

PUBLIC DISCLOSURE STATEMENT

LION PTY LTD

ORGANISATION CERTIFICATION
CY2022

Australian Government

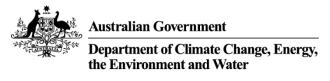
Climate Active Public Disclosure Statement







NAME OF CERTIFIED ENTITY	Lion Pty Ltd
REPORTING PERIOD	1 January 2022 – 31 December 2022 Arrears report
DECLARATION	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. Tamara Sling-Ronen
	Tamara Sling-Ronen Environment Director Date: 30/05/2023



Public Disclosure Statement documents are prepared by the submitting organisation. The material in the Public Disclosure Statement document represents the views of the organisation and do not necessarily reflect the views of the Commonwealth. The Commonwealth does not guarantee the accuracy of the contents of the Public Disclosure Statement document and disclaims liability for any loss arising from the use of the document for any purpose.

Version March 2023.



1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	61,120tCO ₂ -e
OFFSETS USED	21% ACCU, 25% VCU, 54% CER
RENEWABLE ELECTRICITY	48.23%
CARBON ACCOUNT	Prepared by: Lion Pty Ltd
TECHNICAL ASSESSMENT	21/07/2023 Ndevr Environmental Pty Ltd Next technical assessment due: CY2025



Contents

1.	Certification summary	3
	Carbon neutral information	
	Emissions boundary	
4.	Emissions reductions	9
5.	Emissions summary	.11
6.	Carbon offsets	.13
7. Re	enewable Energy Certificate (REC) Summary	.22
App	endix B: Electricity summary	.23
App	endix C: Inside emissions boundary	.26
Арр	endix D: Outside emissions boundary	.27



2. CARBON NEUTRAL INFORMATION

Description of certification

Lion Pty Ltd (Lion) (ABN 50 128 004 268) is Carbon Neutral certified under the Climate Active Carbon Neutral Standard for organisations for its Australian business operations.

Organisation description

Lion is one of Australasia's largest food and beverage companies, employing approximately 3,000 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-drinks 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 boundary for 2022:

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
Sydney Olympic Park	5a Murray Rose Avenue, Sydney Olympic Park
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
Garbutt	Civil Rd, Garbutt QLD 4814
Cairns	Plath Close. Portsmith, QLD 4870
Mackay	9 McCulloch St, North Mackay QLD 4740
Rockhampton - 2/122 Campbell Street	2/122 Campbell Street. Rockhampton, QLD 4700
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 Distillery	119 Maroondah Highway. 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



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**.

Note for CY2022 regarding emissions from Waste to Landfill. In prior years, Waste to Landfill emissions reflected waste collected from offices sites. In this report, and going forward, Waste to Landfill from our manufacturing sites has been included in our data and emissions boundary.

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.



Inside emissions boundary

Quantified

Petrol and gas used in Corporate Fleet

Natural Gas

Refrigerants

Stationary Fuels

Electricity

Staff commute to work

Business travel - flights

Business travel – vehicles

Waste- manufacturing sites and offices

Recycling

Electricity transmission and distribution

Base building

Business travel - accommodation

Non-quantified

Optionally included

Outside emission boundary

Excluded

IT Services

Event Catering

Maintenance

Purchased services

Cleaning

Consumables

Downstream emissions

Capital goods

Raw materials

Packaging materials

Use of products

Product distribution upstream & downstream

International operations

Wastewater treatment fugitive emissions



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 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.

Our commitment to a science-based target of a 30% reduction in Scope 3 emissions by 2030 (2019 baseline)

- Water usage intensity of 2.4 L/L 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 2022 to reduce emissions include:

