SUSTAINABILITY FRAMEWORK

CONTENTS

1 INTRODUCTION

1.1 CQUniversity, the largest regional Australian university, is proud to be recognised as a most inclusive university with some of the highest ratios of students from disadvantaged, mature age, Aboriginal and Torres Strait Islander, and first-in-family backgrounds. CQUniversity places a strong emphasis on social and environmental commitments and fosters sustainability practices with the help of our communities, and industry, government partners, both in Australia and overseas. Sustainability is a commitment to long-term business performance through improved social, economic and environmental practices.

1.2 CQUniversity is looking at a long-term strategy to phase in a culture of sustainability over 15 years. As suggested in Figure 1, the period 2016-2020, 2021-2025, 2026-2030. Each with a distinct broad outlook but working towards building 'capacity' in three protagonists of the individual, the community and institutions. The sole aim among these protagonist is to create a strong sustainability culture in the process of generating knowledge and its application. We see it our responsibility to safeguard the environment. As an educational institution, we are in a strong position to convey a message on conservation and sustainability while we pursue our educational and economic targets to bring about lasting change.
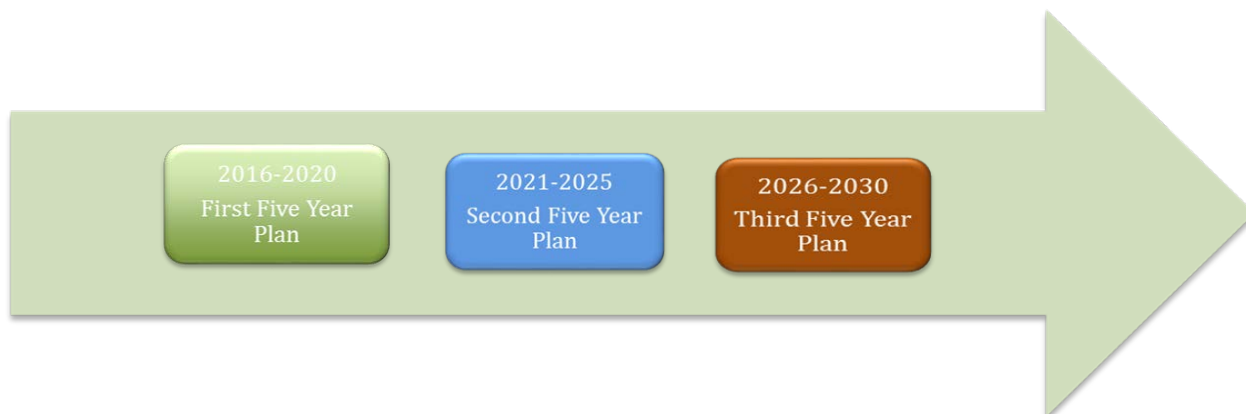
Figure 1 - CQ Sustainability Epoch 2016-2030

2   BACKGROUND

2.1   2015 was a turning point for sustainability in global undertakings as the Sustainable Development Goals (SDGs), proposed by the United Nations (UN) Development Programme, were officially adopted by world leaders during the Paris Conference of the Parties (COP) 21 Summit. SDGs are accompanied by targets elaborated through indicators focused on measurable outcomes. They are action-oriented, global in nature and universally applicable. They take into account different national realities, capacities and levels of development.

2.2   CQUniversity adopted a Sustainability Policy applicable to all its campuses throughout Australia. The Policy sets a clear turning point about the image it is portraying and various benchmarks the University is set for its teachers, students, employees, service providers and stakeholders about the sustainability of its activities.

2.3   Translating the Policy into action is this Framework, which provides direction towards specific goals. The goals are set against 2015 as the benchmark with the understanding that adjustments to these benchmarks may be added on a continual basis to reflect reality of situations. This Framework is based on the premise that sustainability is a factor for all the University's operations, teaching and research activities as noted in the Policy.

3   FRAMEWORK

3.1   The Facilities Management Directorate (DFM) is responsible for driving sustainability across the University. Being at the initial stages of the 'sustainability journey', this Framework is an evolving document. It will be implemented through:

- engaging and empowering employees, students and the community on sustainability issues
- establishing University-wide targets to reduce energy, water, solid waste and pollutants
- fulfiling our commitment to sustainable building designs and facilities
- developing sustainable campuses, and
- incorporating sustainability topics for teaching and research as interrelated components in all fields offered at our university.

