



University of Essex



Sustainability Sub-Strategy Bitesize

Priority 1: Scope 1 and 2 Carbon Emissions

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Publication date:	July 2021
Amended:	September 2022
Review date:	September 2023

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Introduction

Our Sustainability Sub-Strategy outlines our commitment to acting in response to the climate and ecological emergency, while supporting the University's mission of excellence in education and research, for the benefit of individuals and communities.

Priority 1: Scope 1 and 2 Carbon Emissions

Cutting carbon emissions is a vital and central aspect of reducing our impact on the environment. Progress on reducing scope 1 and 2 emissions has been made, which have fallen by 28% (against a 2005 baseline) as a result of greater energy efficiency and decarbonisation of the national grid. Our focus now is to reach net zero carbon emissions, in line with the 2008 Climate Change Act, by 2035 with a maximum offsetting of 3,000 tonnes. We will deliver energy reduction projects and generate significantly more of our own renewable energy. Through our community and partners taking responsibility for their actions and contributing through behavioural change by actively reducing their use of electricity, we will make substantial progress on our journey to net zero carbon emissions. By reducing our electricity and gas usage we will make significant savings on our annual utility bills. We will adopt the carbon reduction hierarchy of avoid, reduce, restore and offset.

Objective: Reduce scope 1 and 2 carbon emissions by 76% by 2035

- We will significantly progress on our journey to net zero carbon emissions by reducing our overall energy use and carbon emissions.
- We will increase our use of renewable energy generation from a 2019 baseline to reduce reliance on the grid, reduce our carbon emissions and reduce our spend on electricity, while continuing to source 100% of the electricity we do purchase from green tariffs.
- We will increase our understanding of energy use through our estate, analysing data to make informed decisions.

Key Performance Indicators

KPI 1: By 2035 scope 1 and 2 carbon emissions reduced by 76% from 2019 baseline

KPI 2: By 2026 25% of our electricity is generated through renewable sources

Action Plan

Type	Year	ID	Objectives and deliverables	Objective Owner
Priority 1		Scope 1 and 2 Carbon Emissions		
Aim			Reduce scope 1 and 2 carbon emissions by 76% by 2035	
Objective		SSS01	Reduce scope 1 and 2 carbon emissions	
Deliverable	2025/26	SSS01.1	Create by 21/22 and implement by 25/26 a Carbon Management Plan (CMP) which meets the Carbon Trust and most current Capital Investment Framework (CIF2) requirements and sets out clear measures and time-frames	Head of Energy and Carbon Reduction
Deliverable	2021/22	SSS01.2	Create and implement an energy policy to include building temperature and heating duration protocols	Head of Energy and Carbon Reduction
Deliverable	2021/22	SSS01.3	Introduce a 'best working practice' leaflet/digital media communication to guide our community on the ways they can contribute and make a difference	Head of Energy and Carbon Reduction
Deliverable	2021/22	SSS01.4	Develop and implement a behavioural change communication and engagement plan to educate our community on the part they need to play	Sustainability Manager
Deliverable	2022/23	SSS01.5	Achieve Carbon Trust Standard for reducing CO2 year on year	Head of Energy and Carbon Reduction
Deliverable	2021/22	SSS01.6	Include Carbon Management plan in CEG and allow members including students to input	Head of SAG
Deliverable	2021/22	SSS01.7	Develop a set of principles for carbon offsetting that aligns with the carbon management hierarchy of avoid, reduce, replace offset	Head of SAG
Objective		SSS02	Significantly increase electricity generation through renewables by 2026	
Deliverable	2025/26	SSS02.1	Create and implement a plan to self-generate further renewable electricity	Head of Energy and Carbon Reduction

Type	Year	ID	Objectives and deliverables	Objective Owner
Objective		SSS03	Develop a better understanding of energy use and carbon emissions of our buildings	
Deliverable	2023/24	SSS03.1	Calculate total carbon emissions attributed to residential accommodation (both in-house and externally provided accommodation)	Head of Energy and Carbon Reduction
Deliverable	2024/25	SSS03.2	Create and implement a prioritised plan to sub-meter gas, electric and water utilities to main buildings across all 3 campuses	Head of Energy and Carbon Reduction
Deliverable	2025/26	SSS03.3	Undertake a review and action recommendations from the analysis of sub-meter data to better understand the baseload of buildings, trends and comparators	Head of Energy and Carbon Reduction
Deliverable	2025/26	SSS03.4	Undertake a review and action recommendations from the analysis of BMS systems to better understand how energy is used within our buildings	Head of Energy and Carbon Reduction
Deliverable	2025/26	SSS03.5	Undertake a review and action recommendations from the analysis of building use and occupancy to better understand the requirements of our buildings so energy usage can be optimised	Head of Energy and Carbon Reduction