Carbon Offset Strategy
The University of Tasmania

Balance Carbon
Emissions Auditing & Consulting

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Date:	23 February 2017

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1. Executive Summary

This document considers the purchase of carbon offsets for the University of Tasmania ("UTAS") in order to complete the organisational certification process under the National Carbon Offset Standard. It considers the current domestic and international carbon offset markets, the objectives of the carbon offset purchase and provides a set of principles to determine how and for what the University of Tasmania will approach the market for the purchase of carbon offsets.

It does not prescribe particular projects or methodologies, taking the approach of providing some flexibility for offset providers to propose a portfolio of offsets which will meet these objectives and principles.

Strategic Objectives for Carbon Offset Purchases:

1 Where possible, provide opportunities to achieve the University's strategic objectives in teaching, learning and research;
2 Deliver benefits to the Tasmanian community;
3 Deliver benefits to the communities in regions where the University of Tasmania provides education and research services as well as regions from which our International students originate;
4 Achieve best value for money whilst achieving the nominated strategic objectives; and
5 Achieve co-benefits aligning with the University of Tasmania's values.

Principles for Carbon Offset Purchases:

- UTAS will actively consider opportunities for projects under the Emissions Reduction Fund within the scope of its current organisational boundaries and which create greater than 2000 ACCUs;
    - Where UTAS has access to self-generated ACCUs, these will be used first to meet the carbon neutral certification arrangements.
- For carbon offset purchases, at least 50% of the total carbon offsets each year come from local Tasmanian projects, contributing to the local community;
    - Where Tasmania projects can be identified offering educative and/or research opportunities to the University of Tasmania, these will be prioritised and potential forward contracting with these projects will be considered; and
    - A diversity of methodologies used to generate ACCUs will be sought.
- The international carbon offsets purchased will target both regions where UTAS operates in partnership with local institutions (currently Oceans and Shanghai Universities) and from which international students originate from.
    - Projects which deliver additional benefits to the local community aligned with the UTAS values will be prioritised.
- It is recommended that carbon offset purchases and surrender be made in arrears for the period for which carbon neutrality is claimed.

2. Introduction

The Federal Department of Environment's National Carbon Offset Standard 2009 ("NCOS"), effective from 1 July 2010, provides a benchmark for consumers, businesses and governments to assess energy and greenhouse gas intensity, claims of carbon neutrality and the credibility of carbon offset products available for sale in the voluntary carbon market.

UTAS is committed to achieving certified carbon neutrality as part of a holistic approach to sustainability. To this end, UTAS has calculated its total greenhouse gas emissions for 2015 to be used as the baseline year. An integral part of carbon neutral certification is the purchase and retirement of carbon offsets for the unavoidable emissions as a result of the University's operations.

The National Carbon Offset Standard Guidelines (Version 3.0, November 2015) note the following in regards to carbon offset purchases:

> *"The responsible entity should develop and maintain a strategy for purchasing and cancelling eligible offset units for each year that is the subject of a claim of carbon neutrality. This strategy may include decisions regarding the types of offset units to be purchased.*
>
> *Eligible offset units may be purchased for immediate use or they may be banked for future use. Early purchase and/or cancellation of units allows the responsible entity to choose the timing of purchase to meet business needs, and to obtain a particular type of offset when it is available."*
>
> (Australian Government, 2016)

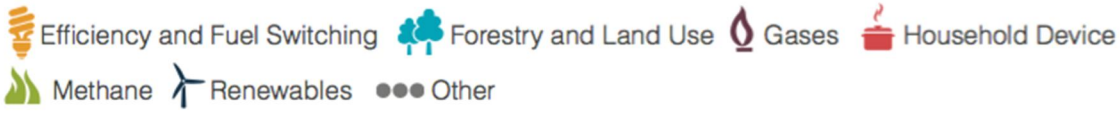
There are five types of units acceptable under the National Carbon Offset Standard, eligible carbon offsets include:

- Australian Carbon Credit Units ("ACCUs") issued by the Clean Energy Regulator
- Certified Emissions Reductions ("CERs") issued as per the Kyoto Protocol rules
- Removal Units ("RMUs") issues as per the Kyoto Protocol rules
- Voluntary Emissions Reductions ("VERs") issued by the Gold Standard.
- Verified Carbon Units ("VCUs") issued by the Verified Carbon Standard

There are no particular advantages to each type of unit. All meet the NCOS guidelines and requirements and thus will be considered based on the project type and carbon offset cost. Figure One sets out the various projects types available under each of the applicable standards under the National Carbon Offset Standard.

Figure one: Category project types of carbon offset projects

Standard/Program	Region	Category
Australian Carbon Credit Units (ACCUs) Issued by the Clean Energy Regulator as part of the Emissions Reduction Fund (note: projects can be issued with ACCUs without holding an abatement contract with the Government)	Australia	
Certified Emission Reductions (CERs) Issued under the Clean Development Mechanism of the Kyoto Protocol	Global – developing countries	
Voluntary Emissions Reductions (VERs) – the Gold Standard Issue offsets from projects that deliver clean energy and water, responsibly manage land and forests and transform lives of the world's poor	Global	
Verified Carbon Units (VCUs) – the Verified Carbon Standard The world's most widely used voluntary GHG reduction program/standard	Global	



This document considers the options available to the University of Tasmania in setting its carbon offset strategy and provides principles to govern the ongoing purchase of carbon offsets.

