PUBLIC DISCLOSURE STATEMENT

WIDE OPEN AGRICULTURE LTD

PRODUCT CERTIFICATION

FY2021–22

Australian Government

Climate Active
Public Disclosure Statement

Wide Open Agriculture

An Australian Government Initiative

Climate Active

NAME OF CERTIFIED ENTITY	Wide Open Agriculture Ltd
REPORTING PERIOD	Financial year 1 July 2021 – 30 June 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.* 
	Craig Pensini Impact Coordinator – Wide Open Agriculture 16th November 2022

Australian Government
Department of Industry, Science, Energy and Resources

Version March 2022. To be used for FY20/21/CY2021 reporting onwards.

1. CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	188 tCO2-e
THE OFFSETS BOUGHT	100% ACCUs
RENEWABLE ELECTRICITY	Total renewables: 18.59%
TECHNICAL ASSESSMENT	Next technical assessment due: FY23

Contents

2. CARBON NEUTRAL INFORMATION

Description of certification

This certification encompasses the business operations of Wide Open Agriculture Ltd (ASX:WOA, ABN 86 604 913 822), including two wholly owned and operated subsidiaries, Wide Open Land Pty Ltd ABN 52 623 776 161 and Dirty Clean Food Pty Ltd ABN 46 617 068 961.

Wide Open Agriculture Ltd (WOA) is Australia's leading ASX-listed regenerative food and agriculture company, based in Western Australia. WOA launched a new oat milk product under its innovative Dirty Clean Food brand in FY21. This barista grade oat milk beverage uses oats grown and rolled in Western Australia, that are then processed at a world class plant-based beverage manufacturing facility in Italy. Alongside its barista grade oat milk, WOA also produces chocolate and coffee flavoured oat milk, which are included in this certification. The product is sold as a long-life plant-based milk beverage to the Australian and export markets, in response to ever growing consumer demand for high quality, ethical and delicious plant based dairy alternatives.

WOA intends to certify its oat milk product as carbon neutral under the Australian Government's Climate Active certification scheme.

"Wide Open Agriculture began when we discovered that the current food system accounts for 25% of carbon emissions is one of the leading causes of climate change. We thought we (as a world) could do better than that. So, we teamed up with partners such as Climate Active to help us produce nutritious food at accessible prices as well as nurture the planet back to health."

Product description

The provision of oat milk to the local and export market. With this in mind, the functional unit for this account is:

"The production and supply of 1 L of oat milk drink to the Australian and export market, for the financial year 2022."

The product under this certification is fully covered. The model uses a cradle-to-gate approach, whereby emissions associated with the distribution and consumption of WOA's oat milk product are excluded. Note that a separate certification has been completed for the organisation's footprint, which includes all warehousing and delivery related emissions. Oat milk can be used in a multitude of ways, with varying levels of energy requirements and waste production. It can also be used to form part of other products (e.g. when used by baristas). As such, modelling the use phase was deemed to be inappropriate.

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

- Oat growing and harvest
- Oat rolling
- Oat milk production
- Primary and secondary packaging
- Packaging disposal
- Postage, courier, and freight
- Coffee and chocolate flavouring production

