

PUBLIC DISCLOSURE STATEMENT

GOODMAN PRODUCT CERTIFICATION (AS BUILT) Australian Government

Climate Active Public Disclosure Statement





NAME OF CERTIFIED ENTITY	BGAI8 Pty Limited as Trustee for BGAI1 Oakdale South Trust 2A
REPORT TYPE/ PERIOD	17 January 2023
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. Emma McMakon
	Emma McMahon Head of Sustainability, Australia 17 January 2023



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

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

1. CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	6,609 tCO2-e
THE OFFSETS BOUGHT	20% ACCUs 80% VCUs
RENEWABLE ELECTRICITY	0%
TECHNICAL ASSESSMENT	Deepali D Ghadge 20/01/2023
THIRD PARTY VALIDATION	Deepali D Ghadge 13/01/2023

2. CARBON NEUTRAL INFORMATION

Description of certification

The upfront carbon for the construction of warehouse/office buildings constructed at Oakdale South Horsley Park, is a carbon neutral building in accordance with the Climate Active Guideline: Building Upfront Carbon V1:2022.

The building includes warehouse, offices and amenities and services areas as follows,

- Warehouse 2A -1 (4320m2)
- Warehouse 2A -2 (3840m2)
- Warehouse 2A -3 (3845m2)
- Office 2A -1 2 levels Office spaces / Amenities / Kitchen area (300m2)
- Office 2A -2 2 levels Office spaces / Amenities / Kitchen area (300m2)
- Office 2A -3 2 levels Office spaces / Amenities / Kitchen area (300m2)
- Total Awnings: 1860 m2

The carbon inventory includes emissions calculated for stages A1 – A5 of the base building.

The project has been designed in line with Green Star Design & As Built v1.3.

Product description

The construction commenced in August 2021 and practical completion was achieved in July 2022. It is a one storey building with GFA of 14,765 sqm and 69 car parking spaces.

The functional unit of the building was chosen as one m^2 Gross Floor Area over its life span. The estimated design life of the building was assumed as 60 years in the LCA analysis.

The emissions intensity of each functional unit of the building, as at practical completion (As Built), is 0.4476 t CO2-e.

The study undertaken is cradle to gate, where the gate is the delivery of the completed base building as the Guideline: Building Upfront Carbon provides coverage for all construction emissions treating the completed building as the product.

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3. EMISSIONS BOUNDARY

Inside the emissions boundary

The emissions boundary includes product stages A1 to A5 as per EN15804.

It is to be noted that the scope 1 and 2 emissions from electricity and fuel usage on site has not been counted separately. These emissions have been included as embedded emissions from building materials.

Outside the emissions boundary

This certification excludes emissions related to tenant fit out activities, as this is outside of the control of the project Owner. The emissions related to the ongoing operation of the building are also excluded.

The emission sources in the boundary diagram below are as per the emissions categories in the emission summary table (in section 4).

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Inside emissions boundary

Quantified

Embodied emissions in construction materials incorporated into the structure (A1-3)

Embodied emissions in materials used during construction (for example: permanent formwork)

Transport of materials to the construction site (A4)

Construction energy (A5):

- Electricity
- Diesel
- Petroleum
- Construction waste (A5)

Non-quantified

5% cut off criteria was used to separate non-quantified items that mainly included the bathroom fixers and kitchenette cabinets and are immaterial.

Optionally included N/A

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Outside emission boundary

Non-attributable

Tenancy fitout

Base building operations (B6)

Tenancy operations (B6)

Building refurbishment or maintenance during operational lifetime (B1-7)

Demolition at end of life (C1-4)

Product process diagram

Cradle-to-gate where achievement of practical completion of the project marks the "gate", lifecycle stages A1 to A5 as per EN15978.



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Data management plan for non-quantified sources

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

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4. EMISSIONS REDUCTIONS

Emissions reduction strategy

The design of Oakdale South 2A has been guided by the objective to minimise building lifecycle emissions recognising that decisions made to manage upfront emissions can influence operational emissions.

