



SUSTAINABILITY SCORECARD 2015

**csu**green  
sustainability  
- your actions count!

**This document is published by CSU Green.  
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Learning In Future Environments (LiFE)  
Sustainability Framework



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*The traditional Wiradjuri phrase 'Yindyamarra winhanganha' has been adopted to help encompass the University's values.*

## **Our Commitment to Sustainability**

Acting for the public good is a key element of Charles Sturt University's ethos. The traditional Wiradjuri phrase 'Yindyamarra winhanganha' has been adopted to help encompass the University's values and drive its meaning of 'the wisdom of respectfully knowing how to live well in a world worth living in'. It is no accident that there are strong linkages between these phrases and the importance of CSU acting with leadership in the area of sustainability.

CSU is currently on track to become Australia's first certified carbon neutral university. This is a clear act of leadership and we hope that it will provide motivation and inspiration for many other institutions, and our communities to follow in our footsteps.

Two other areas where CSU seeks to emerge as a leader are in its approach to the integration of sustainability into everyday business practices and into our learning and teaching. The Learning in Future Environments, or LiFE program, provides a structure and vision for integrating good sustainable practices into everyday activities and decisions across the University. It has been specifically designed for the higher education sector and considers all aspects of sustainability including environmental, leadership, learning, teaching and research and engagement with our communities, suppliers and staff.

LiFE is forging conversations that have never happened before and demonstrating that there are many important contributions to be made by members of the CSU community. The LiFE program provides an opportunity for all members of staff to actively contribute to sustainability and ultimately make CSU a more sustainable organisation. In learning and teaching, we are pleased to have obtained final sign off on the sustainable practices dimension of CSU's graduate learning outcomes. It is our target that by 2020, all undergraduate courses delivered by CSU will establish a level of sustainability literacy among graduates that is relevant to the discipline.

It was pleasing to see CSU recognised for the focus it has applied to reducing an aspect of its physical footprint via the NSW Office of Environment and Heritage's Energy Productivity in Action Business Leader Award. While this is not the reason we do what we do, it is always nice to be reassured that our actions are valued by others. We look forward to having many more reasons to celebrate our actions in the future.

**Professor Andrew Vann**  
Vice-Chancellor



*It is encouraging to see some flagship projects in energy efficiency and carbon reduction*

## **CSU Green Message**

I always find it a rewarding experience to browse through the compilation of case studies that are brought together as part of our Sustainability Scorecard publication. The 2015 edition is no exception. In the busyness and focus of the day-to-day, it is easy to overlook the extent of positive things that are being done in the area of sustainability by members of the CSU community.

These range from hosting the Biodiversity Dreaming Conference, held in Bathurst as part of the city's bicentennial celebrations, to research undertaken by the Faculty of Business into the interaction between demographics and perceptions among Australian households about climate change, right through to student-led initiatives such as non-perishable foods and household items being collected from student residences as part of end-of-year move activities from student residences and donated to worthy causes.

It is encouraging to see some flagship projects in energy efficiency and carbon reduction completed and making a contribution to reduce our physical footprint. Examples of these include the Energy Performance Contract implemented at CSU in Bathurst and Wagga Wagga, the Bathurst cogeneration facility which has clocked up its first full year of operation and the significant solar PV installations that have progressed at CSU in Port Macquarie and the Bathurst Engineering building.

Considerable effort has been directed throughout 2015 to the establishment of structured mechanisms that will assist with integrating sustainability considerations into everyday business practices that are occurring across the University. These developments are formally underpinned by the Learning in Future Environments (LiFE) program as a means for staff and students across the organisation to collaboratively plan, design and deliver strategic sustainability improvement activities.

There is no doubt that some good things have been achieved at CSU to-date but there is much more that can be done to improve our sustainability performance as well as enhance the positive influence we have over students and the wider community. It is by working together and capitalising on our collective expertise and experience that this potential can be met.

A handwritten signature in black ink, appearing to read 'Ed Maher', written in a cursive style.

**Ed Maher**  
CSU Green Manager

# 📷 SNAPSHOT OF SUSTAINABILITY 2015

## RESULTS FROM YOUR VOICE STAFF SURVEY

THEN 2013

NOW 2015



**AWARE** OF ENVIRONMENTAL AND SOCIAL SUSTAINABILITY INITIATIVES HAPPENING AT CSU



**ENCOURAGED** TO PARTICIPATE IN ENVIRONMENTAL AND SOCIAL SUSTAINABILITY INITIATIVES HAPPENING AT CSU



**ACTIVELY PARTICIPATE** IN ENVIRONMENTAL AND SOCIAL SUSTAINABILITY INITIATIVES HAPPENING AT CSU



# 3902

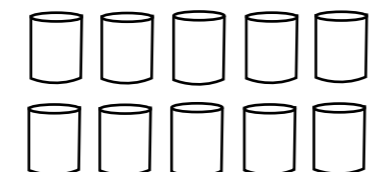
LIGHT FITTINGS UPGRADED UNDER

**THE ENERGY PERFORMANCE CONTRACT**



# 132 BOXES

OF NON-PERISHABLE FOOD



# & 74 BOXES

OF KITCHEN ITEMS DONATED

ACROSS ALL CAMPUSES

# HEY TOSSER BATHURST REACHED

# 2000

PEOPLE



## SUSTAINABILITY GRANT



# CO GEN IN BATHURST GENERATED

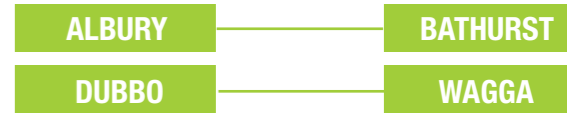


# 3,700,000 kWh

## TREE PLANTING DAYS

# 1095 TREES & SHRUBS

PLANTED ACROSS 4 CAMPUSES



## SOCIAL MEDIA

**455** FACEBOOK LIKES

FACEBOOK.COM/CSUGREEN

CSU **ORGANICS** EST.

@ **ORANGE CAMPUS**

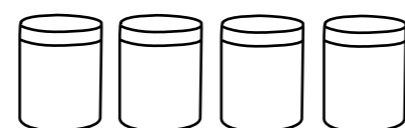
**12** KITCHEN CADDIES INSTALLED IN STAFF KITCHENS

# CEC

CAMPUS ENVIRONMENTAL COMMITTEE

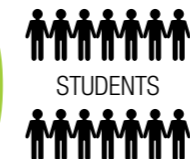
**75** CURRENT MEMBERS

# BATTERY RECYCLING 180 BINS



DEPLOYED IN 2015 TO MULTIPLE CAMPUSES

# 1000



# PRIMARY & SECONDARY PARTICIPATED

IN THE HIGHER EDUCATION PARTICIPATION PROJECT



# TONER CARTRIDGES

# 395 KILOGRAMS

OF RECYCLED TONER CARTRIDGES



ALBURY BATHURST DUBBO WAGGA

ACROSS MULTIPLE CAMPUSES THROUGHOUT 2015

# SAAF FUNDING

STUDENT SERVICES & AMENITIES FEES

BATHURST CAMPUS **CEC** ECO WALK BATHURST

\$\$\$\$\$\$

FUNDING OF

**\$196,000**

# Overview

## What is CSU trying to achieve in sustainability?


The Charles Sturt University (CSU) Sustainability Scorecard is an annual document providing an overview of the sustainability achievements and challenges of the University in 2015.

