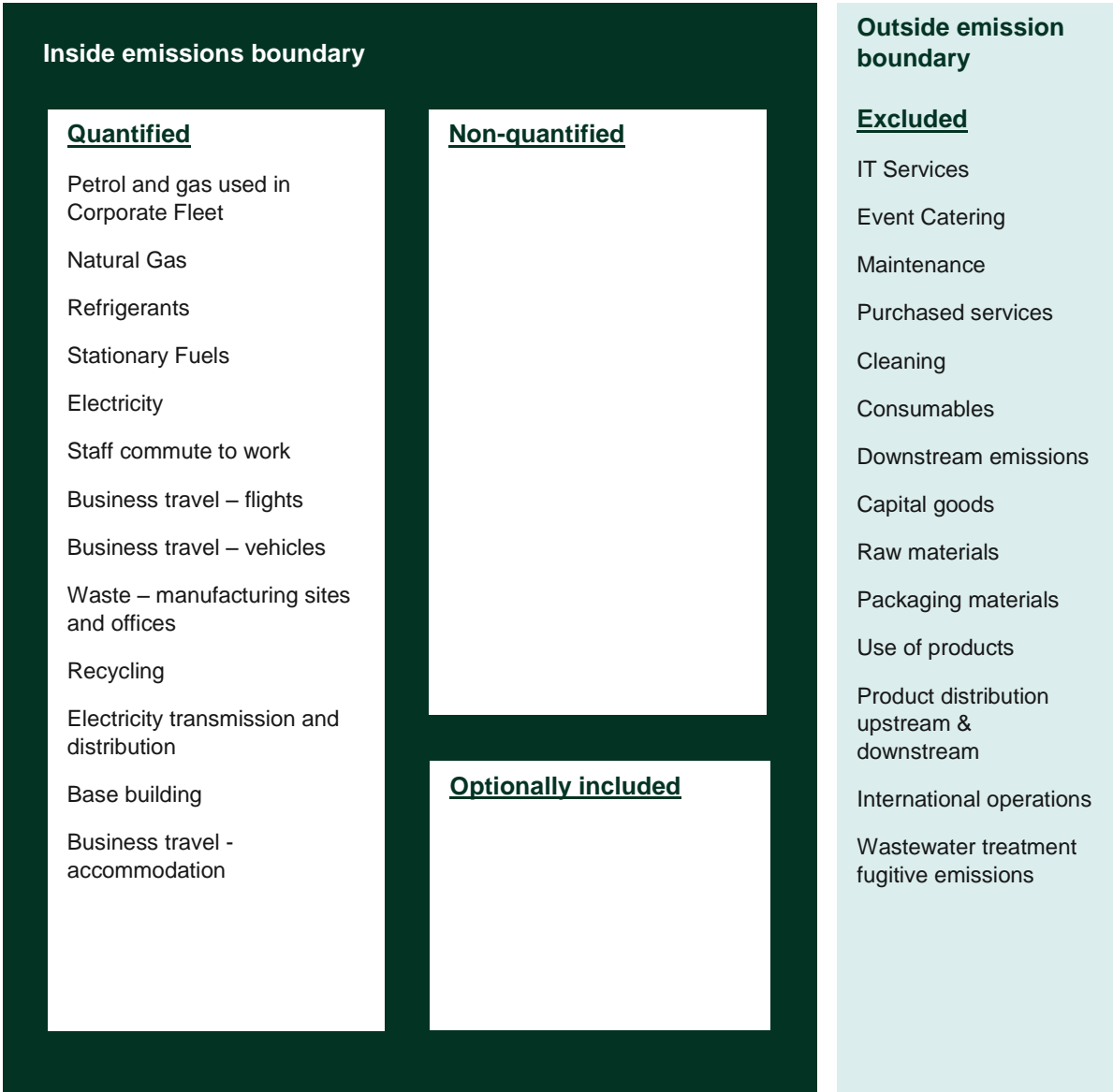
All emission sources listed in the emissions boundary are part of the carbon neutral claim.

**Quantified emissions** have been assessed as relevant and are quantified in the carbon inventory. This may include emissions that are not identified as arising due to the operations of the certified entity, however are **optionally included**.

**Non-quantified emissions** have been assessed as relevant 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

**Excluded emissions** are those that have been assessed as not relevant to an organisation's operations and are outside of its emissions boundary or are outside of the scope of the certification. These emissions are not part of the carbon neutral claim. Further detail is available at Appendix D.



## 4. EMISSIONS REDUCTIONS

### Emissions reduction strategy

Championing sociability and helping people to live well is what drives us to create positive change and builds a pathway to tackle some of the biggest social and environmental challenges we collectively face.

Across our global business we're working hard and investing to reduce our impact on the environment. Climate change has the potential to disrupt our business in many ways particularly across our supply chain. Without a drastic change in course, we can only expect more frequent and intense weather events that will cause disruptions to supply chains, increase the costs of inputs and threaten the viability of our business.

