

# National Carbon Offset Standard Carbon Neutral Program Public Disclosure Summary



Charles Sturt  
University



Charles Sturt University

BASE YEAR: 2014

FIFTH CARBON NEUTRAL PERIOD: 2019

## Declaration

To the best of my knowledge, the information provided in this Public Disclosure Summary is true and correct and meets the requirements of the National Carbon Offset Standard Carbon Neutral Program.

	Date: 25 May 2020
Professor Andrew Vann	
Vice-Chancellor and President Charles Sturt University	

Type of carbon neutral certification: Organisation

Verification:

Independent Audit Report. Fifth Carbon Neutral Period 2019.  
Auditor: Gillian Hand-Smith. Sustainability by Innovation.



Australian Government  
Department of the Environment and Energy

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## 1. Carbon neutral information

### 1A. Introduction

Charles Sturt University (CSU) was established in 1989 as a multi-campus institution and, over the past 30 years, has grown into a dynamic and progressive university well-known for its innovative approach to education and applied research.

Our capacity for flexible delivery and international reputation for online learning provide access to educational opportunity throughout Australia and the world. As a national University, Charles Sturt attracts more than 28,000 on campus and 9,500 distance education students. To address our commitment to making a positive contribution to the wider Australian community and to participating in the internationalisation of higher education, Charles Sturt University delivers educational opportunities to approximately 1,400 students around the globe and more than 8,000 students at CSU Study Centres in Sydney, Melbourne and Brisbane.

Through our network of campuses, and in close association with industry, professions and government, we are committed to maintaining a course and research profile that meets the needs and supports the aspirations of our communities, and contribute to the enrichment of inland Australia.

We consider our regional, national and international roles to be integrally linked and mutually reinforcing. We believe that the University's success in attracting national and international students strengthens the programs it is able to offer its inland communities. The University's regional locations enable it to make a distinctive national and international contribution in such fields as health sciences, food and water security, environmental sustainability and economic prosperity.

The University's three faculties (Faculty of Arts and Education; Faculty of Business, Justice & Behavioural Science; and Faculty of Science) comprise a number of schools and centres. Faculties operate across campuses and are responsible for developing and delivering courses, while schools are generally based on a single campus and carry responsibility for teaching subjects. Administrative and academic support services are provided by the divisions, centres and offices, which operate across the University's campuses. Our disciplines include: Agricultural and Wine, Animal and Veterinary, Environmental and Outdoor Recreation, Allied Health and Paramedicine, Exercise and Sport, Medical and Dentistry, Nursing, Midwifery and Indigenous Health, policing, law, criminology, security, emergency management, customs and excise studies, border management, psychology, accounting, engineering, human resources, marketing, business management, computing and information technology, performing and visual arts, art history, communications, human services, library and information studies, theology, sociology, literature, philosophy, history, Indigenous Australian studies, education, teacher education, Islamic studies and civilisation.

The University has four Centres of Research Excellence comprising the Graham Centre for Agricultural Innovation; the Institute for Land, Water and Society (ILWS) the National Wine and Grape Industry Centre (NWGIC); and the Centre for Public and Contextual Theology (PACT).

## 1B. Emission sources within certification boundary

Identified emission sources.

Table 1: Reported Emissions Sources for CSU Initial Application			
Emissions Source	Emissions Reported		
	Scope 1	Scope 2	Scope 3
NG (Natural Gas)	✓		✓
LPG (Liquefied Petroleum Gas)	✓		✓
Diesel (Transport Fuel)	✓		✓
Gasoline (Transport Fuel)	✓		✓
Ethanol (E10 Blended Transport Fuel)	✓		✓
Sulphur Hexafluoride (Insul Elect SG)	✓		
Acetylene	✓		✓
Petroleum based oils and greases	✓		✓
On-Site Domestic wastewater treatment	✓		
Enteric Fermentation of Livestock	✓		
Electricity Purchased / Consumed		✓	✓
Construction Materials			✓
Municipal Waste			✓
Travel –Taxi (& Other)			✓
Travel - Hotel accommodation			✓
Travel - Private Vehicle			✓
Travel - Air			✓
Copy/Print Paper			✓
Amenity Paper Products			✓
Water (Urban Supply and WW Treatment)			✓

## Non-quantified sources

The following emission sources have not been quantified in line with the provisions in the NCOS. The impact of excluding these sources is not expected to materially affect the overall total emissions:

- **Capital Goods**  
The largest of the capital items for Charles Sturt relates to its capital works programs. This activity has been conservatively reported as an emission source.  
The acquisition of capital goods by comparison is a minor part of the capital spend and is not a significant emission source.
- **Employee Commuting**  
With more than 2,000 employees geographically dispersed across Australia, quantifying the emissions associated with employee commuting is onerous.  
In the 2014 PDS the employee commuting emissions were estimated at 356 t CO<sub>2</sub>-e per annum which is immaterial.  
There has been no changes in 2019 which would impact this estimate.
- **Downstream transportation and distribution, processing, use and end-of-life of sold products.**  
Generally, Charles Sturt does not manufacture and distribute goods.  
Any emission sources associated with any such activity are considered immaterial.
- **Facilities Not under Operational Control and Not Scope 3**  
Charles Sturt offers a number of courses through partner institutions. These courses are delivered by non-Charles Sturt staff at non-Charles Sturt owned or leased facilities.  
These are assessed as not within the operational boundary of Charles Sturt.
- **Franchises**  
Franchises are not a part of the Charles Sturt operations.
- **Investments**  
Through both the Charles Sturt Investment Portfolio and the Charles Sturt Foundation Investment Portfolio, Charles Sturt directly hold investments in a number of investment fund products and also direct shares in ASX listed companies. Charles Sturt does not have operational control over either the managed fund products nor does it have operational control of any company in which it has invested through its shareholdings.  
Charles Sturt has adopted the internal "Responsible Investment Guideline" for both investment funds.

### 1C. Diagram of certification boundary

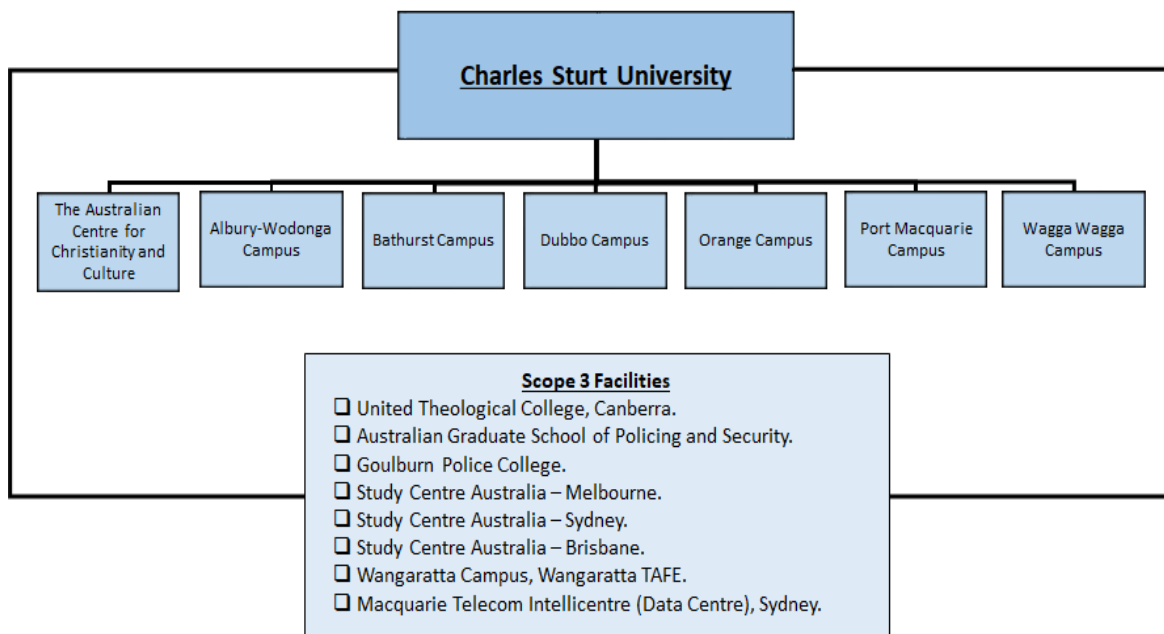


Figure 1: Charles Sturt University Organisation Boundary for carbon neutral certification