3. Institutional Context

The University of Tasmania ("UTAS") is committed to undertaking measures to reduce greenhouse gas emissions including behavioural changes in resource use, infrastructure and energy efficiency improvements, the installation of renewable energy infrastructure and to identify carbon offset opportunities for emissions that cannot be reduced or eliminated. UTAS also recognises the responsibility that it holds within the Tasmanian community to reduce greenhouse gas emissions in line with State and National Government goals.

3.1 Emission reductions

The University of Tasmania reduced their 2015 carbon footprint by generating 92,121 kWh of electricity by on-site renewable energy production (solar photovoltaic), reducing greenhouse emissions by 14.75 tCO_2-e. Note that from 2011-2015, total generation from on-site renewable energy production (solar photovoltaic) was 149,176 kWh, reducing GHG emissions by 27.4 tCO_2-e.

Additionally, UTAS has invested in electric powered cars, undertaken energy efficiency upgrades and encouraged low emissions transport options across its campuses.

UTAS will continue to research opportunities with project payback periods within the University's financial management guidelines.

3.2 University Values

The University of Tasmania has established values governing its operations. These are reproduced below.

> **Creating and serving shared purpose**
>
> We value the creation, expansion and dissemination of knowledge, and the promotion of continual learning. We are on a common journey to unlock and develop potential, foster talent and contribute to the life and work of our students, staff, alumni and wider society.
>
> **Nurturing a vital and sustainable community**
>
> We value the care, connection and energy that come from a community of many levels and dimensions. Keeping our community strong supports each of us to find our place, do excellent work and extend our capabilities. We enable and participate in authentic conversations that allow us to be agents of change and transformation.
>
> **Focusing on opportunity**
>
> We value the creative possibilities that arise when people with skills, talents and innovative ideas come together and give each other the confidence to focus on opportunity.
>
> **Working from the strength diversity brings**
>
> We value diversity and the strength, resilience and creativity that it brings. We harness its gifts. In supporting the contribution and well-being of all, we create a welcoming, caring and inclusive environment.
>
> **Collaborating in ways that help us be the best we can be**
>
> We value a community that supports each of us to collaborate and to be the best we can be, flourishing both individually and collectively. Being supported to question and reflect gives us the freedom to challenge ourselves and each other. It reminds us that listening to, engaging with and involving others are vital for our success.
>
> We lead by example, supporting each other to act with integrity, be accountable, and consistently live our values every day.
>
> (University of Tasmania)

These values will be reflected in the final carbon offset purchase principles.

3.3 University Sustainability Principles

The University of Tasmania formalised its Sustainability Policy in February 2015. The object of this policy is to "provide the framework for expressing the University of Tasmania's commitment to the incorporation of sustainability principles and practices in its teaching, research, community engagement and operations" (University of Tasmania, 2015). The University Sustainability Policy is based upon seven principles, outlined below:

Open participation

There will be opportunity for broad and transparent involvement in decision-making processes related to sustainability across the University community, including academic and professional staff and students.

Integration

Long-term economic, social and environmental considerations will be integrated into the University's decision-making processes; considered in strategic and operational planning; central to student experience, research, learning and teaching and community engagement; and enabled through sustainable practices.

Shared responsibility

All members of the University community share responsibility for the University's sustainability performance and as such will be made aware of their role through induction, professional development, the provision of necessary educational and material resources, and ongoing training and awareness-raising.

Leadership, innovation, creativity and best practice

Creative and innovative approaches will be employed to implement and continuously improve sustainability outcomes. Evidence-based and innovative research for sustainability will be complemented by monitoring and analysing best practice in the higher education and other sectors to ensure the University maintains or leads best-practice in relation to sustainability wherever possible.

Global perspective

The University's sustainability activities will reflect awareness that its influence reaches beyond the confines of its own organisation and current generation.

Precautionary principle

The lack of full understanding will not be used to justify postponing measures to prevent degradation where there is any risk of irreversible environmental or social damage.

Student-focussed

The University will ensure that graduates are equipped and motivated to contribute to sustainable futures. (University of Tasmania, 2015)

These principles will be reflected in the final carbon offset purchase principles.

3.4 Research Priorities

The 2014-2018 Strategic Research Plan outlines the following focuses intended for the field of Environment, Resources and Sustainability:

> ENVIRONMENT, RESOURCES AND SUSTAINABILITY
>
> Environmental research in Tasmania is exceptionally well-placed to address the problems of how to maintain biodiversity and ecological function in the face of two pressing global challenges: the need to expand food production and other extractive industries through use; and, how to mitigate the impacts of climate change on environmental functioning.
>
> (University of Tasmania)

Wherever possible the University of Tasmania will seek to advance the University research aims through the carbon offset program.

4. Strategic Objectives

In considering the carbon offset strategy, the following strategic objectives are considered in making the final recommendations.