We have redefined our sustainability strategy under an Environmental, Social, Governance (ESG) framework. For us that means becoming a **Force for Good** by:

- Demonstrating brave and enduring environmental leadership
- Creating long term positive social impact; and
- Strengthening and safeguarding our Governance.

Under our environmental pillar, we have a three-year focus is on carbon reduction in our value chain, water stewardship, driving the circular economy, waste reduction and eliminating single use plastic. Goals we have committed to under this pillar include:

Our commitment to a science-based target of a 55% reduction in Scope 1 and 2 emissions and 30% reduction in Scope 3 emissions by 2030 (from a 2019 baseline).

- Scope 1 and 2: Achieve world class energy efficiency through ongoing energy optimisation leveraging best practice and new technology by 2030.
- Scope 2: Purchase 100% renewable electricity across all Australia and New Zealand sites by 2025.

In line with our parent company Kirin, Lion has also committed to a net zero value chain by 2050.



## Emissions reduction actions

The key actions Lion took in 2023 to reduce emissions include:

- 100% Purchased renewable electricity in Australia.
- Continued focus on optimizing energy efficiency. Our Lion Energy and Water Champions network meets fortnightly to optimize energy efficiency at each brewery. The following projects which lead to carbon reduction across the network are:
  - o Boiler optimization.
  - o Cleaning in place (CIP) efficiency improvement.
  - o Pasteurizer optimization.
- On-site solar electricity generation now at five sites across our Australian network Castlemaine Brewery, Little Creatures Geelong, Healesville Distillery, Murwillumbah Brewery and Stone & Wood Tasting Room.
- For further details on Lion's emission reduction actions, please refer to our annual Sustainability report published on the Force for Good page on our corporate website: <https://lionco.com/force-for-good/>

## 5. EMISSIONS SUMMARY

### Emissions over time

Emissions since base year			
		Total tCO <sub>2</sub> -e (without uplift)	Total tCO <sub>2</sub> -e (with uplift)
Base year:	FY2018-19	92,901	92,901
Year 1:	CY2020	61,855	61,855
Year 2:	CY2021	60,301	60,301
Year 3:	CY2022	61,120	61,120
Year 4:	CY2023	33,813	33,813

### Significant changes in emissions

Significant changes in emissions			
Emission source	Previous year emissions (t CO <sub>2</sub> -e)	Current year emissions (t CO <sub>2</sub> -e)	Reason for change
Natural Gas NSW/ACT (metro) (GJ)	16,815.38	12,204.61	Tooheys co-gen was not operational from July - December 2023.
Natural Gas QLD (metro) (GJ)	6,831.76	5,941.33	At Castlemaine - Boiler optimisation work, Pasteuriser optimisation, and improvement in wastewater treatment, producing more biogas and using less natural gas in the boiler.
Purchased Electricity	24,357	0	100% Purchased renewable electricity achieved through surrendering LGCs via power purchasing agreements.

### Use of Climate Active carbon neutral products, services, buildings or precincts

Certified brand name	Product/Service/Building/Precinct used
N/A	

## Emissions summary

The electricity summary is available in the Appendix B. Electricity emissions were calculated using a market-based approach.

Emission category	Sum of Scope 1 (t CO2-e)	Sum of Scope 2 (t CO2-e)	Sum of Scope 3 (t CO2-e)	Sum of Total Emissions (t CO2-e)
Accommodation and facilities	0.00	0.00	163.37	163.37
Cleaning and chemicals	0.00	0.00	0.00	0.00
Climate Active carbon neutral products and services	0.00	0.00	0.00	0.00
Construction materials and services	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00
Food	0.00	0.00	0.00	0.00
Horticulture and agriculture	0.00	0.00	0.00	0.00
ICT services and equipment	0.00	0.00	0.00	0.00
Machinery and vehicles	0.00	0.00	0.00	0.00
Postage, courier and freight	0.00	0.00	0.00	0.00
Products	0.00	0.00	0.00	0.00
Professional services	0.00	0.00	0.00	0.00
Refrigerants	0.00	0.00	0.00	0.00
Roads and landscape	0.00	0.00	0.00	0.00
Stationary energy (gaseous fuels)	18811.29	0.00	3617.86	22429.15
Stationary energy (liquid fuels)	1509.62	0.00	502.47	2012.10
Stationary energy (solid fuels)	0.00	0.00	0.00	0.00
Transport (air)	0.00	0.00	2391.21	2391.21
Transport (land and sea)	2434.15	0.00	3787.90	6222.05
use for duplicates	0.00	0.00	0.00	0.00
Waste	0.00	0.00	1181.49	1181.49
Water	0.00	0.00	0.00	0.00
Working from home	0.00	0.00	-586.72	-586.72
<b>Total</b>	<b>22755.06</b>	<b>0.00</b>	<b>11057.57</b>	<b>33812.64</b>

## Uplift factors

N/A

## 6. CARBON OFFSETS

### Eligible offsets retirement summary

#### Offsets retired for Climate Active certification

Type of offset units	Eligible quantity (used for this reporting period)	Percentage of total
Australian Carbon Credit Units (ACCUs)	6,763	20%
Certified Emissions Reductions (CERs)	25,011	74%
Verified Carbon Units (VCUs)	2,039	6%

Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Stapled quantity	Eligible quantity retired (tCO <sub>2</sub> -e)	Eligible quantity used for previous reporting periods	Eligible quantity banked for future reporting periods	Eligible quantity used for this reporting period	Percentage of total (%)
Kulera Landscape REDD+ Program for Co-Managed Protected Areas, Malawi	VCU	VERRA	22/09/2021	<a href="https://registry.verra.org/transaction/8082-453581547-453583585-VCU-001-APX-MW-14-1168-01102009-30092013-1">8082-453581547-453583585-VCU-001-APX-MW-14-1168-01102009-30092013-1</a>	2013	-	2039	0	0	2039	6%
Wongalee Mervyndale & Rundalua Forest Regeneration Project	ACCU	ANREU	21/12/2021	3,803,451,182 – 3,803,455,581	2020-21	N/A	4,400	0	0	4400	13%
Wongalee Mervyndale & Rundalua Forest Regeneration Project	ACCU	ANREU	21/12/2021	3,803,449,082 -3,803,450,881	2020-21	N/A	1,800	0	0	1800	6%
South East Arnhem Land Fire Abatement Project (SEALFA) Project	ACCU	ANREU	21/12/2021	8,329,069,185 -8,329,069,984	2020-21	N/A	800	0	237	563	2%

Grid Connected Wind Energy Generation at Andhra Pradesh	CER	ANREU	21/12/2021	265,561,809 - 265,611,808	CP2	N/A	50,000	0	24,989	25011	74%
Mount Alfred Regeneration Project	ACCU	ANREU	3/05/2022	<a href="#">3,801,850,293 – 3,801,851,202</a>	2020-21	-	910	0	910	0	0%
Kenmore Regeneration Project	ACCU	ANREU	3/05/2022	<a href="#">8,327,335,396 – 8,327,336,796</a>	2020-21	-	1401	0	1401	0	0%
Kenmore Regeneration Project	ACCU	ANREU	3/05/2022	<a href="#">8,327,338,434 – 8,327,339,694</a>	2020-21	-	1261	0	1261	0	0%
Kenmore Regeneration Project	ACCU	ANREU	3/05/2022	<a href="#">8,327,337,217 – 8,327,338,433</a>	2020-21	-	1217	0	1217	0	0%
Kenmore Regeneration Project	ACCU	ANREU	3/05/2022	<a href="#">8,327,335,014 – 8,327,335,395</a>	2020-21	-	382	0	382	0	0%
Kenmore Regeneration Project	ACCU	ANREU	3/05/2022	<a href="#">8,327,343,924 – 8,327,344,320</a>	2020-21	-	397	0	397	0	0%
Turra Forest Regeneration Project	ACCU	ANREU	3/05/2022	<a href="#">3,809,702,314 – 3,809,707,313</a>	2020-21	-	5000	0	5000	0	0%
Turra Forest Regeneration Project	ACCU	ANREU	3/05/2022	<a href="#">3,809,686,349 – 3,809,690,490</a>	2020-21	-	4142	0	4142	0	0%
Turra Forest Regeneration Project	ACCU	ANREU	3/05/2022	<a href="#">8,324,987,212 – 8,324,988,069</a>	2020-21	-	858	0	858	0	0%
Colac Beltram Munberry Hardean (CBMH) Regeneration Project	ACCU	ANREU	3/05/2022	<a href="#">3,807,538,513 – 3,807,543,191</a>	2020-21	-	4,679	0	4,679	0	0%
South East Arnhem Land Fire Abatement Project (SEALFA) Project	ACCU	ANREU	3/05/2022	<a href="#">8,329,078,844 – 8,329,079,926</a>	2020-21	-	1,083	0	1,083	0	0%

South East Arnhem Land Fire Abatement Project (SEALFA) Project	ACCU	ANREU	3/05/2022	<a href="#">8,329,074.884 – 8,329,075.302</a>	2020-21	-	419	0	419	0	0%
South East Arnhem Land Fire Abatement Project (SEALFA) Project	ACCU	ANREU	3/05/2022	<a href="#">8,329,087,827 -8,329,088,332</a>	2020-21	-	506	0	506	0	0%
Enercon Wind Farms in Karnataka Bundled Project - 33MW	CER	ANREU	3/05/2022	<a href="#">238,823.646 - 238.843,645</a>	CP2	-	20,000	5,700	14,300	0	0%
Kulera Landscape REDD+ Program for Co-Managed Protected Areas, Malawi	VCU	VERRA	3/05/2022	<a href="#">8082-453583586-453585546-VCU-001-APX-MW-14-1168-01102009-30092013-1</a>	2013	-	1,961	-	1,961	0	0%
Kulera Landscape REDD+ Program for Co-Managed Protected Areas, Malawi	VCU	VERRA	3/05/2022	<a href="#">6804-345116794-345117281-VCU-001-APX-MW-14-1168-01102009-30092013-1</a>	2013	-	488	-	488	0	0%
<b>Total eligible offsets retired and used for this report</b>										<b>33,813</b>	
<b>Total eligible offsets retired this report and banked for use in future reports</b>									<b>64,230</b>		



