



# ANNUAL SUSTAINABILITY REPORT 2024



CQUniversity Emerald Campus Solar Farm installed during 2023



## ACKNOWLEDGEMENT TO COUNTRY

CQUniversity acknowledges the many Traditional Custodians of the land and sea Countries on which we work and learn. We pay our respects to their traditions, languages, cultural practices and knowledges of the lands and seas. We pay our respects to all the Elders, past, present, and emerging.

For over 75,000 years Aboriginal and Torres Strait Islander peoples have been caretakers of lands and seas.

Aboriginal and Torres Strait Islander languages, culture and customs are as broad as the country we live in, it is the strength of connection to family and the connection to Country that is at the heart of all Aboriginal and Torres Strait Islander cultures.

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## FOREWORD FROM DIRECTOR FACILITIES MANAGEMENT

*In 2023, CQUniversity reached a critical juncture in its sustainability journey. It marked the culmination of the Strategic Plan – “Our Future is You” (2019-2023), which has played a pivotal role in promoting sustainability across the university as one of the six pillars:*

- 1. Our Students*
- 2. Our Research*
- 3. Our People*
- 4. Our Communities*
- 5. Our Reputation*
- 6. Our Sustainability*



Ron Tollasepp, Director Facilities Management, presenting to the Commercial Services Directorate, 2023.

*Despite the challenges posed by the global pandemic, CQUniversity continued to thrive in various areas. While returning to pre-pandemic sustainability levels requires concerted effort, the university remains committed to this goal.*

*Renewable energy and achieving Net Zero by 2050 have become central themes. As CQUniversity transitions to its new Strategic Plan - “We Change Lives” (2024-2028) the focus on sustainability intensifies. A newly developed Decarbonising Plan will guide future decisions and actions to reduce our carbon emissions.*

*Notably, in 2023, the university installed a ground-based 200 kW solar panel array at our Emerald Campus – our largest panel array to date. This achievement is just the beginning, as more renewable energy solutions are planned for our Queensland regional campuses. Additionally, the Research team secured \$15 million from the Federal Government to bolster our Marine and Seagrass research based in Gladstone.*

*We are proud of our Regional University status and CQUniversity’s commitment to sustainability remains unwavering, and its efforts continue to shape a brighter future.*

Ron Tollasepp

# STRATEGIC PLAN – Our Future is You

The University Strategic plan (2019 – 2023) consists of six pillars, one of which importantly includes sustainability - Our Sustainability. This Strategic Plan concluded at the end of 2023, however the inclusion of Sustainability as a pillar under the plan has meaningfully raised the profile and awareness of Sustainability to a new level. The inclusion of this pillar in the Strategic Plan cannot be underestimated as a message and display of our increased support to creating a sustainable organisation.



To remain agile and responsive in an ever-changing and complex global environment, we will create a progressive organisation that is socially, culturally and environmentally responsible, whilst maintaining financial sustainability.

We are committed to embedding sustainable practice in our operations, interactions and relationships, underpinned by the United Nations Sustainable Development Goals.

## OUR SUSTAINABILITY

### TO ACHIEVE THIS:

We **will** sustain our reputation through our commitment to financial, social, environmental and cultural sustainability practices.

We **will** service our Giving Back agenda with authenticity and altruism, playing our part in overcoming disadvantage and barriers to opportunity.

We **will** ensure our financial future.

We **will** seek to maximise our social impact while reducing our ecological footprint.

We **will** work with communities and industry to deliver education, training and research outcomes to support the development of a more sustainable society.

We **will** produce graduates who have the knowledge, skills and drive to apply global and sustainable thinking to address complex social, economic and environmental challenges.

We **will** uphold the principles of the United Nations Sustainable Development Goals through University governance and operational decision-making frameworks.

We **will not** pursue objectives which imperil our sustainable future.

# 2023 HIGHLIGHTS

During 2023 there was much discussion globally and within Australia on topics such as Environmental Social Governance (ESG) and Greenwashing. CQUniversity awareness of these items is intrinsic in our development and delivery of our sustainability program and operations of the university. Our existing Sustainability Framework of nine elements was created from a base of environment, community and finance, and then expanded to meet the needs of the university while considering the 17 UN SDGs, so in some respect we are already well aware and including ESG in our activities.