The purpose of this document is to involve and inform University students, staff and the wider community about the sustainability projects, initiatives and events occurring annually.

### ON THE WEB

Take a look at the yellow boxes for links to additional information online.

If you have any comments or feedback regarding this document, or any of the CSU Green projects, please do not hesitate to contact CSU Green via:

 [csugreen@csu.edu.au](mailto:csugreen@csu.edu.au)

 [facebook.com/csugreen](https://www.facebook.com/csugreen)

 [twitter.com/CSU\\_Green](https://twitter.com/CSU_Green)

The Sustainability Scorecard is a reporting document against the progression of CSU's sustainability targets outlined under the University Strategy 2015-16.

## The strategic outputs identified under the Infrastructure sub-plan of the University Strategy are:

<b>OP3.1</b>	Implement Energy Performance Contract (pg 23)
<b>OP3.2</b>	Expansion of on-campus embedded energy generation capacity (pg 26)
<b>OP3.3</b>	Holistic integration of sustainability principles across curriculum, research and operating practices (pg 13)
<b>OP3.4</b>	Improved carbon footprint (pg 26)

Progress made against the above outputs is detailed throughout this report, with particular focus provided on the pages listed above in parenthesis.

A range of case studies and articles are also provided in the report which shine the spotlight on the positive contributions that are being made by staff and students to improving CSU's performance in sustainability.

*Move Out Initiative*



*O'Week*



*Organics Waste Bin*



*Light Plastic Bins*



*Tree Planting*

*Ride 2 Work*





# Leadership & Governance



Through good Leadership and Governance, CSU aims to demonstrate commitment and clarity of purpose. Building social and environmental sustainability into established processes and management systems will ensure they remain strategically important issues, embedded into everyday institutional practices for long-term benefit.

**CSU is focussing on the following two areas to achieve these aims:**

- Leadership
- Human Capital

# CSU LiFE

LEADERSHIP | ENGAGEMENT | LEARNING | FACILITIES  
OUR SUSTAINABILITY FRAMEWORK

## Learning in Future Environments (LiFE)

The Learning in Future Environments (LiFE) Index is a structured process for evaluating current practices that support or impede good sustainability practices and for developing improvement plans via cross-organisational participation.

The implementation of LiFE has been established as a key objective under the University Strategy 2015-16. LiFE will exemplify CSU's commitment to the Public Good. The program will act as an umbrella initiative to stimulate holistic integration of sustainability principles across curriculum, research and operating practices.

CSU has adopted LiFE because it provides a structured process for integrating good sustainable practices into day-to-day business activities and decisions. It is the only process of its kind that has been developed specifically for the tertiary education sector.

## INTERACT WITH US

Read more  
on LiFE

Watch the  
LiFE video



The VC  
Award



### Outcomes from LiFE we are seeking for CSU include:

Improved literacy in sustainability principles and practices among CSU graduates

Improved cooperation with, and visibility to, our communities in the actions we take

Improved environmental footprint for the University

Improved cross-organisational communication and reduced duplication of effort associated with progressing common goals.

LiFE has been developed via a collaboration of UK and Australian-based tertiary institutions represented through the Environmental Association of Universities and Colleges (EAUC) and Australasian Campuses Toward Sustainability (ACTS). There are more than 70 institutions internationally who have adopted LiFE as a major component of their sustainability strategies.

At the end of 2015, CSU had established baseline ratings and improvement action plans for 7 of the 16 Frameworks that exist under LiFE. A highlight has been a workshop held at the Wagga Wagga Campus involving representation from the Division of Facilities Management, Charles Sturt Campus Services, the Faculty of Science, CSU Farm Management and academic staff with an interest in education for sustainability.

The session provided an energetic and collaborative forum to develop baseline ratings for the Biodiversity, Energy, Sustainable Construction & Renovation, Waste & Resource Efficiency, and Water Frameworks. Champions will be identified from across the organisation to ensure that prioritised improvement opportunities receive due focus and are incorporated into appropriate organisational business planning processes.

Vice-Chancellor, Professor Andrew Vann, lent his support to the importance and benefits of the LiFE program through the recording of a short video targeting staff and students.

Baseline ratings and improvement action plans developed as part of the LiFE program can be accessed by all CSU staff via our ecoPortal.



Vice-Chancellor Professor Andrew Vann and winner Simon Wright

### VC Excellence in Sustainability Award

The Vice-Chancellor's Award for Excellence in Sustainability 2015 was awarded to Simon Wright.

Among Simon's achievements was his work on renewing the Managing for Sustainability subject, MGMT 583, in the School of Management and Marketing.

These efforts received a Faculty Teaching Award last year for achieving the 'biggest lift' in positive student evaluations. Simon also instigated a recommendation that CSU's Faculty of Business become a signatory to the United Nations Principles for Responsible Management Education. (See page 14)

Simon is the presiding officer of the Bathurst Campus Environmental Committee (CEC), a member of the University Sustainability Advisory Group and also chaired the Cross-Campus CEC forum in 2015, whilst maintaining a monthly radio spot on ABC Central West promoting sustainability and corporate social responsibility. In addition to all these commitments, Simon is currently undertaking a PhD focussing on Industrial Ecology.

## CSU's School of Management and Marketing signing onto the United Nations' Principles for Responsible Management Education



With an increasing emphasis on sustainable development and corporate sustainability, academic institutions are encouraged to use business education as a platform to create future business leaders that are sustainably minded.

CSU's School of Management and Marketing is continually striving towards being a leading division and are now amongst the newest members of the United Nations initiative, Principles for Responsible Management Education (PRME).

The PRME Initiative was established in 2007 by the UN Global Compact, and is the first organised relationship between the United Nations and business schools. It aims to "inspire and champion responsible management education, research and thought leadership globally" (PRME Website).

More than 600 business and management schools, academic institutions and universities from 80+ countries participate in the PRME initiative. Members are required to report on their efforts and adhere to the six principles which guide responsible management education.



Above: Energy Productivity Award.  
Right: Participants attending the Green Gown awards.  
Photograph by Rhiannon Chamberlain

### Energy Productivity in Action Award

CSU is now officially recognised as a leader in energy efficiency, after being named joint winner of the inaugural Energy Productivity in Action Business Leader (Commercial) Award at the NSW Energy Productivity in Action event in June, 2015.

The University was one of ten businesses recognised for energy efficiency achievements and involvement in the NSW Office of Environment and Heritage's Energy Saver Program. CSU was commended on their university-wide building management information systems, refurbished lighting and the installation of the cogeneration plant at Bathurst.

Read more @  
CSU News

[www.unprme.org](http://www.unprme.org)



### The Green Gown Awards

The Green Gown Awards Australasia recognises excellence in sustainability within the tertiary education sector in Australasia.

Professor Andrew Vann, Vice-Chancellor and President of CSU since 2011, was nominated for a Green Gown Award in 2015 for his unwavering support for continued integration of sustainability into the University's mission.

