



PUBLIC DISCLOSURE STATEMENT

PAPER AUSTRALIA PTY LTD
(TRADING AS OPAL AUSTRALIAN PAPER)

PRODUCT CERTIFICATION
CY2022

Australian Government
Climate Active
Public Disclosure Statement



An Australian Government Initiative



NAME OF CERTIFIED ENTITY	Paper Australia Pty Ltd (trading as Opal Australian Paper)
REPORTING PERIOD	1 January 2022 – 31 December 2022 Arrears report
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>Craig Dunn General Manager, Public Relations & Sustainability 01/08/2023</p>



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	230,192 tCO ₂ -e
THE OFFSETS BOUGHT	98% VCU's, 2% CERs
RENEWABLE ELECTRICITY	N/A
TECHNICAL ASSESSMENT	26/09/2022 Paul-Antoine Bontinck Life Cycle Strategies Pty Ltd Next technical assessment due: 26/09/2025

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2. CARBON NEUTRAL INFORMATION

Description of certification

This certification covers all the activities undertaken to produce paper products sold as carbon neutral at the Maryvale Mill. It covers the raw materials, production, packaging, distribution, and disposal of the products.

Product description

Opal Australian Paper (Opal) is a leading producer of office, printing and packaging paper in Australia, manufacturing from its mill at Maryvale, in the Latrobe Valley, Victoria.

Opal produces and markets a wide range of paper products including office papers, bag papers, printing papers and recycled paper in both sheet and roll forms. Approximately 310 Carbon Neutral certified paper products were sold during the reporting period. Maryvale Mill is one of the largest integrated pulp and paper manufacturing sites in Australia, producing over 500,000 tonnes of paper from facilities including a wood yard, three pulp mills, five paper machines, two recycling plants and converting facilities. The product produced by Opal includes a proportion sold as carbon neutral under the Climate Active logo.

The functional unit is one tonne of certified paper product.

The product assessment is from cradle-to-grave.

The emissions included in the inventory include all greenhouse gases CO₂, CH₄, N₂O, HCFs, PFCs, SF₆, HCFCs and CFCs.

“Opal values our Climate Active certification as an effective and credible way to demonstrate sustainability leadership to our customers and consumers, through a comprehensive range of carbon neutral products all proudly made in Australia.”

Description where trademark used	Logo type
Opal website	Climate Active Network Member Logo
Reflex website	Climate Active Network Member Logo
Presentation	Climate Active Network Member Logo
Fact sheets	Climate Active Carbon Neutral Product Logo
Product technical information sheet	Climate Active Carbon Neutral Product Logo
Product guide	Climate Active Carbon Neutral Product Logo
Opal branded copy paper includes: Australian Office, Australian 100%, Brilliant, Reflex 100% Recycled, Reflex 50% Recycled, Reflex Blue, Reflex Gold, Reflex Green, Reflex Pink, Reflex Sand, Reflex Yellow, Reflex Ultra White, Universal, Victory High	Climate Active Carbon Neutral Product Logo
Customer branded copy papers includes: Aspire, Bibbulmun, COS, Ebony, FujiFilm, Mandura, Nallawilli, Office Choice, Office National, OPD, Planet Ark Paper, Winc	Climate Active Carbon Neutral Product Logo
The above brands are manufactured by Opal but are not owned by Opal	

The Opal printing papers that were manufactured and sold without trademarks are: Australian Smooth, Census Jet, Data Right Plus, Jet Mail, New Inkjet Smooth, PBS Laser, Postspeed, Publish Offset, Recycled 100%, Reflex Laser White, Revive Laser, Sensi Jet, Sensi Scanright, Stikki Bond

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-attributable emissions have been optionally included in the emissions boundary and are offset as part of the certification boundary.

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).

Inside emissions boundary

Quantified

Chemicals
Water
Freight
Process waste and wastewater
Product end-of-life
Electricity
Stationary (Heat) Energy
Packaging
Pulp
Timber
Recycled fibre

Non-quantified

N/A

Attributable (excluded)

Office equipment and consumables
Paper machine consumables
Offsite finishing and processing.

