



# **PUBLIC DISCLOSURE STATEMENT**

**BVN ARCHITECTURE PTY LTD**

**ORGANISATION CERTIFICATION**


**FY2022–23**

Australian Government  
**Climate Active  
Public Disclosure Statement**



An Australian Government Initiative



<b>NAME OF CERTIFIED ENTITY</b>	BVN Architecture Pty Ltd
<b>REPORTING PERIOD</b>	1 July 2022 – 30 June 2023 Arrears report
<b>DECLARATION</b>	<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>Neil Logan co-CEO 19/12/2023</p>



**Australian Government**

**Department of Climate Change, Energy,  
the Environment and Water**

Public Disclosure Statement documents are prepared by the submitting organisation. The material in the Public Disclosure Statement document represents the views of the organisation and do not necessarily reflect the views of the Commonwealth. The Commonwealth does not guarantee the accuracy of the contents of the Public Disclosure Statement document and disclaims liability for any loss arising from the use of the document for any purpose.

Version August 2023.



# 1. CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	1,858 tCO <sub>2</sub> -e
CAROBN OFFSETS USED	9% ACCUs, 91% VCUs
RENEWABLE ELECTRICITY	66.71%
CARBON ACCOUNT	Prepared by: Pangolin Associates
TECHNICAL ASSESSMENT	20/12/2023 Organisation: Pangolin Associates Next technical assessment due: FY2025-26 report

## Contents

1. Certification summary .....	3
2. Certification information .....	4
3. Emissions boundary .....	6
4. Emissions reductions .....	8
5. Emissions summary .....	12
6. Carbon offsets .....	14
7. Renewable Energy Certificate (REC) Summary .....	17
Appendix A: Additional Information .....	17
Appendix B: Electricity summary .....	24
Appendix C: Inside emissions boundary .....	27
Appendix D: Outside emissions boundary .....	28

## 2. CERTIFICATION INFORMATION

### Description of certification

This inventory has been prepared for the financial year from 1 July 2022 to 30 June 2023 and covers all the Australian operations of BVN Architecture Pty Ltd, ABN 46 010 724 339.

The certification is limited to BVN Architectures operations in Australia. International project-related activities are conducted at client sites, with related travel included in this assessment.

International offices in New York and London are not included in the scope of this 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:

- Level 11, 255 Pitt Street, Sydney NSW 2000
- Level 4, 12 Creek Street, Brisbane QLD 4000
- Level 3 & 4, The Annex 12 Creek Street, Brisbane QLD 4000

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

## Organisation description

Collective Creativity to Design a Better future, guides everything we do.

We are an architectural and design practice of 95 years' experience, with offices in Sydney and Brisbane.

Our portfolio spans across a diverse spectrum of use and scale, comprising of complex public and private sector projects. These include many landmark buildings, spaces and precincts.

You will find us open and progressive, with a curious mind about how the world fits together. This curiosity combined with our collaborative approach influences the way we design and deliver our projects. It's one of the reasons we've received over 700 design excellence awards since 2000.

Our fundamental approach to the way we work recognises that we cannot operate alone. We work closely with our colleagues in other studios; with our peers in other industries; with consultants and contractors; and, most importantly, with our clients, to create buildings and places that sustainably exceed expectations. We enjoy our work and we want you and our collaborators to enjoy this journey with us all the way through to a completed project.

We live in a time that promises extraordinary social, technological and economic change. There has never been a better or more significant opportunity to leverage the power of design to shape a future that maximises human wellbeing, strengthens identity, protects the planet and binds us through place. Our leading-edge research into robotics in architecture, integrating new digital technology, our innovation in construction methodologies, as well as our passion to deliver projects that are centred around improving individual's life's — deliver smarter and more creative projects. With people at the centre of our design strategy we offer designs for a better future.

## 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 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  
Cleaning and Chemicals  
Climate Active Carbon  
Neutral Products and  
Services  
Electricity  
Food  
ICT services and equipment  
Machinery and vehicles  
Office equipment & supplies  
Postage, courier and freight  
Professional Services  
Refrigerants  
Stationary energy  
Transport (Air)  
Transport (Land and Sea)  
Waste  
Water  
Working from home

### Non-quantified

N/A

## Outside emission boundary

### Excluded

International offices

## 4. EMISSIONS REDUCTIONS

### Emissions reduction strategy

BVN aim to reduce our overall operational emissions intensity (tCO<sub>2</sub>-e per FTE) by a minimum of 30% by 2025 from FY2020 base year, and we will continue to offset more emissions than we consume every reporting year.