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RETIRED UNITS

From Vintage	To Vintage	Serial Number	Quantity of Units	Unit Type	Project ID	Project Name	Project Type	Additional Issuance Certifications	Origination Program	Project Site State/Province	Project Country/Area	Account Holder	Retirement Reason	Beneficial Owner	Retirement Reason Details	Date of Retirement
01/10/2009	30/09/2013	8082-453581547-453583585-VCU-001-APX-MW-14-1168-01102009-30092013-1	2039	VCU	1168	Kulera Landscape REDD+ Program for Co-Managed Protected Areas, Malawi	Agriculture Forestry and Other Land Use	CCB-Gold			Malawi (MW)	Tasman Environmental Markets Pty Ltd	NCOS Programme	Lion Pty Ltd	Retired on behalf of Lion to meet its carbon neutral claim against the Climate Active Carbon Neutral Standard for 2021 and 2022.	22/09/2021

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# Australian National Registry of Emissions Units

Logged in as: Andrew Grant / Industry User

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Unit Position Summary

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### Transaction Details

Transaction details appear below.

Transaction Successfully Approved

Transaction ID	AU20781
Current Status	Completed (4)
Status Date	21/12/2021 16:14:36 (AEDT) 21/12/2021 05:14:36 (GMT)
Transaction Type	Cancellation (4)
Transaction Initiator	Grant, Andrew William Thorold
Transaction Approver	Grant, Andrew William Thorold
Comment	Retired on behalf of Lion to meet its various carbon neutral claims against the Climate Active Carbon Neutral Standards for 2022 – 2025. Credits are eligible for Lion’s CERT reporting requirements for the financial periods FY22 – FY24.

#### Transferring Account

Account Number	AU-2734
Account Name	Tasman Environmental Markets Pty Ltd
Account Holder	Tasman Environmental Markets Pty Ltd

#### Acquiring Account

Account Number	AU-1068
Account Name	Australia Voluntary Cancellation Account
Account Holder	Commonwealth of Australia

#### Transaction Blocks

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="#">ERF101634</a>					2020-21		3,803,451,182 - 3,803,455,581	4,400
AU	KACCU	Voluntary ACCU Cancellation			<a href="#">ERF101634</a>					2020-21		3,803,449,082 - 3,803,450,881	1,800
AU	KACCU	Voluntary ACCU Cancellation			<a href="#">ERF101624</a>					2020-21		8,329,069,185 - 8,329,069,984	800





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## Transaction Details

Transaction details appear below.

i Transaction Successfully Approved

**Transaction ID** AU20782  
**Current Status** Sending (91)  
**Status Date** 21/12/2021 16:22:42 (AEDT)  
 21/12/2021 05:22:42 (GMT)  
**Transaction Type** Cancellation (4)  
**Transaction Initiator** Grant, Andrew William Thorold  
**Transaction Approver** Grant, Andrew William Thorold  
**Comment**

Retired on behalf of Lion to meet its various carbon neutral claims against the Climate Active Carbon Neutral Standards for 2022 – 2025. Credits are eligible for Lion's CERT reporting requirements for the financial periods FY22 – FY24.

### Transferring Account

**Account Number** AU-2734  
**Account Name** Tasman Environmental Markets Pty Ltd  
**Account Holder** Tasman Environmental Markets Pty Ltd

### Acquiring Account

**Account Number** AU-2764  
**Account Name** Voluntary Cancellation – CP2  
**Account Holder** Commonwealth of Australia

### Transaction Blocks

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
IN	CER	Kyoto Voluntary Cancellation	2	2					IN-5921			265,561,809 - 265,611,808	50,000

## Co-benefits

### ***Project Type: Active bushfire management of Arnhem Land, Australia***

This project type utilizes active bushfire management methods by conducting controlled burns in wildfire-prone areas through the reduction of fuel on the ground and establishing natural firebreaks. The projects provide employment opportunities and supports Aboriginal people in returning to, remaining on and managing their country. Communities are supported through maintenance of Aboriginal culture and transfer of knowledge and the well being of traditional custodians.

### ***Project Type: Grid-connected electricity generation from renewable sources.***

This project type harnesses renewable resources in the project region, displacing non-renewable natural resources ultimately leading to sustainable economic and environmental development. The projects support national energy security and strengthen rural electrification coverage. The projects can often result in the construction of new roads, improving accessibility for locals as well as boosting in local employment by people engaged in the project as well as improvements for local economies and village services.

### ***Project Type: Human-Induced regeneration of native forests, Australia***

This project type stores carbon by regenerating native forests. Additional benefits from these projects can include improved quality of rural land and water supply, increased biodiversity and shade and shelter for farmed livestock.

# 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. Lion Pty Ltd has a parent-child relationship with the Four Pillars and XXXX Zero Product Climate Active Product certifications. The RECs listed below captures the shared RECs between Lion Pty Ltd and Four Pillars Gin and XXXX Zero product certifications for the overlapping boundaries as mentioned in the respective product certifications.