- Continued focus on optimising energy efficiency. Our Lion Energy and Water Champions network meets monthly with the aim of optimising energy efficiency at each brewery.
- 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.
- As a member of Australia's Climate Leaders Coalition, Lion sponsored a project focusing on partnerships in supply chains to measure and manage scope 3 emissions. This case study involved collaborating some of Lion's key stakeholders, including Visy, Linfox, Boortmalt and Coles, with the final roadmap now published:
 https://www.climateleaders.org.au/documents/Scope 3 Roadmap PUBLISHED.pdf
- As a reporting entity under the National Greenhouse and Emissions Reduction (NGER) Scheme, Lion submits an annual Section 19 (s19) report which summaries all scope 1 and scope 2 emissions. Lion voluntarily seeks third party assurance of our emissions data for this report. In addition, Lion has continued to participate in the Corporate Emission Reductions Transparency (CERT) report for the CY2022. Now in its second year, the CERT report is an initiative from the Clean Energy Regulator (CER), for NGER reporting entities to disclose annual progress on emission reduction commitments.
- 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/forcefor-good/



5.EMISSIONS SUMMARY

Emissions over time

Emissions since base year									
		Total tCO ₂ -e (without uplift)	Total tCO ₂ -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						

Total emissions have increased in CY2022 from CY2021 as a full year of operations has been accounted for in the inventory for the seven Stone & Wood, Fixation and Two Birds facilities which were acquired in the final month of the CY2021 reporting period.

Significant changes in emissions

Emission source	Previous year emissions (kg CO ₂ -e)	Current year emissions (kg CO ₂ -e)	Reason for change
Electricity (market-based method, scope 2)	26,950,722	21,510,376	2021 inventory template accounted for Scope 2 and 3 GHG from electricity as a combined number. 2022 inventory template separates electricity GHG into in individual Scopes thus Scope 2 appears to be lower as it does not include the Scope 3. Comparing the combination of Scope 2 and 3 electricity emissions shows a reduction from the CY2021 report due to
			ongoing energy efficiency achievements across the larger breweries.

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	Scope 1 (tCO ₂ -e)	Scope 2 (tCO ₂ -e)	Scope 3 (tCO ₂ -e)	Total emissions (t CO ₂ -e)
Accommodation and facilities	0.00	0.00	117.59	117.59
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	21,510.38	2,846.96	24,357.34
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
Office equipment & supplies	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)	22,937.75	0.00	4,676.62	27,614.36
Stationary Energy (liquid fuels)	1,576.02	0.00	523.69	2,099.71
Stationary Energy (solid fuels)	0.00	0.00	0.00	0.00
Transport (Air)	0.00	0.00	1,519.37	1,519.37
Transport (Land and Sea)	2,352.24	0.00	2,673.35	5,025.69
Waste	0.00	0.00	1,005.71	1,005.71
Water	0.00	0.00	0.00	0.00
Working from home	0.00	0.00	-619.70	-619.70
Total emissions	26,866.01	21,510.38	12,743.69	61,120.08

Uplift factors

NA



6.CARBON OFFSETS

Offsets retirement approach

This certification has taken an in-arrears offsetting approach. The total emission to offset is 61,120tCO2-e. The total number of eligible offsets used in this report is 61,120. Of the total eligible offsets used, 61,120 were previously banked and 0 were newly purchased and retired. 99,403 are remaining and have been banked for future use.

Co-benefits

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.