Our emissions reduction strategy targets the areas contributing to the highest emissions:

#### Scope 2 Emissions

Our indirect scope 2 emissions are attributed to Purchased Electricity and Heating and Cooling

**Aim: 100% reduction in scope 2 emissions by 2025 for tenancy electricity consumption**  
**50% reduction in scope 2 emissions by 2025 for base build electricity consumption**

Electricity is now the 7<sup>th</sup> largest component of our emissions accounting for 4.3% of our current emissions. Although we have reduced emissions in this sector by 78.3% since the base year, there is more work to be done. Our Sydney offices tenancy electricity has been powered with 100% certified GreenPower since the beginning of the FY21/22 reporting period and we have had several discussions with the building owners to migrate our Brisbane office to Green Power as soon as feasible. Our actions to reduce electricity emissions include:

- Migrate Brisbane Office Tenancy to 100% Green Power (discussions with Building Owners underway)
- Negotiate with Brisbane and Sydney landlords to switch to 100% renewable energy for base builds (discussions underway)
- Further reduce energy consumption by continuing to promote the unplugging of appliances and powering down of computers at the end of the day

#### Scope 3 Emissions

These emissions are generated indirectly by our business activities.

**Aim: Min.30% reduction by 2025**

#### Business Flights

Most of our emissions are still attributed to business flights: 40.8% in FY2022-23. Our emissions intensity per employee attributed to business flights has decreased from 2.7 to 2.2 since the beginning of the reporting period, although the overall emissions in this sector have increased.

With the aim of further reducing emissions attributed to business flights, we will continue with the “Infrequent Flyer Programme”, encouraging employees to reduce the amount they travel through 3 simple decision steps: 1) Do I have to be there? 2) Is there a smarter option than flying? 3) If flying is essential, can I make the trip more impactful?

We will continue to invest in videoconferencing and remote collaboration technologies to make alternatives to in-person meetings easier. Through this initiative, we will also reduce our emissions attributed to domestic and international hotel accommodation.



## **ICT Services**

ICT Services are the second largest component of our emissions, contributing to 21.5% of our overall emissions. These services include data services (12%) , software (8%) and telecommunications (2%)

We will aim to reduce emissions attributed to each aspect as described below:

### **Data Services**

- Have discussions with our external data centre providers to convince them to transition to 100% green power and carbon neutrality
- Use data compression techniques to reduce the size of data stored in our external data centres
- Implement data de-duplication techniques to identify and remove duplicate data

### **Software**

- Run an in-depth audit of the software we use and have discussions with software providers to persuade them to transition to carbon neutrality or select alternative software providers that are already carbon neutral
- Investigate the use of cloud computing software where possible as these can provide computing resources on demand which in term can reduce energy consumption

### **Professional Services**

Professional Services are the third largest component of our emissions, contributing to 13% of our overall emissions. In order to reduce our emissions in this area, we will:

- Conduct an audit of all companies that currently provide their professional services to us and determine if they are powered by green power or are already carbon neutral. If they are not, we will either convince them to become carbon neutral or switch to a carbon neutral company. We will start the audit with consulting services, as this amounts for 10% of our overall emissions.

It is noted that the boundary has been reviewed which has broadened the scope of ICT and Professional Services captured.

### **Employees**

Employees are the fourth largest component of our emissions, contributing to 6.3% of our overall emissions.

We will reduce emissions in this area by:

- Encouraging all employees to switch to green power and reduce their home emissions
- Encouraging employees to use public transport when attending meetings or if a taxi is required, ensure it is shared and electric, wherever possible.
- Encourage the use of bicycles

### **Office Supplies and Services**

Office supplies and services are the fifth largest component of our emissions, contributing to 5.8% of our overall carbon emissions. Below is a breakdown of the highest items in this category and a plan to reduce emissions in each category:

- Furniture Emissions (4%) will be reduced by selecting companies which are already carbon neutral and offer circular design.

- Outsourced Printing (1%), Stationary (1%) and Cleaning (1%) emissions will be reduced by preferencing low emissions options and reducing their use.

**Food and Beverage**

Food and Beverage are the fifth largest component of our emissions, contributing to 5.1% of our carbon emissions. We will reduce emissions in this area by:

- Conducting an audit of the food and beverage providers we mainly use and determine if they are carbon neutral. If not, switch to providers that are carbon neutral or offer low emissions options.

We will also continue to take steps towards educating employees, clients and trade partners in ways they can reduce their individual impacts.

Although this Climate Active Certification focuses on Company Operations, we are aware of the enormous positive impact that we can make by designing our projects consciously. For more details regarding our approach to projects, refer to the section on Emissions Reduction Actions.