Greenwashing is becoming an increasingly serious issue, and the university is reviewing practices and looking to introduce new measures in 2024 to ensure that any information and data is accurate, supported and ethical.


Table 1 outlines the relevant KPIs from our Strategic Plan 2019-2023 for sustainability, and reports on the overall results achieved by the end of 2023.

INITIATIVE	UNIVERSITY KPI	2023 KPI TARGET	2023 KPI RESULT
<b>OUTCOME 6.1: The long-term financial sustainability of the University is maintained and responsibly managed.</b>			
Financial Viability Modelling	>> EBITDA target of 10% of turnover.	10%	<b>ACHIEVED</b> 2023 result: 7.89% At its April 2023 meeting, Council approved the 2023 Budget – Initial Forecast Outlook, with an EBITDA target of 5%. This revised target resulted in the University achieving its EBITDA target for 2023.
	>> Have a Current Ratio of > 1.0	> 1.0	<b>ACHIEVED</b> 2023 result: 1.39
Infrastructure Delivery Program Stage 1 Rockhampton campus consolidation Cairns campus Mackay TAFE heavy automotive training facility Mackay Electric Vehicle and Energy Training (MEVET) Centre Coastal Marine Ecosystems Research Centre (CMERC) Derby Street, Gladstone asset utilisation Diversified Income Opportunities from Physical Assets.	>> Pending funding release, deliver on schedule and within budget.	Deliver	<b>ACHIEVED</b> >\$500k agreed Infrastructure Delivery Program undertaken for 2023 projects, included: • Rockhampton TAFE Centre of Excellence (Design) • CMERC upgrades (Design) • Mackay heavy automotive extension (Construction) • Rockhampton campus – new PC2 laboratories (Design and Construction) • Emerald Solar Project (Completed) • Security Management System and CCTV upgrades (Construction).
	>> EBITDA target of 10% of turnover.	10%	<b>ACHIEVED</b>
	>> Have a Current Ratio of > 1.0	> 1.0	<b>ACHIEVED</b>
Tertiary Education Quality Standards Agency (TEQSA) Re-Registration	>> Re-registration activities delivered on schedule.	Deliver	<b>ACHIEVED</b> • Commencement of high-level project plan and communication. • Project oversight has been confirmed, with an ASQA-CRICOS-TEQSA Reference and Steering Groups reporting through relevant committees to Academic Board and Council. Separate reference groups for ASQA and TEQSA-CRICOS have also been established. • Project managers have been appointed for TEQSA, ASQA and Governance/Secretariate functions.

INITIATIVE	UNIVERSITY KPI	2023 KPI TARGET	2023 KPI RESULT
OUTCOME 6.2: Levers of price, gender balance, country of origin and location of study are used to maintain or increase our international student income, whilst reducing our risk exposure.			
International Student Markets Diversification of market opportunities	>> Grow international student numbers. >> New to university students who are not nationals of India or Nepal.	725	ACHIEVED 2023 result: 1,373
	>> Increase EFTSL across VET, Undergraduate, Postgraduate and research courses	15,797 EFTSL HE: 12,541 VET: 3,256	ACHIEVED 2023 result: 16,886.27 EFTSL HE: 12,942.75 VET: 3,943.52
	>> Have a Current Ratio of > 1.0	> 1.0	ACHIEVED
OUTCOME 6.4: The University's adverse impact on the environment is reduced by operating more sustainably.			
Environmental Sustainability Plan Reduce non-renewable energy consumption	>> Reduce energy usage across the university.	20%	ACHIEVED 2023 result: 35% Reduction on 2015 benchmark


Table 1: Strategic plan 2019 - 2023 sustainability KPI's

## KEY ACHIEVEMENTS SINCE 2019



**STUDENT SATISFACTION**

We have increased our overall VET graduate satisfaction result by 4.4% since 2019.




**REDUCED ENERGY CONSUMPTION**

We've reduced our energy usage by 35% across the university.




**GROWING RHD STUDENT LOAD**

We have increased our overall Research Higher Degree student load by nearly 50% since 2019.



**RECONCILIATION ACTION PLAN**

We proudly launched our Reconciliation Action Plan, that has been recognised by Reconciliation Australia.




