



# **PUBLIC DISCLOSURE STATEMENT**

**BRINDABELLA CHRISTIAN COLLEGE**

**ORGANISATION  
CY2020**

Australian Government

# Climate Active Public Disclosure Statement



NAME OF CERTIFIED ENTITY: Brindabella Christian College

REPORTING PERIOD: Calendar year 1 January 2020 – 31 December 2020

### 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.

Signature

A handwritten signature in black ink, appearing to read "Greg Zwajgenberg", enclosed within a large, loopy oval.

Date

09 September 2021

Name of Signatory

Greg Zwajgenberg

Position of Signatory

Chairman of the Board



**Australian Government**

**Department of Industry, Science,  
Energy and Resources**

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Version number February 2021

# 1. 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.

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.

*“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.”*

## 2. EMISSION BOUNDARY

### Diagram of the certification boundary



## Non-quantified sources

Emissions associated with the Charnwood Campus have not been quantified. The Charnwood Campus is currently a relatively small operation for BCEL. The Charnwood site includes multiple tenants and uses outside of the control of BCEL.

For this reason, BCEL's emissions associated with the Charnwood Campus have not been explicitly quantified. Instead, an uplift of 5% has been applied, based on the Lyneham Campus emissions, to cover the Charnwood Campus emissions.

## Data management plan

The use of the Charnwood Campus is currently being renegotiated with existing tenants and BCEL will be in a better position to collect accurate data for measuring the emissions from this campus over the next 2 years.

## Excluded sources (outside of certification boundary)

N/A

*"In partnering with the Australian Government, it sends a clear signal to our community that as an educational centre of excellence we are serious about reducing carbon emissions and we are committed to sustainability and innovation through our educational curriculum, our dedicated and engaged staff, and ultimately through our ongoing inspirational and responsible leadership."*

### 3. EMISSIONS SUMMARY

#### Emissions reduction strategy

BCEL is currently engaged in master planning to develop 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.

BCEL has recently added another 40 kW of solar panels that will allow it to provide electricity for the entire campus. The additional 40KW is expected to become fully operational during 2021.

#### Emissions summary (inventory)

Table 1

Emission source category	tonnes CO <sub>2</sub> -e
Professional Services	224.1
Office equipment & supplies	195.6
Construction Materials and Services	178.3
ICT services and equipment	105.2
Cleaning and Chemicals	94.8
Food	90.3
Land and Sea Transport (km)	55.6
Waste	50.5
Accommodation and facilities	48.3
Stationary Energy	38.8
Merchandise	32.1
Working from home	7.8
Water	5.7
Postage, courier and freight	2.2
Refrigerants	1.7
Electricity	0.0
Carbon neutral products and services	0.0
<b>Total Net Emissions</b>	<b>1,131.0</b>

## Uplift factors

Table 2

Reason for uplift factor	tonnes CO <sub>2</sub> -e
5% uplift to cover emissions from the Charnwood Campus	56.5
<i>Total footprint to offset (uplift factors + net emissions)</i>	
	<b>1,187.5</b>

## Carbon neutral products

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.

## Electricity summary

Electricity was calculated using a market-based approach.

### Market-based approach summary

Table 3

Market-based approach	Activity Data (kWh)	Emissions (kgCO <sub>2</sub> -e)	Renewable %
Behind the meter consumption of electricity generated	110,376	0	18%
<b>Total non-grid electricity</b>	110,376	0	18%
LGC Purchased and retired (kWh) (including PPAs)	0	0	0%
GreenPower	0	0	0%
Jurisdictional renewables (LGCs retired)	482,512	0	81%
Jurisdictional renewables (LRET) (applied to ACT grid electricity)	115,471	0	19%
Large Scale Renewable Energy Target (applied to grid electricity only)	-21,314	0	-4%
Residual Electricity	-89,062	-96,027	-15%
<b>Total grid electricity</b>	487,607	-96,027	82%
<b>Total Electricity Consumed (grid + non grid)</b>	597,983	-96,027	115%
Electricity renewables	687,045	0	
Residual Electricity	-89,062	-96,027	
<b>Exported on-site generated electricity</b>	0	0	
Emission Footprint (kgCO <sub>2</sub> -e)		0	

<b>Emission Footprint (tCO<sub>2</sub>-e)</b>	0
<b>LRET renewables</b>	19.31%
<b>Voluntary Renewable Electricity</b>	99.15%
<b>Total renewables</b>	118.46%