3.2   CQUniversity is committed for sustainability initiative based on a triple bottom line approach. The commitment is clearly exemplified through this Framework.

3.3   CQUniversity is in a strong position to illustrate the role it plays in the region and beyond, particularly with sustainability issues. These initiatives are motivated and driven by the need to ensure that our environmental footprint is minimised as the world enters a precarious period of a global effort to reduce carbon emissions within the next few decades.

3.4   Our core service being tertiary education, therefore, this Framework closely supports excellence in research and scholarships, undergraduate and postgraduate education, and public engagement by operationalising

sustainability at all levels. Climate-positive policies and development will open new opportunities for research and interdepartmental study.

3.5 At the heart of this Framework is an awareness program that encompasses all site, employees and students. Intrinsic to this is a stewardship role in the University's engagement strategies with its internal and external stakeholders. It calls for a paradigm shift in its understanding of the new 'culture' of sustainability. Sustainable Development is focused on balancing social, economic and environmental needs.

3.6 Endeavouring to practise Sustainable Development, challenges us to manage our activities with a long term lens as compared to immediate short term gains. This Framework recognises the practical difficulties and challenges in adopting a sustainable approach and seeks to stimulate incremental, manageable and tangible improvements.

3.7 The overarching guiding principle for this Framework is stewardship. For growth to be sustainable, it will take place within this Framework that promotes the attainment of progressively higher degrees of unity of vision and action among its participants. Each step forward becomes part of a collective process, in the spirit of collaboration; of learning by which our campuses, departments and individuals advance together in understanding and action. In this Framework, ideas and suggestions do not belong to a single person or entity. Nor does their ultimate success or failure. Rather, proposals and insights belong to the organisation, which adopts, revises, or discards them as needed.

4   SUSTAINABILTY ELEMENTS

4.1 As can be seen from Figure 2. below, sustainability at CQUniversity is holistic through interconnecting elements to signify that one's actions are connected to the larger picture. To mitigate the adverse impacts and ensure ones' actions are in line with tested systems, we are guided by this Framework.
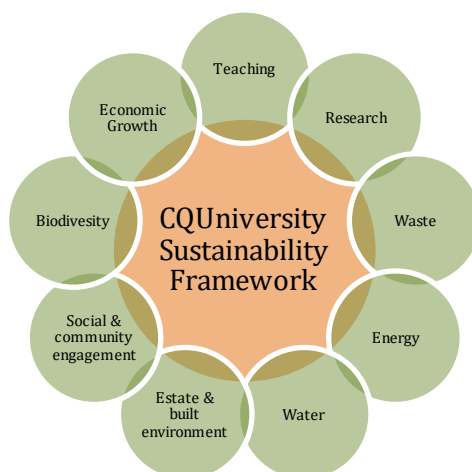

Figure 2 - Sustainability Circle

4.2 To strategise and implement the various but interrelated aspects of sustainability, this Framework builds upon nine specific 'Elements' to provide a holistic approach to managing sustainability at CQUniversity. The table below further demonstrates how the University's nine elements relate to the 17 International SDG's.

Matrix for the UN's SDGs vs CQUniversity sustainability	Teaching	Research	Waste	Energy	Water	Estate and Built Environments	Community Engagements	Biodiversity	Economic Growth
No poverty							Δ		Δ
Zero hunger							Δ		Δ
Good health and well-being	Δ						Δ		

Quality education	Δ	Δ					Δ		
Gender equality	Δ						Δ		
Clean water and sanitation	Δ		Δ		Δ				
Affordable and clean energy				Δ					
Decent work and economic growth							Δ		Δ
Industry, innovation and infrastructure	Δ	Δ							
Reduce inequality	Δ								
Sustainable cites and communities		Δ	Δ	Δ	Δ	Δ			
Responsible consumption and products	Δ	Δ						Δ	
Climate change		Δ	Δ	Δ	Δ				
Life below water		Δ			Δ			Δ	
Life on land		Δ			Δ			Δ	
Peace, justice and strong institutions	Δ						Δ		
Partnerships for the goals	Δ						Δ		

Figure 3 – Matrix for the UN's SDGs vs CQUniversity sustainability

Teaching

Holistic, progressive, applicable

Objectives

4.3   Universities and colleges worldwide are now recognising their central role in addressing the challenges of sustainability. In response, many educational institutions are rapidly advancing a suite of collaborations, strategies, programs and curricula pathways. CQUniversity understands that education for sustainable development encompasses more than just environmental factors. It also includes social, economic, ethical and 'cultural' values.