Non-quantified

N/A

Optionally included

N/A

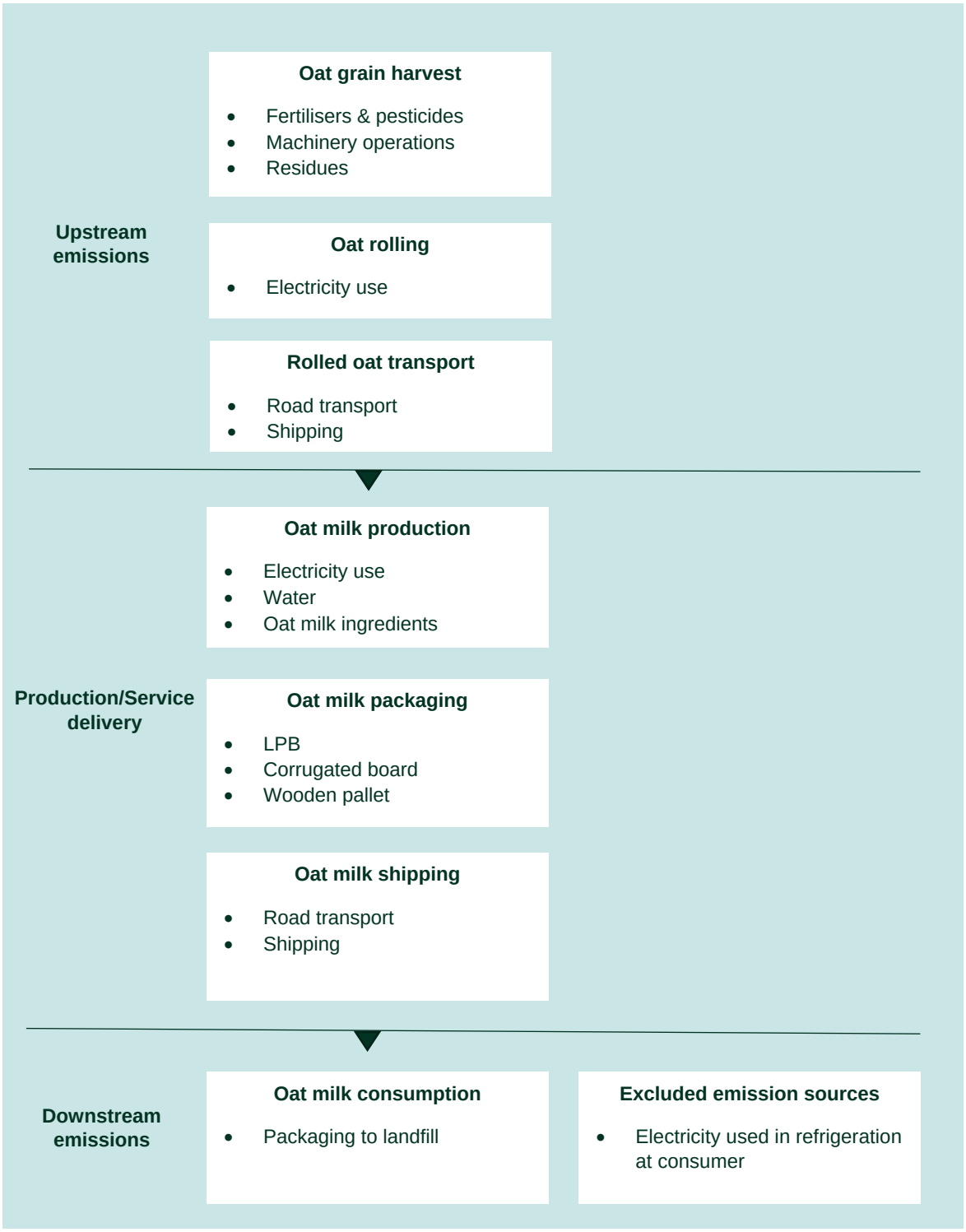
Outside emission boundary

Non-attributable

- Animal feed from oat husks
- Animal feed from oat milk waste
- Refrigeration during use
- Milk disposal at consumer

Product process diagram

Cradle-to-gate



Data management plan for non-quantified sources

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

4. EMISSIONS REDUCTIONS

Emissions reduction strategy

The overall emissions per 1 litre of oat milk drink was calculated to be 0.62 Kg CO_2 equivalent. The table below shows the proportion of emissions attributed to various stages of the Oat milk Life Cycle Analysis.

Emission Source	Emissions per litre of oat milk supplied to market *(kg CO_2 e / Litre)*	% of emissions
Transport	0.36	57%
Packaging	0.10	16%
Oat Milk manufacturing	0.10	15%
Oat grain production(farming)	0.06	10%
Oat rolling	0.01	2%

Transport:

This encompasses emissions associated with all combined road and sea transportation steps from the farm gate to eventual delivery at WOA's Perth based warehousing facility. Noting that the emissions associated with the transport from WOA's Perth warehouse to its customers (delivery) is accounted for separately in WOA's Climate Active Carbon Neutral Organisation Certification. To ensure the manufacturing meets the quality requirements for the barista grade oat milk beverage, manufacturing is currently undertaken in a specialist facility in Italy. The emission impact associated with sea freight to and from Italy accounts for 94% of the total transport emissions. Reducing sea freight per litre of oat milk drink represents the most material opportunity for emission reductions.

Manufacturing and packaging:

The manufacturing process undertaken by the 3rd party plant-based beverage facility requires very few ingredients and consumables, most emissions associated with this step are related to electricity usage to run the required equipment. Packaging is sourced from Tetrapak who are world leaders in the provision of sustainable packaging. While currently outside of WOA's direct operational control, efficiencies in energy usage or transition to usage of renewable energy in the manufacturing process is the primary opportunity to reduce this component of emissions. The Italian manufacturer intends to install more energy efficient equipment in the short term.