**INCREASED STUDENT RETENTION RATES**

We have increased our domestic undergraduate student retention rates by more than 2% since 2019.




**INCREASED PRESENCE ACROSS AUSTRALIA**

We have expanded our presence and now partner with 26 study centres in under-serviced Australian communities.



**GROWING OUR STAFF CAPABILITY**

More than 77% of our staff hold tertiary qualifications, exceeding our target by 2%.



**INCREASED EXTERNAL INCOME**

We have secured \$132 million in external income since 2019.

# 2023 RANKINGS ACHIEVEMENTS

The Times Higher Education Impact Rankings are the only global performance tables that assess universities against the United Nations' Sustainable Development Goals (SDGs). They use carefully calibrated indicators to provide comprehensive and balanced comparison across four broad areas: research, stewardship, outreach and teaching.

As CQU continues on our sustainability journey, our reputation and ranking status continues to grow. In 2023, we achieved notable results in the ten SDG categories we participated including:



**#12**  
SDG 5: GENDER EQUALITY



**#14**  
SDG 14: LIFE BELOW WATER



**#57**  
SDG 10: REDUCED INEQUALITIES



EQUAL  
**#64**  
SDG 17: PARTNERSHIPS FOR THE GOALS



EQUAL  
**#79**  
SDG 4: QUALITY EDUCATION



**#90**  
SDG 3: GOOD HEALTH AND WELLBEING



**TOP 200**  
SDG 8: DECENT WORK AND ECONOMIC GROWTH  
SDG 12: RESPONSIBLE CONSUMPTION AND PRODUCTION  
SDG 15: LIFE ON LAND  
SDG 16: PEACE, JUSTICE AND STRONG INSTITUTIONS

The University's Research Performance & Analytics team collect the data for our Rankings submissions.

Data collection includes publication citations, operating performance including statistics on our energy consumption, employee data statistics and more.



Scan for more information on CQU's commitment to the Sustainable Development Goals

## 2023 CQUniversity - “Walk the Talk”

CQUniversity activity has expanded to support our students, staff and communities.

*Please take the time to explore just a few examples of how we “Walk the Talk”.*



This includes an excellent set of activities undertaken by the School of Nursing which can be found in Appendix 1.

## RESEARCH

### *“Tuning greenhouses to increase yield”*

This project started in September 2023 and progressing well with a planned finish in September 2024.

Greenhouse cropping is the fastest-growing food-producing industry in Australia and is now valued at \$1.8 billion per annum. A greenhouse with properly managed temperature can provide 5 to 10 times greater yield than the conventional methods for crops such as blueberries, cucumbers, and tomatoes; the yield is also of better quality.

Key design parameters that determine the performance of a greenhouse include cladding materials, shape, orientation, number of spans, and effective use of natural ventilation. However, the optimum values for these parameters are unknown, as they largely depend upon the solar radiation profile at the location. Therefore, computer modelling, and simulation will be used to accurately design the greenhouses & field experiments will be conducted to validate the model in collaboration with the industry. The model will be used to provide expert advice to increase the yields from the farm.

In this project, greenhouse cropping of ginger with a type of greenhouse will be investigated in collaboration with Bundaberg Brewed Drinks, who will be supporting with data from their farm in Bundaberg. This work will validate and support the project’s hypothesis and will form a strong foundation for a larger project in collaboration with multiple industries in protected cropping.



## CMERC Project

Headquartered on the shoreline of the Gladstone marina, Coastal Marine Eco-systems Research Centre (CMERC) is the only coastal and marine research facility based in Central Queensland and features world-class research equipment and laboratories with access to cutting-edge analytical capabilities. CMERC staff have strong links with local industry and community groups and are working closely with Traditional Owners to empower them as custodians of Land and Sea Country.



CMERC facilities at Gladstone, Qld.



