



PUBLIC DISCLOSURE STATEMENT

BIOPAK PTY LTD

**ORGANISATION CERTIFICATION
CY2021**

Australian Government
Climate Active
Public Disclosure Statement



An Australian Government Initiative



NAME OF CERTIFIED ENTITY	BioPak Pty Ltd, ABN: 48 119 998 711
REPORTING PERIOD	1 January 2021 – 31 December 2021 Arrears Report
DECLARATION	<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>  Name of signatory: Lea Maguero Position of signatory: Head of Sustainability Date: 26/09/2022



Australian Government
Department of Industry, Science,
Energy and Resources

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



1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	104,030 tCO ₂ -e
OFFSETS BOUGHT	4.8% VCUs, 95.2% CERs
RENEWABLE ELECTRICITY	53.46%
TECHNICAL ASSESSMENT	20/04/2021 James Endean Pangolin Associates Next technical assessment due: 20/04/2024

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2. CARBON NEUTRAL INFORMATION

Description of 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
- R08, 30th Floor, Block B, No. 388 West Jiangwan Road, Hongkou District, Shanghai, China
- Remote workers in The Philippines

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) as specified in the 2014 IPCC Assessment Report 5 with a 100-year horizon.

"BioPak has always relied on trusted certifications to demonstrate its environmental claims. Climate Active provides a transparent process and a credible stamp to certify that both our Organisation and our products are carbon neutral."

Organisation description

This inventory has been prepared for the calendar year from 1 January 2021 to 31 December 2021 and covers the Australian business operations of BioPak, ABN: 48 119 998 711.

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 or precinct'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		Outside emission boundary
<u>Quantified</u>	<u>Non-quantified</u>	<u>Excluded</u>
Organisation <i>Accommodation and facilities</i> <i>Air Transport</i> <i>Cleaning and Chemicals</i> <i>Electricity</i> <i>Food</i> <i>ICT services and equipment</i> <i>Land and Sea Transport</i> <i>Machinery and vehicles</i> <i>Office equipment & supplies</i> <i>Postage, courier and freight</i> <i>Professional Services</i> <i>Taxi</i> <i>Waste</i> <i>Employee commute</i> <i>Working from home</i>	Organisation <i>Refrigerants</i> <i>Water</i> Products <i>Third party warehousing</i>	N/A

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

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 take the following steps:

- Reduce the number of business flights and replace them by videoconference meetings. This has the potential to reduce our Organisation emissions by 9%
- Source renewable energy (solar panels or Green Energy provider) for our UK operations (office and warehouse). This has the potential to reduce our Organisation emissions by 6%
- Use local couriers that use a fleet of lower emissions vehicles such as EV. This has the potential to reduce our Organisation emissions by 8%
- Source renewable energy (solar panels or Green Energy provider) for our third-party operations (3PLs). This has the potential to reduce our Organisation emissions by at least 3%
- Source renewable energy (solar panels or Green Energy provider) for our NZ operations (office)
- Return to office work will potentially reduce Work from Home emissions linked to individual lightning, heating, and general use of energy by 20% but will be partially offset by increased emissions from commuting. We expect public transports to become the norm though, with petrol prices going up

Progress will be tracked during our annual carbon footprint assessment and will be shared publicly via our annual Sustainability Report, available [here](#).

5.EMISSIONS SUMMARY

Emissions over time

Emissions since base year		Total tCO ₂ -e
Base year:	2018	34,191
Year 2:	2019	51,824
Year 3:	2020	80,159
Year 4:	2021	104,030

Significant changes in emissions

The inventory for this calendar year is the first to include BioPak's overseas operations within the submission boundary. In particular, this has meant an increase in the inventory of emissions-intensive items such as IT Equipment, and the inclusion of Third-Party Electricity for Auckland, NZ.

Additionally, the progressive reopening of international borders has seen an increase in the volume of business flights for BioPak.

In 2021, the air conditioning system in the Sydney office was adjusted to reduce the temperature setting in winter and increase it in summer. This, combined with the Work from Home policy in 2021, explains the reduction in Australian electricity emissions.

Emission source name	Current year (tCO ₂ -e and/ or activity data)	Previous year (tCO ₂ -e and/ or activity data)	Detailed reason for change
Electricity	39,494.52	43,066.73	A/C set-points reduced in winter and increased in summer

Use of Climate Active carbon neutral products and services

BioPak use COS certified carbon neutral paper.