Optionally included

N/A

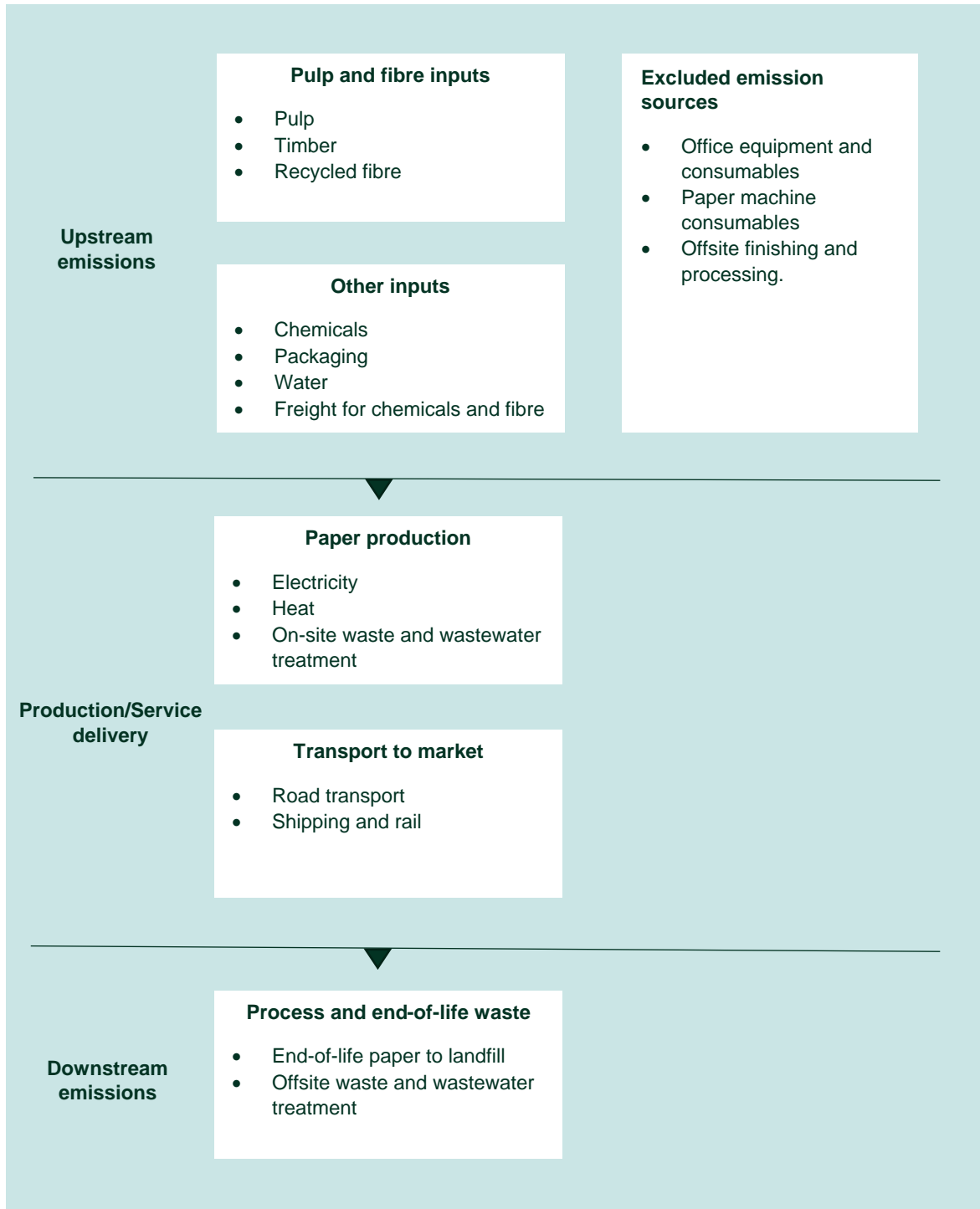
Outside emission boundary

Non-attributable

N/A

Product process diagram

The following diagram is cradle-to-grave.



Data management plan for non-quantified sources

There are no non-quantified sources in the emission boundary that require a data management plan. The emission sources listed under non-quantified sources in the emissions boundary diagram are excluded emission sources.

4. EMISSIONS REDUCTIONS

Emissions reduction strategy

Opal is committed to environmental sustainability and ongoing improvements in our operations. Opal's Sustainability and Environment Policy commits to:

- develop, implement, and monitor objectives and measurable targets to address environmental issues and promote positive outcomes,
- continue our transition to a low carbon energy supply by exploring sustainable energy alternatives,
- pursue energy efficiency gains to drive a reduction in emissions, and
- ensure the responsible use of natural resources throughout our business, including the conservation of biodiversity and efficient use of energy, water, and materials.

