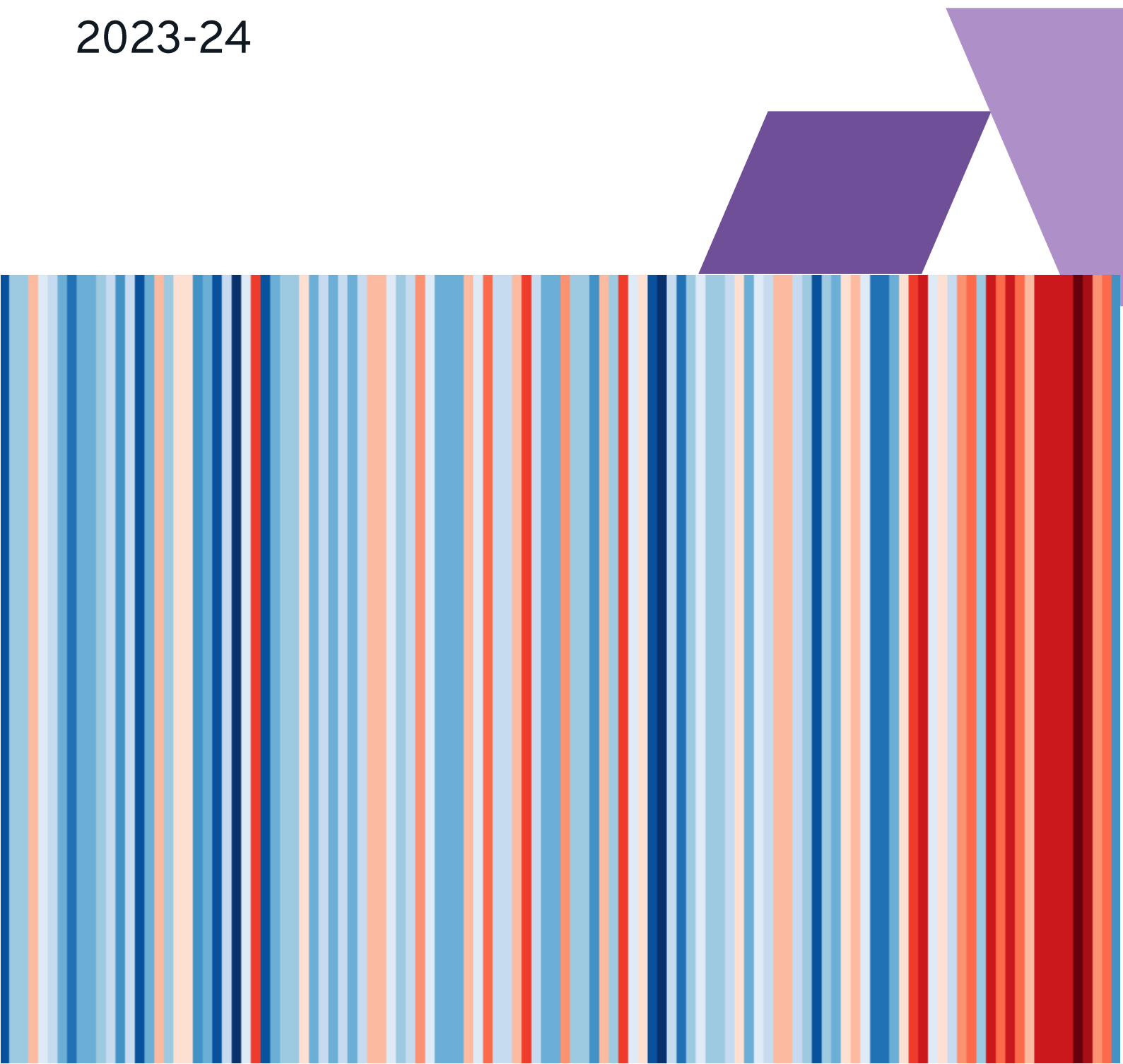


WE STAND FOR AMBITION.