4.4   It needs to be highlighted that sustainable learning styles include the importance of critical thinking, inter-disciplinary, multi-method approaches to assessment and challenging approaches to, and ideas about, teaching and learning.

4.5   A topic as nebulous as sustainability needs a long-term evolving process of engagement with a widening circle of key players within the University Schools and Divisions, students and the community. The Framework is the basis of our approach to making implicit connections to sustainability, more explicit. We will achieve this through Education for Sustainability (EfS).

4.6   EfS is more than providing content. It also addresses learning skills, perspectives and values that guide and motivate people to continue learning after they graduate, to contribute to a sustainable livelihood and live in a society that is forward-looking. EfS aims to go beyond individual behaviour change or single actions often associated with education for the environment. It seeks to implement systemic change through influencing the community, institutions, local, state and national government and industry.

4.7   The focus is to eventually embed concepts of sustainability in all aspects of teaching and to provide a variety of choices for students from the Certificate to Higher Research Degree levels either directly or through interrelated courses on sustainability.

Current status

4.8 We play a key role in educating future generations of citizens, consumers, investors, entrepreneurs, leaders, and decision-makers within Queensland, Australia and globally.

4.9 We recognise our responsibilities towards promoting environmental sustainable development and social justice as a provider of quality tertiary education and research throughout Australia. We are in an ongoing process of ensuring that sustainability principles are embedded in a wide range of teaching subjects, and in our practices of learning and teaching, thereby empowering our students and graduates to contribute towards a more sustainable, equitable and cohesive society.

4.10 Presently, our courses and modules at undergraduate and postgraduate levels include various levels of sustainability within them. The aim will be to include sustainability content in every course, where relevant, to help develop our students.

Targets

4.11 Short to medium term goals (2018 – 2023)

- review of sustainability content currently contained across CQUniversity programs
- Plan to increase the number of Sustainability content across all programs.
- At CQUniversity, Open Days organise a desk for information dissemination on sustainability activities.
- organize discussions and speakers in sustainability topics at various CQUniversity campuses
- increase student involvement to a point where students are helping drive the direction of our sustainability framework, and
- introduce teaching pathways for student-initiated projects.

4.12 Long term goals

- as part of curricular development, embed sustainability content such that it will bring about a holistic rethinking approach to sustainability
- deliver sustainability related programs or coursework, and
- empower teaching methods to develop student initiatives and projects in sustainability.

4.13 Key performance indicators

- develop authentic assessments which include sustainability examples, and
- number of student initiatives and success.

Research

Innovative, collaborative, practical

Objectives

4.14 CQUniversity is fast becoming a well-known and respected Research University. As an institution, we value our interactions with society, particularly in terms of direct and indirect knowledge exchange. As our research portfolio grows in the future, we should be cognisant of sustainability principles and practices that may be included in research projects to better support all communities.

Current status

4.15 Some people devote their careers to researching a particular concept to improve the lives of others so that we all can enjoy a better quality of life. Researchers at CQUniversity are involved in a variety of research projects that, on the whole, aspire to improve the functioning, welfare and productivity of our communities. Committed to excellence and innovation, CQUniversity is proud to play an important role in various research initiatives with business, government and the community.

4.16 Research endeavour is monitored by relevant Ethics, biosafety and academic committees, ensuring that CQUniversity projects are conducted in accordance with the relevant guidelines, policies and procedures.

Targets

4.17 Short to medium term goals (2018 – 2023)

- create awareness among CQUniversity research and academic employees of the focus on research that addresses sustainability issues within our society, environment and industry, through regular communication and practice, and

- promote the applied research and subsequent innovative outcomes undertaken by CQUniversity that has improved the sustainability or our society, environment and quality of life.

4.18 Long term goals

- CQUniversity is recognised for its innovative applied research that makes a difference and improves the sustainability of our world

- embedded sustainability research approach in relevant fields, and

- potential that CQUni research can influence our decision making in develop a sustainable future for the university.

4.19 Key performance indicators

- the number of research projects delivering tangible sustainability-related outcomes

- the number of community-engaged research projects aimed at improving local community, environment and global sustainability, and

- adoption of research outcomes in to the normal operations of the University.

