Contractors and Building Users Sustainability Guide

Facilities Management,

Infrastructure Services & Development

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1. Introduction

This Guide is developed on behalf of Facilities Management to assist all University contractors, staff, students, and visitors to be more sustainable in their activities on University properties. The efficient and safe operations of a building depend on the actions of the occupants, and contractors, in managing works and operations to meet sustainability goals.

The University of Tasmania is committed to sustainability, which includes the maintenance and operation of sustainable campuses to reduce the risk of environmental and social damage. This includes meeting local, State and Federal environmental regulatory requirements.

Key sustainability priorities in the use and maintenance of the built and natural environment on University properties include:

- Energy – reducing electricity and natural gas;
- Water – reducing water use and stormwater pollution;
- Waste and Recycling – reducing waste to landfill and encouraging recycling or re-use;
- Transport – reducing fossil fuel powered transport and single-vehicle use;
- Indoor Environment Quality – reducing indoor pollutants;
- Biodiversity – protecting the natural environment;
- Resilient infrastructure – maintain and operate to reduce risks from extreme climate events;
- Procurement – ensure sustainable consumption of goods and materials that do not support slavery or environmental destruction.

Strategies and Policies which are relevant to sustainability in the operation and maintenance of facilities at the University of Tasmania:

- Strategic Asset Management Framework / Plan - draft
- University of Tasmania Sustainability Policy 2020
- UTAS Strategic Plan 2019 – 2024
- The UTAS Strategic Framework for Sustainability 2020

The University reports carbon emissions from energy, water consumption and waste management to a range of Federal and industry benchmarking initiatives (NGER, TEFMA, Carbon Neutral, STARS).

2. Responsibilities and Requirements

This Contractors and Users Guide applies to all building and campus users, which includes staff, students, visitors, neighbours, the wider community, and service providers.

Responsibility	Requirement
UTAS Infrastructure Services and Development	Manage contractors and infrastructure to meet the expectations outlined in this Guide
UTAS Staff	Work and operate within UTAS facilities to meet expectations in this guide, as much as practicable
UTAS Students	Study and participate in campus life in a manner that meets expectations in this guide
Contractors & Service Providers	Undertake works to meet expectations in this guide as much as practicable
Visitors, community	Comply with requests which meet expectations as practicable

3. Energy Efficiency

Reducing the use of electricity and natural gas in the University property portfolio is a requirement in order to decrease greenhouse gas and carbon emissions, and reduce operational costs.

This involves not only reducing the use of energy in the operation of a building or campus, but also during the maintenance and servicing provided by contractors and service providers. Regular maintenance and servicing of electrical and energy-using equipment reduces risk of failure and loss of user comfort, and ensures compliance with relevant Standards and statutory Codes.

3.1 Expected Actions

Switch off	Turn off lights, appliances, and other energy-using equipment when not required
Install energy efficient lights, well positioned operator controls, occupancy detectors	Ensure meet Lux and work requirements. Regularly clean light diffusers. Ensure lighting is controlled as locally as possible, and to allow for daylight near windows.
Report inefficient energy assets	Old lighting fixtures, poor lighting or HVAC control, leaks or infiltration in building envelope, inefficient mechanical or electrical systems
High performance DHW systems	For areas where hot water is required, ensure systems meet high efficiency standards, and piping well insulated. Install leak detection systems.
High efficiency appliances, tools, equipment	Use, and replace old, with high efficiency versions. Use battery-powered tools, such as battery-pack leaf blowers.
Regular inspection and maintenance of AHUs	Avoid loss of thermal comfort, reduce noise from plant and ensure efficiency in reaching set points.
Retrofit or refurbish for greater energy efficiency	This could include more efficient lighting, HVAC, sealing building infiltration, insulation, natural daylight, passive solar / natural ventilation. Flexibility in HVAC design to allow future adjustments within floor layout as required.

4. Water Efficiency and Quality

Reducing water use and wastage at the University reduces both operational costs and environmental impacts from the processing and provision of mains water supply.

This involves not only reducing the use of water in the operation of a building and grounds, but also during the maintenance and servicing provided by contractors and service providers.

The University is also subject to stormwater and trade waste regulatory requirements, to ensure no pollutants are discharged into the stormwater and local waterways.

4.1 Expected Actions

High efficiency fixtures & fittings	If replacing fixtures and fittings ensure WELS star ratings are met.
WELS rated appliances	Ensure appliances and products have high WELS star ratings.
Don’t leave taps or fixtures or hoses running	
Regularly service water using appliances & fixtures	For example, regularly service thermostatic mixing valves (TMVs) and hot-water boilers (Zip, Billi)
Report any leaks or issues	Submit a works request.
Cleaning using environmentally friendly, non-toxic products	UTAS cleaners now use Z-Water for cleaning.
Do not dispose of paints, chemicals or other pollutants into the stormwater system	Use appropriate paint and chemical collection services. Ensure sinks have well-maintained (trade waste) facilities.