Carbon Offset Purchases shall:

1. Where possible, provide opportunities to achieve the University's strategic objectives in teaching, learning and research;
2. Deliver benefits to the Tasmanian community;
3. Deliver benefits to the communities in regions where the University of Tasmania provides education and research services as well as regions from which our International students originate;
4. Achieve best value for money whilst achieving the nominated strategic objectives; and
5. Achieve co-benefits aligning with the University of Tasmania's values.

5. Re-calculation of the Emissions Baseline

The University of Tasmania has nominated 2015 as the baseline year for potential certified carbon neutrality and calculates the emissions baseline at 28,658 tCO_2-e.

Recalculation of the emissions calculated in the baseline year will be considered wherever circumstances result in a greater than 5% difference to the emissions calculated. For this reason for the initial carbon neutral certified year an additional amount of 5% carbon offsets will be purchased and held by UTAS ("banked") without surrender, unless the emissions baseline has been recalculated.

6. Establishing Principles for Carbon Offset Purchases

The types of carbon offsets to be purchased and cancelled/retired is set by the National Carbon Offset Standard. There are however many types of projects, which will fulfil these requirements. This section considers the potential variables, benefits and risks of each and recommends the approach to be taken by UTAS.

6.1 Domestic versus International Projects (including specific project locations)

As set out in the strategic objectives, carbon offset projects in which UTAS invests should deliver benefits to UTAS, the Tasmanian community and/or the International communities in which UTAS operates or International students originate form. The relative mix of benefits to each will be influenced by the availability and pricing associated with offset units available in each of these.

Delivering Benefits to UTAS:

Where possible UTAS might consider undertaking emissions reduction projects as set out in the Carbon Farming methodologies. Under the latest rules the project must create at least 2000 tCO_2-e to be eligible for registration. Where UTAS have created a project, had this registered and it is generating ACCUs, these are to be prioritised for use by the University in meeting its carbon neutral certification obligations.

Recommendation:

- UTAS will actively consider opportunities for projects under the Emissions Reduction Fund within the scope of its current organisational boundaries and which create greater than 2000 ACCUs.
- Where UTAS has access to self-generated ACCUs, these will be used first to meet the carbon neutral certification arrangements.

Domestic Projects:

Domestic projects in Australia are currently limited to those under the Emissions Reduction Fund and not currently contracted for delivery to the Australian Government.

Given UTAS' strong connection to community, it is recommended that UTAS source at least 50% of the total carbon offsets annually from Tasmanian based projects demonstrating this commitment. Sourcing at least 50% of the carbon offsets from the local community strikes an appropriate balance with the budgetary constraints of the program (Section 6.3).

There may be educational opportunities available with Tasmanian projects inclusive of site visits and/or opportunities to further study these sites in the curriculum. These opportunities will be project specific and should be considered advantageous in any carbon offset purchases considered as part of a tender process to procure the offsets.

Recommendation:

- For carbon offset purchases, at least 50% of the total carbon offsets each year come from local Tasmanian projects, contributing to the local community.
    - Where Tasmania projects can be identified offering educative and/or research opportunities to the University of Tasmania, these will be prioritised.

International Projects:

As set out in Figure One, projects under the Kyoto Protocol (CERs), the Gold Standard and the Verified Carbon Standard encompass a broader range of scopes, inclusive of renewable energy, fuel switching, landscape management (agricultural and forestry), waste diversion and energy efficiency in household devices.

International projects should be prioritised in the regions in which UTAS operates or the International students attending UTAS originate from. Given the existing partnerships with Oceans and Shanghai Universities and the significant International student intake, China has been provided as an illustrative example in this Carbon Offset Strategy.

Recommendation:

- The international carbon offsets purchased will target both regions where UTAS operates in partnership with (currently Oceans and Shanghai Universities) and from which international students originate from.
    - Projects which deliver additional benefits to the local community aligned with the UTAS values will be prioritised.

6.2 Preferred Project Types and Desirable co-benefits

Domestic Projects:

A search of the ERF contract register with filtering for Tasmanian projects is attached at Appendix One. Note the data was downloaded as at 6th December 2016 and is subject to change. A summary of the types of projects is set out in Table One.

Table one: Current registered but uncontracted project types in Tasmania

Method Type	Specific methodology
Energy Efficiency	Industrial Electricity and Fuel Efficiency
	Commercial Buildings
	Commercial and Public Lighting
	High Efficiency Commercial Appliances
	Refrigeration and Ventilation Fans
Transport	Aviation
Vegetation	Designated Verified Carbon Standard Projects
	Quantifying Carbon Sequestration by Permanent Environmental Plantings of Native Species using the CFI Reforestation Modelling Tool
Waste	Alternative Waste Treatment
	Landfill Gas
	Source Separated Organic Waste

The Transport method is a Qantas project to reduce the total fuel used across the fleet nationally and will not be further considered. However the remaining projects represent a wide diversity of investment in the Tasmanian community whether for energy efficiency, vegetation of reduction of emissions from waste.

