



University of  
St Andrews | FOUNDED  
1413

## Environmental Sustainability Strategy

The logo for Net Zero by 2035, featuring a white outline of a city skyline above the text "Net Zero" in a bold, sans-serif font, with "by 2035" in a smaller font below it, all enclosed in a white oval.

Net Zero  
by 2035

A photograph of two people walking away on a forest path towards a lake at sunset. The path is covered in fallen leaves, and the trees are tall and thin. The sun is low on the horizon, creating a warm glow and long shadows. The water in the lake is calm and reflects the sky.

# Our Future



## Introduction

As a world-leading university with a responsibility that spans generations and geographies, St Andrews is committed to shaping a sustainable future. Our research, educational programmes and operations already champion change. Global sustainability challenges, including resource consumption, climate change, waste, and the social inequalities that perpetuate them, continue to accelerate an environmental decline, and there are now national and international objectives in place to reverse this. Transformational solutions are needed, both for the University to make itself sustainable and for our community to play its fullest role in enabling society to achieve sustainability.

## Vision

**The University will continue to demonstrate visible leadership in environmental sustainability by achieving 'net zero by 2035'. This means net zero impact on the planet, encompassing emissions as well as stopping other forms of environmental degradation.**

This vision means the University achieving net zero ten years in advance of the Scottish Government's target, establishing us as a leader, both nationally and internationally, at setting the pace for change. At the same time we understand that reaching this vision will require the University to act as part of a wider community, collaborating to achieve sustainability objectives at local, national and international scales. It gives shape to commitments made in the University Strategy 2018-2023.

### *What does 'net zero' mean?*

*Net zero means that as a University, for all operations and activities, we emit no more greenhouse gases than we remove from the environment.*

*Hard-to-decarbonise emissions can be compensated for by using certified greenhouse gas removal schemes, such as those that manage woodland or develop technologies to absorb carbon dioxide.*

## The Challenge

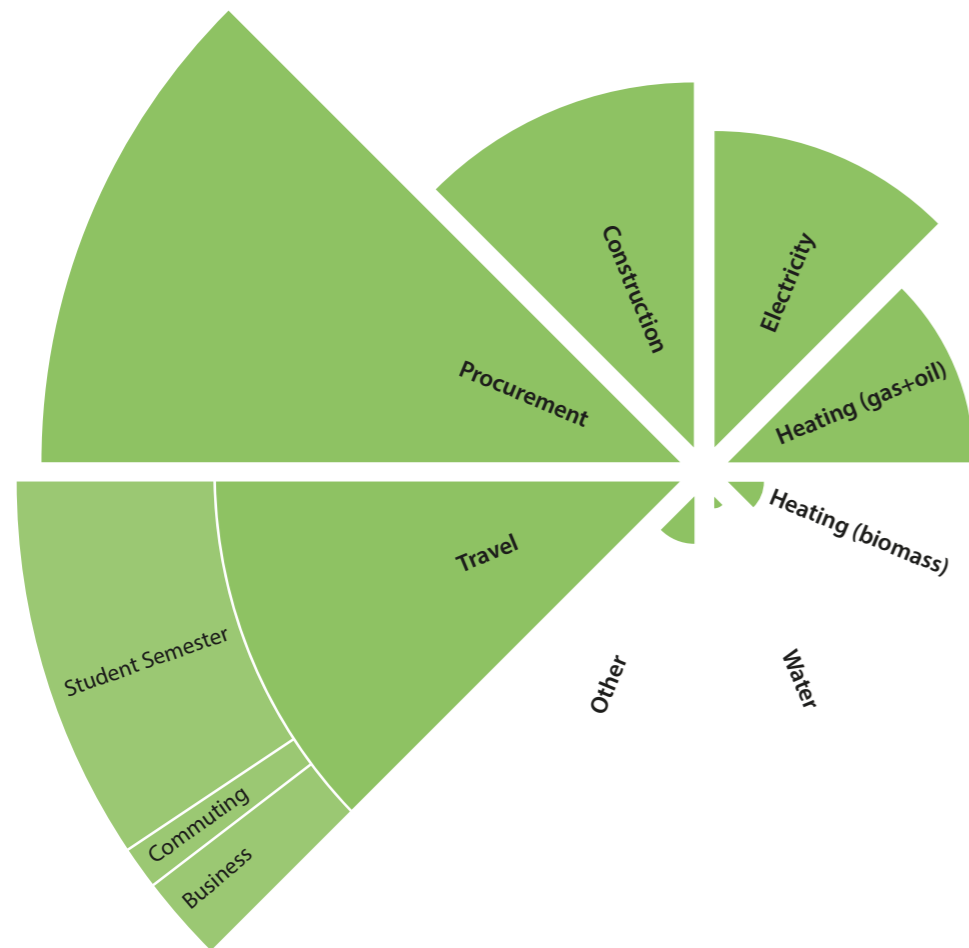
The Intergovernmental Panel on Climate Change (IPCC) estimates that humanity must cut its carbon emissions by 45% by 2030 in order to limit global warming to 1.5 degrees Celsius. The IPCC contends that over this decade the world must transform its energy, land, urban, infrastructure, and industrial systems at a scale and speed with 'no documented historic precedent'. Whilst the challenge is immense, the political will for action has never been stronger and there is reason for cautious optimism. To deliver this transformation, a net zero university will differ substantially from what we are used to and fresh solutions need to be found.