5. Indoor Environment Quality

People spend around 90% of their time indoors therefore providing a healthy and safe indoor environment is an important aspect of a sustainable work and study place. Indoor plants can help reduce airborne pollutants and improve mood.

Indoor environment quality refers to:-

- Thermal comfort,
- Noise levels,
- Fresh air and CO2 levels,
- Artificial and natural light levels,
- Volatile Organic Compounds (VOCs)

5.1 Expected Actions

Use low VOC paints, carpets, adhesives, sealants, etc	Avoid composite wood products with formaldehyde
Mould prevention measures	Cleaning, ventilation, regular monitoring
HVAC – • **Install CO2 monitoring & control** • **Ensure building tuning undertaken** • **Exhaust and ventilate internal utility rooms** • **Ensure outside air rates meet Australian Standards**	Ensure copier rooms and toilet areas have exhausts / ventilation.
Encourage natural daylight into workspaces	
External window shading devices and/or the use of good quality internal blinds (daylight glare / temperature gain control)	Appropriate partitioning between internal spaces (translucent/transparent partitions to allow transfer of natural lighting)
Electric lighting levels to provide Lux appropriate to the task	As per Australian Standards for internal lighting levels.
Noise levels	Install acoustic baffles and batts to reduce sound distribution through internal spaces. If undertaking noisy work, schedule to limit impact on building occupants.
Cleaning using environmentally friendly, non-toxic products	Cleaners at UTAS use Z-Water

6. Sustainable Transport / Vehicle Use

The use of fossil fuels to power transport greatly increases the University's carbon and greenhouse gas emissions. Transport emissions can be reduced through using vehicles less, transforming vehicle fleets to more sustainable models, encouraging the use of public transport, or self-propelled / active methods (such as bicycles, scooters, and pedestrian).

The University also supports car-pooling and ride share programs.

6.1 Expected Actions

Reduce unnecessary vehicle use around campuses	Walk, scooter or bike. Use the Unihopper and Metro buses. Facilities and grounds staff to use electric or small vehicles where applicable, e.g. cleaning staff using golf karts.
Don't leave vehicle idling unnecessarily	Delivery and waste collection trucks are to be turned off while staff are loading and unloading. Maintenance and grounds staff to turn vehicles off while working (unless required to power equipment).
Encourage use of non-fossil fuels in transport modes	Change vehicle fleet to more sustainable models, for example ISD fleet being converted to electric vehicles.
Ensure access to all areas of campus for all abilities	Wherever applicable, ensure paths and walkways enable all mobilities. Report any hazards preventing access along paths and walkways.
Transport facilities including ride-share parking provisions, location of cyclist facilities and public transport information	The University continues to implement more sustainable modes of mobility, including end-of-trip cycling facilities such as lockers, charge points and showers.

7. Materials and Waste Reduction

Minimise the amount of materials going to landfill through careful selection of items when purchasing, repairing and reusing as much as possible, and recycling appropriately.

The University has General Waste, Comingled Recycling, Cardboard Recycling and Organics/ compostable Recycling bins on each campus.

Reduction of waste starts at the procurement stage – buy items that can be recycled or repaired for re-use, are made to last, made of recycled content, have little to no packaging, and can demonstrate extended product stewardship through the full product life cycle.

Take care to use the recycling bins properly by sorting your waste carefully – this will ensure the best outcome from recycling services and reduce contaminated loads going to landfill.

Recycling Walls have also been provided at each campus for small volumes of non-standard items for recycling (such as mobile phones, batteries, printer cartridges), however for commercial volumes a specific service would need to be arranged.

7.1 Expected Actions

Consider carefully products at the procurement stage	Choose products made from materials that have already been recycled, or with recognized environmental or sustainability certifications (such as FSC, PEFC). e.g. Choose office paper made from 100% recycled content. Seek products can be repaired and re-used. Contact UTAS Sustainability for further information.
Reduce	Can suppliers bundle to reduce the amount of packaging? Do you need to upgrade or replace? Do you need that many items?
Re-use	Can items be re-used on site, or can they be sent to the tip-shop or charities for re-use?
Recycling – separate any waste produced	Ensure waste materials are separated into appropriate recycling infrastructure. Separate as much of your waste as possible for recycling – submit a Works Request for specialist recycling collection services.

7.2 Additional Recycling Collection Services

Each of the below items can be collected separately for recycling, using a dedicated waste contractor.

- Glass (e.g. broken windows, lab equipment)
- Timber (e.g. wooden pallets, shelving or frames)
- Batteries,
- Fluorescent tubes,
- Metals and whitegoods,
- Soft plastics (e.g. packaging and pallet wraps)
- Construction and refurbishment wastes (including concrete).

