PUBLIC DISCLOSURE STATEMENT

BRINDABELLA CHRISTIAN EDUCATION LIMITED (TRADING AS BRINDABELLA CHRISTIAN COLLEGE)

ORGANISATION

CY2021

Australian Government

Climate Active
Public Disclosure Statement

An Australian Government Initiative

NAME OF CERTIFIED ENTITY	Brindabella Christian College
REPORTING PERIOD	1 January 2021– 31 December 2021
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.* 
	Greg Zwajgenberg Chairman of the Board July 2023

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	1,187 tCO_2-e
OFFSETS BOUGHT	8% VERS, 92% VCUs
RENEWABLE ELECTRICITY	100%
TECHNICAL ASSESSMENT	Date: 28/07/2021 Name: Chris Wilson Organisation: Pangolin Associates Next technical assessment due: CY2023

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2.CARBON NEUTRAL INFORMATION

Description of certification

This certification includes all staff and operations of the Brindabella Christian College (ABN 21 100 229 669).

Organisation description

Brindabella Christian Education Limited (BCEL) is a Private non-denominational Christian co-educational early learning, primary and secondary day school, located in the Canberra suburbs of Charnwood and Lyneham, in the Australian Capital Territory, Australia.

The vision of Brindabella Christian College is to advance a community of wisdom in and through Christian education.

This means that everything we do promotes the ability to develop and apply knowledge, insight, good judgement and experience, integrated with a deep and growing knowledge of the will of God - a community where individuals are supported to live full, productive and purposeful lives, to carry hope in their hearts, to develop an awareness of the social consequences of personal actions and where the wellbeing of all is pursued. It is our desire that each member of our community will engage fearlessly with the Truth, responsibly with Creation and compassionately with others.

"In the pursuit of excellence in education and educating our students to display Wisdom, Integrity, Service, & Excellence in everything they do, the process of achieving Climate Active certification is a way of inspiring young minds on the need for all of us to act responsibly when it comes to ensuring the future of our planet."

Educationally our Campus in Lyneham offers education in our Early Learning Centre from 3-years of age to pre-kindergarten, and we operate Kindergarten to Years-12 in our Junior, Middle and Senior School facilities. Within the scope of our educational delivery our goal is to operationally reach a Carbon Neutral footprint across all our College educational facilities and use the platform to engage and educate our students in responsible use of natural resources.

Emissions associated with the Charnwood campus have now been explicitly quantified within our emissions boundary for CY2021 rather than applying an uplift, as the datasets have now been integrated.

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

Quantified

Accommodation and facilities

Carbon neutral products and services

Cleaning and Chemicals

Construction Materials and Services

Electricity

Food

ICT services and equipment

Transport (Air)

Transport (land and Sea)

Merchandise

Office equipment & supplies

Postage, courier and freight

Professional Services

Products

Stationary Energy

Waste

Water

Working from home

Non-quantified

NA

Optionally included

N/A

Outside emission boundary

Excluded

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

In 2021, Brindabella Christian College committed to developing a detailed emission reduction strategy and renewable energy program over the next two years with the intention of intertwining this into our core College educational curriculum. While this is still being finalised, Brindabella will endeavour to meet the minimum Climate Active requirements to reduce total Scope1,2 and 3 emissions by at least 30% on the CY 2020 baseline by 2030. We acknowledge that most of this reduction will need to be derived from within our supply chain, and plan to meet this commitment by:

- Implementing a sustainable supply chain policy that screens, applies metrics and prioritizes suppliers that publicly report on emissions and take demonstrable climate change action. This will initially target key service providers that contribute to our emissions profile including:
    - Computer and technical services
    - Construction materials and services
    - Publications, subscriptions and periodicals providers
    - Advertising
    - Cleaning Services

  Brindabella are aware for example, that one of our key IT service providers are 100% carbon neutral, and so we will continue to engage with suppliers like these to measure and recognise their action on climate change within our own supply chain.
- Reduce the volume of cleaning requirements from daily vacuuming to once or twice a week, plus necessary spot cleaning as required
- Continue to increase the footprint of the existing Solar Capture Systems across the College, adding additional capacity to our on-site solar generation, alongside ongoing monitoring of the performance of the solar systems
- Specifically, providing additional solar capture by way of introducing innovative and aesthetic glass solar capture canopies across all College Walkways
- Provide Solar Capture, Storage and Consumption Information to the students on TV Screens and mobile devices via WiFi in age-appropriate educational formats
- Strengthen waste recycling targets and implement circular economy principles to not only recycle waste, but also reuse and repair what we can. In addition, separate out, collect and recycle refundable bottles and cans to help fund educational resources for the students.
- Explore opportunities to replace natural gas or supply with GreenGas, and in the case of existing College BBQ facilities, remove Gas supplied units in favor of our Solar Tree powered electric Solar BBQ’s
- Look to breakdown spend on food & catering to understand how high emitting food and beverage types can be phased out

Emissions reduction actions

During 2021, we have:

- Added another 40KW of solar panels.
- Vegetable Garden at our Lyndeham Campus:
    - Café - The café has circular economy in place with the vegetable garden. Herbs and vegetables are used for cooking, green waste is composted and then used to fertilize the vegetable garden. Café food is sold; thus money is made from the circular economy of the café.
    - Food Tech - Food tech also uses the vegetable garden. Herbs and vegetables are used for cooking, green waste is composted and then used to fertilize the vegetable garden
- Vegetable Garden Norwest – Stephany Alexander Kitchen Garden Program
    - Norwest have a vegetable garden and they use the produce, plus sell the excess to parents, the proceeds are used for more garden materials.
- Mobile Muster – 33.4kg of discarded electrical devices were collected and given to a program called Mobil Muster, which uses these materials to create bionic arms and legs for children.
- All toner cartridges from both campuses are sent to Plant Ark

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5.EMISSIONS SUMMARY

Emissions over time

Emissions since base year		
		Total tCO_2-e
Base Year/Year 1:	2020	1,131.0
Year 2:	2021	1,187.0

Significant changes in emissions

Emission source name	Current year (tCO_2-e)	Previous year (tCO_2-e)	Detailed reason for change
Food & Catering	73.8	90.3	Due to natural business change
Cleaning Services	75.0	47.7	Due to natural business change

Building Construction	278.9	0	In 2021 we commenced construction on a new Double Storey building at the Lynham Campus
Computer & Technical Services	109.9	89.5	Due to natural business change
Natural Gas	68.3	38.8	Due to expansion and inclusion of natural gas from the Charnwood Campus for CY2021

Use of Climate Active carbon neutral products and services

BCEL uses Aspire carbon neutral paper.

This assessment and Climate Active submission were prepared with the assistance of Pangolin Associates, these services are 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	10.55
Air transport (fuel)	0
Air transport (km)	3.21
Bespoke	0
Carbon neutral products and services	0
Cleaning and chemicals	75.03
Construction materials and services	278.89
Electricity	0
Food	73.77
Horticulture and agriculture	0
ICT services and equipment	121.16
Land and sea transport (fuel)	3.04
Land and sea transport (km)	81.56
Machinery and vehicles	1.46
Office equipment & supplies	106.8
Postage, courier and freight	0.62
Products	54.01
Professional services	251.96
Refrigerants	0

Roads and landscape	0
Stationary energy	68.29
Waste	50.49
Water	2.83
Working from home	2.57
Total	**1,186.26**

Uplift factors

Reason for uplift factor	**tCO_2-e**
NA	NA
Total of all uplift factors	
Total footprint to offset *(total net emissions from summary table + total uplifts)*	**NA**

6.CARBON OFFSETS

Offsets retirement approach

In arrears		
1.	Total number of eligible offsets banked from last year's report	812
2.	Total emissions footprint to offset for this report	1187
3.	Total eligible offsets required for this report	375
4.	Total eligible offsets purchased and retired for this report	1187
5.	Total eligible offsets banked to use toward next year's report	0

Co-benefits

Rimba Raya

Rimba Raya is situated in Central Kalimantan in Indonesian Borneo. Covering land approximately the same size as Singapore, it is known as one of the largest Orangutan sanctuaries in the world. Offering a viable alternative to deforestation, a practice very common in the area, the project has a wealth of benefits to the biodiversity of the region and the surrounding communities. Rimba Raya is home to over 300 species of birds, 122 species of mammals and 180 species of trees and plants. The project has strong community based initiatives including increased employment for communities, greater access to medical and health services, and assistance with education.

Improved Kitchen Regime: Cleaner Cookstoves in Bugesera, Rwanda

Improved Kitchen Regimes is a Gold Standard carbon credit project (VER) that provides households with energy efficient cookstoves. Over 20,000 stoves are now in use in the Bugesera District of Rwanda. These have standardised precast combustion chambers and require substantially less fuel – an estimated 71 percent reduction in traditional biomass fuel annually. Critically for these communities, the cookstoves result in a better quality of life and improved health. The production of the cookstoves takes place in Rwanda, providing jobs for the people of the district. The project aids Bugesera's self-sufficiency, helping to lift the community out of poverty.

Cai Be Rice Husk Thermal Energy Generation Project, Vietnam

Cai Be District in South Vietnam turns an environmental problem into a clean, renewable energy solution. Processing rice for bran oil typically resulted in the disposal of rice husks into waterways. Decaying husks then released methane into the atmosphere, a greenhouse gas 25 times worse than carbon dioxide. Instead, Cai Be captures rice husk methane to produce electricity.

Biomass based thermal energy generation technology requires specialized expertise and good knowledge of the operational procedures. Implementation of such boiler technology thus comes with the need for trained manpower to operate and maintain the system. Thus the locals in the area, which is a developing region, are employed by the project and will benefit from training and increased job opportunity.

Pacajai REDD+ Project, Brazil

The Pacajai REDD+ Project is working to provide legal land-use permits that will result in official land titles for those villages that actively participate in forest protection. Through funds raised, the project can continue to improve food security through agroforestry techniques, while introducing sustainable livelihood alternatives to local communities. With over 56,000 hectares of land dedicated to these inhabitants, it is expected that each family will receive approximately 140 hectares, and each town will have its own land donated to it.