As part of the growth of CMERC the Federal Government has provided funding to support this important facility and the research activities undertaken. The scope of the project to be delivered over the next couple of years includes:

- Purpose-built Mud Crab fishery research facility.
- Indoor mesocosm aquaria system and wet laboratory and upgraded infrastructure.
- Additional flow-through aquaria (seaweed hatchery) to support research into seaweed mariculture and the conversion of wastewater to biofuels, biofertilizer and fodder.
- Wave current flume tank.
- Relocation of the existing outdoor seagrass mesocosm facilities and shelter structure and extension for seaweed mariculture and mangrove propagation research.
- A submarine remote operated vehicle (ROV) for subtidal research and novel seagrass restoration techniques.
- Soil and sediment processing laboratory for carbon capture analyses.
- Curtis Island field research base (north end of Curtis Island), for remote trials.
- For-purpose research vessel.
- Office and administration space for permanent and visiting staff.

## TEACHING

### Solving Plastic Waste CRC ([www.solvingplasticwastecrc.com](http://www.solvingplasticwastecrc.com))

The Solving Plastic Waste Cooperative Research Centre was announced on 12 December 2023 as one of the successful Cooperative Research Centres (CRC) to be supported by the Federal Government.



The Minister for Industry and Science the Honourable Ed Husic confirmed the Solving Plastic Waste CRC, one of two national CRCs to be funded in the current CRC Program selection round, would be established with \$40 million in Federal funding. The total resources available to the Solving Plastic Waste CRC is \$140.6 million, including the CRC Program grant and contributions from partners.

The bid was led by Griffith University and brings together industry, government, and the research sector to establish a CRC that will assist in solving Australia's plastic waste problem by enhancing end-user driven collaboration which addresses the current challenges across the entire plastics value chain.

The project is due to commence in July 2024 with CQU as a major contributor with CQUniversity's Deb Friel leading the Education and Training (E&T) component.

The E&T Program is an integral component of the CRC, enabled by a collaborative network of research partners across Australia, and a cross-section of industry partners that span the entire plastics value chain.

#### PhD Program

At the core of the E&T Program is a unique industry focused skills program aimed at developing the capabilities of PhD graduates and postdoctoral fellows to operate across the research-practice boundary. The Industry Doctoral Program will produce graduates able to access career pathways across the circular economy for plastics, in industry, research laboratories, or in academia while also providing postdoctoral fellows with enhanced and well-rounded industry engagement experience and skills.

#### Industry Development

The CRC will also offer micro-credentials (MCs) for industry managers and professionals aimed at building a deeper understanding of the upstream and downstream challenges and opportunities to develop solutions for plastic waste.

The E&T Program will be a fundamental legacy of the CRC, establishing an ongoing multi-disciplinary alumni network, strengthening Australia's circular economy research, and underpinning the skills and capabilities required in industry to develop, grow, and sustain a thriving circular economy for plastics.

# FACILITIES MANAGEMENT

200kW Solar farm at our Emerald Campus



During 2023 the Directorate of Facilities Management delivered a ground based solar farm at the Emerald campus that has a capacity of 200kW, being the largest panel array the university has installed to date. The project was effectively completed in 2023 with final approvals through the energy network provider being progressed into 2024.

This solar array is planned to provide most of the power for the campus. The array was ground based to allow for easier ongoing maintenance as well as access to students as part of future training. The array tracks the sun's path providing greater efficiency of the system.

## WATER HARVESTING

During 2023 six water tanks were installed around the Rockhampton campus to collect rainwater. The harvested water will mainly be used on ground irrigation. The tanks provide additional storage capacity of 150,000 litres.



## EV CHARGING STATION

Our first electric vehicle charging station has been installed at the Rockhampton campus. This charging station is available for use by anyone and is activated through use of a credit card.

## COMMERCIAL SERVICES

### Organic waste management practices supporting the community

In 2022 the university commenced a program to provide the chicken carcasses from the Rockhampton Student Residential kitchen to a local crocodile farm. It is extremely pleasing that the practice has continued throughout 2023 with approximately 7000 chicken carcasses provided to the crocodile farm.



This practice has a number of sustainable benefits such as;

- purchasing whole chickens as opposed to smaller cuts, saves a large amount of money,
- helps us keep our students happy within a lower price range of service and quality,
- maintains the Chef's knife skills,
- reduces potential organic waste to landfill from other sources, and
- benefits a local community business with a regular fresh source of feed.

The activity is managed by staff providing time to sort the carcasses and deliver them to the crocodile farm, and the farm owner coming to collect them. This is expected to continue as an ongoing practice.