On 1 May 2020 Paper Australia Pty Ltd finalised the acquisition of a number of fibre packaging manufacturing facilities to form the larger "Opal" group and the Maryvale Mill operations sit within Opal Australian Paper. Since then, Opal has developed a company-wide Energy and Greenhouse Gas Emissions Management Strategy which defines Opal's overall objective, greenhouse gas emission reduction goals and a high-level summary of the supporting strategies to achieve these goals.

Opal's overall objective is to "support Opal's profitable growth, create sustainable value for our customers and become the supplier of choice". Our goals are aligned with our parent company Nippon Paper Industries' targets and commits to:

- Reduce Greenhouse Gas Emissions
 - 45% reduction in greenhouse gas emissions (scope 1 and 2) by 2030 compared to FY21 baseline
 - Net zero greenhouse gas emissions by 2050
- Improve Energy Intensity
 - Reduce energy intensity on average by 1% each year over a rolling 5-year period

Emissions reduction actions

Opal's Maryvale Mill seeks to reduce its energy use year on year and has experienced mill-based engineering personnel who analyse, assess, and implement new projects across the site to ensure, to the extent practicable, those projects achieve reductions in the operational use of steam, gas and / or electricity.

Renewable energy sources: Approximately 60% of the electricity consumption at Maryvale is generated onsite by our renewable biomass boilers (40%) or very low emission sources (20%).

Energy from Process Waste: Recovery boilers provide over 50% of Maryvale's thermal demand through the combustion of black liquor and will continue to play a large role in providing low carbon process heat to Maryvale. Approximately 60% of Maryvale's thermal demand is supplied by renewable biomass sources with the remaining 40% supplied by natural gas.

Improving energy efficiency: Improvement projects are undertaken as part of our day-to-day operations, which are centred around upgrading equipment and improving energy efficiency. These projects contribute to our long-term objective of achieving continuous energy efficiency improvements and Maryvale Mill emission reductions of 1% per annum.

During the 2022 reporting period, the emissions per functional unit reduced by 5% when compared to 2021 data and absolute emissions related to our carbon neutral products reduced by 13%. This reduction was primarily due to reductions in the emissions associated with electricity purchased from Victoria's power grid, in addition to the impact of COVID-19 pandemic on carbon neutral product sales & production, and supply chain issues in 2022.

5. EMISSIONS SUMMARY

Emissions over time

Emissions since base year		Total tCO ₂ -e	Emissions intensity of the functional unit
Base year:	2012	109,137	2.49
Year 1:	2013	169,518	2.56
Year 2:	2014	158,944	2.60
Year 3:	2015	179,881	2.67
Year 4	2016	230,186	2.38
Year 5	2017	300,985	2.35
Year 6	2018	331,631	2.50
Year 7	2019	294,881	2.51
Year 8	2020	281,670	2.39
Year 9	2021	264,962	2.41
Year 10	2022	230,192	2.29

Significant changes in 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
Paper to landfill at end of life.	39,226	36,169	Change in the fraction of material going to landfill based from 10.6% to 12.5% based on the National Inventory Report 2022
Electricity consumption	62,382	75,353	Emissions due to consumption of electricity reduced by 17% due to the changes in emission factors as well as reduced production of Carbon Neutral Paper.
Natural Gas	68,332	79,886	Emissions due to consumption of Natural Gas reduced by 14.5% due to reduced production of Carbon Neutral Paper.

Use of Climate Active carbon neutral products and services

Not applicable

Product/Service emissions summary

Stage	tCO ₂ -e
Chemicals	27,013
Other	4,429
Electricity	62,415
Natural gas	68,332
Fibre	9,181
Waste treatment	11,495
Transport	8,102
Final disposal	39,226
Total	230,192

Emissions intensity per functional unit t CO ₂ e/t paper	2.29
Number of functional units to be offset t	100,686
Total emissions to be offset t CO ₂ e *discrepancy due to rounding in the emissions intensity per functional unit	230,257

6. CARBON OFFSETS

Offsets retirement approach

Opal makes twice annual forward estimates of offset requirements based on combining the preceding reporting period's emissions intensity values and the sales forecast for paper products. During this period, Opal procures eligible offset units and retires them. Upon completion of the annual report we finalise procurement of remaining offsets and cancel/retire the final total as required in the annual report. If Opal retires more offsets during a reporting period in excess of those required, these are applied to future offset requirements covering carbon neutral product sales in subsequent reporting periods.