Contact Facilities Management (via waste.service@utas.edu.au) to arrange waste and recycling services.

8. Biodiversity / Natural Environment

Maintain and enhance the natural environment on UTAS properties to encourage biodiversity and minimise impact on terrestrial and aquatic ecosystems.

This includes managing weeds and pests using the approved Integrated Pest Management process, which encourages prevention and establishes thresholds before using mechanical or chemical interventions.

8.1 Expected Actions

Chip or mulch organic material produced on site, and re-use on landscaped areas	
Plant locally endemic species where applicable to encourage native fauna	
Protect environmentally sensitive areas	
Rainfall infiltration maximized in landscaped areas	Including water sensitive urban design & rainwater infiltration off solid surfaces such as road- and walk-ways, and carparks
Integrated Pest Management (IPM) plan	Reduce impact on native animals and terrestrial and aquatic environments through implementing IPM.
Revegetate areas damaged through construction or other University-related activities	

Contact UTAS Sustainability for further information on how to manage biodiversity on UTAS campuses.

9. Future Innovations

As the only tertiary education institution in Tasmania, the University is seen as the forefront for innovation and advancement, including showcasing sustainable building design and technology.

Implementing a more circular island economy and showcasing the use of local products is highly desirable as the University seeks to reach net zero carbon footprint.

9.1 Suggested Actions

Heat recovery	Capture heat from ventilation systems and plant equipment to warm cold air.
Minimize use of refrigerants with high global warming potential	Swap HVAC equipment to models using either no refrigerant gases, or use CO2.
Green walls / green rooves	For example at the Field Building at West Park, the green roof is a demonstration of encouraging biodiversity and reducing heat effect from building rooves.

11. Glossary

Comingle	Mixed recycling consisting of plastic beverage and food containers, aluminium cans, steel tin cans, glass jars and bottles
ERL	Energy Rating Label – a rating system for energy consuming products, using ‘stars’ to demonstrate efficiency
FSC	Forest Stewardship Council – rating system for forest derived products
HVAC	Heating, ventilation, air conditioning
IEQ	Indoor environment quality
IPM	Integrated Pest Management
Organics	Food and grounds green waste which can be composted
PEFC	Programme for the Endorsement of Forest Certification, independent certification promoting sustainable forest management
VOC	Volatile Organic Compounds – gases released from certain solids or liquids (including building materials & furnishings, copiers and printers, adhesives, paints, solvents, preservatives, pesticides). Some may have short and long-term adverse health impacts.
WELS	Water Efficiency and Labelling Standard – rating system for water consuming products, using ‘stars’ to demonstrate efficiency
Z-Water	Ionized alkaline water which is chemical-free, odour-free, biodegradable and requires no additional rinsing.

12. References and Further Information

University Internal Documents:

UTAS Sustainability Policy https://www.utas.edu.au/policy/policies (6.6 Sustainability Policy)

UTAS Sustainability Vision and Mission https://www.utas.edu.au/sustainability/governance/sustainability-mission

UTAS Strategic Framework for Sustainability 2020 – Goal 4 (commitment to sustainability in facilities and operations management)
https://www.utas.edu.au/__data/assets/pdf_file/0014/1302422/UOTBR200122-UTAS-Strategic-Framework-For-Sustainability-2020_vWeb_R.pdf

UTAS Strategic Plan 2019-2024 (5. Environmental Sustainability – indicators include facilities meet sector best practice standards, maintaining carbon neutral and implementing STARS)

Signatory to the UN Sustainable Development Goals –

:- SDG 3 healthy lives & wellbeing;
:- SDG 4 equitable quality education & lifelong learning;
:- SDG 5 gender equality;
:- SDG 6 sustainable management of water;
:- SDG 7 sustainable management of energy;
:- SDG 8 full & productive employment & work for all;
:- SDG 9 resilient infrastructure;
:- SDG 10 reduce inequality in/ among countries;
:- SDG 11 cities & settlements safe & resilient;
:- SDG 12 sustainable consumption;
:- SDG 14 sustainable use of oceans & marine resources;
:- SDG 15 protect / restore terrestrial ecosystems;
:- SDG 16 peaceful inclusive societies with access to justice for all.

International Standards:

ISO 14001 – Environmental Management

ISO 20400 - Sustainable Procurement guidance

General sites for reference:

Green Building Council of Australia: www.gbca.org.au

Australian Government's energy rating scheme: www.energyrating.gov.au

Clean up Your Business Guide:
http://www.gbca.org.au/uploads/2007%20Clean%20Up%20Business%20Tips.pdf

Australian Government's Department of Climate Change: www.climatechange.gov.au