## SOCIAL INNOVATION



### iActivate across Queensland

Rockhampton and the Darling Downs hosted iActivate social enterprise short course cohorts, the first time those regions had face-to-face opportunities to develop social entrepreneurs with CQU. More than 100 social entrepreneurs have now participated in iActivate, with the four 2022-23 cohorts supported by Queensland Government's \$8 million Social Enterprise Jobs Fund.

## TOYS TO UNLOCK CONNECTION AS CAP COAST COMMUNITY BOOMS

A passionate mum is driving family connection, community and sustainability for the Capricorn Coast region, and her dream to establish a local toy library is one step closer to reality, with help from CQUniversity's iActivate social impact program.

"Around half of Capricorn Coast's 40,000 residents are families with children, and that demographic is growing as our affordable lifestyle attracts more young families."



Jill said with long waiting lists for childcare, many children under four were missing out on vital play and social activity, a gap that a toy library would help fill, alongside stay-at-home-parent isolation, and financial stress challenges.

With confidence in her idea, but not sure on next steps, in February Jill took her toy library dream to CQUniversity's iActivate social enterprise course, offered as a 14-week local accelerator.

She credits iActivate, and weekly workshops to design and grow her organisation, with bringing the Capricorn Coast Toy Library to life.

iActivate Central Queensland was the first of its kind in the region, thanks to support from the Queensland Government's \$8 million Social Enterprise Jobs Fund.

Jillian joined alongside 16 other participants, who had big plans for waste upcycling, nursing profession support and development, mental health and wellbeing initiatives, and sustainable housing.

The unique initiative is part of CQUniversity's social impact as Australia's only social enterprise university, and now an opportunity is available for women driving social impact across regional Queensland.

## COW TECH TRANSFORMING MILLIONS OF LIVES ACROSS INDIA



Scan to listen to  
Param Singh on CQU's  
'How to Change a Life'  
podcast

MooCow founder and CEO Param Singh is a CQUniversity Alumnus of the Year

Award-winning entrepreneur Param Singh's life began in a tiny farming town in India – but he had to move across the globe to realise his potential to change lives for millions of families like his.

The founder and CEO of agri-tech platform MooFarm, Mr Singh has been named CQUniversity Australia's 2023 Alumnus of the Year for Social Impact, for his work across social enterprise and social impact, innovation, and education.

“One thing I really love about Australian education is it challenges you to go away and solve a problem... and that experience helped me see that I can support a team through that process, and I can scale that up.”

“I decided I should put my skills and experience to something where I can help.” In fact, Mr Singh set a goal to return to India and improve lives for 100 million people.

In 2019, he realised that was possible, through the country's 300 million head of cattle, the biggest cow population in the world. Seeing that most dairy farmers were small-scale operators, and that women did 80 to 90 per cent of the work managing livestock in India, he founded MooFarm to help farmers improve dairy efficiencies and milk quantity and quality, and grow livelihoods.

The social enterprise start-up has raised more than \$US15 million in investment since 2019, and last year won the Dairy Innovation Award at the World Dairy Summit.



CQUniversity's U-BEACH (universal beach access) project was the Community Champion Award winner of the 2023 Universities Australia 'Shaping Australia Awards'.

# WHAT'S NEXT - *OUR* FUTURE DIRECTION

## “2024 towards 2028”



The university is excited about the implemented of our new Strategic Plan – We Change Lives (2024-2028). This plan maintains our focus on Sustainability through all of the three pillars, however with an obvious focus through the PLANET pillar. The three new pillars are:

**PEOPLE**

**PLANET**

**PARTNERSHIPS**



# OUR CULTURE OF SUSTAINABILITY

We will continue our commitment to be Australia's most engaged university, supporting the development of global sustainability through our partnerships with the communities we serve.

As an agent of profound social impact, CQUniversity recognises the role it must play in the collective global pursuance of the United Nations Sustainable Development Goals (SDGs). We embrace the 17 SDGs and acknowledge that it is well within our capabilities and our values to work towards the creation of a more inclusive, equitable, and sustainable future for all.

The development of the CQUniversity Strategic Plan 2024-2028 was influenced by the opportunities we create to contribute to the SDGs through innovative teaching, training and research excellence. Through our values-based approach to our People, our Planet and our Partnerships, we not only shape our own future as an institution, but that of a more equitable, sustainable and just world around us.