His efforts in elevating sustainability to the University Strategy level have been recognised, as has his role in supporting the adoption and implementation of the LiFE Index at CSU. Professor Vann was also acknowledged for maintaining an organisational commitment to progressing carbon neutrality in the face of a challenging external environment, and the introduction of social and environmental screens to the University's investment portfolio.

Professor Vann's publicly broadcasted values and perspectives are incredibly powerful in influencing the responses taken by other University staff, particularly other members of his senior leadership team.



## Sustainability Champion Awards

Congratulations to the following CSU staff on their Sustainability Champion Awards in 2015!

Executive Dean from the Faculty of Science, Tim Wess demonstrated sustainability leadership to the CSU community through commitment to workplace diversity, low-carbon commuting and litter removal around the Wagga Wagga community.

Simon Cole, Grounds Person from the Division of Facilities Management showed consistent support for the implementation of sustainability related projects and initiatives at the Wagga Campus. Specifically, Simon played a lead role in the coordination of biodiversity improvement activities across the Campus. He has also been influential in minimising University waste output through the coordination of on-site composting and advocating the recovery of other resources from commercial waste streams.

Liz Day, Charles Sturt Campus Services Supervisor was applauded for her drive to improve CSU's waste management practices by providing

valuable assistance with the roll out of the University's office waste recycling system at the Bathurst Campus.

Cliff Jackson, Grounds Supervisor from the Division of Facilities Management worked tirelessly on enhancing biodiversity as well as staff and student engagement at the Bathurst Campus through the organisation of tree planting events, propagation of native species and support for the Hawthornden Creek rehabilitation project.

Ben Moore, Client Services Officer from the Division of Facilities Management showed consistent support for the implementation of sustainability related projects and initiatives at Dubbo Campus. Specifically, Ben played a central role in the construction of the Campus Cultural Diversity Garden, led the organisation and supervision of annual tree-planting days and played a proactive role in the management of energy consumption and waste production at the campus.



*Top Left and Above: Winners of the Sustainability Champion Award Elizabeth Day, Ben Moore, Simon Cole and Tim Wess (Photo courtesy of Wagga Daily Advertiser).*

# Learning, Teaching and Research



Ensuring students are exposed to learning experiences that maximise their opportunities to graduate as sustainability-literate citizens, is arguably the most important step towards a sustainable future.

**CSU is focussing on the following three areas to achieve these aims:**

- Learning and Teaching
- Research
- Student Engagement

## Higher Education Participation Project

The Higher Education Participation project, hosted by the CSU Learning Communities Program, saw the launch of the Flourish Festival in November 2015. Undertaken by John Rafferty, Lecturer from the School of Environmental Sciences and Dr Helen Masterman-Smith, Senior Lecturer from the School of Humanities and Social Sciences, the project obtained \$800,000 worth of federal funding, and focused on creating sustainable communities, and exploring the relationships between sustainability, social justice and higher education.

Over 300 students in Year 10 and 11 from Albury-Wodonga high schools were given the opportunity to visit three universities, including CSU, as well as active community groups in Albury, Gippsland and Melbourne, to investigate a range of career opportunities. Approximately 700 primary school students were also given the opportunity to explore the same issues through excursions and interactions with CSU.

Following their engagement with this program, students produced films using the images and videos they captured throughout their university and community visits. These films, which demonstrated their growing awareness of challenging social and environmental problems, were shown during the Flourish Festival which generated over 800 visitors. Primary school sustainability displays, interaction with local change making agencies, live entertainment, and local food and drink were also major crowd pleasers during this event.

John Rafferty said “I’ve been teaching in schools and universities for more than 25 years, and this was the most important and profound learning enterprise I have been a part of.

The program was fantastic, more than 1,000 students and 2,000 community members were engaged in the project. It really demonstrated the Albury-Wodonga campus as growing as a significant site and stimulus for learning about environmental and social sustainability”.



## Current impacts of CSU curricula on students’ understanding of environmental sustainability

CSU Sustainability Grant winners, Associate Professor Rosemary Black and Dr Shelby Gull Laird from the School of Environmental Science, completed research in 2015 that examined The Impacts of CSU Curricula on Undergraduate Knowledge, Understanding and Skills of Environmental Sustainability using online surveys of students and an analysis of subject curricula for all subjects delivered on the Albury-Wodonga campus.

Their work revealed that a more formal inclusion of environmental sustainability needs to be considered by the University, indicating that students are generally not being prompted

to think more deeply about environmental sustainability in their course or future professional life. However, students in the study generally regarded sustainability as an important factor in their personal lives.

Associate Professor Black says “Not surprisingly the students in the School of Environmental Sciences had a much greater awareness of environmental sustainability, which reflects the content of their subjects compared to other students.

The results of this study show that the University needs to do more to integrate environmental sustainability into the curriculum if we want our graduates to see environmental sustainability as important in their personal lives, future careers and current course”.

## **Incorporating sustainability into assessment and learning**

Assessment Design Coordinator, Deborah Murdoch, and Educational Designer, Dr William Adlong, were awarded \$15,000 in 2015 to contribute to their work on ‘The Sustainability Project: sustainability in assessment and learning in the Faculty of Business’.

Throughout 2015, planning was conducted to analyse how sustainability in the workplace can be incorporated into subjects offered by the Faculty, in a way that is relevant and tangible to students. The next stages will involve incorporating assessments and resources into appropriate subjects to provide more opportunities for learning about and applying sustainability.

Deborah Murdoch says, “A most important part of the process was analysing what was already offered, what was missing and how we could build quality resources and tasks to fill the gaps”.



Students participating in the S4S conference

## **S4S Student supported places**

CSU Green supports students each year with an interest in sustainability, through providing funding for conference registration fees as well as travel and accommodation. In exchange, students are required to ‘give back’ to their fellow students in a sustainability-related way after attending the conference.

This year students Luke Gregory, Rowan Alden and Ellie Steller were all supported by CSU Green to attend the HOPE: Students for Sustainability Conference, held on 15th and 16th September 2015 at Western Sydney University (WSU). The conference focused on empowering students with the knowledge and skills required to combat future challenges of sustainability, and the social and environmental impacts of our current society. Luke, Rowan and Ellie explained they were inspired by the theme of ‘Hope’ for the future, and enjoyed meeting like-minded students who were passionate about sustainability.

To give back, Rowan provided a written piece for the CSU student publication Hungappa, Luke wrote an interesting report on the event, and Ellie was MC to a local climate change event, hosted by CSU Professor Andrew Wallace.

## **INTERACT WITH US**

[www.sustainability.edu.au](http://www.sustainability.edu.au)

## **Climate change and energy efficiency research in the Faculty of Business**

Members of CSU Bathurst’s Faculty of Business have dedicated themselves to researching and preparing case studies regarding climate change and energy efficiency. The research covers a range of issues and their interaction with climate change and energy efficiency, including agriculture, religion, low socio-economic households, effective communication, and the attitudes of the Australian public.

Professor Mark Morrison, Sub-Dean of Research for Faculty of Business, explains “It’s very exciting that our research is being noticed, and is actually influencing Australian state and federal government decision making regarding climate change and energy efficiency. We hope our work will continue to produce interesting results.”