This emissions assessment and Climate Active submission were conducted with the assistance of [Pangolin Associates](#) and these services are also carbon neutral.

Organisation 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 (tCO ₂ -e)
Accommodation and facilities	1.856
Cleaning and Chemicals	2.838
Climate Active Carbon Neutral Products and Services	0.000
Electricity	39.495
Food	13.499
ICT services and equipment	41.462
Office equipment & supplies	3.706
Postage, courier and freight	33.363
Products	3.648
Professional Services	6.458
Transport (Air)	35.620
Transport (Land and Sea)	32.743
Waste	4.137
Water	0.760
Working from home	15.403
International Operations	142.622
Product Material & Manufacturing Emissions	30,478.676
Product Packaging Emissions	5,241.370
Product Freight Emissions	8,350.597
Product Disposal Emissions	59,580.877
Total	104,029.128

Uplift factors

N/A

6. CARBON OFFSETS

Offsets retirement approach

In arrears	
1. Total number of eligible offsets banked from last year's report	102,740
2. Total emissions footprint to offset for this report	104,030
3. Total eligible offsets required for this report	1,290
4. Total eligible offsets purchased and retired for this report	1,290
5. Total eligible offsets banked to use toward next year's report	0

The details of offsets relating to this certification also satisfy the offsetting requirements of the BioPak Product PDS, found [here](#).

Co-benefits

Liucheng Biomass Power Generation Project in Guangxi Zhuang Autonomous Region, China

The proposed project will construct a biomass residues power generation plant with the biomass residues from mulberry leaf and sugarcane leaf discarded by local farmers in Liucheng County. Biomass is an organic matter that, through direct-burning boilers and steam turbines and generators, will provide electricity to the South China Power Grid. Liucheng's total installed capacity is 30 MW. With an annual operation of 6,000 hours, the generated electricity is 180,000 MWh. This project can provide almost 158,000 MWh of grid-connected clean energy generation.

The proposed project will contribute to sustainable development in the region by using biomass residues resources effectively, promoting a recycle economy, increase local power supply, reduction in air pollutant emissions by not using fossil fuels, accelerate local economic development and create employment opportunities.

Huaneng Fuxin Phase III Wind Farm Project

The proposed project activity will help the local government to promote economic development and to improve the air quality. The project will assist China in stimulating and accelerating the commercialisation of grid-connected wind power technologies and markets, which are an important objective of the Chinese government. The project will therefore help reduce GHG emissions versus the high-growth, coal-dominated business-as-usual scenario. The project will improve air quality and local livelihoods, promote sustainable renewable energy industry development.

The proposed project activity will contribute to sustainable development in the following ways:

- It will promote local economic development by creating local employment opportunities during both the construction and operational phase of the proposed project activity.
- It will generate electricity from renewable sources.
- It will promote technology development, through the use of advanced technology.
- It will reduce GHG emissions in China compared to the baseline/business-as-usual scenario.
- It will reduce the emissions of other pollutants associated with the operation of fossil fuel-fired thermal power plant, including SO₂ and soot, as well as reducing thermal pollution from cooling water in the baseline/business-as-usual scenario.

Eligible offsets retirement summary

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 (%)	
Liucheng Biomass Power Generation Project in Guangxi Zhuang Autonomous Region, China	VCUs	Verra	30 Nov 2020	7498-401902093-401908620-VCU-034-APX-CN-1-1824-01012015-31122015-0	2015	0	6,528	1,565	0	4,963	4.8%	
Huaneng Fuxin Phase III Wind Farm Project	CER	ANREU	12 Jul 2022	1,082,877,352 - 1,082,976,418*	2013-2020	0	99,067	0	0	99,067	95.2%	
Parbati Hydroelectric Project Stage III	VCUs	Verra	01 Jun 2021	9571-109820627-109916083-VCS-VCU-1491-VER-IN-1-1425-24032014-28122014-0	2014	0	95,457	0	95,457	0	0%	
Parbati Hydroelectric Project Stage III	VCUs	Verra	01 Jun 2021	9571-109977090-109979409-VCS-VCU-1491-VER-IN-1-1425-24032014-28122014-0	2014	0	2,320	0	2,320	0	0%	
Total offsets retired this report and used in this report										104,030		
Total offsets retired this report and banked for future reports										97,777		