Eligible offsets retirement summary

Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Stapled quantity	Eligible quantity (tCO ₂ -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 (%)
Bundled wind power project in Harshnath managed by Enercon (India) Limited	VCU	VERRA	22/09/2021	7769-426863171-426867674-VCU-034- APX-IN-1-381-01052017-31122017-0	2017	-	4,504	2,323	0	2,181	4%
Carella Forest Regeneration Project	ACCU	ANREU	22/09/2021	8,323,328,546 -8,323,333,545	2020-21	-	5000	349	0	4,651	8%
Werai Park Forest Regeneration	ACCU	ANREU	22/09/2021	3,810,566,815 -3,810,571,814	2020-21	-	5,000	0	0	5,000	8%
Mulga South Project	ACCU	ANREU	22/09/2021	3,809,621,998 -3,809,625,265	2020-21	-	3,268	0	0	3,268	5%
Central Arnhem Land Fire Abatement (CALFA) Project	ACCU	ANREU	22/09/2021	3,800,745,123 -3,800,746,482	2019-20	-	1,360	0	1,360	0	0%
Kulera Landscape REDD+ Program for Co-Managed Protected Areas, Malawi	VCU	VERRA	22/09/2021	8082-453581547-453583585-VCU-001- APX-MW-14-1168-01102009-30092013-1	2013	-	2,039	0	2,039	0	0%
Bundled wind power project in Harshnath managed by Enercon (India) Limited	VCU	VERRA	22/09/2021	5770-258634937-258637682-VCU-034- APX-IN-1-381-01012017-30042017-0	2017	-	2,746	0	1,617*	1,129	2%
Bundled wind energy generation projects in Gujarat, India	VCU	VERRA	22/09/2021	7762-426805879-426817843-VCU-034- APX-IN-1-412-01042017-31122017-0	2017	-	11,965	0	0	11,965	20%
Mount Alfred Regeneration Project	ACCU	ANREU	03/05/2022	3,801,850,293 – 3,801,851,202	2020-21	-	910	0	910	0	0%
Kenmore Regeneration Project	ACCU	ANREU	03/05/2022	8,327,335,396 – 8,327,336,796	2020-21	-	1,401	0	1,401	0	0%
Kenmore Regeneration Project	ACCU	ANREU	03/05/2022	8,327,338,434 – 8,327,339,694	2020-21	-	1,261	0	1,261	0	0%
Kenmore Regeneration Project	ACCU	ANREU	03/05/2022	8,327,337,217 - 8,327,338,433	2020-21	-	1,217	0	1,217	0	0%
Kenmore Regeneration Project	ACCU	ANREU	03/05/2022	8,327,335,014 – 8,327,335,395	2020-21	-	382	0	382	0	0%



			·		Total effe	oto rotiro-l	this report	and uppd in	this report	61,120	
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	50,000	0	0%
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	800	0	0%
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	1,800	0	0%
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	4,400	0	0%
Kulera Landscape REDD+ Program for Co-Managed Protected Areas, Malawi	VCU	VERRA	03/05/2022	8082-453583586-453585546-VCU-001- APX-MW-14-1168-01102009-30092013-1	2013	-	488	0	488	0	0%
Kulera Landscape REDD+ Program for Co-Managed Protected Areas, Malawi	VCU	VERRA	03/05/2022	6804-345116794-345117281-VCU-001- APX-MW-14-1168-01102009-30092013-1	2013	-	1,961	0	1,961	0	0%
Enercon Wind Farms in Karnataka Bundled Project - 33MW	CER	ANREU	03/05/2022	238,823,646 - 238,843,645	CP2	-	20,000	0	14,300	5,700	9%
Bundled Wind Power Project in Tamil Nadu, India, co-ordinated by Tamil Nadu Spinning Mills Association (TASMA-II)	CER	ANREU	03/05/2022	223,420,700 - 223,447,925	CP2	-	27,226	0	0	27,226	45%
South East Arnhem Land Fire Abatement Project (SEALFA) Project	ACCU	ANREU	03/05/2022	8,329,087,827 -8,329,088,332	2020-21	-	506	0	506	0	0%
South East Arnhem Land Fire Abatement Project (SEALFA) Project	ACCU	ANREU	03/05/2022	8,329,074,884 – 8,329,075,302	2020-21	-	419	0	419	0	0%
South East Arnhem Land Fire Abatement Project (SEALFA) Project	ACCU	ANREU	03/05/2022	8,329,078,844 - 8,329,079,926	2020-21	-	1,083	0	1,083	0	0%
Colac Beltram Munberry Hardean (CBMH) Regeneration Project	ACCU	ANREU	03/05/2022	3,807,538,513 – 3,807,543,191	2020-21	-	4,679	0	4,679	0	0%
Turra Forest Regeneration Project	ACCU	ANREU	03/05/2022	8,324,987,212 - 8,324,988,069	2020-21	-	858	0	858	0	0%
Turra Forest Regeneration Project	ACCU	ANREU	03/05/2022	3,809,686,349 – 3,809,690,490	2020-21	-	4,142	0	4,142	0	0%
Furra Forest Regeneration Project	ACCU	ANREU	03/05/2022	3,809,702,314 – 3,809,707,313	2020-21	-	5,000	0	5,000	0	0%
Kenmore Regeneration Project	ACCU	ANREU	03/05/2022	8,327,343,924 – 8,327,344,320	2020-21	-	397	0	397	0	0%