<b>Emissions reductions since base year</b>		Scope 1	Scope 2	Scope 3	Emissions intensity
Base year/Year 1:	2019–20	30.7	159.2	1,383.4	5.6
Year 2:	2020-21	10.1	159.6	1,123.5	4.7
Year 3:	2021–22	10.3	38.0	817.0	2.8
Current Year:	2022-23	0.7	17.6	1,838.9	5.4
<b>Reduction since base year</b>		<b>-29.9</b>	<b>-141.7</b>	<b>455.5</b>	<b>-3.75%</b>

\* Emissions Intensity defined as tCO<sub>2</sub>-e per FTE (full time equivalent)

## Emissions reduction actions

Our emissions reduction actions in this reporting year have focused on the areas that have the highest emissions impact and encompass both Operations and Design Projects.

### OPERATIONS

#### Scope 2: Electricity

We have achieved a 78.3% reduction in energy consumption since the base year and 55.7% reduction since last reporting period and this is attributed to moving to a more energy efficient building (designed by us) in Brisbane and continuing to power our Sydney office tenancy by 100% renewable energy.

We have had several conversations with the Building Managers of both the Sydney and Brisbane Base Buildings and are hoping that these will be powered by renewable energy in due course.

#### Scope 3

We have updated our procurement policy to preference low emissions suppliers however due to increases in Business Travel, ICT and Professional services scope 3 emissions have increased. Reductions have been achieved through lower use of Outsourced Printing and ICT Equipment purchases.

### Conclusion

Although our overall carbon emissions have increased by 19.2% since the base year (2019/2020), the base year was not indicative of a normal year since it was partially during COVID and furthermore our number of Full-Time equivalent employees has increased from 281 to 348 since then. We have also broadened our reporting to capture additional ICT services and Professional services, which were not previously accounted for.

This year has been the first year that we have not been impacted by COVID closures and despite this, our overall emissions intensity per full time employee since the base year has decreased from 5.59 to 5.38, accounting for an overall 3.75% reduction.

## 5. EMISSIONS SUMMARY

### Emissions over time

		Emissions since base year	
		Total tCO <sub>2</sub> -e (without uplift)	Total tCO <sub>2</sub> -e (with uplift)
Base year/Year 1:	2019-20	1,573.29	N/A
Year 2:	2020-21	1,293.20	N/A
Year 3:	2021-22	865.25	N/A
Year 4:	2022-23	1,857.18	N/A

### Significant changes in emissions

Emission source	Previous year emissions (t CO <sub>2</sub> -e)	Current year emissions (t CO <sub>2</sub> -e)	Reason for change
Long business class flights (>3,700km)	109.256	379.654	Increased flight activity coming out of COVID
Short economy class flights (>400km, ≤3,700km)	110.034	222.121	Increased flight activity coming out of COVID

### Use of Climate Active carbon neutral products and services

Certified brand name	Product/Service used
Winc and Reflex	Paper
QANTAS	Opt-in carbon neutral flight
Pangolin Associates	Consulting services

## Emissions summary

The electricity summary is available in the Appendix B. Electricity emissions were calculated using a market-based approach.

Emission category	Sum of scope 1 (tCO <sub>2</sub> -e)	Sum of scope 2 (tCO <sub>2</sub> -e)	Sum of scope 3 (tCO <sub>2</sub> -e)	Total emissions (t CO <sub>2</sub> -e)
Accommodation and facilities	0.00	0.00	54.97	54.97
Cleaning and chemicals	0.00	0.00	10.11	10.11
Climate Active carbon neutral products and services	0.00	0.00	0.00	0.00
Electricity	0.00	49.29	31.53	80.82
Food	0.00	0.00	88.86	88.86
ICT services and equipment	0.00	0.00	278.01	278.01
Machinery and vehicles	0.00	0.00	6.02	6.02
Office equipment and supplies	0.00	0.00	96.54	96.54
Postage, courier and freight	0.00	0.00	9.75	9.75
Products	0.00	0.00	6.33	6.33
Professional services	0.00	0.00	388.58	388.58
Refrigerants	0.73	0.00	12.24	12.97
Stationary energy (gaseous fuels)	0.00	0.00	2.12	2.12
Transport (air)	0.00	0.00	696.38	696.38
Transport (land and sea)	0.00	0.00	88.59	88.59
Waste	0.00	0.00	6.33	6.33
Water	0.00	0.00	1.49	1.49
Working from home	0.00	0.00	29.31	29.31
<b>Total emissions</b>	<b>0.73</b>	<b>17.56</b>	<b>1,838.89</b>	<b>1,857.18</b>

## Uplift factors

N/A

## 6. CARBON OFFSETS

### Offsets retirement approach

This certification has taken an in-arrears offsetting approach. The total emissions to offset are 1,858 tCO<sub>2</sub>-e. The total number of eligible offsets used in this report is 2,170. Of the total eligible offsets used, 915 were previously banked and 1,255 were newly purchased and retired. 33 are remaining and have been banked for future use as an additional 279 were voluntarily surrendered.