All methodologies potentially align with the University's values. The values stress the inclusiveness of the University in the local Tasmanian community and supporting creativity and innovation in approach. For this reason the carbon offsets sought should be from a range of methodologies rather than a single project type, unless there are educational (Section 6.1) or forward contract opportunities (Section 6.5) associated with significant investment in a single project.

Recommendation:

- UTAS will seek a diversity of Tasmanian based carbon offset projects inclusive of different project methodologies.

International Projects:

To provide examples of International project types consistent with the regions in which UTAS operates and the International students originate from, current projects registered in China were considered. A search of the VCS Database for registered projects in China returned a list of 321 projects at the time of writing this report. These projects covered methodologies inclusive of those listed in Table 2 below.

Table two: Summary of registered VCS project types in China (as extracted on 9th December 2016)

Method Type	Specific methodology
Energy	Energy (renewable/non-renewable)
	Energy distribution
Efficiency/Low Emissions Processing	Manufacturing industries
	Chemical industry
	Mining/Mineral production
Fugitive Emissions (Destruction)	Fugitive emissions from fuels
	Fugitive emissions from industrial gases
Waste	Waste handling and disposal
Vegetation and Agriculture	Agriculture, Forestry, Land Use

All methodologies potentially align with the University's values, however precedence should be given to those projects which directly impact the community. This would eliminate the categories of Energy Distribution and Efficiency/Low Emissions Processing which are aimed at industrial efficiencies and processing. Being more prescriptive than this might limit the University of Tasmania from being involved in some novel emissions reduction or avoidance projects.

Recommendation:

- Projects with deliver additional benefits to the local community aligned with the UTAS values and strategic commitments will be prioritised.

6.3 Budget

Carbon offsets are traded in various markets and accordingly are subject to volatile pricing based on the latest market volumes and demand.

Domestic Projects:

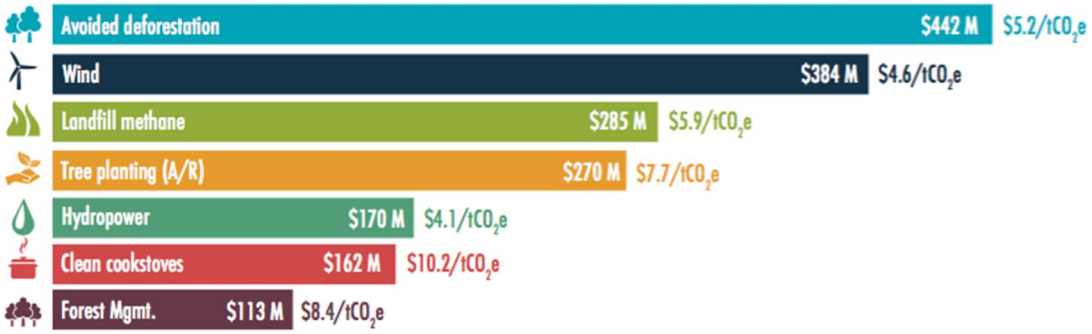
The largest purchaser of carbon offset units in Australia is currently the Australian Government who through the Emissions Reduction Fund, as at 24th November 2016 have contracted 178 $MtCO_2$-e at an average price of $11.83 (Clean Energy Regulator, 2016).

As recommended, at least 50% of carbon offsets should be ACCUs from Tasmanian projects. Using the average project price for the 2015 inventory this would equate to a budget of $177,988 inclusive of the 5% buffer to be applied on total 2015 purchases.

International Projects:

To give an indicative price range for International carbon offsets, publically available data on the ranges of transaction price between 2007 and 2014 (USD) are set out in Figure Two below. These prices were averaged across a total volume of 412 $MtCO_2$-e. This gives an average price across all projects of $4.43 USD/tCO2-e. Using the most recent ex-change rate of 0.75AUD/US and (Reserve Bank Of Australia, 2016) inflation of 0.12% in 2015 and 1.14% in 2016 (Inflation.eu, 2016) this equates to $5.98 AUD in 2016.

Figure two: Indicative transaction prices of voluntary carbon offsets



(Ecosystem Marketplace , 2015)

Given the recommendation that a minimum ACCU purchase budget of 50%, the remainder will be International projects. Taking the price indication above, for the 2015 inventory (inclusive of the 5% buffer to the calculated baseline) this would equate to a budget allocation to International Projects of $89,972.

To allow flexibility in the final carbon offsets purchased and to potentially seek some higher cost international projects (where these achieve additional benefit to the local community), it is recommended that a "portfolio" approach be taken. That is a total budget be set, with the parameters on projects given to potential carbon offsets tenderers. For example, based on the recommendations to date, the total 2015 inventory (inclusive of the 5% buffer) calculated using the average price and assuming exactly 50% purchase of ACCUs is $267,959. Given these are averages, an associated boundary of ±25% should be added to set the final budget range.

Recommendation:

- It is recommended that UTAS seeks to achieve a "portfolio" of carbon offsets for an indicative budget range of $200,000 - $335,000 for the 2015 inventory year (inclusive of the 5% buffer).

6.4 Timing of Carbon Offset Purchase

Under the National Carbon Offset Standard, units can be purchased and surrendered either in advance of the certification year, or following the completion of the year. The relative benefits for each approach are discussed below.