University of  
**Kent**

# University of Kent Carbon Management Plan Statement

2023-24



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# Our approach to Net Zero

Following approval of the Net Zero Emissions Target agreed by the University's Executive group in February 2021, a full Net Zero Strategy for the period to 2050 is under development and will be published in stages from 2023/24 onwards. This statement sets out the vision and baseline for our net zero carbon targets, progress to date, details the reporting and responsibilities for delivery and summarises our approach to addressing the climate challenge



Prof Karen Cox  
President and Vice-Chancellor



Prof Richard Reece  
Deputy Vice-Chancellor  
Chair of Sustainability Steering Group

## Our Vision

We will exemplify a progressive culture which puts the climate challenge at the forefront of our strategic decision making. Leading from the top we will develop governance and accountability structures that drive carbon reduction allowing us to reduce energy consumption, develop infrastructure for renewable energy generation and identify opportunities to reduce indirect emissions.

## Our Baseline

Our previous Carbon Management Plan (2010-20) saw emissions fall by 29.4% compared to the baseline year of 2005. This exceeded our target of 23% despite significant growth both in terms of the estate and staff and student numbers over that period.

The end of the current plan provided us the opportunity to reset our baseline year in order to focus on future emissions rather than rely on previous successes. The baseline year was chosen as 2018/19 as the most recent year for which robust data is available (this year was not affected by the impacts of Covid-19). Total annual scope 1 and 2 carbon emissions for 2018/19 were 12,628 t CO<sub>2</sub>

Baseline data for the full range of scope 3 emissions is currently being collected. A summary of available baseline data, scope 3 boundaries and targets can be found later in this report.

## Our Target

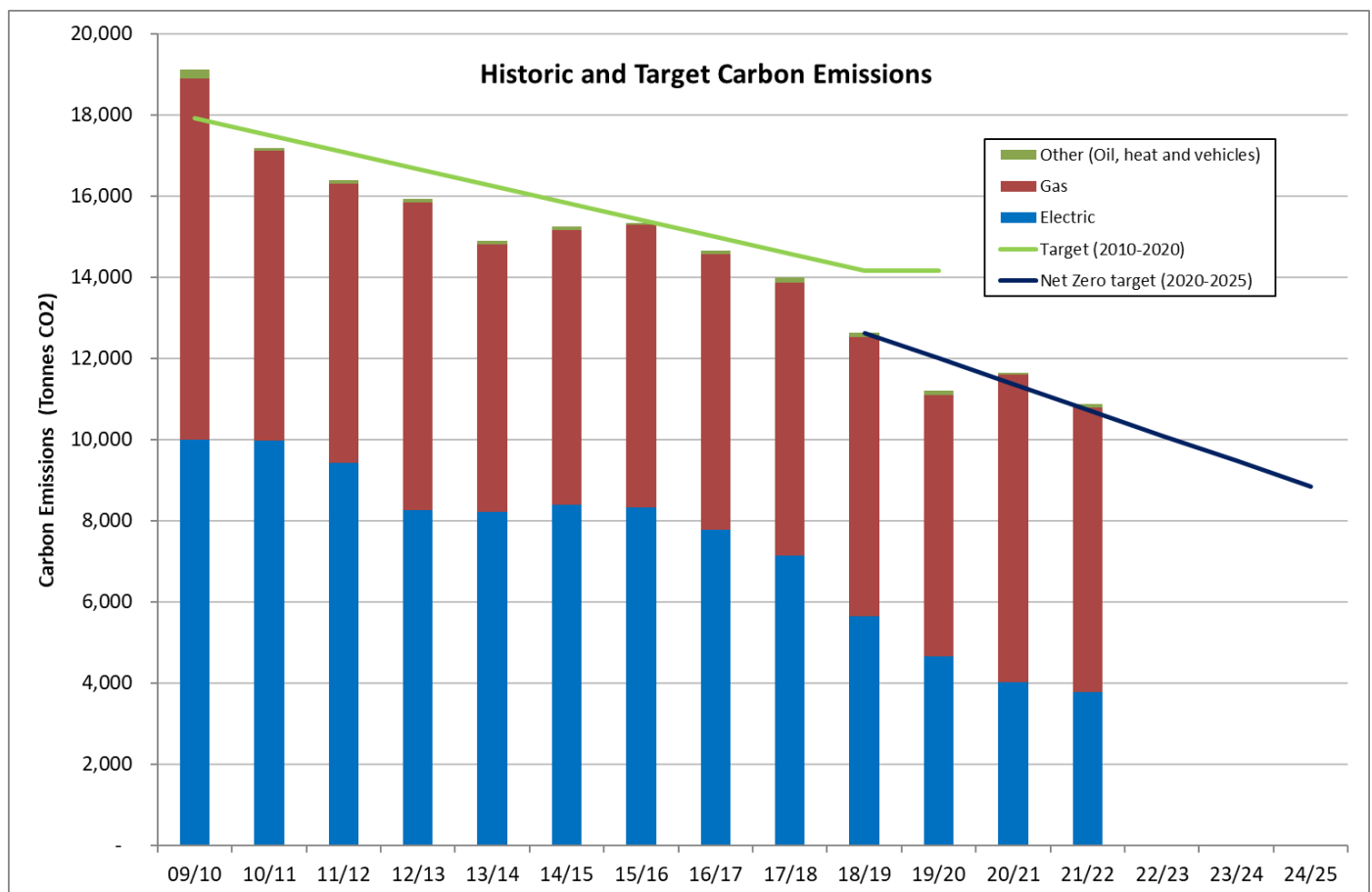
In 2021 the University of Kent agreed on an ambitious yet achievable target of reducing scope 1 and 2 emissions to net zero by 2040 and scope 3 emissions to net zero by 2050. Our aim is that emissions will be reduced by at least 50% by 2030 compared to the baseline year of 2018/19.