Waste

Reduce, reuse and recycle

Objectives

4.20 Like most large organisations, CQUniversity produces a certain amount of waste. During 2015 on the Rockhampton North campus about 25 tonnes of garbage monthly while 6.6 % is recycled offsite or sent to the city refuse tip. With a growing student population, CQUniversity wants to reduce its waste production through a variety of methods and instruments. Based on the National Waste Policy of the Department of Environment and Energy, CQUniversity will adopt the following guidelines:

- avoid the generation of waste, reduce the amount of waste (including hazardous waste) for disposal

- manage waste as a resource

- ensure that waste treatment, disposal, recovery and re-use is undertaken in a safe, scientific and environmentally sound manner, and

- contribute to the reduction in greenhouse gas emissions, energy conservation and production, water

efficiency and the productivity of the land.

4.21   With learning outcomes from Mackay campus pilot recycling program in 2017, DFM has approved a Waste Management Rollout Plan. We will rollout recycling bins and needed infrastructure in 2019. Additionally, large industrial skip bins will be used for internal collection and disposal. In most cases, there is no option available for separating the waste into specific items. As part of EXITCYCLE signatory, DFM is working to rollout recycling of batteries, toners, etc. across all campuses in a planned manner.

4.22   In 2017 CQUniversity joined the Iconic Clean Up Australia Day as a platinum member making most use of our reach across the country. For two years now we have had 12 campuses participate each year across our footprint cleaning up areas outside our campuses within the communities we are part of. We work with the local councils to organise suitable locations to provide maximum benefit to the community.

Targets

4.23   Short to medium term goals (2018 – 2023)

- liaise with the various local Councils to develop recycling programs for each campus

- reduce landfill waste to 10% and divert landfill waste to other streams such as waste to energy, organic biogas, etc, and

- initiate a robust waste reduction, reuse and recycling awareness campaign.

4.24   Long term goals

- work on long term strategy to zero landfill waste

- recover 85% recyclables by end of 2030

- recover 100% of compostable from total waste generated and feasibility study for the on-campus composting system, and

- adopt the end of a life assessment plan for capital major and minor projects.

4.25   Key performance indicators

- percentage of recovery of recycling, compostable materials from total waste generated

- mechanism to reduce waste generated on campuses, and

- the mechanism for the end of life analysis.

Energy

Avoid, reduce, produce

Objectives

4.26   CQUniversity is committed to a policy of energy efficiency and conservation in its facilities and operations. This Framework identifies energy conservation as a significant issue for the campuses and outlines steps to conserve energy and achieve sustainable goals of the University. Our guiding principles are to:

- reduce energy usage incrementally over the years by utilising alternative methods of energy conservation, and

- encourage energy-saving behaviour on campus through technical assistance, awareness campaigns and studies. The University will implement this Framework through active and passive measures:

- active measures include asking the University's community to close doors, turn off lights and engage in other, general conservation activities, and education (i.e. employee forum, administrative forum, faculty meetings, student interest groups and outreach)

- passive measures include installing energy-saving devices, designing new infrastructure with a goal of energy conservation, operating existing facilities in the most feasible energy-efficient manner, and developing procurement guidelines that incorporate energy-awareness.

Current status

4.27 Since the Framework, was approved we have worked towards meeting the energy reduction targets that were set in the University Strategic Plan. As can be seen below we have been able to exceed to set targets.

Measure	2015		2016		2017		2018	
	% target	value	% target	value	% target	value	% target	value
GJ/m2	0	0.530	1	0.525	3	0.514	6	0.498
Actual				0.487		0.469		0.390

4.28 CQUniversity's corporate greenhouse gas (GHG) emission is currently under the reportable threshold, 50 kiloton or 200 TJ energy usage, however we will continue to monitor it and report internally.

4.29 We have a plan in place with the adoption of renewable energy sources. In coming years, we will work on base load reduction methods through installation of solar PV, LED lighting, VSD HVAC systems, etc. With changes in the Design Manual, our carbon footprint will reduce. It is planned to gradually replace existing fixtures with low energy dependent globes and install energy efficient lights and equipment in all building projects.

Targets

4.30 The targets below are contained in the CQUniversity Strategic Plan.

Measure	2018		2019		2020	
	Target Reduction from 2015	Value	Target Reduction from 2015	Value	Target Reduction from 2015	Value
GJ/m2	6%	0.498	9%	0.482	12%	0.466

4.31 Short to medium term goals (2018 - 2023)

- introduce energy monitoring equipment to allow for measurement and targeted saving areas

- engage employees, students, and service providers in a robust awareness campaign on effective electricity and fuel saving tips, and

- continue to introduce energy efficient equipment such as LED lights and energy efficient chillers.