^{*}Used for Four Pillars Product certification



Total offsets retired this report and banked for future reports 99,403

Type of offset units	Eligible quantity (used for this reporting period)	Percentage of total
Australian Carbon Credit Units (ACCUs)	12,919	21%
Certified Emissions Reductions (CERs)	32,926	54%
Verified Carbon Units (VCUs)	15,275	25%



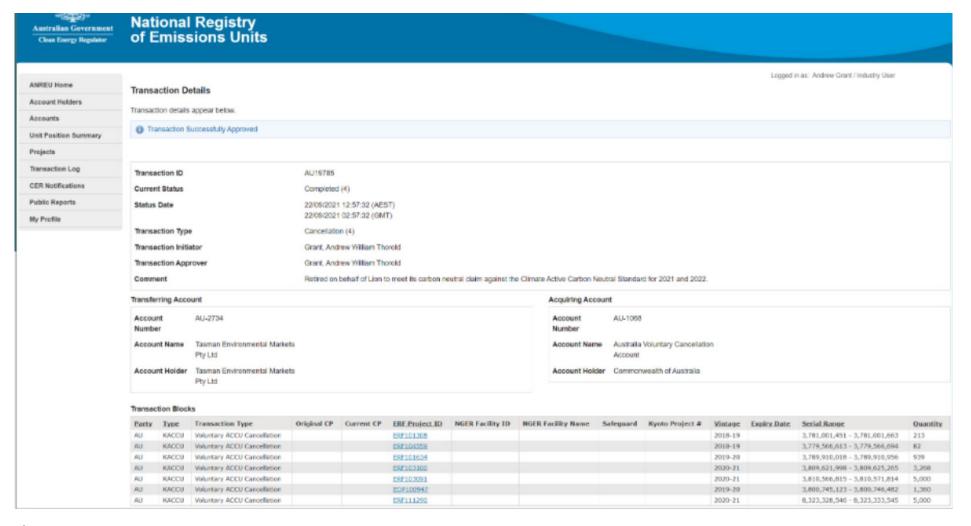


Figure 1



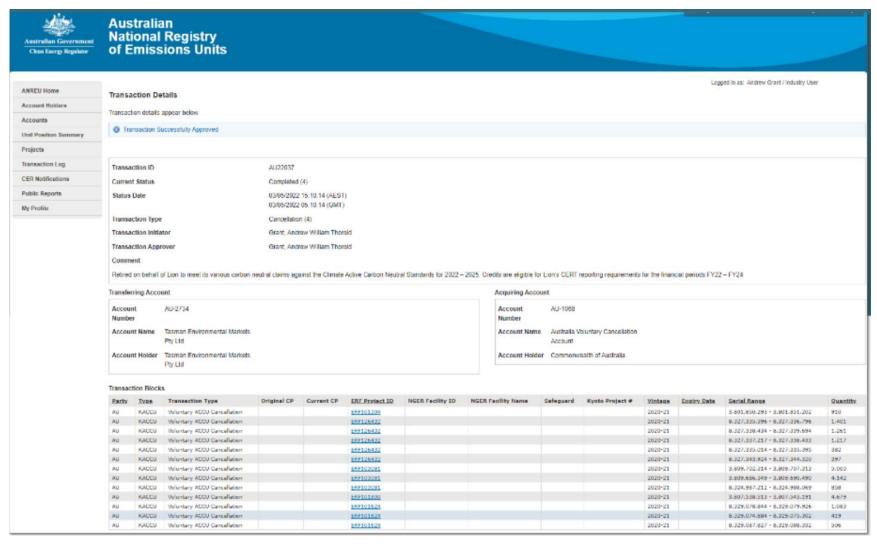
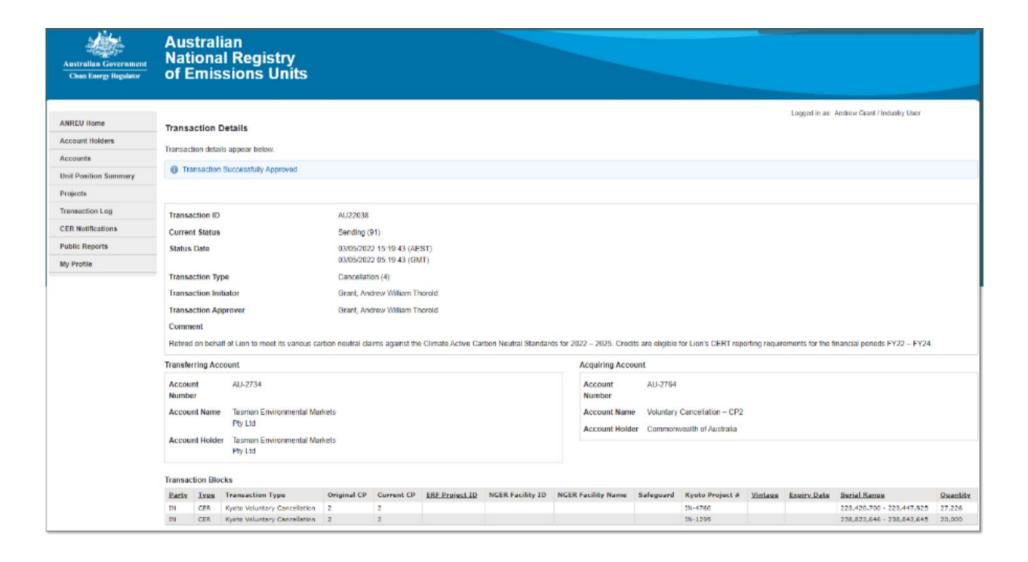
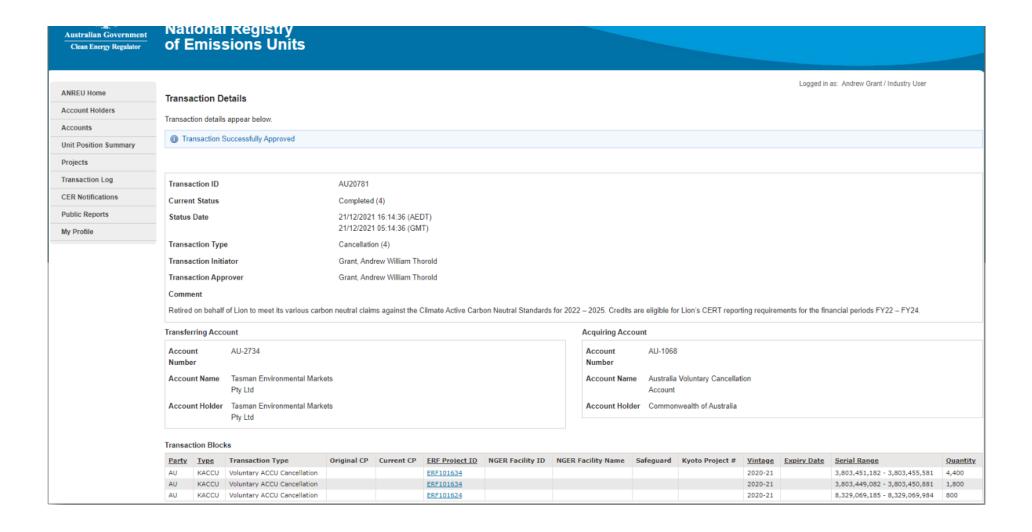


Figure 2













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
 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 AU-2734

Number

Account Name Tasman Environmental Markets

Pty Ltd

Account Holder Tasman Environmental Markets

Pty Ltd

Acquiring Account

Account AU-2764

Number

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 #	<u>Vintage</u>	Expiry Date	Serial Range	Quantity	
IN	CER	Kyoto Voluntary Cancellation	2	2					IN-5921			265,561,809 - 265,611,808	50,000	



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.

1. Large-scale Generation certificates (LGCs)*

13,027

^{*} 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
Total LGCs surrendered this report and used in this report									



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.