<b>1. Large-scale Generation certificates (LGCs)*</b>	42,245
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\* LGCs in this table only include those surrendered voluntarily (including through PPA arrangements and leased facility where Lion has no operational control), 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)
Agricultural waste	VIC, Australia	LGC	REC Registry	2 May 2024	BEBGVC09	447 - 484	2021	Agricultural waste	38
Landfill gas	NSW, Australia	LGC	REC Registry	2 May 2024	BEBGNS12	20999 - 22671	2021	Landfill gas	1673
Wind	VIC, Australia	LGC	REC Registry	2 May 2024	WD00VC11	1 - 3422	2023	Wind	3422
Solar	QLD, Australia	LGC	REC Registry	2 May 2024	SRPVQLV0	85946 - 86661	2023	Solar	716
Solar	QLD, Australia	LGC	REC Registry	2 May 2024	SRPVQLV0	83810 - 85945	2023	Solar	2136



Solar	QLD, Australia	LGC	REC Registry	2 May 2024	SRPVQLV0	64633 - 65753	2023	Solar	1121
Solar	QLD, Australia	LGC	REC Registry	2 May 2024	SRPVQLV0	64461 - 64632	2023	Solar	172
Solar	QLD, Australia	LGC	REC Registry	2 May 2024	SRPVQLV0	1743 - 2647	2023	Solar	905
Solar	QLD, Australia	LGC	REC Registry	2 May 2024	SRPVQLV0	1010 - 1742	2023	Solar	733
Solar	QLD, Australia	LGC	REC Registry	2 May 2024	SRPVQLV0	107176 - 110575	2023	Solar	3400
Solar	QLD, Australia	LGC	REC Registry	2 May 2024	SRPVQLV0	73514 - 77339	2023	Solar	3826
Solar	QLD, Australia	LGC	REC Registry	2 May 2024	SRPVQLV0	105706 - 107175	2023	Solar	1470
Solar	QLD, Australia	LGC	REC Registry	2 May 2024	SRPVQLV0	87033 - 88872	2023	Solar	1840
Solar	QLD, Australia	LGC	REC Registry	2 May 2024	SRPVQLV0	44176 - 47647	2023	Solar	3472
Solar	NSW, Australia	LGC	REC Registry	2 May 2024	SRPVNS88	94612 - 94770	2023	Solar	159
Solar	NSW, Australia	LGC	REC Registry	2 May 2024	SRPVNS90	58306 - 58542	2023	Solar	237
Solar	NSW, Australia	LGC	REC Registry	2 May 2024	SRPVNS90	58262 - 58305	2023	Solar	44

Solar	NSW, Australia	LGC	REC Registry	2 May 2024	SRPVNS88	3678 - 6881	2024	Solar	3204
Solar	NSW, Australia	LGC	REC Registry	2 May 2024	SRPVNS90	6504 - 10014	2024	Solar	3511
Solar	NSW, Australia	LGC	REC Registry	2 May 2024	SRPVNS90	1 - 6489	2024	Solar	6489
Solar	NSW, Australia	LGC	REC Registry	2 May 2024	SRPVNS88	1 - 3677	2024	Solar	3677
<b>Total LGCs surrendered this report and used in this report</b>									<b>42,245</b>

## APPENDIX A: ADDITIONAL INFORMATION

N/A

## APPENDIX B: ELECTRICITY SUMMARY

There are two international best-practice methods for calculating electricity emissions – the location-based method and the market-based method. Reporting electricity emissions under both methods is called dual reporting.

Dual reporting of electricity emissions is useful, as it provides different perspectives of the emissions associated with a business's electricity usage.

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.

For this certification, electricity emissions have been set by using the **market-based approach**.

2023 was the first year that Lion purchased 100% renewable electricity achieved via voluntary surrender of LGCs. Residual electricity was negative due to LGCs surrendered more than what is required to match 100% of the grid electricity to LGCs in the market-based calculator due to the following:

- LGCs were surrendered by Lion for a leased facility where Lion has no operational control
- LGCs were surrendered by Lion for the renewable power percentage requirements for grid usage where Lion did not transfer a mandatory Renewable Power Percentage to the retailer and did not have evidence confirming the LRET liability from retailers
- LGCs were surrendered for the total usage of grid electricity where Lion had to model the usage as Lion only had control over a third-party facility such as microbreweries and brewbars.

Lion Pty Ltd Organisation certification is the parent certification and has a Parent-Child relationship with the Four Pillars Gin and XXXX Zero product certification. As such, the Lion certification captures shared electricity usage between the Lion Pty Ltd and Four Pillars Gin and XXXX Zero for the overlapping reporting boundaries.