Table three: Benefits and Risks of timing of carbon offset purchase

Approach	Key Benefits	Key Issues/Risks
Carbon offsets purchased and retired in advance	• Price determined in advance of the reporting year and can be accrued at the same time as emissions.	• Annual true up required ○ Potential true up requirement leads to additional price uncertainty. • Forecasts of emissions are not accurate leading to cash flow adjustments.
Carbon offsets purchased and retired in arrears	• Known volume of carbon offsets to be purchased and no true up required. • Cash flow advantages	• Budget forecast in advance with final pricing subject to market fluctuation ○ Risk can be reduced by setting allowable budget ranges.

Given both approaches are permissible under the National Carbon Offset Standard, it is recommended that UTAS undertakes the annual purchase and surrender of carbon offsets following the reporting year (in arrears) for which carbon neutrality is claimed. This had the clear advantage of not requiring any "true ups" or adjustments and allows the University of Tasmania to hold this money throughout the reporting year.

The potential price fluctuation exposure and budgetary uncertainty can be mitigated through consideration of forward contracts (Section 6.5).

Recommendation:

- It is recommended that carbon offset purchases and surrender be made in arrears for the period for which carbon neutrality is claimed.

6.5 Forward Contracting and/or Banking versus annual market participation

Both forward contracts and banking carbon offsets are used to control the price of the carbon offsets purchased year on year. The relative benefits of each as a means to minimise the price uncertainty around carbon offsets are discussed below.

A key risk in the recommendation of the purchase of carbon offsets in arrears is the price fluctuation of the offsets purchased and related budget forecast uncertainty. For purchases of carbon offsets in advance, banking carbon offsets can extend the forward purchase to multiple years.

Definition of a Forward Contract:

A forward contract is a private agreement between two parties to deliver something in the future at a fixed price given to the buyer at the time of signing the contract. (Investopedia)

Definition of Banking:

In this context banking units means acquiring, but not surrendering carbon offset units.

Table four: Benefits and Risks of options for price certainty of future carbon offset purchases

Approach	Key Benefits	Key Issues/Risks
Annual Purchase of Offsets through Tender	• Allows annual setting of carbon offset priorities • Process can be improved annually	• Subject to availability of projects • Subject to market price fluctuation

Forward Contracting	• Carbon offset price determined in advance.
	• Allows higher degree of certainty in budgeting for carbon offsets.
	• Forward price agreed may be below market price in the future.
	• Key marketing and education opportunities associated with longer term investment in a project.
		• Contract risk delivery
		  ○ Potential for the contract partner to breach the contract terms.
		  ○ Changes to the definitions or registration of projects risk delivery of carbon offsets.
		• Forward price agreed is higher than market price in future period.

Banking Carbon Offsets	• Carbon offset price determined in advance. • Significant upfront purchase of carbon offsets drawn down each year.	• Significant upfront investment of capital. • To be advantageous it relies on the price of carbon offsets escalating into the future greater than the interest earned on the cash outlay.

The key reasoning behind the recommendation of carbon offset purchases in arrears was to achieve the time value of money for the University of Tasmania through the carbon neutral certification year. Banking offsets does not achieve this recommendation and is thus not further considered except in the case of the 5% additional for the baseline year to be held in case of any chosen adjustments to this year.

Forward contracting carries an associated pricing risk however it does fix the price of the carbon offsets allowing for accurate budgetary forecasting. It may also have educatory and marketing benefits to the University given the longer term involvement in particular projects.

Recommendation:

- Where Tasmania projects can be identified offering educative and/or research opportunities to the University of Tasmania, forward contracting with these projects should be considered.

6.6 Potential partner organisations

Domestic Projects:

Considering all projects registered (contracted and un-contracted) under the Emissions Reduction Fund, the following potential project proponents are active in Tasmania and could be considered for partnership arrangements. Projects that are across national companies or are

company specific have not being included in this table but can be found in the complete table at Appendix One.

Table five: Tasmanian based current registered Emissions Reduction Fund Proponents

Scheme participant	ERF Projects Description	More Information
Vegetation		
Australian Integrated Carbon Financial Services Pty Ltd	Main projects include Biodiverse Forestry projects undertaking in conjunction with Greening Australia.	http://aicarbon.com/
Forests Alive Pty Ltd	Biodiverse Forestry project generating both VCUs and ACCUs (not for sale).	http://www.forestsalive.com/
Tasmanian Land Conservancy Incorporated	Forestry project generating VCUs.	http://tasland.org.au/
Energy Efficiency		
Clean Energy Technology Holdings	Approved Aggregator specialising in lighting efficiency projects.	http://cleanenergytechnology.com.au/
COzero Pty Ltd	Retrofit of NABERs building with more efficient equipment.	https://www.cozero.com.au/
Demand Manager Pty. Ltd.	Commercial building energy efficiency projects.	http://www.demandmanager.com.au/
Enman Pty Ltd	Commercial building energy efficiency projects.	http://www.enman.com.au/
Ndevr Carbon Reductions Pty Ltd	Biomass fuel switching project.	http://www.ndevrenvironmentalconsulting.com.au/
Out Performers Trading Pty Ltd as Trustee for the Out Performers Trading Unit Trust	Commercial building energy efficiency projects.	http://www.outperformers.com.au/
Power Product Holdings Pty Ltd	Commercial building energy efficiency projects.	No information available.

