



PUBLIC DISCLOSURE STATEMENT

BIOPAK PTY LTD (TRADING AS BIOPAK)

ORGANISATION CERTIFICATION


CY2022

Australian Government
Climate Active
Public Disclosure Statement



An Australian Government Initiative



NAME OF CERTIFIED ENTITY	BioPak Pty Ltd (trading as BioPak)
REPORTING PERIOD	Calendar year 1 January 2022 – 31 December 2022
DECLARATION	<p><i>To the best of my knowledge, the information provided in this public disclosure statement is true and correct and meets the requirements of the Climate Active Carbon Neutral Standard.</i></p> <p style="text-align: center;"><i>Signature here</i> </p> <p>Name of signatory Lea Maguero Position of signatory Head of Sustainability Date 16/11/2023</p>



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

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Version March 2023.



1. CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	118,037 tCO ₂ -e
OFFSETS USED	91.2% VCUs, 8.8% CERs
RENEWABLE ELECTRICITY	N/A
CARBON ACCOUNT	Prepared by: Pangolin Associates
TECHNICAL ASSESSMENT	Date: CY2021 James Endean Pangolin Associates Next technical assessment due: CY2024

Contents

1. Certification summary	3
2. Carbon neutral information	4
3. Emissions boundary	5
4. Emissions reductions	7
5. Emissions summary	8
6. Carbon offsets	10
7. Renewable Energy Certificate (REC) Summary	12
Appendix A: Additional Information	13
Appendix B: Electricity summary	14
Appendix C: Inside emissions boundary	18
Appendix D: Outside emissions boundary	19

2. CARBON NEUTRAL INFORMATION

Description of certification

This inventory has been prepared for the calendar year from 1 January 2022 to 31 December 2022 and covers the Australian business operations of BioPak Pty Ltd, ABN (48 119 998 711) trading as BioPak for the purpose of carbon neutral large organisation certification. All products sold by BioPak in Australia, New Zealand, Singapore and the UK are included in this certification boundary and are certified as carbon neutral products under a separate Climate Active product certification.

The operational boundary has been defined based on an operational control test, in accordance with the principles of the National Greenhouse and Energy Reporting Act 2007. This includes the following locations and facilities:

- Suite 202/59-75 Grafton Street, Bondi Junction 2022 NSW
- 420 Rathdowne Street, Carlton North 3054 VIC
- Suite 2.12, Axis Building, 1 Cleveland Rd, Parnell, 1052 New Zealand
- #03-72, 10 Ubi Crescent, Lift Lobby D, 408564 Singapore
- Remote workers in The Philippines, China, Canada, and France

The methods used for collating data, performing calculations and presenting the carbon account are in accordance with the following standards:

- Climate Active Standards
- The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
- National Greenhouse and Energy Reporting (Measurement) Determination 2008

Where possible, the calculation methodologies and emission factors used in this inventory are derived from the National Greenhouse Accounts (NGA) Factors in accordance with "Method 1" from the National Greenhouse and Energy Reporting (Measurement) Determination 2008.

The greenhouse gases considered within the inventory are those that are commonly reported under the Kyoto Protocol; carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O) and synthetic gases - hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃). These have been expressed as carbon dioxide equivalents (CO₂-e) using relative global warming potentials (GWPs).

Organisation description

BioPak is a supplier of a range of foodservice disposable items such as coffee cups, takeaway containers, plates and produce trays. BioPak is focused on replacing fossil fuel-based plastics used in food services wares by offering compostable alternatives made from rapidly renewable sustainably sourced materials.

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.