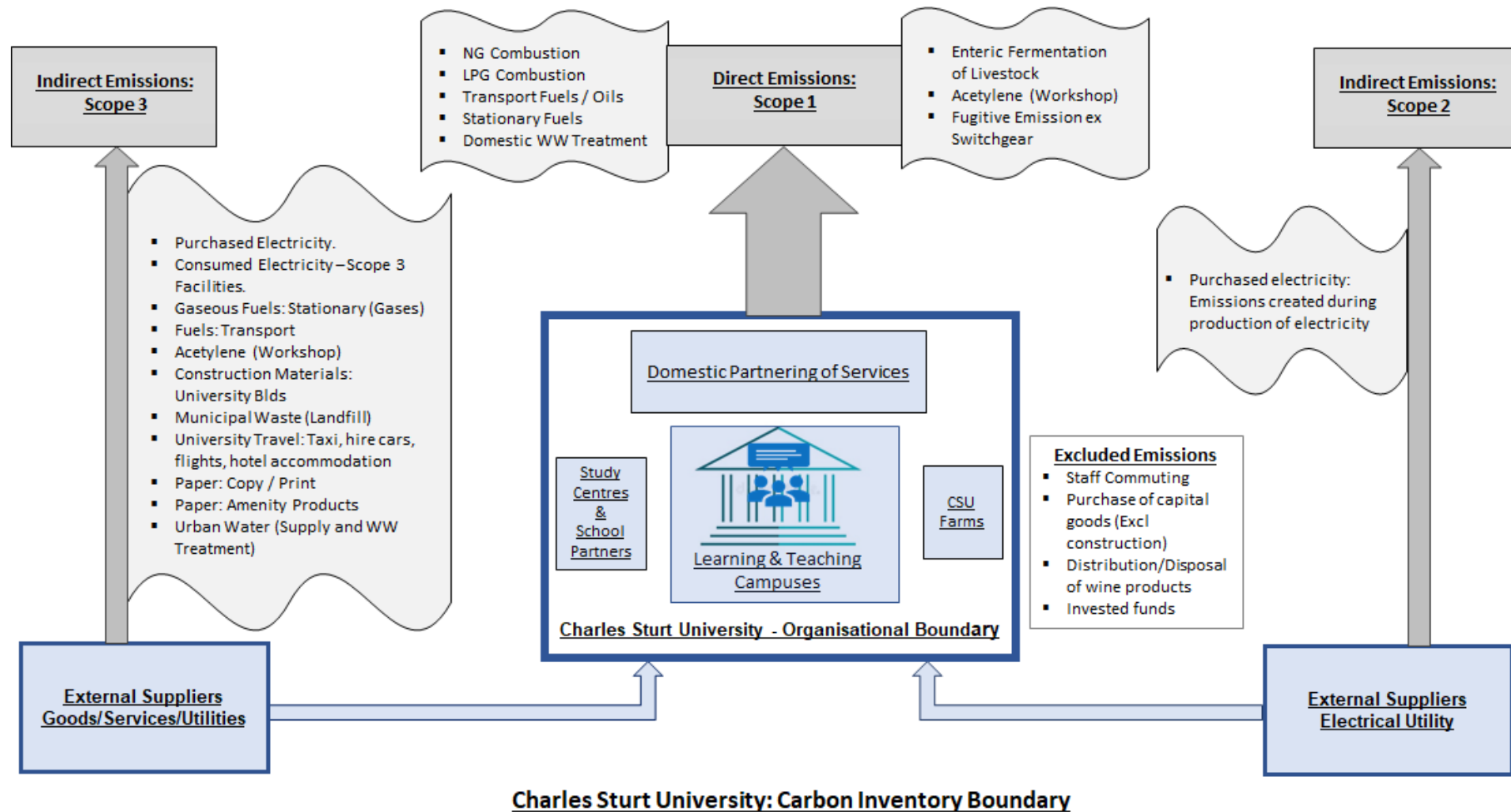


Figure 2 - Charles Sturt University Carbon Inventory Boundary for carbon neutral certification

## 2. Emissions reduction measures

### 2A. Emissions over time

<b>Table 2. Emissions Inventory (t CO<sub>2</sub>-e)</b>		
	<b>Base Year (2014)</b>	<b>2019</b>
Scope 1	5,936	10,076
Scope 2	26,915	20,796
Scope 3	10,773	18,953
Total (tCO <sub>2</sub> -e)	<b>43,623</b>	<b>49,824</b>
Emissions/FTE Student	<b>2.09</b>	<b>2.34</b>

Since the 2014 baseline year, Charles Sturt has introduced the following emission sources into its carbon inventory:

- Enteric Fermentation of Livestock
- Scope 3 emissions from urban water supply & treatment
- Scope 3 emissions associated with travel accommodation for University business.

### 2B. Emissions Reduction Strategy

Building on our achievement of being Australia's first certified carbon neutral university in 2016, Charles Sturt continues to drive the best practice model in sustainability and by doing so affects change for the greater benefit of society.

Included in this model is a target to derive all of our energy needs from renewable sources by 2030.

Also, Charles Sturt has adopted the Learning in Future Environments (LiFE) index as a key element of the University's strategic management process.

LiFE is a structured process for evaluating current practices and with cross-organisational engagement allows the development of improvement plans to progress the sustainability model.