**By 2025** – We will reduce our scope 1 and 2 emissions by 25% compared to the 2018/19 baseline year. We will establish the baseline for all scope 3 emissions and set interim targets toward achieving net zero scope 3 by 2050.

**By 2030** – We will reduce our Scope 1 and 2 emissions of carbon by 50% compared to the 2018 baseline year.

**By 2040** – We will achieve net zero carbon for Scope 1 and 2 emissions

**By 2050** – We will achieve net zero carbon across Scope 1, 2 and 3 emissions



## A Whole University Approach

Achieving net zero will require collaboration and participation from across the institution to embed carbon reduction and place it at the heart of decision making. Responsibility cannot be held by any one individual or department but rather action be led by and supported from the university's leadership. We aim to deliver against our commitment in line with the four key areas of responsibility outlined in our sustainability strategy:

### Leadership and Governance

Driven by the Sustainability Steering group, the University Executive Group will act as leaders driving forward the changes required across the organisation to achieve net zero. We will ensure that our governance and accountability structures drive carbon reduction and that strategic decision making incorporates climate change risk and adaptation.

### Learning, Teaching and Research & Innovation

We will take action to enable all students graduate equipped with the skills and knowledge to work in addressing the climate and ecological emergency and to drive sustainability and climate related research through existing and new focuses for research.



### Society, Partnerships and Engagement

We will support, empower and encourage our staff and students to be responsible global citizens. We will use our influence locally, nationally and globally to act as leaders to drive climate action and to develop partnerships to contribute towards city- and region-wide bodies aligned to this challenge

### Campus Operations

We will ensure that our estate is fit for the future through adopting zero carbon building standards thus reducing our energy demand. We will ensure that energy is used efficiently and that positive environmental behaviors are encouraged, and we will invest in renewable energy and low carbon technologies. Our Estate strategy will support and underpin this work to deliver a carbon resilient estate.

# Progress to date

## Scope 1 & 2 Emissions

Carbon emission rose slightly above the target line in 2020-21 which was largely due to the need to provide additional ventilation in response to Covid 19. This requirement combined with the fact that the winter 2020-21 was the coldest in the last 5 years drove up gas consumption, and the associated carbon emissions. The effect of this is shown in the Carbon Emissions graph shown earlier in this report .

The University implemented a series of carbon saving reduction measures during 2020-21, and these will have helped limit the increase in annual carbon emissions seen in the year. Following on from this the University continually reviews how it operates to maintain energy efficiency dependent on operational requirements. Further the University works in Partnership with other organisations to reduce carbon emissions, and is working to increase this type of engagement with a view to keeping the University on track with the targets set out in the Carbon Management Plan.