Oat grain production:

Oat grain production represents the third major opportunity for emission reductions. Wide Open Agriculture works in close partnership with carefully selected farmers who have a demonstrated commitment to the implementation of farming practices that enhance soil health, biodiversity and water cycles on farm (known as regenerative agriculture practices). These practices have the potential to reduce the carbon emission footprint of the grain.

The Life Cycle Analysis showed that in the 2019 southern hemisphere growing season WOA's farming partner produced grain with 40% less emissions per kg, when compared to the AusLCI benchmark. The most significant driver for emission reduction at the farm level is ensuring the highest possible yield to

fertiliser usage ratio. Fertiliser manufacturing and usage (in particular nitrogen-based fertiliser) accounts for 59% of the emission footprint of the AusLCI benchmarks.

The Company intends to reduce scope 1, 2 and 3 oat milk product emissions by 15% by 2030 compared to a reference point of FY2020/21. The Company also commits to reduce total emissions of its business operations by 15% by 2029, from a reference point of FY2021/22.

- Commence construction in late 2023 / early 2024 of a Western Australian based oat milk manufacturing plant. This will assist the company in achieving a 30% reduction in Transport emissions associated with sea freight to and from Italy by 2026.
- Using the GHG emission baselines for WOA oat farmers the company will support an emission reduction plan to encourage emission reductions in farming operations of 5% by 2025.
- Our oat suppliers are currently using biological fertilisers – a “full” Life Cycle Analysis, including total farm business GHG emissions profile, will be undertaken in 2023 to better understand this and other farm operations emissions (ie from fuel). The aim would be to enable farm operation emission reductions of up to 8% by 2029.

Other areas for future emission reduction going forward would be Fuel consumption 13.5% and Fertiliser 18% respectively.

Emissions reduction actions

- The Carbon Neutral Grain Pilot Project, a collaboration between the WA Department of Primary Industries and Regional Development (DPIRD), Co-operative Bulk Handling Group (CBH Group) and Wide Open Agriculture (WOA) commenced in late 2021 finalising in August 2022.
- Tracking of farm emissions (scope 1, 2 & 3) was conducted across 36 WA grain producing farms including WOA oats farmers.
- The pilot project also assessed and compared three leading online on farm GHG emissions calculators, to determine the best calculator for WA grain producers.
- The initial pilot project has enabled WOA oat farmer to baseline their Green House Gas GHG emissions.
- The results of the carbon neutral grain pilot analysis concluded our oats emission factors, range between 0.175 tonne CO2e / tonne and 0.238 tonne CO2e / tonne. This is a good result as it provides us with confidence our oats producers are at or below industry emission benchmarks.

.

5.EMISSIONS SUMMARY

Emissions over time

Emissions since base year			
		Total tCO_2-e	Emissions intensity of the functional unit
Base year:	2020–21	40	0.0006454
Year 1:	2021–22	188	0.0006240

Significant changes in emissions

Emission source name	Current year (activity data)	Previous year (activity data)	Detailed reason for change
Oat grain production, Wide Open Agriculture supplier	79,233	16,365	Sales of oat milk multiplied by 4.9 between FY21 and FY22.
Oat milk processing (excluding rolled oat input)	218,998	61,888	Sales of oat milk multiplied by 4.9 between FY21 and FY22.
Primary packaging: Tetra Brik Aseptic 1000 Edge	301,215	61,888	Sales of oat milk multiplied by 4.9 between FY21 and FY22.
Cargo Ship : Container ship	5,108,203	1,049,538	Sales of oat milk multiplied by 4.9 between FY21 and FY22.

Use of Climate Active carbon neutral products and services

No Carbon Neutral products were used.

Product emissions summary

Stage	tCO2-e
Bespoke - Oat growing and harvest	18.255
Bespoke - Oat rolling	3.120
Bespoke - Packaging: Primary	13.555
Bespoke - Packaging: Secondary	4.702
Bespoke - Packaging: Tertiary	2.962
Postage, courier, and freight: road freight	7.018
Postage, courier, and freight: sea freight	100.974
Oat milk production	28.970
Packaging disposal	8.401

Emissions intensity per functional unit	0.0006240
Number of functional units to be offset	301,215
Total emissions to be offset	188

6. CARBON OFFSETS

Offsets retirement approach

In arrears		
1.	Total number of eligible offsets banked from last year's report	0
2.	Total emissions footprint to offset for this report	1101 (organization) + 188 (product)
3.	Total eligible offsets required for this report	1101 (organization) + 188 (product)
4.	Total eligible offsets purchased and retired for this report	1322
5.	Total eligible offsets banked to use toward next year's report	33

Co-benefits

Both the Big Creek Regeneration and Duff Carbon Farming projects establish permanent native forests through assisted regeneration from in-situ seed sources (including rootstock and lignotubers), on land that was cleared of vegetation and where regrowth was suppressed for at least 10 years prior to the projects having commenced.