Market-based approach summary			
Market-based approach	Activity Data (kWh)	Emissions (kg CO <sub>2</sub> -e)	Renewable percentage of total
Behind the meter consumption of electricity generated	2,021,065	0	4%
<b>Total non-grid electricity</b>	<b>2,021,065</b>	<b>0</b>	<b>4%</b>
LGC Purchased and retired (kWh) (including PPAs)	42,245,000	0	80%
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)	9,647,378	0	18%
Residual Electricity	-1,009,581	-918,719	0%
<b>Total renewable electricity (grid + non grid)</b>	<b>53,913,443</b>	<b>0</b>	<b>102%</b>
<b>Total grid electricity</b>	<b>50,882,798</b>	<b>0</b>	<b>98%</b>
<b>Total electricity (grid + non grid)</b>	<b>52,903,863</b>	<b>0</b>	<b>102%</b>
Percentage of residual electricity consumption under operational control	100%		
<b>Residual electricity consumption under operational control</b>	<b>-1,009,581</b>	<b>-918,719</b>	
Scope 2	-898,638	-817,760	
Scope 3 (includes T&D emissions from consumption under operational control)	-110,943	-100,958	
<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>101.91%</b>
<b>Mandatory</b>	<b>18.24%</b>
<b>Voluntary</b>	<b>79.85%</b>
<b>Behind the meter</b>	<b>3.82%</b>
<b>Residual scope 2 emissions (t CO<sub>2</sub>-e)</b>	<b>-817.76</b>
<b>Residual scope 3 emissions (t CO<sub>2</sub>-e)</b>	<b>-100.96</b>
<b>Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO<sub>2</sub>-e)</b>	<b>0.00</b>
<b>Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO<sub>2</sub>-e)</b>	<b>0.00</b>
<b>Total emissions liability (t CO<sub>2</sub>-e)</b>	<b>0.00</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	
Percentage of grid electricity consumption under operational control	100%	(kWh)	Scope 2 Emissions (kgCO <sub>2</sub> -e)	Scope 3 Emissions (kgCO <sub>2</sub> -e)	(kWh)	Scope 3 Emissions (kgCO <sub>2</sub> -e)
ACT	0	0	0	0	0	0
NSW	22,168,421	22,168,421	15,074,526	1,108,421	0	0
SA	108,845	108,845	27,211	8,708	0	0
VIC	3,169,318	3,169,318	2,503,761	221,852	0	0
QLD	19,186,086	19,186,086	14,005,843	2,877,913	0	0
NT	13,953	13,953	7,534	977	0	0
WA	2,024,350	2,024,350	1,072,905	80,974	0	0
TAS	4,211,825	4,211,825	505,419	42,118	0	0
<b>Grid electricity (scope 2 and 3)</b>	<b>50,882,798</b>	<b>50,882,798</b>	<b>33,197,200</b>	<b>4,340,963</b>	<b>0</b>	<b>0</b>
ACT	0	0	0	0		
NSW	253,703	253,703	0	0		
SA	0	0	0	0		
VIC	692,563	692,563	0	0		
QLD	1,074,799	1,074,799	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>2,021,065</b>	<b>2,021,065</b>	<b>0</b>	<b>0</b>		
<b>Total electricity (grid + non grid)</b>	<b>52,903,863</b>					

Residual scope 2 emissions (t CO <sub>2</sub> -e)	33,197.20
Residual scope 3 emissions (t CO <sub>2</sub> -e)	4,340.96
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO <sub>2</sub> -e)	33,197.20
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO <sub>2</sub> -e)	4,340.96
<b>Total emissions liability (t CO<sub>2</sub>-e)</b>	<b>37,538.16</b>

## APPENDIX C: INSIDE EMISSIONS BOUNDARY

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

There are no non-quantified sources in the emission boundary that require a data management plan.

## APPENDIX D: OUTSIDE EMISSIONS BOUNDARY

### Excluded emission sources

The below emission sources have been assessed as not relevant to this organisation's operations and are outside of its emissions boundary. These emissions are not part of the carbon neutral claim. Emission sources considered for relevance must be included within the certification boundary if they meet two of the five relevance criteria. Those which only meet one condition of the relevance test can be excluded from the certification boundary.

Emissions tested for relevance are detailed below against each of the following criteria:

1. **Size** The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions.
2. **Influence** The responsible entity has the potential to influence the reduction of emissions from a particular source.
3. **Risk** The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.
4. **Stakeholders** Key stakeholders deem the emissions from a particular source are relevant.
5. **Outsourcing** The emissions are from outsourced activities previously undertaken within the organisation's boundary, or from outsourced activities typically undertaken within the boundary for comparable organisations.