In partnership with local NGOs, the project will provide capacity building to local families to develop and submit business plans (individually or in groups) to apply for funding to start small sustainable businesses – those that take advantage of non-timber products in the project area, such as the highly valuable Acai fruit. We are also building local capabilities in the use of agroforestry techniques, to diversify and secure food consumption, while achieving a sustainable production of cassava – used in farinha production.

Since the world's forests are our greatest ally in the fight against climate change, we've made it our mission to prevent over 10 million tonnes of harmful CO2 entering the atmosphere over the 40- year lifetime of the project. We have been successfully validated and verified against the Verified Carbon Standard (VCS) and validated to the CCB Standards Second Edition - achieving Climate Adaptation and Biodiversity Gold Levels.

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 (%)**
Rimba Raya Biodiversity Reserve Project	VCUs	Verra	31/08/2022	6112-279848065-279848065-VCU-016-MER-ID-14-674-01012014-30062014-1 6112-279848066-279848439-VCU-016-MER-ID-14-674-01012014-30062014-1	2014	0	1+374 = 375	0	0	375	32%
Rwanda Cook Stoves Gold Standard Credits	VER	Impact	03/08/2021	GS1-1-RW-GS3451-16-2016-7427-7527-7570	2016	0	44	0	0	44	4%
Rwanda Cook Stoves Gold Standard Credits	VER	Impact	03/08/2021	GS1-1-RW-GS3444-16-2017-18595-3711-3766	2017	0	56	0	0	56	5%
Pacajai REDD+ Project	VCU	Verra	03/08/2021	9776-133158619-133159030-VCS-VCU-259-VER-BR-14-981-01012015-31122015-0	2015	0	412	0	0	412	35%

Rice Husk Based Thermal Energy Generation Project at Thot Not	VCU	Verra	03/08/2021	983-170792347-170792646-VCU-008-APX-VN-1-908-01032013-28022014-0	2013-2014	0	300	0	0	300	25%
									Total offsets retired this report and used in this report	1187	
									Total offsets retired this report and banked for future reports	0	

Type of offset units	Quantity (used for this reporting period claim)	Percentage of total
Verified Emissions Reductions (VERs)	100	8%
Verified Carbon Units (VCUs)	1087	92%

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) summary

N/A.

APPENDIX A: ADDITIONAL INFORMATION

In 2017 in addition to the broader use of recycling of materials and responsible purchasing, and in keeping with our carbon neutral goals, the campus became home to our Award Winning Zero Net Energy (ZNE) Junior School Wing, supporting 400 K to Year-4 students, and operating as a fully self-contained energy neutral building housing over 100KW of Solar Panel energy capture and 26.4KWH of intelligent battery storage. The system also sends full energy traffic data to flat panel TV screens across the Junior School in child friendly graphical animated information for the education of the students. This was the first practical step taken toward a complete ZNE College educating all students with a focus on the responsible use of renewable energy.

In 2018 we partnered with EVT Energy in conjunction with an ACT Government Zero Emissions Grant to prototype an educational art form, for the purpose of inspiring imagination and further the education of our students on reducing carbon emissions in an engaging manner.

This took the form of a “Solar Tree” integrated with Intelligent Energy Storage to allow for adding a range of independent stand-alone solar powered products and services; fully charged support 2-5 days of autonomous energy supply.

The Solar Tree is a “non-grid connected” stand-alone source of clean energy designed to drive add-on utilities and related services including:

- Solar BBQ Facilities
- Mobile Device Charging Stations
- Security Monitoring Systems, and
- Water Chillers

APPENDIX B: ELECTRICITY SUMMARY

Electricity emissions are calculated using 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 (kgCO2e)	Renewable Percentage of total
Behind the meter consumption of electricity generated	76,751	0	13%
Total non-grid electricity	**76,751**	**0**	**13%**
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)	421,128	0	71%
Large Scale Renewable Energy Target (applied to grid electricity only)	95,847	0	16%
Residual Electricity	0	0	0
Total grid electricity	**516,975**	**0**	**87%**
Total Electricity Consumed (grid + non grid)	**593,726**	**0**	**100%**
Electricity renewables	593,726	0	
Residual Electricity	0	0	
Exported on-site generated electricity	**0**	**0**	
Emissions (kgCO2e)		0	

Total renewables (grid and non-grid)	**100**
Mandatory	**87.07%**
Voluntary	**0.00%**
Behind the meter	**12.93%**

Residual Electricity Emission Footprint (TCO2e)	**0**

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	516,975	403,241	36,188
Grid electricity (scope 2 and 3)	**516,975**	**403,241**	**36,188**
ACT	76,751	0	0
Non-grid electricity (Behind the meter)	**76,751**	**0**	**0**
Total Electricity Consumed	**593,726**	**403,241**	**36,188**

Emission Footprint (TCO2e)	**439**
Scope 2 Emissions (TCO2e)	403
Scope 3 Emissions (TCO2e)	36

Climate Active Carbon Neutral Electricity summary

Carbon Neutral electricity offset by Climate Active Product	Activity Data (kWh)	Emissions (kgCO2e)
NA	**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
NA	No	No	Yes	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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