Extract from the CQUniversity Strategic Plan 2024-2028



# PLANET



Scan to view the  
CQUniversity  
Strategic Plan 2024-2028

The strategic goals underpinning this pillar are:

## SUSTAINABILITY

**2.1 United Nations Sustainable Development Goals (SDGs):** Uphold sustainability practices that remain in favour of a healthy planet at every opportunity and ensure the results of our decisions are socially responsible and are removed of any injustice.

**2.2 Sustainability Knowledge and Practice:** Embed the principles of sustainability into our education, training and research to drive a consciousness and understanding of sustainability.

**2.3 Financial Sustainability:** Optimise the University's business model to ensure our financial security and our ability to be agile and responsive in times of disruption.

## PLACE AND PRESENCE

**2.4 Campus Optimisation:** Balance our physical and digital campuses and create a technology-enabled university that fosters an environment for discovery, creativity, connection and wellbeing – an environment that continues to preserve the student experience as our centrepiece through modernised operations.

**2.5 Co-location and Collaboration:** Open our campuses to industry, employers, community partners, start-ups and commercial operators to co-locate and establish embedded relationships that provide mutual benefits.

**2.6 Presence and Reach:** Embody our commitment to accessibility and opportunity by strengthening our partnerships with regional university centres, enabling us to expand our reach and enhance student access.

## RESEARCH

**2.7 Research Impact:** Be the central hub for research in our regions by addressing the issues that matter most, cementing our unique power of place by undertaking research in practical and sustainable solutions, with national and international impact.

**2.8 Researcher Training and Development:** Support researchers who push the limits of current knowledge and share their research expertise and outcomes to improve productivity, prosperity, quality of life and global sustainability.

**2.9 Entrepreneurialism:** Deepen our entrepreneurial collaborations to encourage innovation and produce new technologies, new products and new businesses.



## MEASURE OF SUCCESS

### REDUCTION IN CARBON EMISSIONS

CQUniversity will measure our reduction in carbon emissions by establishing a baseline and implementing systems and processes to monitor and report emissions, to ensure reductions are in line with the Australian Government target of net zero by 2050.

### UNDERLYING OPERATING SURPLUS

CQUniversity will measure its underlying operating result, defined as revenue less expenses and after abnormal items, in order to ensure the University is financially sustainable by the end of the strategic plan timeframe, as demonstrated by sustainable underlying surpluses.

## PRIORITIES

**Sustainability Framework:** A whole-of-university program focused on supporting the development of global sustainability that contributes to positive environmental and social impact.

STRATEGIC GOAL ALIGNMENT 2.1; 2.2

**Optimising the Business Model:** To advance a business model that supports the changing needs of the University and our students and contributes to service excellence and financial prosperity.

STRATEGIC GOAL ALIGNMENT 2.3

**Campuses of the Future:** Reimagining our physical and digital campuses as connected community precincts to create a vibrant experience accessible to all on a sustainable footprint.

STRATEGIC GOAL ALIGNMENT 2.4; 2.5; 2.6

**Societal Needs Aligned Research:** A program of future-shaping research aligned to societal needs, including artificial intelligence, regional workforce, public health, clean energy and sustainability.

STRATEGIC GOAL ALIGNMENT 2.2; 2.7; 2.8; 2.9; 3.3

**World-Standard Research Portfolio:** To drive a portfolio of research at or above world standard benchmarks and aligning our research to the advantage of our place.

STRATEGIC GOAL ALIGNMENT 2.2; 2.7; 2.8; 2.9; 3.3

# CQUniversity SUSTAINABILITY FRAMEWORK

As part of our continual improvement journey, we are updating our Sustainability Framework to align with our new Strategic Plan. Since 2016 our focus, efforts and contributions towards sustainability have increased dramatically driven by its inclusion as a pillar in our Strategic Plan 2019 – 2023. We are now much stronger with all Divisions across the university actively working on improving our sustainability one way or another.

Our nine elements remain with some adjustments to naming. An example, Element 1 was originally called “Teaching”, and we have now updated this to become “Lifelong Learning”.



The revised framework will include greater input from all areas across the university to enhance planning and implementation. A working group that comprises key stakeholders will collectively manage the framework and its targets through to 2028, aligning with the new Strategic Plan.