Over the next 2 years we be undertaking a number of projects and initiatives, some of which are already underway, which will support our net zero objectives. This include:

- Improving our metering, data collection and analysis to allow us to develop energy saving projects and campaigns at the building level.
- Embedding more life-cycle costings into financial decision making so that the operating costs and lifetime carbon emissions can be factored into our procurement and practices
- Exploring rolling out carbon literacy training for staff and students
- Continual improvement of day to day operational energy efficiency through 2-way communications with users; keeping time control settings in line with user requirements, and providing information on local controls.
- Continual Improvement of operational energy efficiency by Maintenance Engineers.
- Continual development of energy efficiency improvements, working to include energy efficiency measures in new Projects, and retrofitting measures such as energy efficient controls and replacement of lighting.

## Energy Partnership

The University of Kent is working towards a strategic partnership with Siemens to collaborate to achieve our net zero targets. This partnership is underpinned by the opportunity to develop apprenticeships, further research and develop the culture of a whole-university approach to net zero.

The partnership will help the University to achieve its net zero goals through 3 workstreams; energy efficiency, renewable energy generation and heat decarbonisation.



**Energy Efficiency** - The initial stage of this work has been to undertake initial audits to identify opportunities for energy saving projects. Over the first 2 years these measures will focus on large scale replacement of lighting, and installation of energy efficient plant and controls.

**Renewable Energy** - Siemens will be investigating options to increase on site generation of electricity primarily through increasing the installed capacity of solar PV at the University, either on roof tops, or mounted at ground level.

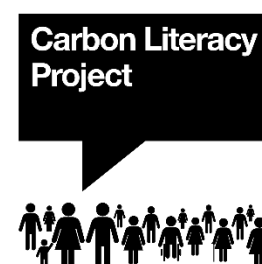
**Decarbonisation** - Plans to decarbonise heat will be developed to move the University away from using natural gas for heating and hot water to using a low carbon energy source. The plan is for the implementation of this work to begin after the energy and generation measures have been done in years 1 and 2.

## Supporting Activity

In keeping with our whole university approach to Net Zero we have Implemented a number of Initiatives over the last few years to support the operational work to reduce our emissions and work to support net zero transition across the region:

**Sustainability Assessment Framework** - We trialed a new In-house sustainability assessment designed to be applied to refurbishment and Infrastructure projects at the university. This criteria based framework sets minimum standards and identifies best practice for projects to support our transition to net zero.

**Carbon Literacy Training** - In early 2023 we launched our accredited Carbon Literacy training programme for both staff and students. This course aims to deepen participants knowledge of climate change and steps we need to take as a society to addressing the worldwide climate crisis and achieve net zero emission. During the programme, we use our own sustainability strategy and net zero targets as a framework for understanding Impact and pledging to make a positive change and to Influence others.



**Net Zero Pathways Workshops** - The University hosted a series of net zero pathway for change workshops In partnership with the Kent Invicta Chamber of Commerce to equip Kent Businesses with the skills, expertise and confidence they need to take steps towards achieving their net zero goals.

**Positive Environmental Futures** - One three core signature research themes for the university with the aim to facilitate trans-disciplinary work designed to be responsive to environmental challenges and pro-active In Its use of collaborative knowledge to affect positive change. Future Energy forms one of the key focus areas of the research theme.

**Climate In the curriculum** - We are continuing to develop our work to embed climate and sustainability Into the taught curriculum. A toolkit to support academics In Identifying opportunities to embed sustainability Into their teaching has been developed and Included In one of the core modules of the Post Graduate Certificate In Higher Education.



## Scope 3 Emissions

Baselines, boundaries and interim targets for scope 3 are subject to ongoing review as the collecting of scope 3 data has been significantly impacted by Covid-19 and subsequent changes to how the University operates. The baseline year of 2018/19 remains the most recent year unaffected by the pandemic and - where data already exists - will therefore be used for a baseline until more robust data can be collected over the next few years.

### Data Collection and Reporting Methodology

A working group has been set up to establish a carbon accounting methodology based on the guidance provided within the new Standardised Carbon Emissions Framework (SCEF) developed for the HE sector. This group will decide how data on scope 3 emissions will be collected, analysed and reported, and will be responsible for setting Interim targets for each category of scope 3 emissions.