Inside emissions boundary

Quantified

Advertising services
Controlled Diesel
Flights & Hotels
Business travel
Parking services
Repair and maintenance
Electricity
Employee Commute
Working From Home
Employment placement
Food and beverage services
Telecommunications
Computer and technical services
Software & Data services
Paper
Printing and stationery
Cleaning
Periodicals
Postage & Courier
Road freight
logistics
Warehousing
General products and merchandise
Paper and cardboard packaging
Fabricated metal products
Photography services
Banking & Insurance
Legal services
Accounting services
Consulting services
Education
Interest groups and community organisations
Recycling & Landfill
Water
Product emissions

Non-quantified

Refrigerants

Optionally included

N/A

Outside emission boundary

Excluded

N/A

4. EMISSIONS REDUCTIONS

Emissions reduction strategy

Biopak is planning to reduce its organisation's emissions by 20% in the next five years against the Calendar Year 2020 baseline.

To achieve this, we will:

- Replace our PLA cutlery with wood cutlery in AU and NZ. As wooden cutlery can act as a carbon sink, the estimated impact of this replacement corresponds to a 2% reduction of our total product footprint. This replacement has already been initiated and will be accelerated by the implementation of Single Use Plastic Bans across Australia and New Zealand
- Replace our PS and CPLA lids with sugarcane pulp lids. Sugarcane pulp is less emissions intensive as it is made from reclaimed material.
- Use more recycled materials, like recycled paperboard.
- Manufacture locally (we have already started sourcing some of our cardboard containers from a local supplier and are investigation bagasse production in Queensland)
- Work with our manufacturing partners to implement renewable energy use wherever possible.
- Increase the amount of compostable packaging and food waste we enable via our Product Stewardship Scheme [Compost Connect](#). We estimate that to cover the equivalent of 20% of our product footprint, we would need to get about 5,250 cafes or small restaurants to compost their food waste and packaging

Progress will be tracked during our annual carbon footprint assessment and will be shared publicly via our annual Sustainability Report, available on our website.

Emissions reduction actions

We have made positive changes across our offices and operations. Our Auckland office now procure renewable energy, and all offices have energy efficiency programs. Our New Zealand warehousing partner also purchases renewable energy, and our Sydney office sends all food waste to an industrial composter. In addition, our company cars in the UK are electric vehicles.

We successfully launched our independent and brand-agnostic product stewardship program Compost Connect in the United Kingdom in 2022, adding to operations in Australia and New Zealand. We have since facilitated hundreds of connections between businesses, individuals, and local composters, enabling them to responsibly compost not just their food waste but also their compostable packaging.

In response to single-use plastic bans and consumer increased awareness of plastic pollution, we have increased our use of lower emissions materials, such as wooden cutlery (negative carbon footprint), sugarcane fibre and recycled paper.

We have co-designed a new manufacturing process with our BioCane manufacturing partner to dramatically reduce energy requirements (40%). Our main PLA supplier is working on building a PLA manufacturing plant in Thailand, closer to our manufacturing partners.

5. EMISSIONS SUMMARY

Emissions over time

		Emissions since base year	
		Total tCO ₂ -e (without uplift)	Total tCO ₂ -e (with uplift)
Base year:	2018	34,191	N/A
Year 2:	2019	51,824	N/A
Year 3:	2020	80,159	N/A
Year 4:	2021	104,030	N/A
Year 5:	2022	118,036.32	N/A

Significant changes in emissions

Emission source name	Previous year emissions (t CO ₂ -e)	Current year emissions (t CO ₂ -e)	Detailed reason for change
International Operations	142.6	659.7	Business growth and inclusion of third-party warehousing.

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

Certified brand name	Product/Service/Building/Precinct used
N/A	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 total emissions (t CO ₂ -e)
Accommodation and facilities	11.7
Cleaning and Chemicals	3.1
Construction Materials and Services	29.6
Electricity	39.6
Food	36.9
ICT services and equipment	90.4
Machinery and vehicles	1.1
Office equipment & supplies	15.6
Postage, courier and freight	1636.5
Products	50.4
Professional Services	495.1
Transport (Air)	160.6
Transport (Land and Sea)	99.8
Waste	29.3
Water	1.2
Working from home	5.9
International Operations	659.7
Product Material & Manufacturing Emissions	42502.6
Product Packaging Emissions	5756.0
Product Freight Emissions	7472.4
Product Disposal Emissions	58939.0
Total emissions	118,036.3