The diagram below represents the hierarchy applied in the CQU model. Additionally, our efforts towards achieving UN SDGs and global ESG principles are acknowledged and supported by the framework.



## Decarbonising and Renewable energy

CQUniversity has been monitoring the Queensland Government Energy and Jobs Plan, which outlines a number of renewable energy resources planned through Queensland that will provide future renewable energy to not only Queensland but the National grid. Many of the projects are in regional Queensland and the plan emphasizes the need for skilled resources to help deliver and maintain the projects. This plan together with the Federal Government goal to be Net Zero by 2050 creates a major shift in normal business operations across Australia and the move to renewables as alternate energy sources and reducing carbon emissions through technology such as electric vehicles (EV) or other fuel alternatives such as hydrogen.

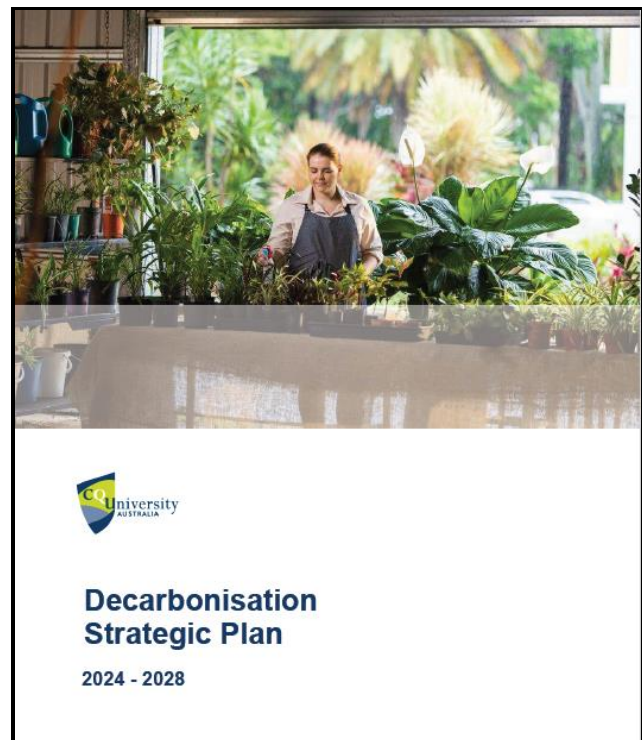


As part of the initial support of this initiative CQUniversity is being provided funding by the Queensland Government to construct a Hydrogen Community Hub at our Gladstone campus planned to be operational at end of September 2024.

In 2023 the Facilities Management team initiated development of a Decarbonising Plan for the university. This plan, which has a target for approval and endorsement by June 2024, will provide formal guidance by outlining the necessary goals to be achieved in order to comply with the Federal Government Net Zero goal by 2050.

The plan will establish a baseline year against which interim targets will be measured. A key objective in the plan will be to achieve a 40% reduction in our scope 1 and 2 emissions by 2030.

This plan will be a major effort and commitment by the university and aligns strongly to the *PLANET* pillar in our new Strategic Plan.



## APPENDIX 1: SCHOOL OF NURSING MIDWIFERY AND SOCIAL SCIENCES | SUSTAINABILITY REPORT 2023



**Sustainability Report 2023 - SNMSS**

**Overview**  
This report provides an overview of the sustainability practices embraced within the clinical learning spaces of the School of Nursing, Midwifery and Social Sciences at CQUniversity in 2023.

### Equipment



SNMSS have found a more sustainable alternative for procurement and we have partnered with a medical equipment refurbisher. Old equipment is sent out and as needed, refurbished resources are procured at a reduced cost, saving money and minimising landfill.

We are also actively moving away from manikins and bulky plastic resources to the more sustainable task trainers and real humans.




### Consumables



A large portion of consumables are cleaned, dried and repackaged by the team. Everything from catheters to IV lines, caps and bungs, are collected, prepared and repackaged to replicate industry.

Most recently, catheters have been collected post skills session and once clean and dry, are repackaged into biodegradable packaging that mimics industry ready for another learning experience and saving thousands.