Charles Sturt's [Sustainability Statement](https://www.csu.edu.au/csugreen), which is part of the broader University Strategy sets out commitments for Charles Sturt in the long term. A summary of the emissions reduction strategy and opportunities is available online at : <https://www.csu.edu.au/csugreen>

## 2C. Emissions reduction actions

Charles Sturt University is proactively reducing the emissions associated with its operations through discrete and targeted programs. In 2019 these focused primarily on campus energy.

The projects in 2019 included:

- Commissioning of Solar Array installations at Albury-Wodonga and Orange campuses. While our approach is to trade these as LGCs in the initial stages, they are integral to delivering our strategy of deriving all of our energy needs from renewable resources by 2030.
- Continuing Solar Array deployment across Bathurst campus and Port Macquarie campuses.
- Installation of higher efficiency lighting and air-conditioning technologies as part of building refurbishments
- Diversion strategies to reduce the waste-to-landfill streams.
- Purchase of hybrid vehicles as replacements for retiring fleet vehicles.
- Demolition of a number of obsolete residential facilities at the Wagga Wagga Campus which no longer met student needs and operated as some of the least energy efficient facilities in the University's building portfolio

These and other environmental improvement projects undertaken by Charles Sturt in 2019 are further discussed in Section 6.





### 3. Emissions summary

Table 4. Emissions Summary		
Scope	Emission source	t CO <sub>2</sub> -e
1	NG (Distributed In A Pipeline)	6,281
1	LPG	38
1	Vehicle Fuel – Diesel	361
1	Vehicle Fuel – ULP	478
1	Vehicle Fuel – E10	0
1	Petroleum Based Oils	1
1	Domestic Wastewater Treatment	6
1	Acetylene	0
1	SF6 – leakage	1
1	Enteric Fermentation of Livestock - Cattle	1,594
1	Enteric Fermentation of Livestock - Sheep	1,287
1	Enteric Fermentation of Livestock - Horses	29
2	Electricity - NSW & ACT	20,796
3	Transmission and Distribution Electricity (NSW)	2,311
3	NG (Distributed In A Pipeline)	1,658
3	LPG	2
3	Vehicle Fuel - Diesel	18
3	Vehicle Fuel - ULP	25
3	Vehicle Fuel - E10	0
3	Petroleum Based Oils	0
3	Electricity – Leased Assets	8,983
3	Construction	2,261
3	Municipal Waste	930
3	Travel – Air	1,261
3	Travel - Taxi	27
3	Travel – Private Vehicle	71
3	Copy/Print Paper	3
3	Copy/Print Paper – Offset Printing (Roll)	41
3	Water (Urban Water & Waste Water)	803
3	Accommodation	497
3	Amenity Paper Products	60
Total Gross Emissions		49,824

Since the 2014 baseline year, Charles Sturt has introduced the following emission sources into its carbon inventory:

- Enteric Fermentation of Livestock
- Scope 3 emissions from urban water supply & treatment
- Scope 3 emissions associated with travel accommodation for University business.

## 4. Carbon offsets

### 4A. Offsets summary

Table 5. Offsets Summary					
Project	Activity Type	Registry	Standard	Serial Numbers	Retirement
Arnhem Land indigenous savannah fire management Projects	Arnhem Land fire abatement	Australian Carbon Project Registry	Carbon Farming Initiative. Kyoto ACCUs	3,769,378,979 - 3,769,380,471	1,493
				3,756,673,266 – 3,756,673,272	7
Chakala Wind Power Project in Maharashtra	Renewable Energy - Wind	APX Registry	Verified Carbon Standard	7067-368066467-368083381-VCU-003-APX-IN-1-1197-30122011-01012013-0	16,915
Rimba Raya Biodiversity Reserve Project	Reduced Emissions from (Avoided) Deforestation and Degradation (REDD)	APX Registry	Verified Carbon Standard	7561-407425631-407429130-VCU-016-MER-ID-14-674-01072014-31122014-1	3,500
Energising India using Solar Energy Projects	Renewable Energy - Solar	APX Registry	Verified Carbon Standard	7387-391577725-391605669-VCU-034-APX-IN-1-1931-01012019-30062019-0	27,945
<b>Total offsets retired</b>	49,860				
<b>Net emissions</b>	-36				

## 4B. Offsets purchasing and retirement strategy

### *Offset Purchases*

Charles Sturt established a series of four principles to help guide decisions associated with the procurement of carbon offsets. These principles are as follows:

1. Support for locally-based projects to the extent that is deemed financially viable
2. A preference for projects that align with Charles Sturt's values and offer high engagement value
3. Consideration of projects that offer regional connectivity with Charles Sturt's international partners, a number which are listed here: <https://www.csu.edu.au/division/global-engagement-and-partnerships/partnerships/international-linkages>)
4. The per unit cost of the offset option

CSU purchases and retires offsets in arrears of the reporting period, once its annual inventory has been established and total quantity of offsets known.

