

# National Carbon Offset Standard Carbon Neutral Program Public Disclosure Summary



An Australian Government Initiative



Charles Sturt University

BASE YEAR: 2014

SECOND CARBON NEUTRAL PERIOD: 2016

## 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	
Professor Andrew Vann Vice-Chancellor and President Charles Sturt University		

Type of carbon neutral certification: Organisation
Verification
Date of most recent external verification/audit:
Auditor:
Auditor assurance statement link:



**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 25 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 9,600 on campus and 24,000 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 more than 6,000 students around the globe, with more than 2,300 students at CSU Study Centres in Sydney, Brisbane and Melbourne.

Through our network of campuses, and in close association with industry, professions and government, we are committed to maintaining a course and research profile to meet 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 (Arts and Education, Business, Justice and Behavioural Sciences, and 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.

Research is conducted through institutes and centres located across the University's campuses. The University is a partner in the ARC Centre of Excellence for Policing and Security (CEPS).

The University has four University Research Centres: 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). The University also hosts the Functional Grains Centre which is an Australian Research Council Industrial Transformation Training Centre and is a partner in the Cooperative Research Centre for High Integrity Australian Pork

## 1B. Emission sources within certification boundary

### Quantified sources

Table 1: Reported Emissions Sources for CSU Second Year Report			
Emissions Source	Emissions Reported		
	Scope 1	Scope 2	Scope 3
Natural Gas	✓		✓
LPG	✓		✓
Diesel	✓		✓
Gasoline	✓		✓
E10 Blends	✓		✓
Sulphur Hexafluoride	✓		
Acetylene	✓		✓
Petroleum based oils and greases	✓		✓
Domestic wastewater treatment	✓		
Enteric Fermentation of Livestock	✓		
Purchased electricity		✓	✓
Emissions associated with construction			✓
Municipal Waste			✓
Travel-Taxi			✓
Reimbursed private vehicle usage			✓
Travel- Air short haul			✓
Travel- Air medium haul			✓
Travel- Air long haul			✓
Paper			✓
Paper Towels			✓

### 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:

- Employee Commuting
  - With greater than 2,000 employees geographically dispersed across Australia, quantifying the emissions associated with employee commuting is likely to be onerous (even with a sample selection of staff). A survey of staff habits at Albury noted 62% drive to campus. Using conservative assumptions and projecting these survey results across all staff, the employee commuting emissions were estimated at 356 tCO<sub>2</sub>-e which are immaterial for CSU. No additional data was available in 2015 on staff commuting and the emissions remain immaterial for this inventory.
- Downstream leased assets
  - CSU offer a small number of courses through partner institutions over which CSU does not have operational control. These are a small component of the overall higher

education service offered by CSU and have been assessed as not likely to significantly impact the reported emissions.

### Excluded Sources

The following emission sources were considered in relation to CSU's operations and have been determined to be outside of the reporting scope for CSU:

- Capital Goods
  - The largest capital items for CSU relate to the facilities and thus this emissions source was not further considered.
- Downstream transportation and distribution, processing, use and end-of-life of sold products.
  - Generally, CSU does not manufacture goods and thus these emissions source are not relevant for the organisation.
- Franchises
  - Not relevant to CSU operations.
- Investments
  - Through both the Charles Sturt Investment Portfolio and the Charles Sturt Foundation Investment Portfolio, CSU directly hold investments in a number of investment fund products and also direct shares in ASX listed companies. CSU 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.
  - CSU has adopted the internal "Responsible Investment Guideline" for both investment funds

1C. Diagram of certification boundary

Figure 1: Charles Sturt Organisation Boundary for the purposes of Carbon Neutral Certification