### Electronic to Paper



As the world moves from paper to electronic mediums, so have we. SNMSS have embraced the use of an electronic medical records platform for storage of some simulated patient data, thereby reducing the amount paper used in learning.

We have also moved away from book resources (such as resource books used to look up medications) to an online platform, saving \$54000 a year and ensuring that students have access to the most current information online.





## Sustainability Report 2023 - SNMSS

### Donations



Consumables that are unfit for medical use or have expired are donated by organisations such as Queensland Health, Ramsay, Mater and local private practices. Once they are delivered onsite, items are sorted, and are shared across our foot print to ensure all sites have access to valuable items. Donations to date are in excess of \$250 000 in value.



### Community



Any donated items that do not meet our needs are shared with the wider community. As donations come in, they are aligned with our student planners. If we are unable to use them, the items are donated within communities to vet practices for supporting the health and wellness of local animals. We have also donated items such as bed sheets that no longer meet our requirements, but easily meet the needs of local charities such as Safe Haven (an animal refuge centre).

AUSTRALIAN ANIMALS CARE & EDUCATION



### New life



As equipment and resources come to the end of their useful life with us, we have helped them to find new life with a new CQU team. In Cairns, broken manikins were donated to the paramedicine team where they have found a new life as body parts for skill rehearsal. In Mackay, our broken ECG machine continues to help as other medical teams practice patient movements using the cables to simulate more complex patients.





Sustainability Report 2023 - SNMSS

## Medications



Given the large number of medications required within the school for student practice, SNMSS have created their own simulation pharmacy. Vials are cleaned, dried and repackaged after each use, preventing a large amount of vials from entering landfill and saving large amounts of money.



## Community



As manikins disappear, a more efficient and sustainable way to teach invasive medication administration was required. We created and now make onsite, wearable IV task trainers. A piece of yoga mat has now evolved into tattoo skin and is blended with clean, used lines from our labs to create a trainer that allows students to give medications without the risk of harm.





## APPENDIX 2: MORE STORIES ON OUR SUSTAINABILITY FOCUSED ACADEMICS AND STUDENTS



Professor Steve Turton, shared his expert opinion on climate change topics including [Global average sea and air temperatures](#), the predicted [Hotter days ahead of El Nino](#) and the [North Queensland's record-breaking floods](#).



Dr Larelle Fabro, Associate Professor in Environmental Science, led a two year project collecting water data in Byfield (near Yeppoon). The paper was coauthored by Livingstone Shire Council's Michael Dalton and Glenn McIntyre, along with contributions from CQU's Alison Craig, Geeta Gautam Kafle, Lorna Wells, Tania Collins.

[Importance of catchment management highlighted in research findings](#)



CQU's Bachelor of Engineering Honours students are aligned with the SDGs. CQU Head of College for Engineering and Aviation Associate Professor Benjamin Taylor said the Sustainable Development Goals were one of the foundations of the University's Engineering courses and impressed upon students from Term 1 of their studies.

CQUNews story: [CQU is engineering sustainable futures for students](#)

## APPENDIX 2: MORE STORIES ON OUR SUSTAINABILITY FOCUSED ACADEMICS AND STUDENTS

### OUR PHD STUDENTS ARE CREATING NEW SUSTAINABILITY FOCUSED KNOWLEDGE

*Below is a small sample of announcements from the “Conferral Corner”, published by Professor Susan Kinnear, Dean School of Graduate Research.*



Dr Ritanhi Narang's doctorate explored how sustainability education is being incorporated into the accounting curriculum, through a comparison of public and private universities in India. The research revealed different motivations for moving towards having sustainability embedded in the curriculum.



Dr Sonia Peterson recently completed her Master of Applied Science degree on compost production, focussing on the particular problem of how to deal with poultry waste. Her research trialed the use of microorganisms as part of an industrial biodigestion process. Through this, Sonia created a compost that meets industry standards, all while saving time and space, with the final product being available in just 90 days.



Dr Rahul Sreekumar finished his PhD in 2023 on the beauty leaf tree that grows across tropical Australia and has been recognised as a potential feedstock for biofuels. Rahul's thesis was focused on understanding how genetic variability in the beauty leaf tree is linked with changes in oil content of the kernels as well as the salt tolerance of the tree. Rahul's research resulted in creating a new tool to find the trees that have high kernel oil content.