Their research was presented in a joint community forum, in May 2015, to members of social enterprises and the Bathurst local council. The research will continue to be analysed and implemented into 2016.

# Partnership & Engagement



Through partnerships and engagement, CSU seeks to encourage collaboration in sustainability through considering the importance of internal communities as well as external engagement with the wider community and local businesses.

**CSU is focussing on the following four areas to achieve these aims:**

- Staff Engagement
- Community Engagement
- Business and Industry Interface
- Procurement and Supplier Engagement



## Sustainability grants

CSU Green Sustainability grants are awarded each year to successful applicants who promote the University's commitment to sustainability in their project proposal. The grants have been running since 2008, and are open to all staff and students.

In 2015, Stream One projects were eligible for a one-off grant of \$50,000 and a pool of \$45,000 for smaller projects, whilst Stream Two research support projects granted a pool of \$45,000. A total of seven applications were accepted out of thirteen received in 2015, with the large grant being awarded to Dr Angela Ragusa and Dr Andrea Crampton.

## Grassroot grants

CSU Orange became the new home to 'Possum Housing' as a result of a CSU Green Grassroots Grant. Possum boxes were installed to safely relocate the possums, who had previously been living within the residences, into a suitable sheltered position. The installation will help reduce building maintenance to roof spaces and provide a clean environment for students, enhancing the student experience.



## Biodiversity Dreaming Conference

Students Tiffany Yip, Luke Gregory and Juanita Kwok were granted the opportunity to attend the Biodiversity Dreaming conference in November 2015, at the CSU Bathurst Campus, thanks to sponsorship from CSU Green. Organised by Greening Bathurst, and in conjunction with Bathurst City's bicentennial year celebrations, the experience was both "sobering and inspiring" (Juanita Kwok).

The two-day conference reflected on biodiversity and land management in the Central West and Bathurst region, and the Wiradjuri Country, from 1815, as well as the steps towards the future. Landholders, Wiradjuri members, historians, scientists, and land managers were all invited speakers at the event. CSU was proud to be significantly involved in the running of this important regional event.

*Above Left:* Possum rehoming initiative from a CSU Green Grassroot Grant *Above Right:* Tiffany Yip attending the Biodiversity Dreaming Conference with Ruby Dykes.

## Orange Aboriginal Nature and Bioscience Park

A new park that hopes to inspire reflection, teaching and research was officially launched by Vice Chancellor Professor Andrew Vann at CSU Orange in late March, 2016.

The Girinyalanha Aboriginal Nature and Bioscience Park was established in line with the University's program to encourage a better understanding of Indigenous cultural values in all education programs, and to boost support for Indigenous students.

The park has been rehabilitated from a previously neglected forest remnant on campus, and was created using traditional Aboriginal methods and planted with local Australian plant species of cultural and ecological significance. Staff, students, Orange Local Aboriginal Land Council (OLALC), the local Landcare group and the Rural Fire Service all played a role in designing and constructing the park.

A yarning circle with walkways designed by OLALC is the central feature and serves as symbolic importance to local Wiradjuri people. The future understory vegetation will also contain plants of local cultural and conservation significance.

It is hoped that the park will inspire research into medicinal and bush food potential of local vegetation species, as well as becoming a sought after resource for teaching and reflection.

## Interp student magazine

CSU Green partnered with the Bathurst campus CSU Student run publication, Interp, in early 2015 to produce its very first 'Green Edition'.

The edition emphasised the importance of a sustainable future to the students, and highlighted some of the efforts of the university, in a light, humorous, and engaging way.

An extensive range of environmental issues were covered, including the devastating impacts to the Great Barrier Reef, and the ongoing environmental debate of coal seam gas, renewable energy and global warming. The edition reviewed various parliamentary representatives, including Mike Baird and

### INTERACT WITH US

[CSU Green Grants](#)



Above: Aboriginal Nature and Bioscience Park  
Supplied courtesy of Central Western  
Daily Photograph by Tanya Marschke  
Right: Interp Magazine (Green Edition)

Luke Foley, and where they stand with making sustainable change and policies for the future. CSU Green also featured in the edition outlining CSU's sustainability efforts across the Bathurst campus, and the 2015 litter reduction initiative 'Hey Tosser!'

The magazine also included a few lighter touches, with articles relating to current lifestyle trends, including meditation, healthy recipes, and the debate around sourcing organic foods.

Interp had 300 copies of the 'Green Edition' printed, which were distributed to students at CSU Bathurst. The edition was very well received, and CSU Green look forward to partnering with Interp to produce 'Green Editions' in the future.







Delegates at the Biodiversity Dreaming Conference



Tree planting participants at CSU in Orange



Participants planting trees surrounding the inland dam at Dubbo

## Campus Environmental Committee updates

### Bathurst

The Bathurst Campus Environmental Walk, coined the EcoWalk, was the major focus of the CEC committee during 2015. The three kilometre walk is set to trace the entire campus perimeter, and will feature signage emphasising historical, cultural, flora and fauna facts.

The project has received \$196,000 in funding from a Student Services and Amenities Fee (SSAF) Grant, and further negotiations are in place to receive additional funding and support.

The Biodiversity Dreaming Conference was a fantastic success, held 10-11th November and organised in partnership with Greening Bathurst.

The conference exceeded the committee's expectations and drew an exceptional level of wisdom from both Wiradjuri and non-Wiradjuri people.

### Orange

The Orange Farm Plan, organised by the CEC, has confirmed a total of 650 plants to be planted during the autumn and spring of 2016. These plants which are currently held at the horticultural centre, will be used for campus, farm and Girinyalanah park plantings.

New green bins were organised by the Orange CEC to collect waste throughout the campus, and will be placed in the residences in the New Year. The CEC have also been busy in the establishment of the Aboriginal Nature and Bioscience Park. The park is set to officially open in 2016 (see page 19).

The Orange CEC also compiled guidelines to assist in decisions regarding the calculation of CSU's carbon footprint and the purchase of carbon offsets. Balance Carbon was appointed to provide support through the upcoming accreditation process of becoming a carbon neutral organisation in 2016.


### Dubbo

The CEC based in Dubbo had a successful year in increasing external members of the committee, including a representative from the Dubbo City Council. This is important to help promote community engagement in the environmental decisions made by the CEC, and ensure the campuses are considering the impact to our communities.

The Tree Planting Day, held on 18th August, allowed for the inland dam to be extensively planted with young trees and shrubs. This greatly helped to provide some much needed ground cover and to regenerate what was an extremely bare space.

Dubbo was also very proud to announce that Ben Moore, committee member and sustainability champion, was awarded a CSU Green Sustainability Champion award. The award was highly deserved after his many efforts focused on sustainability.