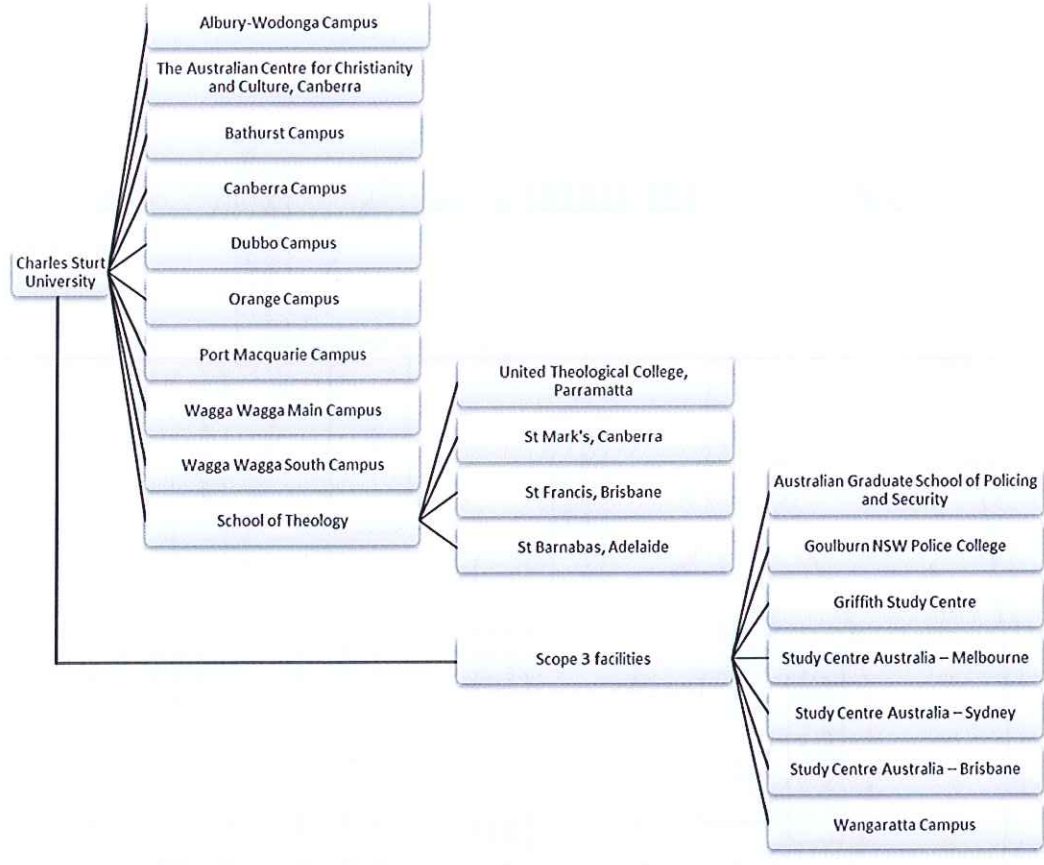
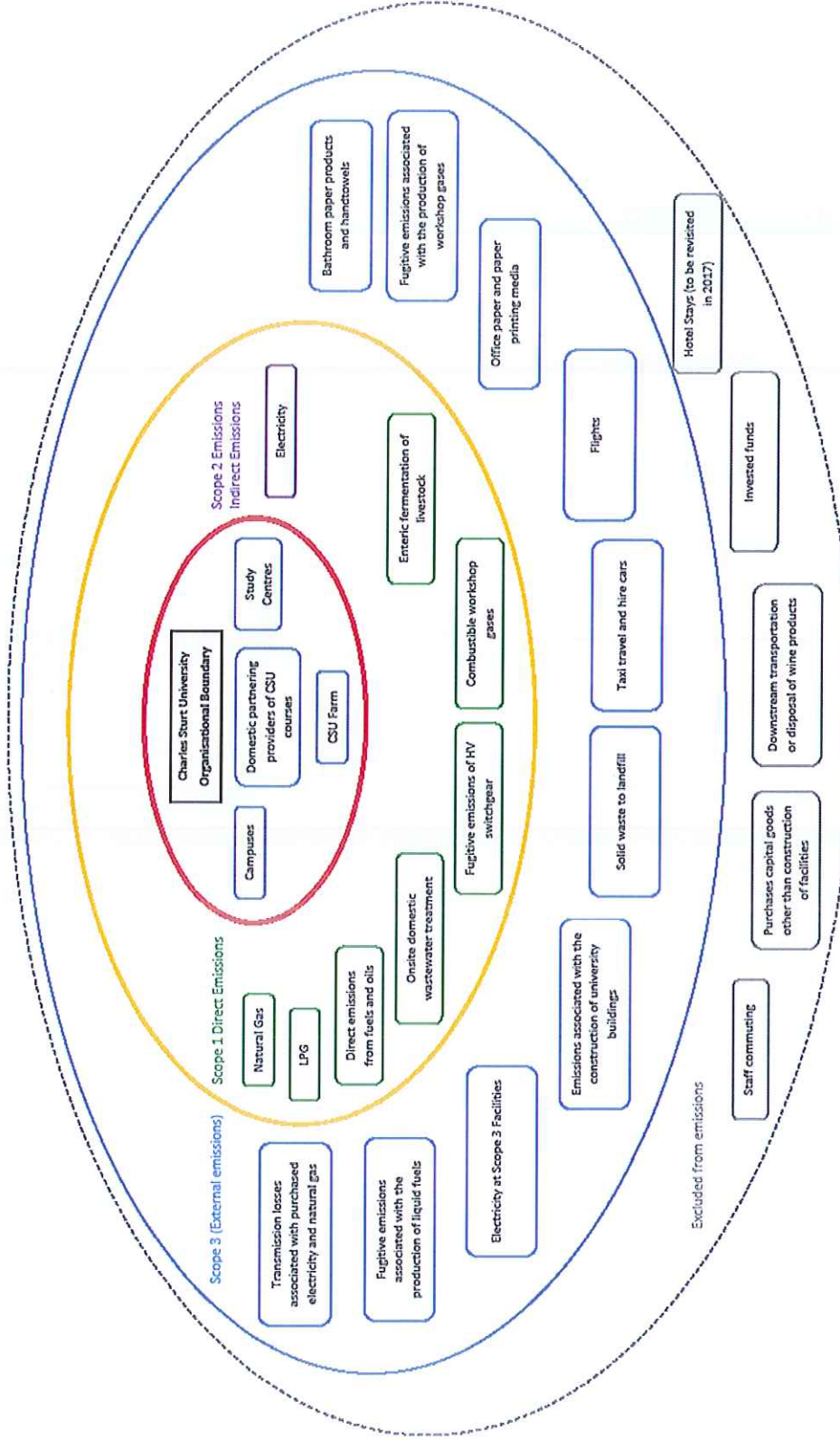