7. Summary of Carbon Offsets Principles

The identified recommendations will form the basis of the University of Tasmania's approach to market for the initial purchase of carbon offsets. It will also inform investigations into University of Tasmania initiated carbon offset projects and potential partnerships for educative offset projects. These are summarised below.

- UTAS will actively consider opportunities for projects under the Emissions Reduction Fund within the scope of its current organisational boundaries and which create greater than 2000 ACCUs;
    - Where UTAS has access to self-generated ACCUs, these will be used first to meet the carbon neutral certification arrangements.
- For carbon offset purchases, at least 50% of the total carbon offsets each year come from local Tasmanian projects, contributing to the local community;
    - Where Tasmania projects can be identified offering educative and/or research opportunities to the University of Tasmania, these will be prioritised and potential forward contracting with these projects will be considered; and
    - A diversity of methodologies used to generate ACCUs will be sought.
- The international carbon offsets purchased will target both regions where UTAS operates in partnership with local institutions (currently Oceans and Shanghai Universities) and from which international Students originate from.
    - Projects which deliver additional benefits to the local community aligned with the UTAS values will be prioritised.
- It is recommended that carbon offset purchases and surrender be made in arrears for the period for which carbon neutrality is claimed.

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Appendix One – Tasmanian Based ERF Projects (Registered and/or Contracted)

Scheme participant	Eligible offsets project name	Project description	Method type	Project location	Contracted on
AGL Energy Services Pty Ltd	Glenorchy Landfill Gas Abatement Facility	This project transitioned from a revoked ('CFI') method and continues to capture and combust gas generated at the landfill from legacy and non-legacy waste.	Waste	Tasmania	April 2015
AGL Energy Services Pty Ltd	Hobart McRobies Gully Landfill Gas Abatement Facility	This project transitioned from a revoked ('CFI') method and continues to capture and combust gas generated at the landfill from legacy and non-legacy waste.	Waste	Tasmania	April 2015
Australian Integrated Carbon Financial Services Pty Ltd	Biodiverse Carbon Conservation Connorville	This project establishes permanent plantings of a mix of native tree species on land that was cleared of forest for at least five years prior to the project having commenced. The tree species are native to the local area.	Vegetation	Tasmania	n/a
Australian Integrated Carbon Financial Services Pty Ltd	Biodiverse Carbon Conservation Meadowbank	This project establishes permanent plantings of a mix of native tree species on land that was cleared of forest for at least five years prior to the project having commenced. The tree species are native to the local area.	Vegetation	Tasmania	n/a
Australian Integrated Carbon Financial Services Pty Ltd	Biodiverse Carbon Conservation Grassy Hut	This project establishes permanent plantings of a mix of native tree species on land that was cleared of forest for at least five years prior to the project having commenced. The tree species are native to the local area.	Vegetation	Tasmania	n/a
Australian Integrated Carbon Financial Services Pty Ltd	Biodiverse Carbon Conservation Dungrove	This project establishes permanent plantings of a mix of native tree species on land that was cleared of forest for at least five years prior to the project having commenced. The tree species are native to the local area.	Vegetation	Tasmania	n/a
Australian Integrated Carbon Financial Services Pty Ltd	Biodiverse Carbon Conservation Bloomfield	This project establishes permanent plantings of a mix of native tree species on land that was cleared of forest for at least five years prior to the project having commenced. The tree species are native to the local area.	Vegetation	Tasmania	n/a
Australian Integrated Carbon Financial Services Pty Ltd	Biodiverse Carbon Conservation Chiswick	This project establishes permanent plantings of a mix of native tree species on land that was cleared of forest for at least five years prior to the project having commenced. The tree species are native to the local area.	Vegetation	Tasmania	n/a
Automotive Holdings Group Limited	AHG Land Transport Emissions Reduction	This project is an 'aggregated individual vehicles project' to reduce emissions by changing operational practices. The vehicles in this project are land vehicles.	Transport	Nation-wide	April 2015