Market-based approach	Activity Data	Emissions	Renewable
	(kWh)	(kg CO ₂ -e)	percentage of total
Behind the meter consumption of electricity generated	1,906,159	0	4%
Total non-grid electricity	1,906,159	0	4%
LGC Purchased and retired (kWh) (including PPAs)	13,027,000	0	26%
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)	8,827,897	0	18%
Residual Electricity	25,505,066	24,357,338	0%
Total renewable electricity (grid + non grid)	23,761,056	0	48%
Total grid electricity	47,359,963	24,357,338	44%
Total electricity (grid + non grid)	49,266,122	24,357,338	48%
Percentage of residual electricity consumption under operational control	100%		
Residual electricity consumption under operational control	25,505,066	24,357,338	
Scope 2	22,523,954	21,510,376	
Scope 3 (includes T&D emissions from consumption under operational control)	2,981,112	2,846,962	
Residual electricity consumption not under operational control	0	0	
Scope 3	0	0	

Total renewables (grid and non-grid)	48.23%
Mandatory	17.92%
Voluntary	26.44%
Behind the meter	3.87%
Residual scope 2 emissions (t CO ₂ -e)	21,510.38
Residual scope 3 emissions (t CO ₂ -e)	2,846.96
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO ₂ -e)	21,510.38
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO ₂ -e)	2,846.96
Total emissions liability (t CO ₂ -e)	24,357.34
Figures may not sum due to rounding. Renewable percentage can be above 100%	



Location-based approach	summary								
Location-based approach	Activity Data (kWh) total	Unde	r operational co	ontrol		r operational ontrol			
Percentage of grid electricity consumption under operational control	100%	(kWh)	Scope 2 Emissions (kgCO ₂ -e)	Scope 3 Emissions (kgCO ₂ -e)	(kWh)	Scope 3 Emissions (kgCO ₂ -e)			
ACT	0	0	0	0	0	0			
NSW	17,733,943	17,733,943	12,945,778	1,064,037	0	0			
SA	205,159	205,159	51,290	16,413	0	0			
VIC	3,445,355	3,445,355	2,928,552	241,175	0	0			
QLD	19,403,130	19,403,130	14,164,285	2,910,470	0	0			
NT	15,751	15,751	8,506	1,103	0	0			
WA	2,128,973	2,128,973	1,085,776	85,159	0	0			
TAS	4,427,652	4,427,652	752,701	44,277	0	0			
Grid electricity (scope 2 and 3)	47,359,963	47,359,963	31,936,887	4,362,632	0	0			
ACT	0	0	0	0					
NSW	222,738	222,738	0	0					
SA	0	0	0	0					
VIC	721,670	721,670	0	0					
QLD	961,751	961,751	0	0					
NT	0	0	0	0					
WA	0	0	0	0					
TAS	0	0	0	0					
Non-grid electricity (behind the meter)	1,906,159	1,906,159	0	0					
Total electricity (grid + non grid)	49,266,122								
Residual scope 2 emissions (t C	O ₂ -e)		31,936	6.89	_				
Residual scope 3 emissions (t CO ² -e) 4,362.63									
Scope 2 emissions liability (adjusted for already offset carbon al,936.89 neutral electricity) (t CO ₂ -e)									
Scope 3 emissions liability (adjusted for already offset carbon 4,362.63 neutral electricity) (t CO ₂ -e)									



36,299.52

Total emissions liability

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:

- <u>Size</u> The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions.
- 2. <u>Influence</u> The responsible entity has the potential to influence the reduction of emissions from a particular source.
- 3. <u>Risk</u> 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.
- 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.



Emission sources tested for relevance	Size	Influence	Risk	Stakeholders	Outsourcing	Justification
						Size: The emissions source is likely to be immaterial, which is not large compared to the total organisation's emissions of 61,140tCO ₂ -e.
						Influence: 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.
IT Services	N	N	N	N	N	Risk: 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.
						Stakeholders: Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.
						Outsourcing: We have not previously undertaken this activity within our emissions boundary and comparable organisations do not typically undertake this activity within their boundary.
						Size: The emissions source is likely to be immaterial, which is not large compared to the total organisation's emissions of 61,140tCO ₂ -e .
						Influence: 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.
Event catering	N	N	N	N	N	Risk: 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.
						Stakeholders: Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.
						Outsourcing: We have not previously undertaken this activity within our emissions boundary and comparable organisations do not typically undertake this activity within their boundary.
						Size: The emissions source is likely to be immaterial, which is not large compared to the total organisation's emissions of 61,140tCO ₂ -e.
Maintanana	N	N	N	NI		Influence: 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.
Maintenance	N	N	N	N	N	Risk: 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.
						Stakeholders: Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.



