



Edge Hill  
University

# **Environmental Sustainability Report**

*Annual report 2022/23*

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# Foreword

Over the last year sustainability has become even more prominent in national and international news stories, in part due to the increase in natural disasters such as floods and forest fires which have been linked to climate change. 2023 was the warmest year on record globally and saw ocean temperatures rise and intensified extreme weather events, all linked to climate change. COP28 and political activity around climate change and sustainability have prompted even more climate activists to engage with headline-making events.



At Edge Hill University we have taken onboard the need to adapt and react to sustainability related issues with our multi-year Environmental Sustainability Delivery Plan which was launched in our 2021/22 Environmental Sustainability Report. This years report looks to draw to a close the first year of our new Delivery Plan and report on its progress to date as well as looking forward to continuous delivery of our ambitions in 2023/24.

In 2023 we launched our new Institutional Sustainability Committee (ISC) which meets termly to oversee corporate-level decisions around sustainability, ensure progress towards the Delivery Plan and ratifies relevant policies and strategies. As a result of the ISC being introduced we also took the time to review the structure of our sustainability groups at EHU and as a result revamped the University Sustainability Group to become the University Sustainability Forum, allowing for a wider range of staff and students to be able to provide vital input into our sustainability activities.

As we look forward to our next steps we particularly look forward to seeing even more of our Environmental Sustainability Delivery Plan objectives come to fruition and the embedding of Environmental, Social, & Governance (ESG) practices across the University.



## Introduction

Sustainability is at the heart of Edge Hill's Strategic Plan 2021-25, which sets out the University's vision for the future including:

**'Support for and progress towards achieving the UN Sustainable Development Goals within our own context'**

This guiding document lists protecting the environment as one of our core values, commits us to embed sustainability into teaching and research, and clearly states our aim of becoming carbon neutral.

Our strategic approach gives staff and students clear guidance on how they can make their areas of work more sustainable as we work towards net zero, translating policy declarations into a meaningful action plan and then into visible, tangible results.

Currently Edge Hill University is working towards sustainability targets that sit under seven themes: Leadership and Governance, Estates and Operations, Learning and Teaching, Partnership and Engagement, Energy Reduction, Decarbonisation and Renewables. Ultimately all EHU's sustainability-related objectives are aimed at allowing EHU to reach carbon neutrality.

In 2023, in recognition of the need for a more ambitious plan around sustainability at EHU, the Environmental Sustainability Delivery Plan (ESDP) was launched and aligns with the lifespan of the ESS. The ESDP commits to over 50 objectives and assigns a budget to each of these. This annual report serves to summarise and close out the first year of the ESDP as well as offering a chance to look forward.

# Environmental Sustainability Strategy and Delivery Plan

The current ESS builds on the momentum created around sustainability at EHU over the last 5 years and looks towards a carbon neutral future at EHU. The 2021-25 ESS supports the EHU Strategic Plan (2021-25) which is committed to:

**“Recognise and act on our responsibilities as a leading University to enhance environmentally-sustainable practice, with the aim of being carbon neutral within the life of this plan”**

Underpinning the ESS and outlining our strategic objectives around sustainability at EHU is the Environmental Sustainability Delivery Plan (ESDP). These two documents cover the seven core themes that sustainability at EHU focuses around, these are:

- Leadership and Governance.
- Estates and Operations.
- Learning and Teaching (and Research).
- Partnership and Engagement.
- Energy Use – Carbon Management Plan focused.
- Decarbonisation – Carbon Management Plan focused.
- Renewables – Carbon Management Plan focused.