### Co-benefits

#### **150 MW grid connected Wind Power based electricity generation project in Gujarat, India.**

The main purpose of the project is to generate renewable electricity using wind power and feed the generated output to the local grid in Gujarat, contributing to climate change mitigation efforts. In addition to the generation of renewable energy-based electricity, the project has also been conceived to enhance the propagation of commercialisation of wind power generation in the region and to contribute to the sustainable development of the region, socially, environmentally and economically. The proposed project activity leads to alleviation of poverty by establishing direct and indirect employment benefits accruing out of infrastructure development of wind farms, installation work, operation and management of wind farm, providing daily needs, etc. The infrastructure in and around the project area will also improve due to project activity. This includes development of road network and improvement of electricity quality, frequency and availability as the electricity is fed into a deficit grid. The generated electricity is fed into the Western regional Grid through local grid, thereby improving the grid frequency and availability of electricity to the local consumers (villagers & sub-urban habitants) which will provide new opportunities for industries and economic activities to be setup in the area thereby resulting in greater local employment, ultimately leading to overall development.

#### **Bundled Solar Project by SolarArise India VCS Project**

The project activity involves the installation of Solar PV project. The total installed capacity of the project is 120 MW of Solar PV plant located at different states in India. The project is promoted by SolarArise India Projects Pvt. Ltd.

#### **Co-benefits:**

- **Social well-being:** The project would help in generating employment opportunities during the construction and operation phases. The project activity will lead to development in infrastructure in the region like development of roads and also may promote business with improved power generation.
- **Economic well-being:** The project is a clean technology investment in the region, which would not have been taken place in the absence of the VCS benefits the project activity will also help to reduce the demand supply gap in the state. The project activity will generate power using zero emissions Solar PV based power generation which helps to reduce GHG emissions and specific pollutants like SO<sub>x</sub>, NO<sub>x</sub>, and SPM associated with the conventional thermal power generation facilities.
- **Technological well-being:** The successful operation of project activity would lead to promotion of Solar based power generation and would encourage other entrepreneurs to participate in similar projects.

## Eligible offsets retirement summary

### Offsets retired for Climate Active certification

Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Stapled quantity	Eligible quantity retired (tCO <sub>2</sub> -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 (%)
Tiwi Islands Savana Burning for Greenhouse Gas Abatement	ACCU	ANREU	12 Mar 2021	3,772,971,237 – 3,772,973,236	2018-19	-	2,000	1,827	0	173	9%
150 MW grid connected Wind Power based electricity generation project in Gujarat, India	VCUs	VERRA	14 Jan 2022	<a href="#">9085-66667076-66667875-VCS-VCU-1491-VER-IN-1-292-01012017-31122017-0</a>	2017	-	800	196	0	604	33%
150 MW grid connected Wind Power based electricity generation project in Gujarat, India: <i>Stapled with:</i>	VCUs	Verra	20 Apr 2021	<a href="#">9085-66647848-66649447-VCS-VCU-1491-VER-IN-1-292-01012017-31122017-0</a>	2017	-	1,600	1,462	0	138	7%
Greenfleet	-	-	21 Dec 2021	N/A	N/A	138	-	-	-	-	-
Bundled Solar Power Project by Solararise India Projects PVT. LTD. <i>Stapled with</i>	VCU	Verra	20 Dec 2023	<a href="#">10730-245059522-245060383-VCS-VCU-997-VER-IN-1-1762-26042018-31122018-0</a>	2018	-	862	0	0	862	46%
Greenfleet	-	-	19 Dec 2023	N/A	N/A	862	-	-	-	-	-

Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Stapled quantity	Eligible quantity retired (tCO <sub>2</sub> -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 (%)
Bundled Solar Power Project by Solararise India Projects PVT. LTD. <i>Stapled with:</i>	VCU	Verra	20 Dec 2023	<a href="#">10730-245076438-245076830-VCS-VCU-997-VER-IN-1-1762-26042018-31122018-0</a>	2018	-	393	0	33 <sup>1</sup>	81	4%
Greenfleet	-	-	19 Dec 2023	N/A	N/A	393	-	-	-	-	-
<b>Total eligible offsets retired and used for this report</b>										<b>1,858</b>	
<b>Total eligible offsets retired this report and banked for use in future reports</b>									<b>33</b>		

Type of offset units	Eligible quantity (used for this reporting period)	Percentage of total
Australian Carbon Credit Units (ACCUs)	173	9%
Verified Carbon Units (VCUs)	1,685	91%

<sup>1</sup> BVN offset an additional 279 credits for FY2022-23. Refer to Appendix A for further details.