4.32 Long term goals

- utilise maximum renewable energy source through power punches arrangements, and

- centralised chilled water plants and thermal storage.

4.33 Key performance indicators

- annual CQUni energy targets, and

- use 2015 as a benchmark year for reporting methods.

Water

Avoid, reduce, recycle and capture

Objectives

4.34 CQUniversity campuses will efficiently use water and minimize any wastage as one of our most precious resources.

Current status

4.35 In 2018, CQUniversity used over 120ML of water (excluding metros and residential properties). This is a combination of town water and harvested sources, while town water making up around 90% of the total.

4.36 We are committed to reducing our water use and dependency on town water. We have made changes in our Design Manuals, with refits and new built will be 5-star water efficiency equipment, to replicate our commitments.

Targets

4.37 Short to medium term goals (2018 – 2023)

- develop and implement an awareness campaign on water conservation tips with students, teachers, employees and visitors
- implement 5-star water efficiency rated equipment to all new campus buildings and upgrade of existing building stock to reduce water demand.
- actively check and adjust irrigation systems to minimise wasted water.

4.38 Long term goals

- offset the usage of Council supplied potable water by devising water conserving landscapes and buildings
- increase the capture of rain water through various techniques like rainwater tanks
- install water recycling plants and the use of grey water for appropriate use, and
- convert a major sporting ground to synthetic turf, eliminating the need for watering and mowing. Install catchment of the runoffs water into underground tanks.

4.39 Key performance indicators

- capture water consumption through annual TEFMA reports.
- increased rainwater tank capacity, and
- the capacity of greywater treatment measured annually.

Estate and built environment

Green buildings, land management, campus planning

Objectives

4.40   CQUniversity owns and leases a wide range of land and built environment including sports grounds, buildings, accommodation and office blocks. Our built environment should be resource efficient, operationally cost-effective and provide improved environmental, economic and social benefits to student, staff and surrounding communities.

4.41   CQUniversity has been actively growing with new buildings and refurbishments throughout Australia. Constructing or refurbishing to Green Building Standards has many benefits such as longer lifespan, reduced replacement and lower operating costs. Additionally, carbon emissions are reduced out of an environmental and social responsibility. Hence, our aim is to reach best practice standards in accordance with the [Green Building Council of Australia](#) (GBCA) frameworks in building design for all future developmental work.

Current status

4.42   We are continually introducing sustainable features into buildings and grounds; water harvesting, solar panels and strategic shading are installed in new buildings.

Targets

4.43   Short to medium term goals (2018 – 2023)

- undertake investigations to determine best practice or current benchmarks in this area
- create a sustainability walk with interpretive signage, and/or a community garden
- change light bulbs to LED units gradually and systematically
- use of sustainable products in projects
- design for 5-star green star rating, and
- consider developing End of Trip (EOT) facilities at campuses to encourage people to walk, run or ride to work.

4.44   Long term goals

- construct future buildings to the green star ratings of the GBCA
- increase solar PV units to increase capacity, and
- possible link to research activities.

4.45   Key performance indicators

- total annual solar PV capacity
- new electrical LED lightings installed or existing ones replaced to more efficient ones,
- green star compliant building is added to the growing inventory of sustainable buildings at CQUniversity, and
- sustainability walk is built and used.

Social and community engagement

Community network, stakeholders engagement

Objectives

4.46 Engaging with the community is an intrinsic part of the University's mission and values. Our employees, students and alumni are a resource for our whole community. Through community-based learning, engaged leadership programs, research and innovation, teaching and practice, our employees and students combine with the community to build on existing strengths and look forward to sustainable, successful and vibrant futures. The objective is to clearly and emphatically convey a message of sustainability in all its strategies of community engagement.

Current Status

4.47 CQUniversity is endeavouring to become the most 'engaged university' and sustainability is a global trigger that can help us. Through an active sustainability program, we will be able to increase our engagement agendas to a broader audience and range of current global topics.

4.48 At the moment CQUniversity does not produce an annual Sustainability Report which would help share the message and highlight the good things we are doing and will do in the future.

4.49 CQUniversity is not yet a member of any environmental sustainable focused networks or groups, but are planning to improve this during 2016 as many other Universities are also embedding sustainability in all aspects of their functioning, teaching and research activities.

Targets

4.50 Short to medium term goals (2018 – 2023)

- engage stakeholders in a robust awareness campaign that is clear, continual and innovative
- proactively network with organisations that have a local, national and international reach
- initiate a Sustainability Week to coincide with National Tree Day, Earth Day, Clean Up Australia Day
- initiate a Sustainability Champions program, and
- consider membership of the Talloires Declaration or a similar group.