Eligible offsets retirement summary

The details of the offsets are in the parent Organisation PDS (https://www.climateactive.org.au/buy-climate-active/certified-members/wide-open-agriculture)

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**	**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 (%)**
											Total offsets retired this report and used in this report
									Total offsets retired this report and banked for future reports		

Type of offset units	Quantity (used for this reporting period claim)	Percentage of total
Australian Carbon Credit Units (ACCUs)		

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) Summary

No Renewable Energy Certificate (REC) were purchased during the reporting period.

1. Large-scale Generation certificates (LGCs)*	N/A
2. Other RECs	N/A

* 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	Eligible units	Registry	Surrender date	Accreditation code (LGCs)	Certificate serial number	Generation year	Quantity (MWh)	Fuel source	Location
N/A									
N/A									
						Total LGCs surrendered this report and used in this report			

APPENDIX A: ADDITIONAL INFORMATION

N/A

APPENDIX B: ELECTRICITY SUMMARY

Electricity emissions are calculated using a location-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 (kgCO2e)	Renewable Percentage of total
Behind the meter consumption of electricity generated	0	0	0
Total non-grid electricity	**0**	**0**	**0**
LGC Purchased and retired (kWh) (including PPAs & Precinct LGCs)	0	0	0
GreenPower	0	0	0
Jurisdictional renewables (LGCs retired)	0	0	0
Jurisdictional renewables (LRET) (applied to ACT grid electricity)	0	0	0
Large Scale Renewable Energy Target (applied to grid electricity only)	853	0	19%
Residual Electricity	3,735	3,716	0%
Total grid electricity	**4,588**	**3,716**	**19%**
Total Electricity Consumed (grid + non grid)	**4,588**	**3,716**	**19%**
Electricity renewables	853	0	
Residual Electricity	3,735	3,716	
Exported on-site generated electricity	**0**	**0**	
Emissions (kgCO2e)		3,716	

Total renewables (grid and non-grid)	**18.59%**
Mandatory	**18.59%**
Voluntary	**0.00%**
Behind the meter	**0.00%**

Residual Electricity Emission Footprint (TCO2e)	4

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

Location Based Approach Summary

Location Based Approach	Activity Data (kWh)	Scope 2 Emissions (kgCO2e)	Scope 3 Emissions (kgCO2e)
ACT	0	0	0
NSW	0	0	0
SA	0	0	0
Vic	0	0	0
Qld	0	0	0
NT	0	0	0
WA	4,588	3,074	46
Tas	0	0	0
Grid electricity (scope 2 and 3)	**4,588**	**3,074**	**46**
ACT	0	0	0
NSW	0	0	0
SA	0	0	0
Vic	0	0	0
Qld	0	0	0
NT	0	0	0
WA	0	0	0
Tas	0	0	0
Non-grid electricity (Behind the meter)	**0**	**0**	**0**
Total Electricity Consumed	**4,588**	**3,074**	**46**

Emission Footprint (TCO2e)	3
Scope 2 Emissions (TCO2e)	3
Scope 3 Emissions (TCO2e)	0

Climate Active Carbon Neutral Electricity summary

Carbon Neutral electricity offset by Climate Active Product	Activity Data (kWh)	Emissions (kgCO2e)
N/A	**0**	**0**

Climate Active carbon neutral electricity is not renewable electricity. The emissions have been offset by another Climate Active member through their Product certification.

APPENDIX C: INSIDE EMISSIONS BOUNDARY

Non-quantified emission sources

N/A

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.

Relevance test					
Non-attributable emission	*The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions*	*The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.*	*Key stakeholders deem the emissions from a particular source are relevant.*	*The responsible entity has the potential to influence the reduction of emissions from a particular source.*	*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.*
Animal feed from oat husks	No	No	No	No	No
Animal feed from oat milk waste	No	No	No	No	No
Refrigeration during use	No	No	No	No	No
Milk disposal at consumer	No	No	No	No	No

An Australian Government Initiative

Climate Active