## 7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

### Renewable Energy Certificate (REC) summary

N/A

## APPENDIX A: ADDITIONAL INFORMATION

### Additional offsets retired for purposes other than Climate Active 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)	Purpose of retirement
Bundled Solar Power Project by SolarArise India Projects PVT. LTD. <i>Stapled to:</i>	VCU	Verra	20 Dec 2023	<a href="#"><u>10730-245076438-245076830-VCS-VCU-997-VER-IN-1-1762-26042018-31122018-0</u></a>	2018	279	BVN would like to be Climate Positive and therefore have offset approximately 15% in excess of their emissions. A total of 279 credits have been retired for FY2022-23
Greenfleet	-	-	19 Dec 2023	-	-	-	

**Evidence of retired units (ACCUs and Greenfleet stapled units)**

<b>Transaction ID</b>	AU17741
<b>Current Status</b>	Completed (4)
<b>Status Date</b>	12/03/2021 13:05:41 (AEDT) 12/03/2021 02:05:41 (GMT)
<b>Transaction Type</b>	Cancellation (4)
<b>Transaction Initiator</b>	Foley, Rowan Paul Bulmer
<b>Transaction Approver</b>	Foley, Rowan Paul Bulmer
<b>Comment</b>	Retired on behalf of BVN Architecture for Climate Active for FY2019/20

**Transferring Account**

<b>Account Number</b>	AU-2798
<b>Account Name</b>	Aboriginal Carbon Fund Limited
<b>Account Holder</b>	Aboriginal Carbon Fund Limited

**Acquiring Account**

<b>Account Number</b>	AU-1068
<b>Account Name</b>	Australia Voluntary Cancellation Account
<b>Account Holder</b>	Commonwealth of Australia

**Transaction Blocks**

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
AU	KACCU	Voluntary ACCU Cancellation			<a href="#">ERF105045</a>					2018-19		3,772,971,237 - 3,772,973,236	2,000

**Transaction Status History**



## This is to certify

### BVN

offset 1,255.00 tonnes of CO<sub>2</sub>-e with Greenfleet.

Your support will help us restore native forests and ecosystems, which provide crucial habitat for endangered wildlife, help counter the devastating impact of the bushfires, and reduce the impacts of climate change.

Greenfleet will plant enough biodiverse native trees on your behalf to offset these emissions.

Thank you for helping us grow our forests and grow climate hope.

**Wayne Wescott** | Greenfleet CEO

19/12/2023



## This is to certify

### BVN

offset 1,600.00 tonnes of CO<sub>2</sub>-e with Greenfleet.

Your support will help us restore native forests and ecosystems, which provide crucial habitat for endangered wildlife, help counter the devastating impact of the bushfires, and reduce the impacts of climate change.

Greenfleet will plant enough biodiverse native trees on your behalf to offset these emissions.

Thank you for helping us grow our forests and grow climate hope.