Figure 2 - Charles Sturt University carbon inventory boundary for the purposes of Carbon Neutral Certification



## 2. Emissions reduction measures

### 2A. Emissions over time

Please note that the FTE student numbers for prior reporting years have been updated since the reporting conducted in 2015 to include only those facilities covered in the CSU Organisational Boundary. This has resulted in higher reported emissions-intensities per student than the previous report.

Table 2. Emissions since base year			
	Base Year (2014)	2015	2016
Scope 1	5,936	8,063	8,293
Scope 2	26,915	26,035	19,754
Scope 3	10,773	11,968	18,874
Total (tCO <sub>2</sub> -e)	43,623	46,067	46,921
FTE Students (in Facilities covered by CSU)	19,220	19,648	18,362
Emissions/FTE Student	2.27	2.34	2.56

### 2B. Emissions reduction strategy

CSU's 2015-2016 Sub-Plan (Infrastructure Physical and Virtual), which is part of the broader University Strategy sets out the specific emissions reductions activities for Charles Sturt in the near term. A summary of the emissions reduction strategy and opportunities is available online at: <https://www.csu.edu.au/csugreen/our-commitments>

### 2C. Emissions reduction actions

Charles Sturt University is proactively reducing the emissions associated with its operations through discrete and targeted programs. Table 2 summarises the key projects undertaken in 2016, in addition to the on-going savings generated from the emissions reductions activities reported in the 2015 Report. In each case the emissions or electricity savings were taken from the data provided by the lead contractor.

CSU has also undertaken a number of other emissions reductions actions to actively reduce the emissions across the organisation but for which limited measured emissions and/or energy savings data is available. These projects in 2016 included the inclusion of sustainable design principles in the construction of the Port Macquarie Campus.

Table 3. Emissions reduction measures implemented in the current reporting period					
Year completed	Emission source	Reduction measure and calculation method	Scope	Status	Reduction t CO <sub>2</sub> -e
2016	Electricity	<b>Installation of a 40kW solar panel system at the Bathurst Campus</b>  The 40 kW solar array is expected to produce 58,400 kWh pa	2	On-going	49
2016	Electricity	<b>Installation of a 156 kW solar panel system at the Port Macquarie Campus</b>  The 156 kW solar array is expected to produce 227,760 kWh pa.	2	On-going	191
2016	Electricity	<b>Execution of Stage 2 of the Energy Performance Contract</b>  The second stage of the Energy Performance Contract (EPC) was focused on the library at the Bathurst campus. It involved an upgrade to the HVAC system including replacing the chiller and boiler, improvements to the control strategy and replacement of fluorescent lighting with LED lights. Estimated energy savings are: 112,000 kWh electricity pa	2	On-going	94
Total emission reductions implemented in this reporting period					334

### 3. Emissions summary

Table 4. Emissions Summary		
Scope	Emission source	t CO <sub>2</sub> -e
1	Natural Gas (Distributed In A Pipeline)	7,270
1	LPG	52
1	Vehicle Fuel - Diesel	500
1	Vehicle Fuel - ULP	384
1	Vehicle Fuel - E10	80
1	Petroleum Based Oils	1
1	Domestic Wastewater Treatment	6
1	Acetylene	0
1	SF6 - leakage	-
1	Enteric Fermentation of Livestock - Cattle	1,568
1	Enteric Fermentation of Livestock - Sheep	802