Scheme participant	Eligible offsets project name	Project description	Method type	Project location	Contracted on
BAI Communications Pty Ltd	Communications infrastructure energy efficiency upgrade	This project improves energy (electricity) efficiency by modifying, removing or replacing existing energy-consuming equipment.	Energy Efficiency	Nation-Wide	n/a
Clean Energy Technology Holdings	Clean Energy Technology Lighting	This project is a lighting upgrade project that is modifying, replacing and supplementing lighting systems of multiple types of serviced areas.	Energy Efficiency	Nation-wide	November 2015
Corporate Carbon Solutions Pty Ltd	Industrial Carbon Emissions Reduction	This project improves energy (electricity) efficiency by: (a) modifying, removing or replacing existing energy consuming equipment; (b) installing energy consuming equipment as part of replacing, modifying or augmenting existing energy consuming equipment; (c) changing the way existing energy consuming equipment is controlled or operated; (d) changing the energy sources or mix of energy sources used by existing energy consuming equipment; (e) modifying, installing, removing or replacing equipment that affects the energy consumption of existing energy consuming equipment	Energy Efficiency	Nation-wide	November 2015
Corporate Carbon Solutions Pty Ltd	Intermodal Emissions Reduction Project	This project is an 'aggregated individual vehicles project' to reduce emissions by replacing existing vehicles, modifying existing vehicles, changing energy sources or the mix of energy sources, and changing operational practices. The vehicles in this project are land vehicles.	Transport	Nation-wide	November 2015
COzero Pty Ltd	COzero Building Energy Efficiency Aggregation Project	This project is being undertaken in more than one commercial building that is eligible to have a NABERS energy rating. The project is modifying, installing and replacing energy-consuming equipment and changing how energy-consuming equipment is controlled or operated.	Energy Efficiency	Nation-wide	n/a
COzero Pty Ltd	COzero Alternative Waste Treatment Aggregation Project	This project is a new project that diverts mixed solid waste from landfills to the waste treatment facility and processes that waste using an enclosed composting technology.	Waste	Nation-wide	n/a
Demand Manager Pty. Ltd.	Demand Manager ERF Commercial and Public Lighting Aggregation Project #1	This project is a lighting upgrade project that is modifying, replacing and supplementing lighting systems of in a variety of types of serviced areas.	Energy Efficiency	Nation-wide	n/a

Scheme participant	Eligible offsets project name	Project description	Method type	Project location	Contracted on
DULVERTON REGIONAL WASTE MANAGEMENT AUTHORITY	Dulverton Waste Management Aggregated Source Separated Organics Diversion Project	The project involves an aggregated waste diversion activity where eligible waste is being separated at the point of generation from a single waste stream and being diverted from landfill and being transferred to a facility or unit for treatment using open windrow composting as an eligible waste treatment technology.	Waste	Tasmania	n/a
Enman Pty Ltd	The Stamford Land Corporation HVAC and Control System Upgrade	This project is being undertaken in more than one commercial building that is eligible to have a NABERS energy rating. The project is replacing energy-consuming equipment at the building and changing how energy-consuming equipment is controlled or operated.	Energy Efficiency	Nation-wide	n/a
Enman Pty Ltd	The Oaks Group HVAC & Energy Management System Upgrade	This project improves energy (electricity) efficiency by modifying, removing or replacing existing energy-consuming equipment, changing the way energy-consuming equipment is controlled or operated and modifying, installing, removing or replacing equipment that affects the energy consumption of existing energy-consuming equipment.	Energy Efficiency	Nation-wide	n/a
Expert Abatement	EA1003 High Efficiency Refrigerated Cabinets	This project involves installation of refrigerated display cabinets in supermarkets.	Energy Efficiency	Nation-wide	n/a
Forests Alive Pty Ltd	Forests Alive: Protection of Tasmanian Native Forest	This project was validated under the Verified Carbon Standard (VCS) and protects native forests, that are situated on private land, from harvesting.	Vegetation	Tasmania	April 2015
Hobart City Council	Hobart City Council diversion of kerbside organics from landfill	The project involves an aggregated waste diversion activity where eligible waste is being separated at the point of generation from a single waste stream and being diverted from landfill and being transferred to a facility or unit for treatment using open windrow composting as an eligible waste treatment technology.	Waste	Tasmania	n/a
Kingborough Council	Barretta Landfill Gas Project	This project installs a new landfill gas collection system to capture and combust gas generated at the landfill from legacy and non-legacy waste.	Waste	Tasmania	n/a
LMS Energy Pty Ltd	Remount Landfill Gas Project	This project transitioned from a revoked ('CFI') method and continues to capture and combust gas generated at the landfill from legacy and non-legacy waste.	Waste	Tasmania	April 2015
LMS Energy Pty Ltd	Copping Landfill Gas Project	This project transitioned from a revoked ('CFI') method and continues to capture and combust gas generated at the landfill from legacy and non-legacy waste.	Waste	Tasmania	April 2015