## Excluded emissions sources summary

Emission sources tested for relevance	Size	Influence	Risk	Stakeholders	Outsourcing	Justification
IT Services	N	N	N	N	N	<p><b>Size:</b> The emissions source is likely to be immaterial, which is not large compared to the total organisation's emissions of 61,140tCO<sub>2</sub>-e.</p> <p><b>Influence:</b> We do not have the potential to influence the emissions from this source, including by shifting to a different lower-emissions supplier for our business.</p> <p><b>Risk:</b> There are no relevant laws or regulations that apply to limit emissions specifically from this source, the source does not create supply chain risks, and it is unlikely to be of significant public interest.</p> <p><b>Stakeholders:</b> Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.</p> <p><b>Outsourcing:</b> We have not previously undertaken this activity within our emissions boundary and comparable organisations do not typically undertake this activity within their boundary.</p>
Event catering	N	N	N	N	N	<p><b>Size:</b> The emissions source is likely to be immaterial, which is not large compared to the total organisation's emissions of 61,140tCO<sub>2</sub>-e .</p> <p><b>Influence:</b> We do not have the potential to influence the emissions from this source, including by shifting to a different lower-emissions supplier for our business.</p> <p><b>Risk:</b> There are no relevant laws or regulations that apply to limit emissions specifically from this source, the source does not create supply chain risks, and it is unlikely to be of significant public interest.</p> <p><b>Stakeholders:</b> Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.</p> <p><b>Outsourcing:</b> We have not previously undertaken this activity within our emissions boundary and comparable organisations do not typically undertake this activity within their boundary.</p>
Maintenance	N	N	N	N	N	<p><b>Size:</b> The emissions source is likely to be immaterial, which is not large compared to the total organisation's emissions of 61,140tCO<sub>2</sub>-e .</p> <p><b>Influence:</b> We do not have the potential to influence the emissions from this source, including by shifting to a different lower-emissions supplier for our business.</p> <p><b>Risk:</b> There are no relevant laws or regulations that apply to limit emissions specifically from this source, the source does not create supply chain risks, and it is unlikely to be of significant public interest.</p>

						<p><b>Stakeholders:</b> Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.</p> <p><b>Outsourcing:</b> We have not previously undertaken this activity within our emissions boundary and comparable organisations do not typically undertake this activity within their boundary.</p> <p><b>Size:</b> The emissions source is likely to be immaterial, which is not large compared to the total organisation's emissions of 61,140tCO<sub>2</sub>-e .</p> <p><b>Influence:</b> We do not have the potential to influence the emissions from this source, including by shifting to a different lower-emissions supplier for our business.</p> <p><b>Risk:</b> There are no relevant laws or regulations that apply to limit emissions specifically from this source, the source does not create supply chain risks, and it is unlikely to be of significant public interest.</p>
<b>Purchased services</b>	N	N	N	N	N	<p><b>Stakeholders:</b> Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.</p> <p><b>Outsourcing:</b> We have not previously undertaken this activity within our emissions boundary and comparable organisations do not typically undertake this activity within their boundary.</p> <p><b>Size:</b> The emissions source is likely to be immaterial, which is not large compared to the total organisation's emissions of 61,140tCO<sub>2</sub>-e .</p> <p><b>Influence:</b> We do not have the potential to influence the emissions from this source, including by shifting to a different lower-emissions supplier for our business.</p> <p><b>Risk:</b> There are no relevant laws or regulations that apply to limit emissions specifically from this source, the source does not create supply chain risks, and it is unlikely to be of significant public interest.</p>
<b>Cleaning</b>	N	N	N	N	N	<p><b>Stakeholders:</b> Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.</p> <p><b>Outsourcing:</b> We have not previously undertaken this activity within our emissions boundary and comparable organisations do not typically undertake this activity within their boundary.</p> <p><b>Size:</b> The emissions source is likely to be immaterial, which is not large compared to the total organisation's emissions of 61,140tCO<sub>2</sub>-e .</p> <p><b>Influence:</b> We do not have the potential to influence the emissions from this source, including by shifting to a different lower-emissions supplier for our business.</p> <p><b>Risk:</b> There are no relevant laws or regulations that apply to limit emissions specifically from this source, the source does not create supply chain risks, and it is unlikely to be of significant public interest.</p>
<b>Consumables</b>	N	N	N	N	N	<p><b>Stakeholders:</b> Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.</p> <p><b>Outsourcing:</b> We have not previously undertaken this activity within our emissions boundary and comparable organisations do not typically undertake this activity within their boundary.</p> <p><b>Size:</b> The emissions source is likely to be immaterial, which is not large compared to the total organisation's emissions of 61,140tCO<sub>2</sub>-e .</p> <p><b>Influence:</b> We do not have the potential to influence the emissions from this source, including by shifting to a different lower-emissions supplier for our business.</p> <p><b>Risk:</b> There are no relevant laws or regulations that apply to limit emissions specifically from this source, the source does not create supply chain risks, and it is unlikely to be of significant public interest.</p>