4.51 Long term goals

- create activities that showcase CQUniversity as a strong player in educating the community in sustainability issues through sponsorship, networking and educational strategies.

4.52 Key performance indicators

- report membership to organisations, and
- report events that have a strong sustainability focus through annual reporting.

Biodiversity

Natural environment, flora, wildlife

Objectives

4.53 This comprises the variety of plants, animals and microbial life at a given location. Biodiversity is a useful indicator of the overall health and viability of natural environments on CQUniversity campuses. Being the largest regional university, it covers land and property that sustains an interesting mix of native and non-native species. This Framework guides our actions to ensure that all natural water courses and riparian bush land are preserved as much as possible to their original state.

Current status

4.54 CQUniversity campuses range from inland dry arid conditions to wet tropical lush rainforests to city landscapes. Our multiple locations harbour various microclimates that support thriving biodiversity with a range of flora and fauna. CQUniversity has constructed building and structures around our rich biodiversity and in some situations have rebuilt and landscaped the surrounding to naturally blend into the existing topography and vegetation.

Targets

4.55 Short to medium term goals (2018 – 2023)

- identify items that are relevant to each campus. Potentially work with external groups on community projects where the University does not have the space

- 'Rejuvenate a creek' campaigns can be fostered to clean up and grow native plants along its banks to abate soil erosion

- organise 'Tree Planting Day' within various campuses or participate in a larger community effort

- develop gardens using native plants that support the local fauna and thrive in the local environmental conditions, and

- involve employees and students in these activities.

4.56 Long-term goals

- build a Sustainability Walk with special apps that indicate various plants, trees, flora and fauna native to the location. The Sustainability Walk can be extended over the years with new points of interest, and

- establish a CQUniversity Community Garden. This garden would be open to students, teachers, employees and community members who can commit their time on a regular basis.

4.57 Key performance indicators

- expand use of native species for sustainability and support of local fauna

- employees and student involvement., and

- reporting against a developed plan and percentage of green land.

Economic growth

Efficiency, profits, human resources

Objectives

4.58   CQUniversity operates with a discipline that allows it to stay true to its core business. The core is when we invest the most and generate the greatest returns. As we look to areas where we can make cuts and achieve efficiencies, we should start farthest from the core of teaching and research. Cut from the outside in, and build from the inside out.

4.59   CQUniversity is committed to taking practical steps to help maintain high and stable levels of economic development and employment, not just within the University but also throughout the wider community. We will play our role in contributing towards an economy which is resilient to the negative impacts both of changes in the wider global economy and of climate change.

Current status

4.60   CQUniversity has operated such that it has been able to accrue a significant amount of funds in its reserve funding and does not have any significant debt. There are various challenges experienced to ensure the University operates in a cash positive manner with in its annual revenue predictions but it is proactive in managing this. As a result of this approach and an increased scrutiny of new business cases, the University is in a stable and solid financial position moving towards 2020. Some items that could affect economic performance are:

- lack of clarity among departments about systems and processes towards a sustainable organisation
- overly administrative functions
- many tiered management structure, and
- not implementing sustainable practices that affect hidden ongoing operational costs vs initial capital costs.

Targets

4.61   Short and medium-term goals (2018 – 2023)

- actively engage suppliers to encourage them to align with our sustainability objectives
- encourage good design standards to include sustainability features and not remove them when the budget gets tight, and
- simplify processes to ensure compliance but in an efficient manner.

4.62   Long term goals

- reassess weak performing activities and take decisions about their future viability and continuation
- develop a clear strategy, focused on the core of Learning, Teaching and Research, and
- strategically invest in innovative models.

4.63   Key performance indicators

- Annual report shows sustainability parameters directing future University growth.

5   DEFINITIONS

Terms not defined in this document may be in the University glossary.

6   RELATED LEGISLATION AND DOCUMENTS

National Waste Policy (Department of Environment and Energy)

Sustainable Development Goals (United Nations)

Strategic Plan

Sustainability Policy

7   FEEDBACK

Feedback about this document can be emailed to policy@cqu.edu.au.

8   APPROVAL AND REVIEW DETAILS

Approval and Review	Details
Approval Authority	Council
Advisory Committee to Approval Authority	Strategic Planning and Projects Committee
Administrator	Director, Facilities Management
Next Review Date	23/08/2019

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