When we talk about net zero we refer to every environmental impact we produce including our waste and the impacts we have on biodiversity, but carbon emissions are a useful proxy to express the scale of the challenge. The University currently emits a little under 75,000 tonnes of carbon dioxide (tCO<sub>2</sub>e) through its operations (see Fig. 1). Taking our responsibility seriously means that we also need to address waste and the uses of fossil fuels embedded within our supply chains. We also must address water use, locally and embedded in what the University buys.

**What does a tonne of carbon dioxide look like?**

*Publishing and distributing the average paperback book releases a kilogram of carbon dioxide (CO<sub>2</sub>) into the atmosphere. A thousand books would release a tonne of carbon dioxide. Travelling from Edinburgh to London and back on the train emits around 65kg of carbon dioxide (65 books, or roughly your own body weight), flying emits about five times this.*



*Fig. 1: The University's operational carbon footprint, relative by area of activity, for 2019-20. Our total emissions were a little under 75,000 tCO<sub>2</sub>e. For the first time our Scope 3 emissions for student travel to the semesters and procurement are included.*

The University is mindful that in some areas of its operations it will need to be a restorer of the environment, if it is to achieve net zero. Restoration will include all aspects of environmental quality from biodiversity to air quality and the absorption of carbon. These activities will be used to address any remaining hard-to-decarbonise emissions but will not be used to reduce the effectiveness of direct actions to achieve sustainability.

To meet these challenges will require that we generate new knowledge, ideas, perspectives, technologies, partnerships and processes. And this moment is an exceptional opportunity for St Andrews to enhance our mission to acquire and disseminate new knowledge for all, as we contribute to Scotland's sustainable future.

The University is mindful of the danger of perceived tokenism and is committed to words being matched by meaningful action. In line with our commitment to social responsibility articulated in the University Strategy, we will not substitute one kind of unsustainable activity for others with environmental impacts which are harder to see and quantify; we will not deploy exceptionalism, expecting all members of the University to take decisions that today may seem hard; and we will make certain that we do not export our environmental impacts to other countries or other parties, especially in the developing world. Indeed, the University considers sustainability as an opportunity to rebalance our international partnerships and reinforce the University's absolute commitment to diversity. We note that whilst this strategy addresses environmental sustainability, we will continue to bridge to our work in social sustainability.

**Response**

The University has already taken significant steps to address the challenge of environmental sustainability, and it will become a constituent part of all plans and ambitions for the future prosperity of the University. Future measures will require change, though we will continue to be guided by the values on which the University is based, including our global orientation. If introduced in a systematic way and over sufficient time, the transition to net zero will be achievable.

No part of the University's activities, and no person within the University community, staff or student, will be unaffected or uninvolved. Sustainability is a personal, collective and corporate responsibility. Our transition journey will address:

- What knowledge and skills our students develop, as well as the student experience.
- What our academic community sees as the highest priorities for research, and how we conduct research as well as how we translate these findings into action and policy.
- What relationships we build in society to achieve collective net zero goals.
- What we do with our buildings, infrastructure, land, and how we define our sense of place.
- What we set out as rules of operation based on our policies and procedures.
- What we communicate as our strategic priorities.



We will empower our staff and students to take forward activities in their areas of expertise, as direction and support are provided centrally. The connections our staff and students make locally and beyond St Andrews put us in a unique position of influence to support wider change by sharing the expertise and skills we develop.