The upfront emissions reductions strategies include:

- Application of a project cost of carbon to provide a fair comparison of materials with varying carbon intensity;
- Dematerialistion by optimising structural and façade elements;
- Prioritising;
 - o lower carbon emissions materials
 - Renewable materials
 - $\circ \quad \text{Recycled materials} \quad$
 - Materials recognised by third party certification schemes and independent verification methods e.g. Environmental product declarations (EPDs)
- Blown in fiberglass insulation for the offices' walls and roof
- Local procurement of steel and concrete materials, where possible
- InfraBuild EPD was used to model reinforcing and structural steel
- Project diverted 95% waste from landfill
- Low impact EPD carpet
- Modularising elements of construction, where possible, to reduce waste and transport emissions

The operational emissions reductions include;

- Designed in line with a 5 star Green Star Design & As Built rating v1.3;
- Office designed in line with 5 star NABERS Energy requirements;
- Reduced HVAC and HWS operational energy consumption;
- Installation of 345 kW rooftop solar PV system
- Water efficient tap fittings to reduce leaks;
- Landscape irrigation with smart meters installed to reduce consumption;
- Rainwater and GPT installed to recycle water; and
- LED lights with motion sensors installed to reduce electricity consumption

Climate Active carbon neutral products and services

Pangolin Associates Pty Ltd (Carbon neutral service) was engaged to conduct the Third-Party Verification and Technical Assessment of the project.

5. EMISSIONS SUMMARY

Emissions summary

This certification is for a completed development with emissions calculated from product specific emission intensity information for construction materials using the as built drawings and site plans. Emissions from electricity use and fuels used on the construction site have been modelled using hours of operation of different equipment used during construction with the emission factors embedded in e-Tool.

Stage	Stage Name	t CO2-e
A1-A3	Product Stage	5922.2
A4	Transport of Equipment and Materials	413.4
A5	Construction	273.2
Total		6,609

No uplift factors were added in the emissions total.

Warehouse number	Lot 2A
Emissions intensity per functional unit (including any uplifts required) tonnes CO_2 - e/sqm	0.4476
Number of functional units offset	14,765
Total emissions offset	= 0.446*14,765 = 6,609 tCO2e

6. CARBON OFFSETS

Offsets retirement approach

The following criteria have been considered in the selection of carbon credits purchased for this project:

- Nature-based solutions projects (reforestation, afforestation, and improved forest management)
- All units must have a vintage year later than 2016
- 20% of all projects are Australian Carbon Credit Units (ACCUs), issued by the Clean Energy Regulator
- International offsets to include the following;
 - Certified Emissions Reductions (CERs), issued as per the rules of the Kyoto Protocol from Clean Development Mechanism projects
 - Removal Units (RMUs) issued by a Kyoto Protocol country based on land use, land-use change and forestry activities under Article 3.3 or Article 3.4 of the Kyoto Protocol
 - \circ ~ Verified Emissions Reductions (VERs) issued by the Gold Standard
 - \circ ~ Verified Carbon Units (VCUs) issued by the Verified Carbon Standard.

Paroo River Native Forest Regeneration, QLD

Re-establishing native forests and sequestering carbon on degraded agricultural land in the South West Darling Downs region of Queensland.

Located near Cunnamulla in South West Queensland, the Humeburn Station straddles the Paroo River and assists to support the regeneration of native forest growth which has been suppressed by livestock grazing and feral animals. A portion of the project area is on land over which the Budjiti people have a native title interest, and through the project, have regained access to their traditional lands for cultural, heritage and bush tucker purposes. The Budjiti people also share in the project revenues.

Nyaliga Fire Project, Western Australia

Reducing emissions through traditional Indigenous bushfire management.

The Nyaliga Fire Project was registered in 2017 by Nyaliga Aboriginal Corporation as the Traditional Owners of the land now known as the Karunjie and Durack River Pastoral Stations in the East Kimberley of Northern WA. The project involves controlled early dry season burning – aerial and on-ground – carried out by Nyaliga Traditional Owners, including the Nyaliga indigenous ranger team. The sale of ACCUs from the project will constitute the first income for Nyaliga Aboriginal Corporation, with all revenue re-invested into fire management and the social, cultural, and economic benefits it entails for the community.

Kariba Forest Protection, Zimbabwe

Since its launch in 2011, the Kariba project has prevented more than 3.5 million tonnes of carbon dioxide from emission into the atmosphere each year by preventing deforestation and land degradation of 785,000 hectares of forest. This is achieved primarily through promoting regional sustainable development, and the independence and wellbeing of local communities.

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Miaoling Afforestation Project, China

The project is located within Qiandongnan Miao and Dong Autonomous Prefecture, Guizhou Province of China. 30,169 hectares of forest was planted on barren lands in Qiandongnan Miao and Dong Autonomous Prefecture which used to be poor sustainable ecological environment and karst rocky desertification. The project aims to plant native species on barren lands for GHG removal whilst contributing to local sustainable development goals.