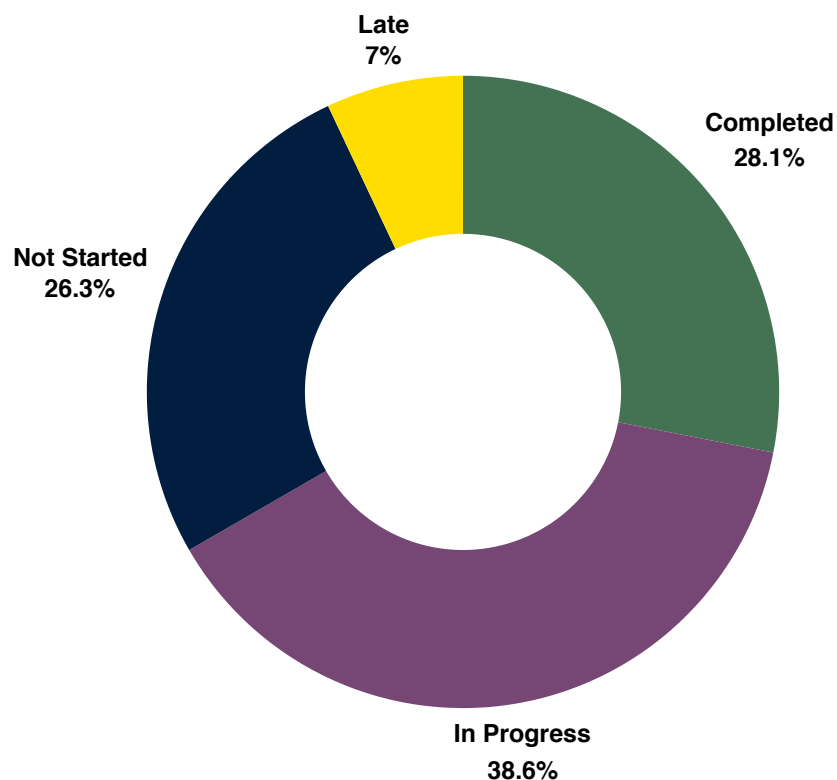
There are 12 Strategic Targets, as outlined in the table below, which have been developed as part of the ESDP which are monitored internally and reported on in the table on the next two pages.



Strategic Theme	Strategic Target	Progress
Carbon Management	Reduce our carbon emissions by 10% by 2025	2022/23: Total emissions have reduced by 52%
	Become Carbon Neutral by 2030	Due to emissions target progress, currently on track to meet
	Reduce our carbon intensity by 30% by 2025	2022/23: Carbon intensity has reduced by 50%
	Reach Net Zero by 2035	Due to emissions target progress, currently on track to meet
Leadership and Governance	To establish a governance structure aligned to the Environmental, Social and Governance (ESG) framework	Establishing the Institutional Sustainability Committee in 2023 puts us firmly on track to deliver a clear ESG framework
Estates and Operations	0% waste to landfill and 70% recycling rates by 2025	EHU continues to send 0% waste to landfill and is on target to increase recycling
	10 EV charge points on campus by 2024	Installation options are currently being reviewed
	Maintain high numbers of journeys on the EdgeLink bus per academic year	2022/23 saw passenger numbers increase by 6495 compared to 2021/22

Strategic Theme	Strategic Target	Progress
Learning and Teaching (and Research)	Deliver carbon literacy training to 100 individuals (staff and students) per academic year	Delivery of training planned to start in the 2024/25 academic year
	Education for Sustainable Development (ESD) embedded across all teaching and research by 2025	During 2022/23 a new lead for the SustainNET ESD Team was established to ensure progress
Partnerships and Engagement	Increase SustainNET partner organisation number to 60	2022/23 academic year ended with 46 partner organisations
	Deliver Community Sustainability Forum in 2023	Event held in May 2023 leading to development of LancsCAN network

Within the ESDP there are over 50 objectives which are supporting EHU in ensuring sustainability remains an integral part of our narrative. The progress of these is summarised below.



# Impact Highlights 2022/23

Our top environmental sustainability outputs for 2022/23 are shown below. These are drawn from all seven themes in the ESDP.



**Silver Green Tourism Awards for Conferences and Sports Centre**



**Zero waste sent to landfill**



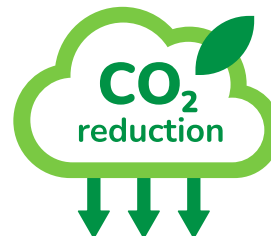
**Institutional Sustainability Committee launched**



**12th consecutive year of Green Flag Award status for EHU campus**



**Increased patronage of Edge Link bus**



**Carbon Management Plan launched**



**Removal of gas from cooking areas in the Hub**



**Introduction of new sustainability tracker for new builds and refurbishments**



**Sustainability added as a new Graduate Attribute**



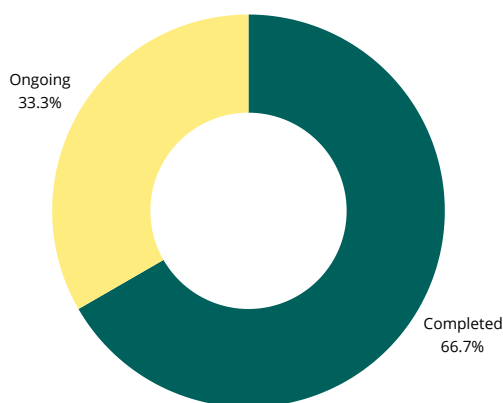
# Delivery Plan Update 2022/23

This section provides an oversight of each theme and celebrates successes made in 2022/23.