*Evidence of cancellation can be found in Appendix A

Type of offset units	Quantity (used for this reporting period claim)	Percentage of total
Certified Emissions Reductions (CERs)	99,067	95.2%
Verified Carbon Units (VCUs)	4,963	4.8%

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

N/A

APPENDIX A: ADDITIONAL INFORMATION

Evidence of CER cancellation:

Transaction ID	AU23043
Current Status	Sending (91)
Status Date	12/07/2022 14:22:01 (AEST) 12/07/2022 04:22:01 (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 CY2021

Transferring Account		Acquiring Account	
Account Number	AU-2321	Account Number	AU-2764
Account Name	Carbon Financial Services Pty. Ltd.	Account Name	Voluntary Cancellation – CP2
Account Holder	Carbon Financial Services Pty. Ltd.	Account Holder	Commonwealth of Australia

Party	Type	Transaction Type	Original CP	Current CP	ERF Project ID	NGER Facility ID	NGER Facility Name	Safeguard	Kyoto Project #	Vintage	Expiry Date	Serial Range	Quantity
CN	CER	Kyoto Voluntary Cancellation	2	2					CN-3867			1,082,877,352 - 1,082,976,418	99,067

Transaction Status History	
Status Date	Status Code
12/07/2022 14:22:01 (AEST) 12/07/2022 04:22:01 (GMT)	Proposed (1)
12/07/2022 14:22:01 (AEST) 12/07/2022 04:22:01 (GMT)	Sending (91)
12/07/2022 14:22:01 (AEST) 12/07/2022 04:22:01 (GMT)	Account Holder Approved (97)
12/07/2022 14:19:32 (AEST) 12/07/2022 04:19:32 (GMT)	Awaiting Account Holder Approval (95)

APPENDIX B: ELECTRICITY SUMMARY

Electricity emissions are calculated using a market-based approach

Location-based method

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

Market-based method

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

Market Based Approach Summary			
Market Based Approach	Activity Data (kWh)	Emissions (kgCO 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 & Precinct LGCs)	0	0	0%
GreenPower	29,800	0	35%
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)	15,822	0	19%
Residual Electricity	39,719	39,495	0%
Total grid electricity	85,341	39,495	53%
Total Electricity Consumed (grid + non grid)	85,341	39,495	53%
Electricity renewables	45,622	0	
Residual Electricity	39,719	39,495	
Exported on-site generated electricity	0	0	
Emissions (kgCO ₂ e)		39,495	
Total renewables (grid and non-grid)	53.46%		
Mandatory	18.54%		
Voluntary	34.92%		
Behind the meter	0.00%		
Residual Electricity Emission Footprint (TCO₂e)	39		
<i>Figures may not sum due to rounding. Renewable percentage can be above 100%</i>			

Location Based Approach Summary

Location Based Approach	Activity Data (kWh)	Scope 2 Emissions (kgCO ₂ e)	Scope 3 Emissions (kgCO ₂ e)
ACT	0	0	0
NSW	83,696	65,283	5,859
SA	0	0	0
Vic	1,645	1,497	164
Qld	0	0	0
NT	0	0	0
WA	0	0	0
Tas	0	0	0
Grid electricity (scope 2 and 3)	85,341	66,780	6,023
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	85,341	66,780	6,023
Emission Footprint (TCO₂e)	73		
<i>Scope 2 Emissions (TCO₂e)</i>	<i>67</i>		
<i>Scope 3 Emissions (TCO₂e)</i>	<i>6</i>		

Climate Active Carbon Neutral Electricity summary

Carbon Neutral electricity offset by Climate Active Product	Activity Data (kWh)	Emissions (kgCO ₂ e)
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

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

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

Relevant-non-quantified emission sources	(1) Immaterial	(2) Cost effective (but uplift applied)	(3) Data unavailable (but uplift applied & data plan in place)	(4) Maintenance
Refrigerants	Yes	No	No	No
Water	Yes	No	No	No
Third party warehousing	Yes	No	No	No

APPENDIX D: OUTSIDE EMISSIONS BOUNDARY

Excluded emission sources

The below emission sources have been assessed as not relevant to an organisation's or precinct'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.

Emission sources tested for relevance	(1) Size	(2) Influence	(3) Risk	(4) Stakeholders	(5) Outsourcing	Included in boundary?
N/A	N/A	N/A	N/A	N/A	N/A	N/A



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