### Priorities for Action

The University will introduce a range of prioritised actions based on their potential to impact the institution's operations and emissions positively. Building on these actions, the University will evolve a roadmap which can eventually move it to net zero by 2035. Major actions will continue to be developed in line with the University Strategy and together with the University community, priorities include:

1. Expanding opportunities for our students to enhance the knowledge and skills in sustainability they can contribute to our sustainable future by actions including deepening subject specific sustainability content in our programmes, and providing ever more flexible learning experiences, supported digitally where appropriate.
2. Enhancing our academic leadership in sustainability (from chemistry to philosophy) by actions including the creation of a cutting-edge, interdisciplinary research centre, the St Andrews Network for Climate, Energy, Environment and Sustainability (StA-CEES) and the translation of this into action and policy.
3. Accelerating the University's progress to net zero by actions including framing the University and its surrounding environment as a living laboratory where research can inform applied experiments in sustainability. Eden Campus will become a technology and operational spearhead for a net zero University, and we will work actively with our town and region.
4. Working at pace and scale to enhance society's progress to net zero by actions including leading more major, impactful research with research partners on a global scale to solve the sustainability problem. This will involve a balanced approach, creating and applying new technologies whilst influencing changes in the way in which society functions to reduce the demand made on the planet's resources.
5. Enhancing opportunities for sustainable planning and decision making by the University and our community, (staff, students and neighbours), by actions including the timely accounting and reporting of our emissions, and the sharing of intelligent, actionable advice about the choices that can be made to reduce impacts.
6. Applying digital technologies across the full spectrum of the University's activities involving the reconsideration of everything from how space is used across the University's estates to how people travel, work and how we construct teaching or make decisions about what to purchase.
7. Creating a capacity to draw carbon down from the atmosphere and store it permanently so that we can address our unavoidable emissions by actions including the creation of a St Andrews Forest. The Forest will also provide new habitats for wildlife at least as valuable as those lost because of the activities of the University, and natural places which people can enjoy to improve their quality of life, as well as opportunities for education and research.
8. Enhancing our world-leading standing in sustainability by actions including celebrating, communicating and rewarding achievements in sustainability in our own work, as well as more widely in society through initiatives such as the St Andrews Prize for the Environment, and articulating sustainability in our identity and sense of place.

### Accounting

Net carbon emissions are a key measure for success. Accounting for the level of carbon emissions will become an area of crucial importance for society and the University. It is vital that the University sets targets, monitors progress and is openly held to account. This will mean, at a minimum, ensuring that the University provides data to be included in national accounts. The University will also see itself as a living laboratory for developing sustainability accounting, including for biodiversity, water use, water and air quality, as well as other emissions including chemicals, solid waste and greenhouse gases. The University will also actively seek to map its activities to wider societal objectives, like the UN Sustainable Development Goals, to ensure an alignment of activities to achieve integrated outcomes.

### Governance and Implementation

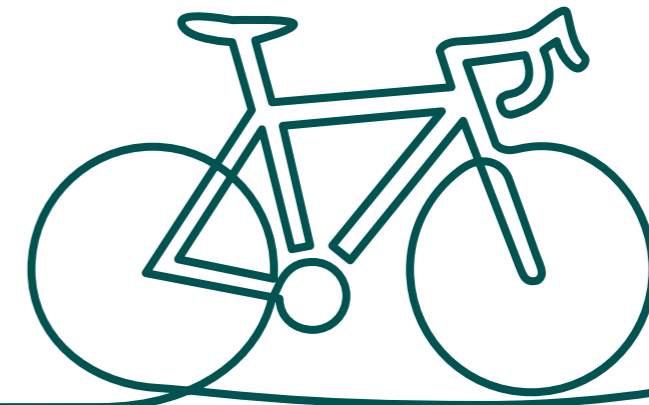
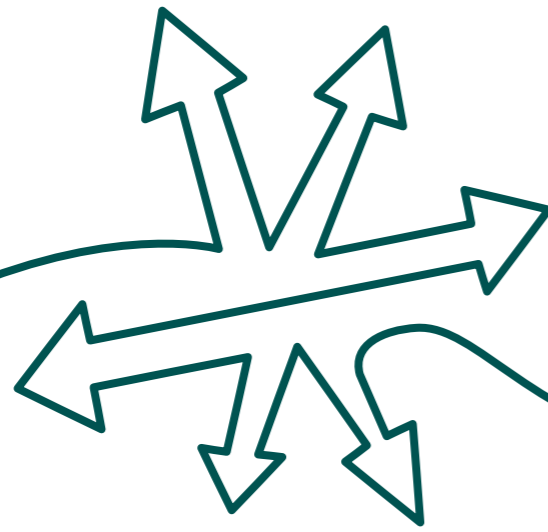
The University's Environmental Sustainability Board, as a representative and expert body, will continue to be an engine-house for ideas to achieve change. It will challenge the University and act as a driver of innovation across the community, including across the University's leadership. The Working Groups of the ESB will be a tangible, community-based source of inspiration and guidance.