## Strategic Theme 1: Leadership and Governance

Theme 1 focuses on empowering each member of the EHU community to help promote the sustainability agenda through providing staff the tools to support, create and develop environmental campaigns.

There were three objectives for 2022/23 that fall under the Leadership and Governance theme, the progress of these is summarised below.



### Completed

- Environmental, Social and Governance Framework: Institutional Sustainability Committee now meeting termly.
- Staffing Resource – Energy Manager: Energy Manager started June 2023.

### Ongoing

- Environmental, Social and Governance Reporting System.

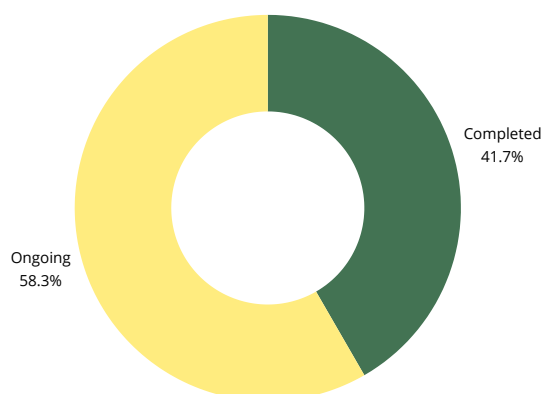
### **Successes:**

- In March 2023 to address the need for an Environmental, Social and Governance Framework the Institutional Sustainability Committee (ISC) met for the first time with the remit of overseeing sustainability at EHU, including ensuring that activities, policies and procedures align with the ESS and ESG principles. The ISC meets termly and consists of key stakeholders from across the University.
- A new University Sustainability Forum has been established for interested parties such as trade unions representatives and students to provide insight and support with sustainability related policies, procedures and practices at EHU.
- Our new Energy Manager joined Facilities Management in June 2023 to provide specialist support around energy procurement and efficiency.

## Strategic Theme 2: Estates and Operations

Theme 2 accounts for the need to be mindful in the way EHU undertakes maintenance, future construction and renovation works, as well as ensuring the EHU community is aware of sustainable travel options and implements them where possible.

There were twelve objectives within the Estates and Operations theme for 2022/23, the progress of these is summarised below.



### Completed

- Big Campus Clear Out Partnership: Tawd Vale Lions removed all non-food items
- Travel Survey and Plan: Survey completed November 2022, Plan launched early 2023
- Edge Hill Sports Team travel.
- Biodiversity Action Plan: Launched in 2023.
- Utility Forensic Audit.

### Ongoing

- Waste Management Strategy.
- Waste Contract Procurement.
- Coffee Cup Recycling.
- Bicycle Storage - Phase 1.
- Allotment Upgrade – Phase 1.
- Water Audit.
- Water Building Checks.



### **Successes:**

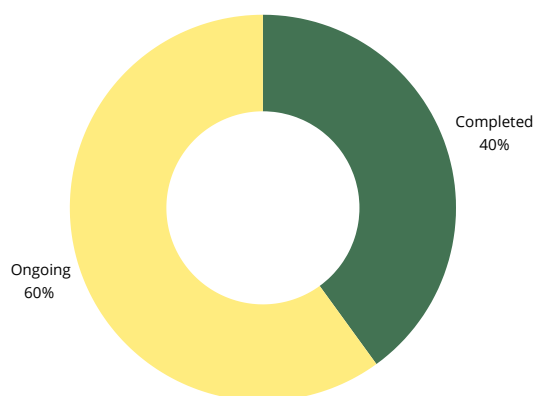
- The summer 2023 Big Campus Clear Out saw approximately 1.9 tonnes of goods saved from waste.
- As a result of the new Biodiversity Action Plan initial work has already resulted in the introduction of Biodiversity Hotspot Areas across campus where grass cutting has been reduced to improve biodiversity.
- With the assistance of 8 students EHU gained Silver Green Tourism Awards for its Sports Centre and Conference services.

## Strategic Theme 3: Learning and Teaching

At the core of theme 3 is embedding of the UN SDGs in teaching and research across all subjects at EHU, alongside this Education for Sustainable Development (ESD) is also an important area of focus.

The underlying objective of this theme is to empower our students to become environmental change-makers both during their studies and beyond.

In 2022/23 there were five objectives under this theme progress against these is summarised below.



### Completed

- Sustainable Recruitment.
- Graduate Attributes.