The project activity aims to: - Sequester greenhouse gas and mitigate climate change; - Enhance biodiversity conservation by increasing the connectivity of forests; - Improve soil and water conservation in the Karst region; - Generate income and job opportunities for local communities.

There is no natural renewal and reforestation before the project, and all sites were covered by the barren hill and degraded lands. The main objective specie are China fir, Masson pine and Pinus yunnanensis which are native species according to the baseline survey.

The implementation of the project is expected to reduce the GHG emissions amounting to 13,753,471 tCO2e in 30 years, with an average annual GHG emission removal of 458,449 tCO2e.

Arrears		
1.	Total emissions footprint to offset for this report	= 6,609 tonnes CO2-e
2.	Total offsets retired in design (commitment) PDS	= 0
3.	Total offsets required for this report	= 6,609 tonnes CO2-e

Co-benefits

Paroo River Native Forest Regeneration, QLD

- Alternative income streams generated for landholders and Traditional Owners through the sale of carbon credits
- Youth support group hosting at risk Indigenous youth on the property
- Partnerships forged between non-Indigenous Australians and Traditional Owners for social, environmental, and economic outcomes.

Nyaliga Fire Project, Western Australia

- Carbon credits create additional revenue streams for Indigenous communities
- Partnerships forged between non-Indigenous Australians and Traditional Owners for savanna fire

management.

Kariba Forest Protection, Zimbabwe

- USD 249,000+ generated for community members from beekeeping, moringa tree and community garden sales
- 18 nutritional gardens are increasing food security
- 14 health clinics supported with safe drinking water
- 18,000+ people benefiting from workshops on project-related activities, such as nutritional gardening
- USD 57,000+ spent on supporting health clinics and schools
- 22 permanent jobs created thanks to the project
- International partnerships between local communities, national and international organisations, and carbon experts.

Miaoling Afforestation Project, China

• The implementation of the project activity has provided 18,355 jobs for local villagers, among which 60 percent are women.

Eligible offsets retirement summary

Project description	Type of offset units	Registr y	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Staple d quantit y	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 (%)
Paroo River, QLD	ACCU s	ANREU	20 Decembe r 2022	<u>8,330,658,279 –</u> <u>8,330,660,701</u>	2021-22		2,423*	0	0	925	14%
Nyaliga Fire Project, WA	ACCU s	ANREU	20 Decembe r 2022	<u>8,331,527,258 –</u> <u>8,331,528,296</u>	2021-22		1,039*	0	0	397	6%
Kariba REDD+ Project, Zimbabwe	VCUs	VCS	15 Decembe r 2022	12743-432026387- 432035560-VCS- VCU-352-VER-ZW- 14-902-01072016- 31122016-1	2016		9,174*	0	0	3,503	53%
Miaoling Afforestation Project, China	VCUs	VCS	15 Decembe r 2022	12554-415770707- 415775380-VCS- VCU-1310-VER-CN- 14-2378-01012020- 31122020-1	2020		4,674*	0	0	1,784	27%
					Total	offsets re	tired this re	port and used	in this report	6,609	

*Total eligible offsets cancelled are for Warehouse project 2A and project 2B at Oakdale South. Refer also to Oakdale South 2B PDS.

Type of offset units	Quantity (used for this reporting period claim)	Percentage of total
Australian Carbon Credit Units (ACCUs)	1,322	20%
Verified Carbon Units (VCUs)	5,287	80%

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) Summary

N/A

Organisation name here

APPENDIX A: ADDITIONAL INFORMATION

The retirement certificate for purchased Carbon credit projects are provided below.

20% Australian Carbon Credit Unit (ACCUS):

- Paroo River, QLD
- Nyaliga Fire Project, WA _

Assimilias Generation Class Energy Replace	Australian National Registry of Emissions Units																
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80% Verified Carbon Units (VCUs)

- Kariba REDD+ Project, Zimbabwe (Link to <u>Verra Registry</u>) Miaoling Afforestation Project, China (Link to <u>Verra Registry</u>) -
- -

APPENDIX B: ELECTRICITY SUMMARY

Not applicable as electricity is calculated through Etool LCA software.

APPENDIX C: INSIDE EMISSIONS BOUNDARY

Emissions as described earlier within the boundary of phases A1 to A5 of the building construction project.



APPENDIX D: OUTSIDE EMISSION BOUNDARY

The Emissions associated with future management of the building and use of the building by future occupants are excluded.