## Tree planting

**ALBURY**   
**350** SHRUBS AND SMALL TREES PLANTED

CALLISTEMON  
**ACACIA**  
 LEPTOSPERMUM  
**BURSARIA**  
 FABACEAE

**BATHURST**   
**105** SHRUBS AND SMALL TREES PLANTED

**ACACIA**  
 GREVILLEA  
**MELALEUCA**  
 CALLISTEMON  
**LOMANDRA**  
 TANIKA DIANELLA  
**LOMANDRA SPP**

**DUBBO**   
**110** NEW PLANTS

**ACACIA**  
 CALLISTEMON  
**EUCALYPTUS**  
 GRIVILLEA  
**THEMEDA**  
 ATRIPLEX  
**KUNZIA**

**WAGGA**   
**540** NEW PLANTS

**ACACIA**  
 DIANELLA  
**DONDONAEA**  
 EUCALYPTUS  
**KUNZEA**  
 POA  
**CALLISTEMON**



Participants from Wagga Wagga's Ride2Work Day 2015

## Spring Cycle Comp and Ride2Work Day

The CSU Wagga Wagga staff took intra-campus rivalry to the next level with the Spring Cycle Comp, a challenge aimed at encouraging the use of the staff bikes. Staff members were judged by the distance travelled and their consistency over the 3 week duration. Champion cyclist was awarded to Waseem Afzal who travelled a total of 32.49km over 11 trips.

The competition coincided with Ride2Work Day, which took place in Albury-Wodonga, Wagga Wagga, Bathurst, Orange, Dubbo and Port Macquarie. Focusing on fun, fitness and meeting new people, the day was a great success with 52 staff members riding to work.

[Download Transport Access Guides](#) 

### Wagga Wagga

Highlights for the Wagga Wagga CEC in 2015 included a successful partnership with Wagga Wagga City Council to host a Green Army team in 2016. This group will focus on the application of traditional burns to assist with the management of land located in the Yindyamarra cultural site, and the identification of suitable themes to feature in interpretive signage. These activities are scheduled to progress in 2016.

Another activity instigated by the Wagga Wagga CEC in 2015 was the nomination of two staff members, Tim Wess and Simon Cole, for a Sustainability Champion Award to recognise the positive contributions they have made around the campus (see page 15).

### Albury-Wodonga

The major focus of the Albury-Wodonga CEC for 2015 was the submission of the successful Sustainability Grant application, the CSU Albury-Wodonga Campus Walking Track Signage Project. This project will be progressed in 2016, however plans in are motion for the campus walking track to focus on environmental sustainability and Indigenous cultural points of interest, whilst encouraging health and wellbeing.

### Port Macquarie

Port Macquarie is the newest edition to the CEC family, and determined their membership in late 2015.

The committee will initiate their first meeting in early 2016, and have begun establishing relationships with external groups.

# Facilities & Operations



CSU seeks to establish campus environments that exemplify good practice in sustainability. We will also foster links between facilities and infrastructure and learning and teaching and creating synergies between the quality of the campus and the overall student experience.

**CSU is focussing on the following seven areas to achieve these aims:**

- Biodiversity
- Energy
- Resource Efficiency and Waste
- Water
- Sustainable ICT
- Transport
- Sustainable Construction and Renovation



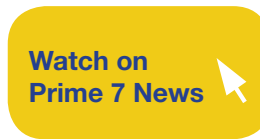
Energy Manager Chris O'Connor with Technical Officer Therese Moon at NaLSH

## Lightweight Plastics & Kurrajong Recycling

In response to the increasing use of plastic bags, CSU Green and Kurrajong Recyclers developed a strategy to turn lightweight plastics, such as wrap, films and bags, into building materials.

Collection bins at CSU's National Life Science Hub (NaLSH) in Wagga Wagga have been accumulating lightweight plastic, which is then sent to Kurrajong Recyclers. The plastic is then recycled into pellets ready for manufacturing into new building products, such as posts, rails or bollards.

The first three months of the program generated seven large bags of materials to be recycled.



## Bathurst Residences Energy Challenge

Energy conservation was a new source of rivalry amongst Bathurst CSU's residences, with the launch of the Bathurst Residences Energy Challenge in Session 1 2015. Students were required to join forces to develop strategies on how to best reduce their footprint, with the help of energy saving tips provided to Residential Advisors from CSU Green.

Towers Residence was crowned the winner of the Energy Challenge, with a reduction of 28% in usage. They collectively chose to put their prize money towards the renovation of their BBQ area, in which heating was installed and the side walls were enclosed for use during the colder winter months.

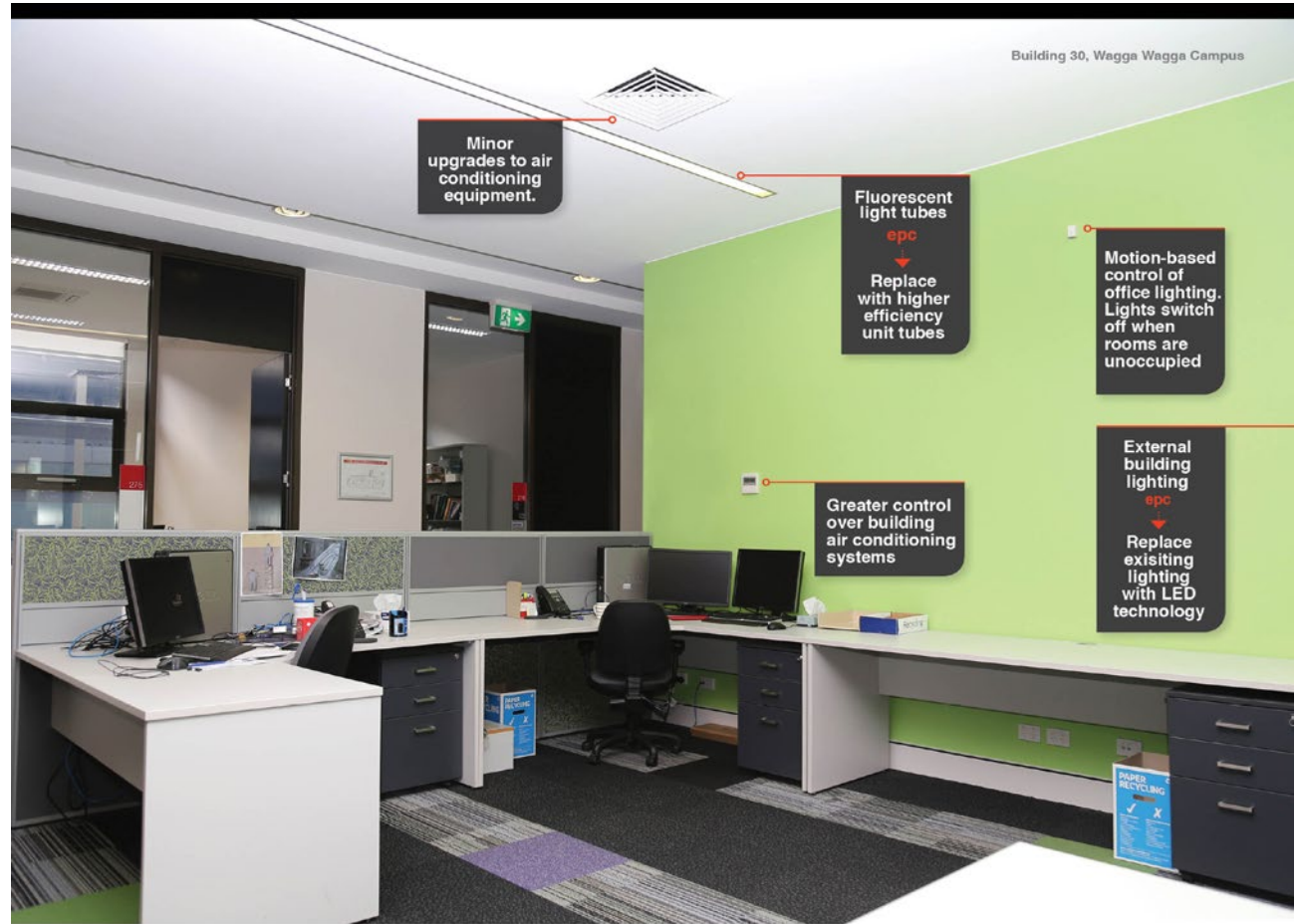
An overall savings of 11.5% was achieved across the residential facilities compared to 2014, which is a fantastic combined effort from the students, RA's and staff of CSU Bathurst.