In arrears

1. Total number of eligible offsets banked from last year's report	3,809
2. Total emissions footprint to offset for this report	230,192
3. Total eligible offsets required for this report	226,448
4. Total eligible offsets purchased and retired for this report	230,192
5. Total eligible offsets banked to use toward next year's report	3,874*

*In line with our offsets strategy above, Opal retired more offsets than necessary for the 2022 reporting period. These will be applied to future offset requirements covering carbon neutral product sales in subsequent reporting periods.

Co-benefits

Acknowledging the high proportion of renewable energy that Opal already produces from biomass fuel as a by-product from the pulping process, offsets are invested in alternative energy generation developments, that seek to substitute high-carbon energy sources by enhancing energy or fuel efficiency.

In 2023, Opal retired 230,257 offsets from the Hyundai Waste Energy Recovery Co-generation Project Phase II, a 400 MW cogeneration plant at the Dangjin Hyundai Steel Mill, a project managed by Hyundai Green power CO., Ltd. The cogeneration plant combusts excess waste gases including BFG (Blast Furnace Gas), COG (Coke Oven Gas) and LDG (Converter Gas) produced by the operations at the Dangjin Hyundai Steel Mill to generate electricity. Through this project, approximately 2,306,076 MWh electricity will be sent to the electricity grid, and steam will also be produced and sent to the Dangjin Hyundai steel mill. If the cogeneration facility was not operational, the rest of waste gases would be emitted to atmosphere after incineration, and the electricity generation would be supplied by other sources within the South Korean electricity grid.

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 (%)
Hyundai Waste Energy Recovery CO-Generation Project Phase II, in Chungchongnam-do District, South Korea	VCU	Verra	20 April 2023	14697-621295875-621445874-VCS-VCU-260-VER-KR-1-1146-01012017-30062017-0	2017	0	150,000	0	0	150,000	65%
Hyundai Waste Energy Recovery CO-Generation Project Phase II, in Chungchongnam-do District, South Korea	VCU	Verra	20 April 2023	14697-621445875-621526131-VCS-VCU-260-VER-KR-1-1146-01012017-30062017-0	2017	0	80,257	0	3,874	76,383	33%
6.25 MW gridconnected Sattegala Mini Hydel Scheme at SLS Power Industries Ltd., in Chamarajanagar District, Karnataka	CER	CDM	8 June 2022	IN5277015813220923 - IN5277050812220923	CP-2 2013+	0	35,000	31,191	0	3,809	2%
Total offsets retired this report and used in this report										230,192	
Total offsets retired this report and banked for future reports									3,874		

Type of offset units	Quantity (used for this reporting period claim)	Percentage of total
Verified Carbon Units (VCUs)	225,461	98%
Certified Emissions Reductions (CERs)	3,809	2%

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Currently, Opal does not surrender Renewable Energy Certificates to reduce emissions by market based reporting. Therefore, this section is not applicable.

APPENDIX A: ADDITIONAL INFORMATION

No additional offsets were cancelled for purposes other than Climate Active certification. Therefore, this section is not applicable.

APPENDIX B: ELECTRICITY SUMMARY

Electricity emissions are calculated using a location-based approach only. Therefore, this section is not applicable.

APPENDIX C: INSIDE EMISSIONS BOUNDARY

Excluded emission sources

Attributable emissions sources can be excluded from the carbon inventory, but still considered as part of the emissions boundary if they meet **all three of the below criteria**. An uplift factor may not necessarily be applied.

1. A data gap exists because primary or secondary data cannot be collected (**no actual data**).
2. Extrapolated and proxy data cannot be determined to fill the data gap (**no projected data**).
3. An estimation determines the emissions from the process to be **immaterial**.

	No actual data	No projected data	Immaterial
Office equipment and consumables	Yes	Yes	Yes
Paper machine consumables	Yes	Yes	Yes
Offsite finishing and processing.	Yes	Yes	Yes

APPENDIX D: OUTSIDE EMISSION BOUNDARY

Not applicable



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