**Wayne Wescott** | Greenfleet CEO

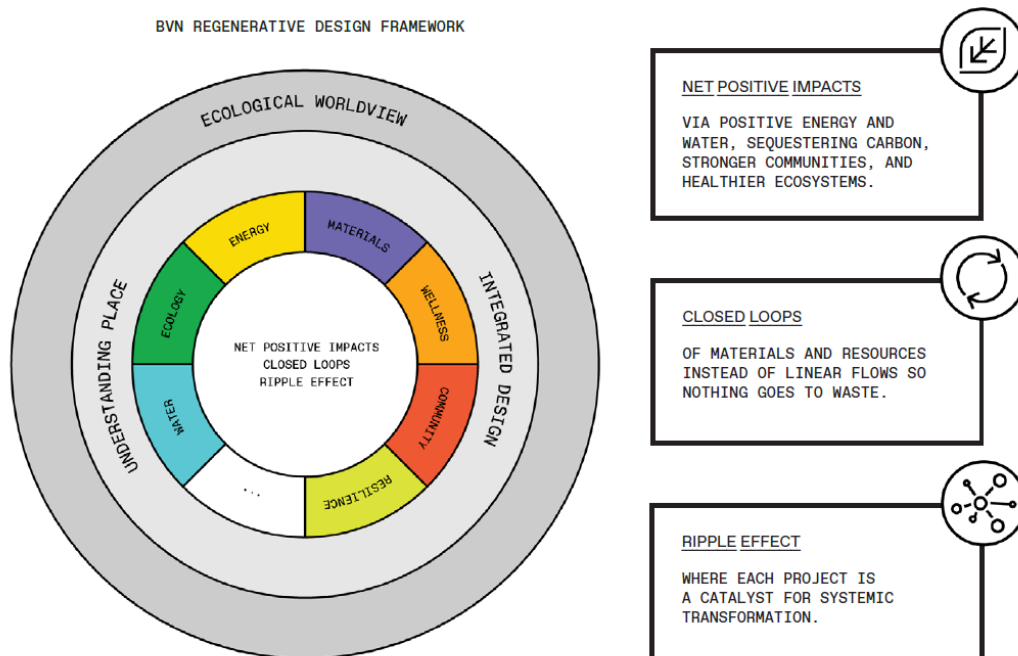
21/12/2021

## DESIGN PROJECTS: Emissions reduction actions beyond company operations

We recognize that our company emissions are only a fraction of the emissions we can have an influence upon as Architects. We know that the construction industry contributes 40% of all carbon emissions on the planet. BVN aims to be part of the solution every day on every project. Therefore, as part of our mission to create a future that maximises human wellbeing, binds us through place and regenerates the planet BVN has embraced Regenerative Design, aiming to achieve net positive outcomes.

### Regenerative Design Framework

BVN aims for every project to contribute to the greater whole. As part of our mission to create a future that maximises human well-being, binds us through place and regenerates the planet, we created and follow the BVN Regenerative Design Framework on each project.



The centre of the framework frames the regenerative outcomes that we aim to achieve on projects:

**Net positive impacts** via net positive energy and water, sequestering carbon, stronger communities and healthier ecosystems;

**Closed Loops:** To eliminate new material extraction and resource use to make each project circular and self sufficient;

**Ripple Effect:** To consider each project act as a catalyst for change through empowerment of all those involved, instigating change beyond the project boundary.

The outer ring of the framework is the ecological worldview, recognising that to achieve net positive outcomes we also need a different mindset...one that recognises that humans are part of nature, and whatever we do to nature, we do to ourselves.

The second ring of the framework highlights our design process, which starts with a deep understanding of place, and an integrated design process, where issues are looked at holistically and the team works on continuous optimisation of whole systems (not parts) at different scales.

The third ring states a range of knowledge domains that provide a lens for regenerative thinking.

Below are a list of provocations that aim to establish critical discussion on each topic:

**Materials and Embodied Carbon** – how can products and tectonic approaches be selected that have a positive impact on the environment?

**Energy** – How can the project optimise passive design to reduce energy demand? How could it be run by renewables and without combustion?

**Wellness** – how can we promote healthy and diverse working environment?

**Ecology** – how can we respond, connect and contribute to local ecosystems?

**Water** – how can the project operate within its water balance and help improve the water quality of its surroundings?

**Resilience** – how can the project respond and adapt to future uses and climate challenges?

**Community** – how can the project foster a thriving community?

### **In-house Sustainability Group**

To guide our journey towards a regenerative future, we have developed the BVN REgenerative Group, a team who oversee office operations, perform project reviews and directly supports our projects with greatest potential for environmental and social impact. We also provide practice-wide training through a program of talks, written guides, digital tools with the aim to empower our people to be autonomous regenerative champions across their projects.

### **Regenerative Week**

To further support and fulfil our vision statement, 'smarter, more creative, and better for the planet', BVN run a whole of practice REgenerative Design Week in June 2023.

We partnered with 2 of the most influential and respected experts in the green building movement, Jason McLennan (founder of the Living Building Challenge – the world's most stringent sustainable building rating tool) and Phaedra Svec, to work with us in accelerating regenerative outcomes in all of our projects.

Using knowledge gained throughout the week as well as our ongoing partnership with Jason and Phaedra, we plan to fully embed regenerative design in our design projects.

## Embodied Carbon Reduction

With the aim of achieving a substantial reduction in embodied carbon from the baseline, we have conducted an in-depth carbon analysis for each project typology we design and have established a baseline.

We have also conducted an in-depth training on embodied carbon reduction for all our people and have witnessed some significant carbon reduction in projects.

## Design Examples – Regenerative Design and Embodied Carbon:

Please see below some examples of projects where large emissions reductions have been achieved:

Every aspect of the '**Kambri**' project for the Australian National University was scrutinised against sustainability principles. By employing the 'one planet' methodology the team brought these together in a vision for a city made better by a future-ready university.