## Energy Performance Contract (EPC)

An initial stage of CSU's energy performance contract (EPC) has been delivered across the Bathurst and Wagga Wagga Campuses. The contractor, Conservia, coordinated the works on CSU's behalf between May and December. The project has delivered energy efficiency improvements to lighting, air-conditioning and hot water systems across 17 of CSU's biggest energy consuming buildings (refer to diagram opposite).

A measurement and verification process will run over the next seven years to ensure that the forecast savings that Conservia identified are realised.

A detailed feasibility study associated with a second stage of the EPC focussing on the Bathurst Campus Learning Commons was completed in late 2015. The works, to occur in 2016, will deliver a major upgrade to air-conditioning plant and lighting throughout the building.



### The Savings

EPC is reducing CSU's carbon and energy footprint.

**Investment in this energy performance contract will provide CSU with a return on investment within 7 years**

**817,046** kWh/annum

▶ in reduced electricity consumption

**2,149** GL/annum

▶ in reduced natural gas consumption

A total **3%**

▶ reduction in CSU's total energy consumption

**Reduce** CSU's total carbon footprint by

▶ ~ 1,000 t CO<sub>2</sub>e per year

Equivalent to a total **3%** reduction in CSU's 2014 carbon footprint of

▶ 33,483 t CO<sub>2</sub>e per year

[Read more on EPC](#)





Staff Kayla Davey using the Battery Recycling Bin

## Battery Recycling

CSU is now recycling batteries at Albury-Wodonga, Bathurst, Dubbo, Orange and Wagga Wagga campuses. Dedicated battery recycling containers have been installed in CSU office buildings to recycle AAA, AA, C, D, Alkaline, Carbon-zinc, Lithium, Silver-zinc and Nickel-cadmium batteries.

Batteries contain non-renewable metals that are toxic and endanger the health of wildlife, humans and our environment if not managed properly.

The CSU Battery recycling containers are located in the main office, reception or staff area of each building. For battery recycling collection contacts and more information see the CSU Battery recycling factsheet.

[Battery Factsheet](#)

## CSU Organics

Closing the loop on organic waste

## CSU Organics

Organics collection has been established at CSU in Orange through CSU Green's new initiative CSU Organics.

The collection caters for staff kitchens, Banjo's Café and student residences with specially branded infrastructure including 70 kitchen caddies, organics bins for multi sort stations and twenty 240 litre green lid bins installed throughout the campus.



Alesha Elbourne  
Sustainability Officer  
for CSU Organics

*The Facilities Management team at Orange are delighted to be a part of the CSU Organics collection service in partnership with CSU Green. Through the support and assistance of CSU Green, Charles Sturt Campus Services and Res Life the collection has been well received and supported by the staff and students at the Campus. As the first CSU campus to establish CSU Organics, early indications show that approximately 250kg of waste will be removed from landfill during the first year through this initiative.*

**Mark Chapman, Campus Services Manager  
Orange & Dubbo**

[Organics Factsheet](#)

## Hey Tosser! Final Outcome

The 'Hey Tosser!' campaign from 2014-2015 was a huge success, and a great partnership between the Bathurst Regional Council and Charles Sturt University. Made possible through a grant received from the NSW EPA, the campaign reached more than 2,000 people through community engagement efforts, which greatly exceeded the forecast 1,500 reach.

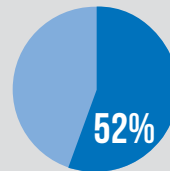
The campaign was aimed at educating Bathurst locals, and the staff and students of CSU, about the effects and ongoing costs of littering. With increased momentum in 2015, an extensive community education campaign was launched, and the installation of new waste infrastructure and signage occurred throughout the Bathurst CBD and Bathurst Campus. Noticeboards were provided to allow for posters and announcements to be convened at a certain focus point, rather than scattered all over campus; the pavements were cleaned of chewing gum and flaking paint; seating and handrails were re-powder coated and cleaned; hand railing bins, and cigarette litter bins were cleaned, and new hooded bins were installed.

The campaign's results showed significant improvements:

- A **52%** drop in litter at the CSU 'dirty site' – located outside Rafters at the Learning Hub area
- A **77%** drop in litter at the Bathurst CBD 'dirty site' - located outside Acropole, on the corner of William and Howick Street.
- Extensive community education campaign identified **63%** of surveyed participants seeing the message extensively around CSU Bathurst campus and the Bathurst CBD

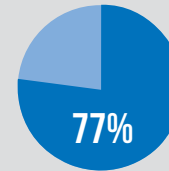
Project results were determined through surveys, litter checks, discussions with project partners and feedback from local businesses and visitors at events, with almost all objectives exceeding the original targets and goals.

### THE CAMPAIGNS RESULTS SHOWED SIGNIFICANT IMPROVEMENTS



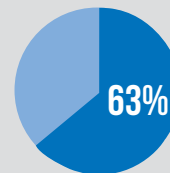
#### DROP IN LITTER

AT A CSU 'DIRTY SITE' LOCATED OUTSIDE RAFTERS AT THE LEARNING HUB AREA



#### DROP IN LITTER

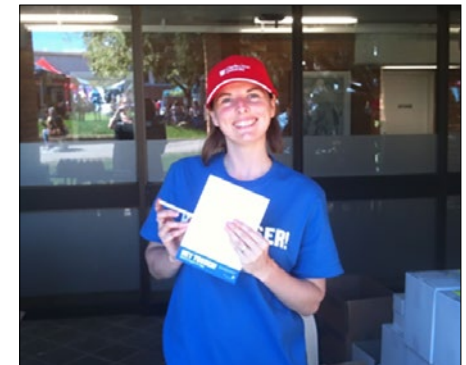
AT THE BATHURST CBD 'DIRTY SITE' – LOCATED OUTSIDE ACROPOLE, ON THE CORNER OF WILLIAM AND HOWICK STREET



OF SURVEYED PARTICIPANTS

#### SAW THE MESSAGE

EXTENSIVELY AROUND CSU BATHURST CAMPUS AND THE BATHURST CBD



# Trends in Environmental Footprint

## Improved Carbon Footprint

CSU is committed to becoming Australia's first certified carbon neutral university. Major projects delivered in 2015 that will help to reduce CSU's carbon footprint include Stage 1 of the Energy Performance Contract delivered at Bathurst and Wagga campuses, and the installation of a substantial 40 kilowatt renewable energy system on the Bathurst Engineering building.