### Targets

All scope 3 emissions will eventually be subject to the Net Zero by 2050 target. Interim targets will be set according to the following criteria:

- Data collection methodology developed by end 2022/23 and Implemented for 2022/23 and 2023/24 to establish 2 years of data.
- Until the above has been completed, interim targets for scope 3 emissions have been set as 20% reduction to be achieved by 2030.
- International student travel to and from country of origin is not currently actively targeted for reduction. Interim targets will be set once the conflict with university Internationalisation and recruitment strategies is better understood.
- Category/Sub-category specific interim targets will be set no later than 2025

Scope 3 Emission - Category	Scope 3 Emission - Sub-category
Purchased goods and services	Procurement (supply chain)
	Water Supply
Capital goods	Procurement (supply chain - capital projects)
Fuel- and energy- related activities	WTT emissions from Fuel/Gas (Scope 1) and Electricity (Scope 2)
Waste generated in operations	FM (Waste)
	Waste Water
Business Travel	Flights
	Rail
	Grey Fleet
	Other (Taxi/Coach/Shuttle)
Employee Commuting	Transport (staff commuting) +Homeworking
Student Commuting	Transport (student day-to-day commuting)
	International Student Travel
	Student Commuting (end of term)



# Governance

## Reporting

Progress towards achieving our net zero targets will be monitored by the Commercial Services & Estates (CSE) Department and Sustainability Team. All emissions data will be collected and processed in accordance with carbon accounting methodology. Scope 1 and 2 emissions will be calculated directly by the Commercial Services & Estates department. Scope 3 emissions will be calculated using a combination of existing and newly developed mechanisms requiring input from other areas of the University, primarily procurement and finance.

**Responsibility:**

John Kingsland (Energy Engineer, CSE) – Collation and processing of Scope 1 and 2 data  
Catherine Morris (Sustainability Manager) – Collation and processing of Scope 3 data



Scope 1, 2 and 3 emissions data and progress towards overall and interim reduction targets will be reported at least annually to the Environmental Management System (EMS) team as part of the ISO14001 management review process.

**Responsibility :**

Jim Bloor (Head of HSES) – EMS Team Chair  
Catherine Morris (Sustainability Manager, HSES) – EMS Lead



Progress against the net zero emissions target will be reported to the Sustainability Steering Group (SSG) at least annually. The SSG will also monitor wider progress against the carbon management plan including the areas of leadership, curriculum, research and partnerships.

**Responsibility:**

Richard Reece (Deputy Vice Chancellor E&SE) –Sustainability Steering Group Chair.



Overall progress against the net zero emissions target will be reported as part of the annual report to Council from the Sustainability Steering Group (SSG)

**Responsibility:**

Richard Reece (Deputy Vice Chancellor E&SE) –Sustainability Steering Group Chair.

## Resourcing

The University is committed to achieving its Net Zero target and acknowledges that this will require significant financial investment over the target period.

Each year the Commercial Services & Estates Department will update its rolling 2-year energy management and water action plan (EMWAP) setting out the short term objectives, critical steps and time frame for projects to deliver our carbon reduction targets. Across 2020/21 and 2021/22 the EMWAP details 14 projects with a total budget of over £500,000.

Budgets for future projects will be assessed, including the development of a Business Case for each Project. Depending on the type and value of each project, funding will be sought from one of the following options:

- Small projects funded from existing revenue budgets.
- Requests for grant funding will be submitted for specific projects where these meet the criteria of available grant schemes.
- Where capital projects are being undertaken elements of these works will include these measures within the funding for the Project
- Large capital projects funding would be allocated by the University's Finance and Resources Committee dependant on the Project's business case being approved.

Other funding opportunities including partnerships with external companies are being explored.

Based on the above options the University of Kent will resource the work required to achieving net zero carbon emissions in line with the target.

# Appendix

## Baseline data for all emissions scopes

All baseline data is for the 2018/19 academic year unless otherwise stated

Scope 1&2 Emission - Category	Baseline Data tCO2
Electricity	5,646
Gas	6,882
University owned vehicles	99
Other (Oil, heat)	1

Scope 3 Emission - Category	Baseline Data tCO2
Purchased Goods and Services (Supply Chain)	7,296
Capital Goods	8,527
Business Travel	3,167
Waste	31.3
Water (supply and wastewater)	255
Staff commuting (Cars)	1,602
Student commuting - day to day (Cars)	No baseline data available
Student commuting - beginning and end of term	International students - 16,025 (2022 baseline year) Domestic students - No baseline data available