Uplift factors

Reason for uplift factor	tCO ₂ -e
	N/A
Total of all uplift factors	
Total emissions footprint to offset <i>(total emissions from summary table + total of all uplift factors)</i>	

6. CARBON OFFSETS

Offsets retirement approach

This certification has taken an in-arrears offsetting approach. The total emission to offset is **118,036.3 t** CO₂-e. The total number of eligible offsets used in this report is **118,037**. Of the total eligible offsets used, **97,777** were previously banked and **20,260** were newly purchased and retired. 0 are remaining and have been banked for future use.

Eligible offsets retirement summary

Offsets retired 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 retired (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 (%)
Parbati Hydroelectric Project Stage III	VCUs	Verra	30/6/2023	9572-109983963-109993855-VCS-VCU-1491-VER-IN-1-1425-29122014-29032015-0	2014	0	9,893	0	0	9,893	8.4%
Parbati Hydroelectric Project Stage III	VCUs	Verra	1/6/2021	9571-109820627-109916083-VCS-VCU-1491-VER-IN-1-1425-24032014-28122014-0	2014	0	95,457	0	0	95,457	80.9%
Parbati Hydroelectric Project Stage III	VCUs	Verra	1/6/2021	9571-109977090-109979409-VCS-VCU-1491-VER-IN-1-1425-24032014-28122014-0	2014	0	2320	0	0	2320	2.0%
Huaneng Fuxin Phase III Wind Farm Project	CERs	ANREU	29/6/2023	1,082,976,419 - 1,082,977,351	CP2	0	933	0	0	933	0.8%
Huaneng Fuxin Phase III Wind Farm Project	CERs	ANREU	29/6/2023	1,083,265,665 - 1,083,275,098	CP2	0	9434	0	0	9434	8.0%
Total eligible offsets retired and used for this report										118,037	
Total eligible offsets retired this report and banked for use in future reports										0	
				Certified Emissions Reductions (CERs)			10,367			8.8%	
				Verified Carbon Units (VCUs)			107,670			91.2%	

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) summary

N/A.

The following RECs have been surrendered to reduce electricity emissions under the market-based reporting method.

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

Project supported by LGC purchase	Project location	Eligible unit type	Registry	Surrender date	Accreditation code	Certificate serial number	Generation year	Fuel source	Quantity (MWh)
Total LGCs surrendered this report and used in this report									N/A

APPENDIX A: ADDITIONAL INFORMATION

Transaction ID	AU28217
Current Status	Sending (91)
Status Date	29/06/2023 21:01:35 (AEST) 29/06/2023 11:01:35 (GMT)
Transaction Type	Cancellation (4)
Transaction Initiator	Stuart, Benjamin Mathew Clarke
Transaction Approver	Rockliff, Nathan Stephen
Comment	Retired on behalf of BioPak Pty Ltd Climate Active Emissions for CY2022

Transferring Account

Account Number	AU-2321
Account Name	Carbon Financial Services Pty. Ltd.
Account Holder	Carbon Financial Services 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
CN	CER	Kyoto Voluntary Cancellation	2	2					CN-3867			1,082,976,419 - 1,082,977,351	933
CN	CER	Kyoto Voluntary Cancellation	2	2					CN-3867			1,083,265,665 - 1,083,275,098	9,434

Transaction Status History

Status Date	Status Code
29/06/2023 21:01:36 (AEST) 29/06/2023 11:01:36 (GMT)	Unsent (92)
29/06/2023 21:01:35 (AEST) 29/06/2023 11:01:35 (GMT)	Sending (91)
29/06/2023 21:01:35 (AEST) 29/06/2023 11:01:35 (GMT)	Account Holder Approved (97)
29/06/2023 20:52:12 (AEST) 29/06/2023 10:52:12 (GMT)	Awaiting Account Holder Approval (95)