CSU has appointed a specialist carbon advisor, Balance Carbon, to provide support for developing a complete and transparent carbon footprint that meets the requirements of the National Carbon Offset Standard – Carbon Neutral Program, as well as the necessary documentation that will be submitted to the Department of Environment for certification. CSU will undertake a procurement process to purchase the necessary carbon offsets required to achieve carbon neutrality in 2016.

The calculation of CSU's carbon footprint under the NCOS methodology has seen several additional sources of carbon emissions included. These include emissions from construction activities and stationary energy associated with several facilities outside CSU's operational control (e.g Sydney and Melbourne Study Centres). Due to these changes, only 2014 and 2015 has been calculated under the new methodology.

## Electricity

The total electricity usage across CSU campuses, excluding Bathurst, has slightly declined since 2014. When considering Bathurst's consumption, the CoGen plant has made a massive impact. In 2015, the Bathurst campus only used 60% of the total usage in 2014, which has also contributed to reducing the total electricity consumption across all campuses. This is a fantastic effort, despite the construction of new buildings, such as the new Engineering building in Bathurst and construction at the Port Macquarie campus.

## Natural Gas and Water

The patterns of natural gas across campuses are similar to electricity, before consideration of the CoGen plant, but have slightly increased since 2014.

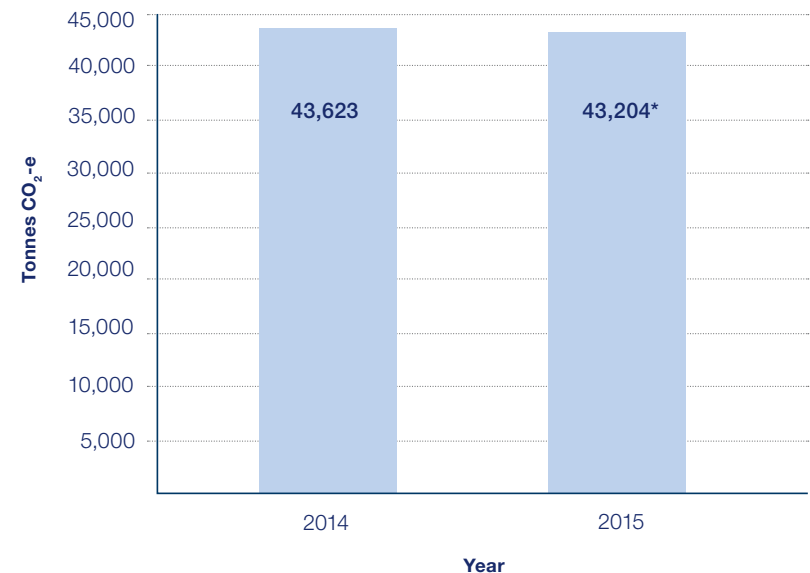
The use of natural gas has increased in Bathurst, as a result of the CoGen, which operates mostly on natural gas rather than electricity. Bathurst's natural gas usage was 50% higher than 2014 as a result.

The water consumption across campuses has also slightly decreased since 2014.

## Waste

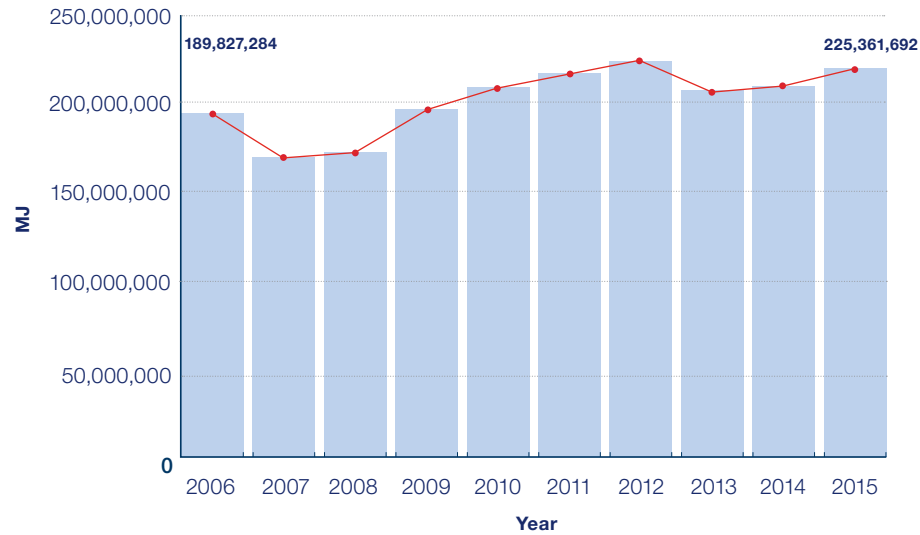
The proportion of solid waste that was recovered from landfill was 22% in 2015. This figure is lower than what was calculated in the three previous years. CSU has changed the way that it determines this figure, moving from a volume based methodology to mass-based as the quality of data improves. It is likely that the apparent reduction reflects an overestimation of the proportion of waste being recovered in previous years rather than an actual reduction in 2015.