Table 4. Emissions Summary		
Scope	Emission source	t CO <sub>2</sub> -e
1	Enteric Fermentation of Livestock - Horses	17
2	Electricity - NSW & ACT	19,754
3	Transmission and Distribution Electricity (NSW)	2,822
3	Scope 3 Facility Electricity (NSW)	3,466
3	Scope 3 Facility Electricity (VIC)	4,206
3	Scope 3 Facility Electricity (QLD)	23
3	Construction	1,467
3	General Waste	962
3	Travel - Taxi	28
3	Travel - Personal Reimbursed	59
3	Travel - Short Haul (<463km)	227
3	Travel - Medium Haul (>463 <3,700 km)	275
3	Travel - Long Haul (>3,700 km)	881
3	A3 Recycled	-
3	A3 Virgin	-
3	A3 Certified Carbon Neutral	-
3	A4 Recycled	4
3	A4 Virgin	18
3	A4 Certified Carbon Neutral	-
3	Offset Printing Roll	-
3	Natural Gas (Distributed In A Pipeline)	1,919
3	LPG	3
3	Vehicle Fuel - Diesel	29
3	Vehicle Fuel - ULP	28
3	Vehicle Fuel - E10	9
3	Paper Towels/Toilet Tissue	62
<b>Total Gross Emissions</b>		<b>46,921</b>
GreenPower or retired LGCs		0
<b>Total Net Emissions</b>		<b>46,921</b>

Note that the total reported is prior to rounding in the presentation of Table 4.

## 4. Carbon offsets

### 4A. Offsets summary

Table 5. Offsets Summary			
Offset type and registry	Year retired	Quantity	Serial numbers
CO2 Australia Creating a Better Climate Project (Reforestation) ACCU Australian National Registry of Emission Units	2016	36	3,741,597,623 – 3,741,597,921
CO2 Australia Creating a Better Climate Project (Reforestation) ACCU Australian National Registry of Emission Units	2017	5,701	3,754,188,361 – 3,754,194,061
Household Biogas plants installed in rural areas of Maharashtra, India Gold Standard Markit Registry	2017	7,000	GS1-1-IN-GS2519-4-2015-5428-12355 to 19354
Guohua Wulate Zhongqi Chuanjing Phase II Wind Farm Project, China VCS APX Registry	2017	34,804	Parcel 1 (5,995 credits): 3312-148910818-148916812-VCU-003-APX-CN-1-1200-01012010-31122010-0 Parcel 2 (28,809 credits): 3310-148810302-148839110-VCU-003-APX-CN-1-1200-01012010-31122010-0
<b>Total offsets retired</b>			47,541
<b>Net emissions</b>			0
<b>Total offsets held in surplus for future years:</b> Guohua Wulate Zhongqi Chuanjing Phase II Wind Farm Project, China VCS APX Registry 3310-148838490-148839110-VCU-003-APX-CN-1-1200-01012010-31122010-0			620

#### 4B. Offsets purchasing and retirement strategy

##### *Offset Purchase*

CSU has 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 CSU's values and offer high engagement value
3. Consideration of projects that offer regional connectivity with CSU's international partners, a number of which are listed here: <http://www.csu.edu.au/international/options/international-partners>)
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)

Australian-based offsets represent 12% of the total volume (and 51% of the purchased offset value). Co-benefits that are being delivered through the Australian-based projects include restoration of habitats for native fauna, new employment opportunities for regional Australians and diversification of income streams for Australian farmers.

The balance of offsets purchased and retired have been purchased from internationally-based projects associated with household biogas projects in rural India and renewable energy in China. Co-benefits of the Indian biogas project include:

- improves the overall health situation by reducing smoke in the kitchen and overall indoor air quality, thus eliminating health hazards from indoor air pollution
- Improvements to living standards, particularly for women, as a result of reduced cooking time
- Improvements to sanitation in the village via appropriate disposal of animal waste
- Transformation of organic wastes in to high quality fertilizer
- Employment opportunities for the local people during construction and maintenance of the plants.

Co-benefits associated with renewable energy projects include:

- new employment opportunities for people involved in the construction and maintenance of the systems
- increased air quality
- improvements in the reliability of electricity supply as a result of decentralised generation

## 5. Use of trade mark

Table 6. Trade mark register	
Where used	Logo type
CSU Website (inclusive of CSU Green Website Sections)	Certified Organisation

CSU certified carbon neutral outdoor banner	Certified Organisation
Carbon Natural Flyer prepared by CSU	Certified Organisation
Presentations on CSU's journey to carbon neutrality	Certified Organisation
CSU and CSU Green Facebook Pages	Certified Organisation
For a limited time on staff electronic signatures	Certified Organisation

## 6. Have you done more?

CSU has continued to demonstrate its commitment to environmental improvement in 2016 with the CSU School of Management and Marketing signing on to the United Nations' Principles for Responsible Management Education. Further, CSU were recognised by Australian Campuses Towards Sustainability as the national leader in carbon reduction in 2016.

CSU actively considers approaches to improving biodiversity and environmental outcomes across the full breadth of its operations. The 2016 CSU Sustainability Scorecard will set out the full scope of our environmental achievements and will be accessible through this link (at the time of reporting this report was still being drafted):

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