## 4C. Offset projects (Co-benefits)

Charles Sturt University has selected offsets which have co-benefits that address some of the United Nations Sustainable Development Goals (SDGs). Otherwise known as the Global Goals, these are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.

The Goals that are addressed by the offsets include SDG 7, SDG 8, SDG 9, SDG 13, SDG 15.



**The Rimba Raya Biodiversity Reserve Project:** An initiative by InfiniteEARTH, aims to reduce Indonesia's emissions by preserving some 64,000 hectares of tropical peat swamp forest. This area, rich in biodiversity including the endangered Bornean orangutan, was slated by the Provincial government to be converted into four palm oil estates. Located on the southern coast of Borneo in the province of Central Kalimantan, the project is also designed to protect the integrity of the adjacent world renowned Tanjung Puting National Park, by creating a physical buffer zone on the full extent of the eastern border of the park.

**Chakala Wind Power Project in Maharashtra:** Bindu Vayu Urja Private Limited (BVUPL) is setting up a 39 MW Wind Power Plant in Chakala village in the state of Maharashtra in India. The project would be using 26 number Wind Turbine Generators. Each of these WTGs will have a capacity of 1.5 MW. The project would be generating around 77996.41 MWh of electricity per annum. The electricity would be exported to the Maharashtra State Electricity Distribution Company Limited (MSEDCL). The clean electricity generated from the project will aid in sustainable development of that region. It would also help in reducing green house gas emissions by generating clean and green electricity.

**Energising-India using Solar Energy Projects:** The drive to reduce India's carbon emissions and take an ambitious step to move toward a clean energy future started in 2010 with the launch of the Jawaharlal Nehru National Solar Mission (JNNSM). The Mission had set up an ambitious target of deploying 20 GW of grid connected solar power by 2022.

**Arnhem Land indigenous savannah fire management Projects:** Greenhouse gases emitted from savanna fires make up 3% of Australia's total emissions. Savanna burning projects undertaken by Traditional Owners and Aboriginal rangers reduce GHG emissions by undertaking cool, lower intensity fires in the early dry season when the vegetation still contains some moisture from the wet season. This reduces the GHG emitted from high intensity, unmanaged fire in the late dry season when the country is dry.

In addition to the carbon abatement the project is delivering 'core benefits' to country including:

- Managing country the right way
- Revitalising connection to country
- Improving corridors to take pressure off wildlife
- Building new fire skills and experience for Rangers

## 5. Use of trade mark

Table 6. Trade mark register	
Where used	Logo type
CSU Website (inclusive of CSU Green website sections)	Certified Organisation
Presentations on CSU's journey to carbon neutrality	Certified Organisation
CSU and CSU Green Facebook Pages	Certified Organisation
Staff electronic signatures	Certified Organisation

## 6. Have you done more?

Sustainability is a key performance measure for the University. These activities include:

- In 2007 CSU became a signatory to the Talloires Declaration.
- Since 2013, CSU has adopted the Learning in Future Environments (LiFE) index as the framework for benchmarking, evaluating and identifying areas for improvement to shape CSU's sustainability action plan.
- CSU has subscribed to the United Nations Sustainable Development Goals via the [University Commitment to the SDGs](#)
- At a National level CSU is an active member of [Australian Campuses Towards Sustainability](#) (ACTS).
- The Sustainable Practices Graduate Learning Outcome (GLO) has been developed to embed sustainable practices as a standard across graduating students from any discipline so that graduates can "Demonstrate attitudes and implement actions that meet the needs of the present without compromising the ability of future generations to meet their own needs and those of the environment"



- CSU's Research Narrative is based on the principles of 'Yindyamarra Winhanganha' is a Wiradjuri phrase meaning, 'the wisdom of respectfully knowing how to live well in a world worth living in'. The narrative is heavily focused on supporting all aspects of sustainability including sustainable environments, flourishing communities and resilient people that all intersect to create "a world worth living in"
- Adoption of a 2030 100% Clean Energy Strategy for the entire university

In 2019 CSU's Sustainability Scorecard sets out the full scope of our environmental achievements and is accessible through this link:

<https://www.csu.edu.au/csugreen/publications/sustainability-score-card>