### CSU's Total Carbon Footprint

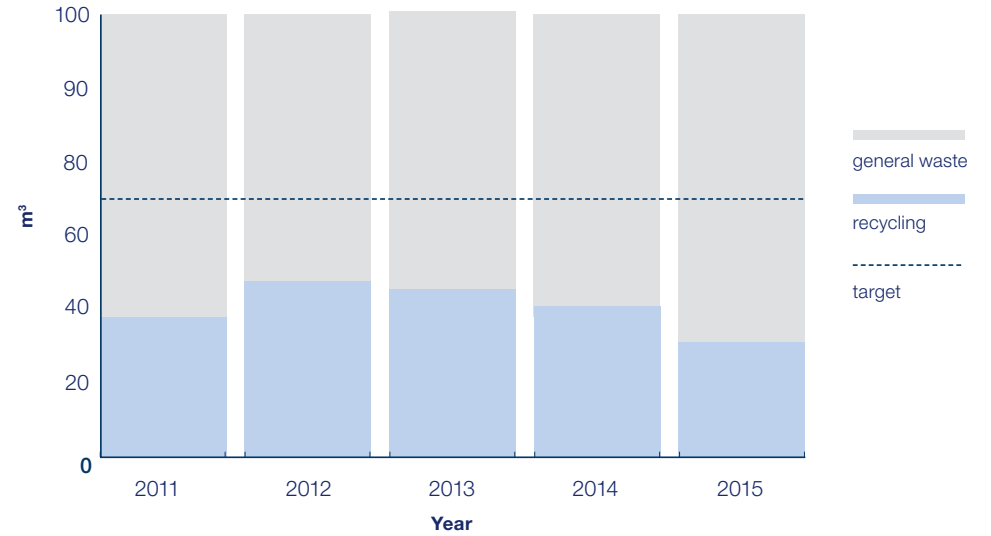


\*Figures provided for 2015 are preliminary only

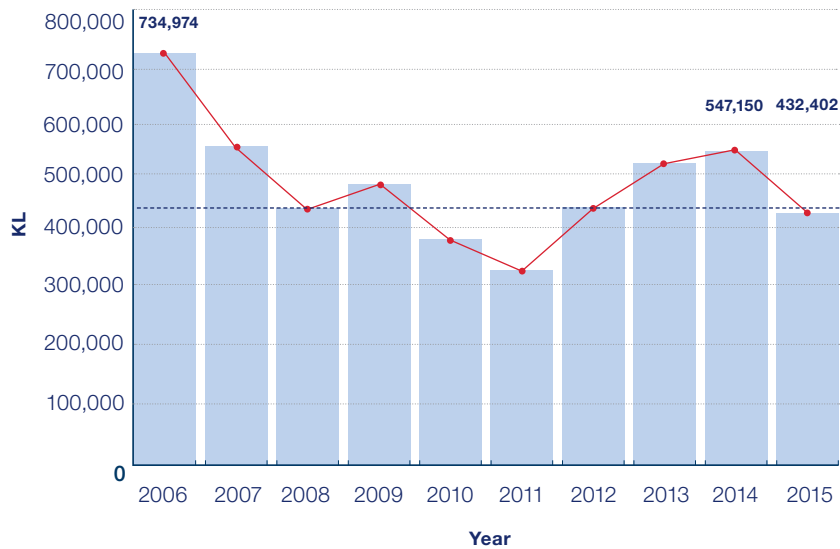
### CSU's Total Energy Consumption



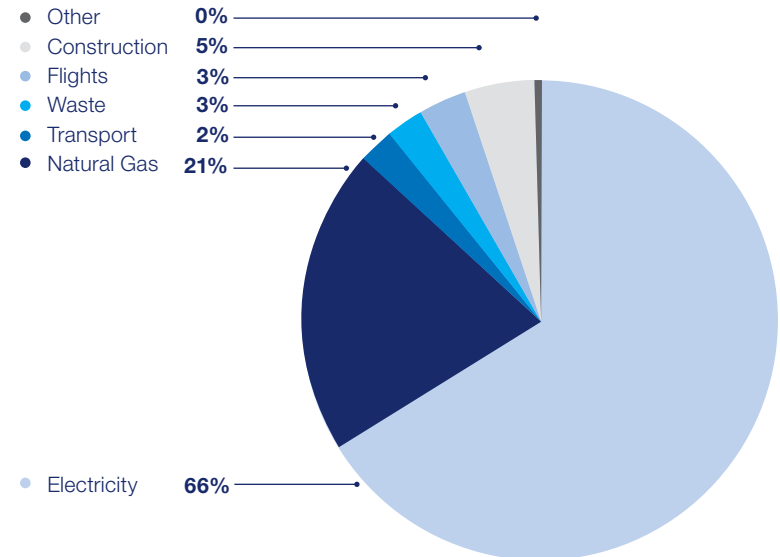
### CSU's Waste Output



### CSU's Total Water Consumption



### CSU's Carbon Footprint - Breakdown by Source







Toner Cartridge Recycling stickers on campus printers

## Toner cartridge recycling

CSU Green took it upon themselves in 2015 to make a positive impact on the significant waste to landfill caused by toner cartridges used on campus. More than four litres of liquid petroleum is used to manufacture a typical all-in-one cartridge, which can take thousands of years to break down in landfill.

Through participating in Ricoh Printers Australia recycling program, a central toner collection location was established on each campus, whereby the toner cartridges are sent to be broken down into raw materials, which in turn are purchased by companies for downstream processes.

CAMPUS	Recycled kg
BATHURST	<b>122.47</b>
DUBBO	<b>3.42</b>
ORANGE	<b>33.64</b>
PORT MACQUARIE	<b>3.42</b>
ALBURY	<b>16.41</b>
WAGGA WAGGA	<b>215.61</b>
<b>Total</b>	<b>394.96</b>

(Jan - Dec 15)



Residential Advisor Teresa Sutton with Move out Items collected from residential students

## Move Out

Landfill waste is a significant issue at the end of the academic year as all the students move out of their campus residences. Conveying the importance of recycling and waste management to students at this busy and sometimes stressful time of year is often challenging. In response to this, CSU Green and Residence Life partnered to implement the Move Out strategy, to collect donated non-perishable food items, kitchenware and other good quality items for local charities as students moved out of their student residences.

The initiative was a huge success with a collective effort of more than 132 boxes of perishable food and 74 boxes of kitchen items donated across the Bathurst, Orange, Albury-Wodonga and Wagga Wagga campuses. These items were then passed onto local charities including The Salvation Army and St Vincent De Pauls.

*Top right:* Bob Hill (Bathurst Community Climate Action Network); Peter Harris (Energy Manager, Division of Facilities Management, CSU); Grant Christopherson (Regional Clean Energy Coordinator, Central North West, OEH). Photo credit: John Merkel.



## Conservation Voltage Reduction Project

Bathurst Community Climate Action Network (BCCAN) approached the Bathurst campus of CSU to participate in a trial of Conservation Voltage Reduction (CVR) following on from a trial conducted at University of Wollongong.

The concept of CVR is to reduce the voltage of the electricity supplied to CSU's network (i.e. from 240 to 230 volts) which could result in a reduction of energy use for certain types of electrical loads. This reduction has been estimated at up to 2% of the University's electrical usage, which would translate into significant financial and energy savings.

This trial was made possible with funding from the NSW Office of Environment & Heritage and CSU is participating in the trial alongside BCCAN and Bathurst Regional Council.

The voltage at CSU in Bathurst has been reduced and BCCAN is currently in the process of measuring the energy savings which have resulted from this reduction.

## Glossary

<b>ACTS</b>	Australian Campuses Towards Sustainability	<b>ICT</b>	Information and Communication Technology
<b>BCCAN</b>	Bathurst Community Climate Action Network	<b>km</b>	Kilometres
<b>CBD</b>	Central Business District	<b>LiFE</b>	Learning in Future Environments
<b>CEC</b>	Campus Environmental Committee	<b>MJ</b>	Megajoules
<b>CO<sub>2</sub>-eq</b>	Carbon Dioxide Equivalent Emissions	<b>MWh</b>	Megawatt Hours
<b>Cogen</b>	Cogeneration Plant	<b>NCOS</b>	National Carbon Offset Standard
<b>CSU</b>	Charles Sturt University	<b>NaLSH</b>	National Life Sciences Hub
<b>CVR</b>	Conservation Voltage Reduction	<b>PRME</b>	Principles for Responsible Management Education
<b>EPC</b>	Energy Performance Contract	<b>SSAF</b>	Student Services and Amenities Fee
<b>ESCO</b>	Energy Savings Conservation Organisation	<b>S4S</b>	Students for Sustainability
<b>GHG</b>	Greenhouse Gas		





**csugreen**  
sustainability  
- your actions count!

## LEARNING IN FUTURE ENVIRONMENTS

[www.csu.edu.au/csugreen](http://www.csu.edu.au/csugreen)

ALBURY-WODONGA | BATHURST | DUBBO | ORANGE | PORT MACQUARIE | WAGGA WAGGA