The University's leadership will have responsibility for embedding priorities and changes within the University Strategy and in its implementation. Operational delivery of the Environmental Strategy will be primarily achieved by 'mainstreaming green' widely across the Schools and Units of the University, and by empowering individuals in our community.

The ESB will promote progress towards net zero by working with the University to set out a roadmap for 'net zero by 2035', and reporting annually to the University's Planning and Resources Committee (PARC) on performance against it.

### Reporting

The University will report its progress towards net zero using the metrics required by Government plus other enhancements including an extended definition of our Scope 3 emissions to include student travel to the academic year and procurement. We will also develop metrics to cover areas of sustainability beyond carbon accounting, including biodiversity and other waste emissions.



### Environmental Strategy: Strategy Modules

Five areas from which to lead change at the University have been identified:

- Research
- Education
- Student and Community Engagement
- Estate, Energy, and Environment
- Operational Adaptation

Working Groups have been established by the ESB for each area to set the direction of this change. This direction is to be expressed through Strategy Modules, which set out solutions aimed at delivering change over the next five years. These modules are currently under development, and the areas where ideas are being scoped are listed below. As they take shape, the ESB will continue to consult on them across the University community.

#### Research

- Research on environmental sustainability – *advancing our distinctive intellectual contribution to research frontiers through School and interdisciplinary research on sustainability at a world-leading level*
- Research cultures that are more sustainable – *reducing the carbon footprint of research, fieldwork, and conferences, whilst enhancing quality and innovation*
- Research to action – *ensuring as far as possible that research is linked to practical impacts which can be delivered at scale*

#### Education

- The environmental sustainability content of the curriculum – *ensuring all students have an opportunity to develop their knowledge and skills by engaging with cutting-edge research on sustainability from the perspective of their chosen programme*
- Environmentally sustainable career pathways – *preparing students for sustainable career pathways, and enabling employers to value the unique sustainability skillset of our students*
- The environmental impact of curriculum delivery – *reducing the carbon footprint of teaching and field experiences, whilst enhancing quality and innovation*

#### Students and Community

- Student awareness of and action on their environmental impact – *enabling all students to understand their carbon footprint and environmental impact, whilst providing solutions which support them to reduce it and make use of meaningful options for hard to decarbonise emissions*
- Environmental partnerships between the town, student body and University – *working locally to develop a sustainable St Andrews*
- Connections beyond ‘the bubble’ on environmental sustainability – *building the partnerships, academic, operational, and societal, to enable and contribute to a world-leading approach to sustainability in a strategic manner*

#### Estate, Energy, and Environment

- Estate use and masterplanning – *optimising the use and strategic development of our Estate to enhance reductions in our carbon footprint*
- Building efficiency and effectiveness – *building and maintaining our Estate ‘smarter’ to make it sustainable*
- Energy supply infrastructure – *enhancing the management of our energy demand and supply, and meeting demand from renewable sources*
- Land and environment – *enhancing appropriate biodiversity, reducing waste further, and developing sustainable opportunities to absorb hard-to-decarbonise emissions*

#### Operational Adaptation

- Sustainable procurement - *enhancing the management of demand, and engaging with our suppliers to provide ever more sustainable solutions*
- Sustainable travel – *sharing information on the carbon and environmental impact of travel choices with the community, and offering sustainable alternatives or options for the absorption of hard-to-decarbonise emissions*
- Sustainable digital – *actively advancing digital solutions that reduce our carbon footprint, and ensuring that the sustainability of digital provision continues to be optimised*
- Sustainable recruitment – *ensuring sustainability is part of the distinctive offer St Andrews makes to staff and students, and advancing recruitment processes that reduce our carbon footprint*





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