						Outsourcing: We have not previously undertaken this activity within our emissions boundary and comparable organisations do not typically
						undertake this activity within their boundary.
						$\textbf{Size:} \ \ The emissions source is likely to be immaterial, which is not large compared to the total organisation's emissions of 61,140tCO_2-e\ .$
						Influence: 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.
Purchased services	N	N	N	N	N	Risk: 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.
						Stakeholders: Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.
						Outsourcing: We have not previously undertaken this activity within our emissions boundary and comparable organisations do not typically undertake this activity within their boundary.
						Size: The emissions source is likely to be immaterial, which is not large compared to the total organisation's emissions of 61,140tCO ₂ -e .
						Influence: 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.
Cleaning	N	N	N	N	N	Risk: 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.
						Stakeholders: Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.
						Outsourcing: We have not previously undertaken this activity within our emissions boundary and comparable organisations do not typically undertake this activity within their boundary.
						Size: The emissions source is likely to be immaterial, which is not large compared to the total organisation's emissions of 61,140tCO ₂ -e .
						Influence: 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.
Consumables	N	N	N	N	N	Risk: 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.
						Stakeholders: Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.
						Outsourcing: We have not previously undertaken this activity within our emissions boundary and comparable organisations do not typically undertake this activity within their boundary.
						Size: The emissions source is material, however not within the organisations direct control.
Downstream emissions	Y	N	N	N	N	Influence: 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.



						Risk: 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.
						Stakeholders: 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.
						Outsourcing: We have not previously undertaken this activity within our emissions boundary. Downstream emissions are captured in product certifications.
						Size: The emissions source is likely to be immaterial, which is not large compared to the total organisation's emissions of 61,140tCO ₂ -e.
						Influence: 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.
Capital goods	N	N	N	N	N	Risk: 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.
						Stakeholders: Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.
						Outsourcing: We have not previously undertaken this activity within our emissions boundary and comparable organisations do not typically undertake this activity within their boundary.
						Size: The emissions source is material, however, the emissions from raw materials are not within the organisations direct control.
						Influence: 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.
Raw materials	Y	N	N	N	N	Risk: 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.
						Stakeholders: 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.
						Outsourcing: We have not previously undertaken this activity within our emissions boundary. Upstream emissions are captured in product certifications.
						Size: The emissions source is material, however, the emissions from packaging materials are not within the organisations direct control.
					N	Influence: 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.
Packaging materials	Y	N	N	N		Risk: 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.
						Stakeholders: 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.



						Outsourcing: We have not previously undertaken this activity within our emissions boundary. Upstream emissions are captured in product certifications.
						$\textbf{Size:} \ \ \text{The emissions source is likely to be immaterial, which is not large compared to the total organisation's emissions of 61,140tCO$_2-e \ .}$
						Influence: 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.
Use of Products	N	N	N	N	N	Risk: 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.
						Stakeholders: Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.
						Outsourcing: Consuming our own products is generally not undertaken within our boundary and comparable organisations do not typically undertake this activity within their boundary.
						Size: The emissions source is material, however, the emissions from distribution are not within the organisations direct control.
			N		N N	Influence: 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.
Product Distribution Upstream & Downstream	Y	N		N		Risk: 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.
opstream & Downstream						Stakeholders: 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.
						Outsourcing: We have not previously undertaken this activity within our emissions boundary. Distribution emissions are captured in product certifications.
						Size: The emissions source is likely to be material.
					N	Influence: 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.
International Operations	Y	N	N	N		Risk: 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.
						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

Y N N N 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.



Wastewater treatment

fugitive emissions