Scheme participant	Eligible offsets project name	Project description	Method type	Project location	Contracted on
LMS Energy Pty Ltd	Dulverton Landfill Gas Project	This project installs a new landfill gas collection system to capture and combust gas generated at the landfill from legacy and non-legacy waste.	Waste	Tasmania	November 2016
Mike Ritchie and Associates Pty Ltd	MRA Aggregated Landfill Gas projects	This project installs a new landfill gas collection system to capture and combust gas generated at the landfill from legacy and non-legacy waste.	Waste	Nation-wide	April 2016
Murray Goulburn Co-operative Co. Limited	Devondale Murray Goulburn Project to Maximise the Fuel Economy of Making Steam	This project improves energy (electricity and fuel) efficiency by changing the way existing energy-consuming equipment is controlled or operated, modifying, removing or replacing existing energy-consuming equipment, and changing the energy sources or mix of energy sources used by existing energy-consuming equipment.	Energy Efficiency	New South Wales, Tasmania, Victoria	n/a
National Carbon Bank of Australia Pty Ltd	National Carbon Bank Lighting Projects 2016	This project is a lighting upgrade project that is modifying, replacing and supplementing the lighting system of various types of serviced areas.	Energy Efficiency	Nation-wide	n/a
Ndevr Carbon Reductions Pty Ltd	Ndevr Aggregated Biomass Fuel Switch Project	This project improves energy (electricity and fuel) efficiency by modifying, removing or replacing existing energy-consuming equipment and changing the energy sources or mix of energy sources used by existing energy-consuming equipment.	Energy Efficiency	Nation-wide	n/a
Norske Skog Paper Mills (Australia) Limited	Norske Skog Boyer Mill Heat Recovery Project	This project improves energy (fuel) efficiency by modifying, installing, removing or replacing equipment that affects the energy consumption of existing energy-consuming equipment.	Energy Efficiency	Tasmania	November 2016
Northmore Gordon Pty Ltd	Smithton abattoir boiler fuel replacement	This project reduces emissions by changing the energy sources or mix of energy sources used by existing energy-consuming equipment.	Energy Efficiency	Tasmania	n/a
Out Performers Trading Pty Ltd as Trustee for the Out Performers Trading Unit Trust	Out Performers Aggregated Lighting Project	This project is a lighting upgrade project that is modifying, replacing and supplementing the lighting system of a variety of serviced areas.	Energy Efficiency	Nation-wide	n/a
Out Performers Trading Pty Ltd as Trustee for the Out Performers Trading Unit Trust	Optus Base Station Cooling Project	The project improves energy (electricity) efficiency by modifying, installing, removing or replacing equipment that affects the energy consumption of existing energy-consuming equipment.	Energy Efficiency	New South Wales, Queensland, Tasmania, Western Australia, Northern	n/a

Scheme participant	Eligible offsets project name	Project description	Method type	Project location	Contracted on
				Territory, South Australia and Victoria	
Power Product Holdings Pty Ltd	Energy Efficient Lighting Project	This project is a lighting upgrade project that is modifying, replacing and supplementing the lighting system of a range of serviced areas.	Energy Efficiency	Nation-wide	n/a
Qantas Airways Limited	Qantas Airways Limited Emissions Reduction Fund Program	This project involves modifying existing aircraft, changing energy sources or the mix of energy sources for aircraft and changing operational practices in relation to aircraft.	Transport	Nation-wide	n/a
Tasmanian Land Conservancy Incorporated	New Leaf Carbon Project	This project was validated under the Verified Carbon Standard (VCS) and protects native forests, that are situated on private land, from harvesting.	Vegetation	Tasmania	n/a
Wattly Pty Ltd	ALH Group lighting upgrade project	This project is a lighting upgrade project that is replacing the lighting system of licenced hotels or pubs.	Energy Efficiency	New South Wales, Northern Territory, Queensland, South Australia, Tasmania, Victoria, Western Australia	n/a
Wesfarmers Limited	Wesfarmers LED Lighting Project	This project is a lighting upgrade project that is modifying, replacing and supplementing the lighting system of various types of serviced areas.	Energy Efficiency	Australian Capital Territory, New South Wales, South Australia, Queensland, Western Australia, Tasmania,	November 2015

Scheme participant	Eligible offsets project name	Project description	Method type	Project location	Contracted on
				Northern Territory	
Wesfarmers Limited	Wesfarmers LED Lighting Project II	This project is a lighting upgrade project that is replacing the lighting system of various types of serviced areas.	Energy Efficiency	Nation-wide	n/a
Wesfarmers Limited	Wesfarmers Energy Efficiency Commercial Appliance Project	This project involves installation and replacement of liquid-chilling packages, air conditioners, close control air conditioners and refrigerated display cabinets in buildings of class 5, 6 and 7b.	Energy Efficiency	Nation-wide	n/a
Wesfarmers Limited	Wesfarmers Energy Efficiency Upgrade Project	This project improves energy (electricity) efficiency by modifying, installing, removing or replacing energy-consuming equipment.	Energy Efficiency	Nation-wide	n/a
Wesfarmers Limited	Wesfarmers Refrigeration and Ventilation Fan Project	This project involves installation and replacement of fans in refrigeration and ventilation systems in retail stores and warehouses.	Energy Efficiency	Nation-wide	n/a
Woolworths Limited	Project Enlighten	The avoidance of emissions through electricity and fuel efficiency activities including lighting upgrades, heating, ventilation and cooling system upgrades, boiler upgrades, and variable speed drive installation.	Energy Efficiency	Australian Capital Territory; Northern Territory; Queensland; South Australia; Tasmania; Western Australia	April 2016
Woolworths Ltd	Woolworths Food Waste Diversion	The project involves aggregated waste diversion activities where eligible waste is being separated at the point of generation from a single waste stream and being diverted from landfill and being transferred to facilities for treatment using open windrow composting, enclosed composting, and anaerobic digestion and the transfer of biogas to a combustion device for destruction as eligible waste treatment technologies.	Waste	Nation-wide	November 2016

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