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 summary			
Market-based approach	Activity Data (kWh)	Emissions (kg CO ₂ -e)	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)	0	0	0%
GreenPower	31,127	0	35%
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)	16,620	0	19%
Residual Electricity	41,417	39,553	0%
Total renewable electricity (grid + non grid)	47,747	0	54%
Total grid electricity	89,164	39,553	54%
Total electricity (grid + non grid)	89,164	39,553	54%
Percentage of residual electricity consumption under operational control	9%		
Residual electricity consumption under operational control	3,672	3,507	
Scope 2	3,243	3,097	
Scope 3 (includes T&D emissions from consumption under operational control)	429	410	
Residual electricity consumption not under operational control	37,744	36,046	
Scope 3	37,744	36,046	

Total renewables (grid and non-grid)	53.55%
Mandatory	18.64%
Voluntary	34.91%
Behind the meter	0.00%
Residual scope 2 emissions (t CO₂-e)	3.10
Residual scope 3 emissions (t CO₂-e)	36.46
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO₂-e)	3.10
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO₂-e)	36.46
Total emissions liability (t CO₂-e)	39.55

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	40%	(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	77,519	31,127	22,723	1,868	46,392	36,650
SA	0	0	0	0	0	0
VIC	11,645	4,676	3,974	327	6,969	6,411
QLD	0	0	0	0	0	0
NT	0	0	0	0	0	0
WA	0	0	0	0	0	0
TAS	0	0	0	0	0	0
Grid electricity (scope 2 and 3)	89,164	35,803	26,697	2,195	53,361	43,061
ACT	0	0	0	0		
NSW	0	0	0	0		
SA	0	0	0	0		
VIC	0	0	0	0		
QLD	0	0	0	0		
NT	0	0	0	0		
WA	0	0	0	0		
TAS	0	0	0	0		
Non-grid electricity (behind the meter)	0	0	0	0		
Total electricity (grid + non grid)	89,164					

Residual scope 2 emissions (t CO ₂ -e)	26.70
Residual scope 3 emissions (t CO ₂ -e)	45.26
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO ₂ -e)	26.70
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO ₂ -e)	45.26
Total emissions liability	71.95

Operations in Climate Active buildings and precincts

Operations in Climate Active buildings and precincts	Electricity consumed in Climate Active certified building/precinct (kWh)	Emissions (kg CO ₂ -e)
<i>Enter name or address of Climate Active certified building/precinct</i>	0	0
<i>Enter name or address of Climate Active certified building/precinct</i>	0	0
<i>Enter name or address of Climate Active certified building/precinct</i>	0	0
<i>Enter name or address of Climate Active certified building/precinct</i>	0	0

Climate Active carbon neutral electricity is not renewable electricity. These electricity emissions have been offset by another Climate Active member through their building or precinct certification. This electricity consumption is also included in the market based and location based summary tables. Any electricity that has been sourced as renewable electricity by the building/precinct under the market based method is outlined as such in the market based summary table.

Climate Active carbon neutral electricity products

Climate Active carbon neutral product used	Electricity claimed from Climate Active electricity products (kWh)	Emissions (kg CO ₂ -e)
<i>Enter name of Climate Active Carbon Neutral electricity product</i>	0	0
<i>Enter name of Climate Active Carbon Neutral electricity product</i>	0	0
<i>Enter name of Climate Active Carbon Neutral electricity product</i>	0	0
<i>Enter name of Climate Active Carbon Neutral electricity product</i>	0	0
<p><i>Climate Active carbon neutral electricity is not renewable electricity. These electricity emissions have been offset by another Climate Active member through their electricity product certification. This electricity consumption is also included in the market based and location-based summary tables. Any electricity that has been sourced as renewable electricity by the electricity product under the market-based method is outlined as such in the market based summary table.</i></p>		

APPENDIX C: INSIDE EMISSIONS BOUNDARY

Non-quantified emission sources

The following emissions sources have been assessed as relevant, are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. They have been non-quantified due to one of the following reasons:

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

Relevant non-quantified emission sources	Justification reason
Refrigerants	Immaterial

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
N/A						



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