The Kambri precinct is the beating heart of ANU – it's central courtyard and cluster. It also includes two of Australia's most significant timber buildings. Combined with pre-fabricated mega panel facades, these buildings lowered embodied carbon and enabled high-speed installation. The project had an impressively low ecological footprint of 0.7 earths, 50% of the average university. Smart design and construction saved 40% embodied carbon in the base building, reduced the program by 30%, and labour by 50%.

At approximately 40 storeys high, **Atlassian Central** will be one of the world's tallest hybrid timber buildings with a glass and steel facade. It's designed for 50% less embodied carbon and 100% renewables. With a mix of outdoor and indoor spaces, BVN SHoP Architects will use an energy-efficient approach that features natural ventilation and large planted terraces giving access to nature. One of BVN's tenets, Radical Adaptation, has fundamentally changed our approach to new developments. Four of our most significant CBD tower projects in Sydney and Melbourne have kept extensive components of their former existence.

**Quay Quarter Tower (QQT)** retains the centre core of an existing building and transforms it into a model of 21st Century working and urban reinvigoration. QQT sets a new standard for skyscrapers with 6-star Green Star accredited and WELL Gold certified. The tower keeps over 60% of its original core structure, optimising the embodied energy and resources inherent in the existing building, saving 6.1million tonnes of carbon emissions.

Similarly, the **Greenland Centre** kept the existing structure and wrapped the building to elevate it to the highest quality of residential apartment living. BVN demonstrated to the client that the retention of the existing structure was an exemplary sustainable manoeuvre and that the architectural expression of this was central to the character of the architectural composition.

The **Sirius Redevelopment** includes the iconic building's retention, restoration and reimagining. Our proposal aims to preserve the building by enhancing and revitalising the Brutalist structure, ultimately leading to a harmonious and sustainable new life for the much-loved 1970s building. Sirius will be an exemplar for adaptive reuse through sustainable upgrades, replanning and additions of new elements as it is repurposed into 76 contemporary apartments. Reworking the building's base will knit the building and its

community into the surrounding streets.

**Queen & Collins** is the radical adaptation of three neo-gothic inspired buildings co-located on a high-profile corner block of Melbourne's CBD. This structure's most significant sustainability achievement was choosing to renovate rather than a new build and operate the precinct with 100% renewable electricity. This has helped to ensure that the building will have one of the city's lowest carbon footprints, with the development already achieving a 6 Star Green Star - Design rating.

As a society, we face significant climactic challenges and can't afford to continue building the way we do. A shift to whole systems thinking is needed. The relationship between the built and natural systems needs to be reframed to move towards net positive. In doing so, we can reconnect humans with nature even in urban environments.

---

*'One Planet' methodology* – One Campus, One Planet, ANU in association with Aberdeen Standard Investments - <https://technologymagazine.com/company-reports/anu-one-campus-one-planet>

*0.7 earths* – One Campus, One Planet, ANU in association with Aberdeen Standard Investments - <https://technologymagazine.com/company-reports/anu-one-campus-one-planet>

## APPENDIX B: ELECTRICITY SUMMARY

There are two international best-practice methods for calculating electricity emissions – the location-based method and the market-based method. Reporting electricity emissions under both methods is called dual reporting.

Dual reporting of electricity emissions is useful, as it provides different perspectives of the emissions associated with a business's electricity usage.

### **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.

For this certification, electricity emissions have been set by using the **market-based approach**.



Market-based approach summary			
Market-based approach	Activity Data (kWh)	Emissions (kg CO <sub>2</sub> -e)	Renewable percentage of total
Behind the meter consumption of electricity generated	0	0	0%
<b>Total non-grid electricity</b>	<b>0</b>	<b>0</b>	<b>0%</b>
LGC Purchased and retired (kWh) (including PPAs)	0	0	0%
GreenPower	121,798	0	48%
Climate Active precinct/building (voluntary renewables)	0	0	0%
Precinct/Building (LRET)	0	0	0%
Precinct/Building jurisdictional renewables (LGCS surrendered)	0	0	0%
Electricity products (voluntary renewables)	0	0	0%
Electricity products (LRET)	0	0	0%
Electricity products jurisdictional renewables (LGCs surrendered)	0	0	0%
Jurisdictional renewables (LGCs surrendered)	0	0	0%
Jurisdictional renewables (LRET) (applied to ACT grid electricity)	0	0	0%
Large Scale Renewable Energy Target (applied to grid electricity only)	47,794	0	19%
Residual Electricity	84,630	80,821	0%
<b>Total renewable electricity (grid + non grid)</b>	<b>169,592</b>	<b>0</b>	<b>67%</b>
<b>Total grid electricity</b>	<b>254,222</b>	<b>80,821</b>	<b>67%</b>
<b>Total electricity (grid + non grid)</b>	<b>254,222</b>	<b>80,821</b>	<b>67%</b>
Percentage of residual electricity consumption under operational control	69%		
<b>Residual electricity consumption under operational control</b>	<b>58,443</b>	<b>55,813</b>	
Scope 2	51,612	49,289	
Scope 3 (includes T&D emissions from consumption under operational control)	6,831	6,524	
<b>Residual electricity consumption not under operational control</b>	<b>26,187</b>	<b>25,009</b>	
Scope 3	26,187	25,009	