**Location-based approach summary**  
**Table 4**

<b>Location-based approach</b>	<b>Activity Data (kWh)</b>	<b>Emissions (kgCO<sub>2</sub>-e)</b>
ACT	487,607	438,846
<b>Grid electricity (scope 2 and 3)</b>	487,607	438,846
ACT	110,376	0
<b>Non-grid electricity (Behind the meter)</b>	110,376	0
<b>Total Electricity Consumed</b>	597,983	438,846

<b>Emission Footprint (tCO<sub>2</sub>-e)</b>	<b>439</b>
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## 4. CARBON OFFSETS

### Offsets strategy

Table 5

Offset purchasing strategy: In arrears	
1. Total offsets previously forward purchased and banked for this report	0
2. Total emissions liability to offset for this report	1,188
3. Net offset balance for this reporting period	1,188
4. Total offsets to be forward purchased to offset the next reporting period	812
5. Total offsets required for this report	2,000

## Offsets summary

Proof of cancellation of offset units

Table 6

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	Eligible Quantity (tCO <sub>2</sub> -e)	Quantity used for previous reporting periods	Quantity banked for future reporting periods	Quantity used for this reporting period claim	Percentage of total (%)
Cai Be Rice Husk Thermal Energy Generation Project, Vietnam	VCU	Verra	3 August 2021	<a href="#">3983-170792047-170792346-VCU-008-APX-VN-1-908-01032013-28022014-0</a>	2013- 2014	300	0	0	300	15.0%
Pacajai REDD+ Project	VCU	Verra	3 August 2021	<a href="#">9776-133157831-133158618-VCS-VCU-259-VER-BR-14-981-01012015-31122015-0</a>	2015	788	0	0	788	39.4%
Rwanda Cook Stoves Gold Standard Credits	VER	Impact	3 August 2021	<a href="#">GS1-1-RW-GS3451-16-2016-7427-7427-7526</a>	2016	100	0	0	100	5.0%
Cai Be Rice Husk Thermal Energy Generation Project, Vietnam	VCU	Verra	3 August 2021	<a href="#">3983-170792347-170792646-VCU-008-APX-VN-1-908-01032013-28022014-0</a>	2013-2014	300	0	300	0	15.0%

Pacajai REDD+ Project	VCU	Verra	3 August 2021	<a href="#">9776-133158619-133159030-VCS-VCU-259-VER-BR-14-981-01012015-31122015-0</a>	2015	412	0	412	0	20.6%
Rwanda Cook Stoves Gold Standard Credits	VER	Impact	3 August 2021	<a href="#">GS1-1-RW-GS3451-16-2016-7427-7527-7570</a>	2016	44	0	44	0	2.2%
Rwanda Cook Stoves Gold Standard Credits	VER	Impact	3 August 2021	<a href="#">GS1-1-RW-GS3444-16-2017-18595-3711-3766</a>	2017	56	0	56	0	2.8%
<b>Total offsets retired this report and used in this report</b>										1,188
<b>Total offsets retired this report and banked for future reports</b>										812

Type of offset units	Quantity (used for this reporting period claim)	Percentage of Total
Verified Emissions Reductions (VERs)	100	8.4%
Verified Carbon Units (VCUs)	1,088	91.6%

## Co-benefits

### 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 CO<sub>2</sub> 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.

## 5. USE OF TRADE MARK

Table 7

Description where trademark used	Logo type
Sustainability report	Certified organisation
Website	Certified organisation
Social Media channels	Certified organisation

## 6. 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 1

## Excluded emissions

To be deemed relevant an emission must meet two of the five relevance criteria. Excluded emissions are detailed below against each of the five criteria.

**Table 8**

Relevance test					
Excluded emission sources	<i>The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions</i>	<i>The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.</i>	<i>Key stakeholders deem the emissions from a particular source are relevant.</i>	<i>The responsible entity has the potential to influence the reduction of emissions from a particular source.</i>	<i>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.</i>
N/A	N/A	N/A	N/A	N/A	N/A



## APPENDIX 2

### Non-quantified emissions for organisations

Table 9

Non-quantification test				
Relevant-non-quantified emission sources	<i>Immaterial &lt;1% for individual items and no more than 5% collectively</i>	<i>Quantification is not cost effective relative to the size of the emission but uplift applied.</i>	<i>Data unavailable but uplift applied. A data management plan must be put in place to provide data within 5 years.</i>	<i>Initial emissions non-quantified but repairs and replacements quantified</i>
Charnwood Campus	N/A	N/A	Yes	N/A



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