<p><b>Downstream emissions</b></p>	Y	N	N	N	N	<p><b>Size:</b> The emissions source is material, however not within the organisations direct control.</p> <p><b>Influence:</b> We do not have the potential to influence the emissions from this source, including by shifting to a different lower-emissions supplier for our business.</p> <p><b>Risk:</b> There are no relevant laws or regulations that apply to limit emissions specifically from this source, the source does not create supply chain risks, and it is unlikely to be of significant public interest.</p> <p><b>Stakeholders:</b> Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business as these would be captured in product certifications.</p> <p><b>Outsourcing:</b> We have not previously undertaken this activity within our emissions boundary. Downstream emissions are captured in product certifications.</p>
<p><b>Capital goods</b></p>	N	N	N	N	N	<p><b>Size:</b> The emissions source is likely to be immaterial, which is not large compared to the total organisation's emissions of 61,140tCO<sub>2</sub>-e .</p> <p><b>Influence:</b> We do not have the potential to influence the emissions from this source, including by shifting to a different lower-emissions supplier for our business.</p> <p><b>Risk:</b> There are no relevant laws or regulations that apply to limit emissions specifically from this source, the source does not create supply chain risks, and it is unlikely to be of significant public interest.</p> <p><b>Stakeholders:</b> Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.</p> <p><b>Outsourcing:</b> We have not previously undertaken this activity within our emissions boundary and comparable organisations do not typically undertake this activity within their boundary.</p>
<p><b>Raw materials</b></p>	Y	N	N	N	N	<p><b>Size:</b> The emissions source is material, however, the emissions from raw materials are not within the organisations direct control.</p> <p><b>Influence:</b> We do not have the potential to influence the emissions from this source, including by shifting to a different lower-emissions supplier for our business.</p> <p><b>Risk:</b> There are no relevant laws or regulations that apply to limit emissions specifically from this source, the source does not create supply chain risks, and it is unlikely to be of significant public interest.</p> <p><b>Stakeholders:</b> Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business as these would be captured in product certifications.</p> <p><b>Outsourcing:</b> We have not previously undertaken this activity within our emissions boundary. Upstream emissions are captured in product certifications.</p>
<p><b>Packaging materials</b></p>	Y	N	N	N	N	<p><b>Size:</b> The emissions source is material, however, the emissions from packaging materials are not within the organisations direct control.</p> <p><b>Influence:</b> We do not have the potential to influence the emissions from this source, including by shifting to a different lower-emissions supplier for our business.</p>

						<p><b>Risk:</b> There are no relevant laws or regulations that apply to limit emissions specifically from this source, the source does not create supply chain risks, and it is unlikely to be of significant public interest.</p> <p><b>Stakeholders:</b> Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business as these would be captured in product certifications.</p> <p><b>Outsourcing:</b> We have not previously undertaken this activity within our emissions boundary. Upstream emissions are captured in product certifications.</p>
						<p><b>Size:</b> The emissions source is likely to be immaterial, which is not large compared to the total organisation's emissions of 61,140tCO<sub>2</sub>-e .</p> <p><b>Influence:</b> We do not have the potential to influence the emissions from this source, including by shifting to a different lower-emissions supplier for our business.</p>
<b>Use of Products</b>	N	N	N	N	N	<p><b>Risk:</b> There are no relevant laws or regulations that apply to limit emissions specifically from this source, the source does not create supply chain risks, and it is unlikely to be of significant public interest.</p> <p><b>Stakeholders:</b> Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.</p> <p><b>Outsourcing:</b> Consuming our own products is generally not undertaken within our boundary and comparable organisations do not typically undertake this activity within their boundary.</p>
						<p><b>Size:</b> The emissions source is material, however, the emissions from distribution are not within the organisations direct control.</p> <p><b>Influence:</b> We do not have the potential to influence the emissions from this source, including by shifting to a different lower-emissions supplier for our business.</p>
<b>Product Distribution Upstream &amp; Downstream</b>	Y	N	N	N	N	<p><b>Risk:</b> There are no relevant laws or regulations that apply to limit emissions specifically from this source, the source does not create supply chain risks, and it is unlikely to be of significant public interest.</p> <p><b>Stakeholders:</b> Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business as these would be captured in product certifications.</p> <p><b>Outsourcing:</b> We have not previously undertaken this activity within our emissions boundary. Distribution emissions are captured in product certifications.</p>
						<p><b>Size:</b> The emissions source is likely to be material.</p> <p><b>Influence:</b> We do not have the potential to influence the emissions from this source, including by shifting to a different lower-emissions supplier for our business.</p>
<b>International Operations</b>	Y	N	N	N	N	<p><b>Risk:</b> There are no relevant laws or regulations that apply to limit emissions specifically from this source, the source does not create supply chain risks, and it is unlikely to be of significant public interest.</p>

**Wastewater treatment fugitive emissions**

Y N N N N

**Stakeholders:** Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business as those markets have their own carbon neutral certification scheme and this certification is limited to Lion’s Australian operations.

**Outsourcing:** We have not previously undertaken this activity within our emissions boundary and comparable organisations would not typically undertake this activity within their boundary.

The wastewater treatment train at Lion sites are a closed anaerobic followed by aerobic processes. The methane released through the anaerobic digestion step is captured and used as a natural gas substitute in the breweries. The aerobic process step has a methane correction factor of zero.

**Size:** The emissions estimated by the NGER calculator is material. The NGER method used determines a nominal total methane released in the system by multiplying the recorded captured methane mass by 1.25x, thereby creating a fugitive methane emission which is reported.

**Influence:** We do not have the potential to influence the emissions from this source in practice, other than using a different estimation method.

**Risk:** The wastewater treatment systems are subject to Environmental Protection Authority approvals and HAZOP controls designed to shut down the wastewater treatment plant if the instrumentation detects any fugitive methane emissions.

**Stakeholders:** Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business and comparable organisations do not typically undertake this activity within their boundary.

**Outsourcing:** There has been no change in the operational boundary.





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