<b>Total renewables (grid and non-grid)</b>	<b>66.71%</b>
<b>Mandatory</b>	<b>18.80%</b>
<b>Voluntary</b>	<b>47.91%</b>
<b>Behind the meter</b>	<b>0.00%</b>
<b>Residual scope 2 emissions (t CO<sub>2</sub>-e)</b>	<b>49.29</b>
<b>Residual scope 3 emissions (t CO<sub>2</sub>-e)</b>	<b>31.53</b>
<b>Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO<sub>2</sub>-e)</b>	<b>49.29</b>
<b>Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO<sub>2</sub>-e)</b>	<b>31.53</b>
<b>Total emissions liability (t CO<sub>2</sub>-e)</b>	<b>80.82</b>

Figures may not sum due to rounding. Renewable percentage can be above 100%

Location-based approach summary						
Location-based approach	Activity Data (kWh) total	Under operational control			Not under operational control	
Percentage of grid electricity consumption under operational control	69%	(kWh)	Scope 2 Emissions (kg CO <sub>2</sub> -e)	Scope 3 Emissions (kg CO <sub>2</sub> -e)	(kWh)	Scope 3 Emissions (kg CO <sub>2</sub> -e)
NSW	163,782	113,102	82,565	6,786	50,679	40,037
QLD	90,440	62,455	45,592	9,368	27,985	24,627
<b>Grid electricity (scope 2 and 3)</b>	<b>254,222</b>	<b>175,557</b>	<b>128,157</b>	<b>16,154</b>	<b>78,664</b>	<b>64,663</b>
NSW	0	0	0	0		
QLD	0	0	0	0		
<b>Non-grid electricity (behind the meter)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
<b>Total electricity (grid + non grid)</b>	<b>254,222</b>					

Residual scope 2 emissions (t CO <sub>2</sub> -e)	128.16
Residual scope 3 emissions (t CO <sub>2</sub> -e)	80.82
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO <sub>2</sub> -e)	128.16
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO <sub>2</sub> -e)	80.82
<b>Total emissions liability</b>	<b>208.97</b>

### Operations in Climate Active buildings and precincts

Operations in Climate Active buildings and precincts	Electricity consumed in Climate Active certified building/precinct (kWh)	Emissions (kg CO <sub>2</sub> -e)
N/A	0	0
<p><i>Climate Active carbon neutral electricity is not renewable electricity. These electricity emissions have been offset by another Climate Active member through their building or precinct certification. This electricity consumption is also included in the market based and location based summary tables. Any electricity that has been sourced as renewable electricity by the building/precinct under the market based method is outlined as such in the market based summary table.</i></p>		

### Climate Active carbon neutral electricity products

Climate Active carbon neutral product used	Electricity claimed from Climate Active electricity products (kWh)	Emissions (kg CO <sub>2</sub> -e)
N/A	0	0
<p><i>Climate Active carbon neutral electricity is not renewable electricity. These electricity emissions have been offset by another Climate Active member through their electricity product certification. This electricity consumption is also included in the market based and location based summary tables. Any electricity that has been sourced as renewable electricity by the electricity product under the market-based method is outlined as such in the market based summary table.</i></p>		

## APPENDIX C: INSIDE EMISSIONS BOUNDARY

### Non-quantified emission sources

The following emissions sources have been assessed as relevant, are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. 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.

N/A – no relevant emission sources have been non-quantified in this reporting period.

### Data management plan for non-quantified sources

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

# APPENDIX D: OUTSIDE EMISSIONS BOUNDARY

## Excluded emission sources

The below emission sources have been assessed as not relevant to this organisation'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.

## Excluded emissions sources summary

Emission sources tested for relevance	Size	Influence	Risk	Stakeholders	Outsourcing	Justification
International offices	N	Y	N	N	N	As small offices with fewer than 10 employees at each. Emissions are small, risk immaterial and will not be considered relevant by stakeholders.





An Australian Government Initiative