### Ongoing

- Carbon Literate Organisation.
- SustainNET Webinar Series: Ongoing as multi-year objective running until 2025.
- SustainNET ESD Working Group.
- Develop new objectives to fully embed sustainability in curriculums and research opportunities.

### **Successes:**

- September 2023 saw the introduction of Sustainability as a Graduate Attribute which states that 'Graduates with this attribute are equipped with the knowledge, skills, and values necessary to contribute to a more sustainable and equitable future'.
- In 2021 and 2022 290 journal articles linked to at least one of the UNs SDGs were published by EHU academics.

# Focus on Sustainability Research at EHU

Across the University a range of academics are working towards supporting sustainable research, much of which is embedded in their teaching to support the development of sustainability within the curriculum. Here we highlight work from six of these academics.

## Reader in Plant Sciences Dr Sven Batke – What flora can tell us about climate change

Plant expert Dr Sven Batke has been running a project to catalogue Honduran ferns for the first time. This unassuming plant plays a crucial role in many ecosystems around the world, and the effects of climate change on ferns will indicate the impact on forests worldwide.

His other projects include research into plant blindness, the effect that means most people don't even notice plants around them, and a new project to create better glass for greenhouses that could drastically improve food production while reducing energy costs.

## Psychologists Professor Geoff Beattie and Dr Laura McGuire – The psychology of climate change

Psychologists Professor Geoff Beattie and lecturer Dr Laura McGuire joined forces for The Great Community Climate Change Experiment.

They concluded that young role models can convince adults to live more sustainably by showing audiences a film featuring Kirkby school children. Funded by the Arts and Humanities Research Council (AHRC), it documents the children's journey as they engage with climate change messages and put them into practice.

## Senior Lecturer in Ecology Dr Marcio Pie – Fauna and biodiversity

Dr Marcio Pie's research group mainly focuses on understanding what generates and maintains biological diversity. He has looked at a wide range of species, including bees and frogs, to look at how they evolved to fit in with their environment and what effects climate change will have on specific animals and biodiversity.



### Reader in Film and Television Dr Elke Weissman –Sustainable TV

Dr Elke Weissman ran a project in Wavertree, Liverpool, to create an ultra-local TV station featuring content about living sustainability created by and for the community. She wanted to test whether messages from within a local community were more influential than national messaging.

With support from the Heseltine Institute at the University of Liverpool, she found that local people responded well to sustainability messages from members of their local community. The residents' suggestions for improving their community were also shared with Liverpool Council to bring about lasting change to their area.

### Senior lecturer in Primary Education Cait Talbot-Landers - Beach Schools

Cait Talbot-Landers is the founding member of a network of schools and organisations developing beach school education along the Sefton and Fylde coasts. Beach schools involve holding lessons at the beach to teach children about their local environment and the biodiversity on their doorstep.

Working alongside Faculty of Education colleagues Dr Bethan Garrett and Louise Hawxwell, Cait has been involved in a research project that could see beach schools rolled out in coastal schools across the UK.

### Head of Biology and Reader in Ecology Dr Anne Oxbrough – Insects in the carbon cycle

Dr Anne Oxbrough has been part of a global team uncovering the vital role insects play in the decomposition of wood – supporting the carbon cycle and the health of forests. Fungi are known to break down wood, but until now, there has been little understanding about how insects are involved. The research will be used to provide evidence to support future global policy and was highlighted at the COP 26 conference.



# Strategic Theme 4: Partnership and Engagement

Theme 4 has creating and maintaining effective partnerships and engagement opportunities across the University and beyond at its heart. Work done as part of theme 4 looks to allow for the effective dissemination of sustainability messaging to a wider audience.

There were two objectives under theme 4 for 2022/23 - their progress is reported on below.

## Completed

- Lancashire Community Climate Action Forum.
- SustainNET Membership.

## Next Steps

Develop and embed new objectives for this theme into the ESDP especially in relation to reporting and visibility.

## **Successes:**

- The Lancashire Community Climate Action Forum successfully ran in May 2023 and has led to the creation of the Lancashire Climate Action Network to be established with SustainNET taking the lead. A second meeting in Spring/Summer 2024 is planned to be held at UCLAN.
- During 2022/23 a range of engagement events were run across EHU including a staff litter pick, a waste information event in the Hub and staff shadowing opportunities.
- Two In2Science students were hosted over the summer of 2023 for two weeks which included time spent with the Corporate Sustainability team.



# Carbon Management Plan 2022-25

## Progress Update

### Scope 1 and 2 Emissions

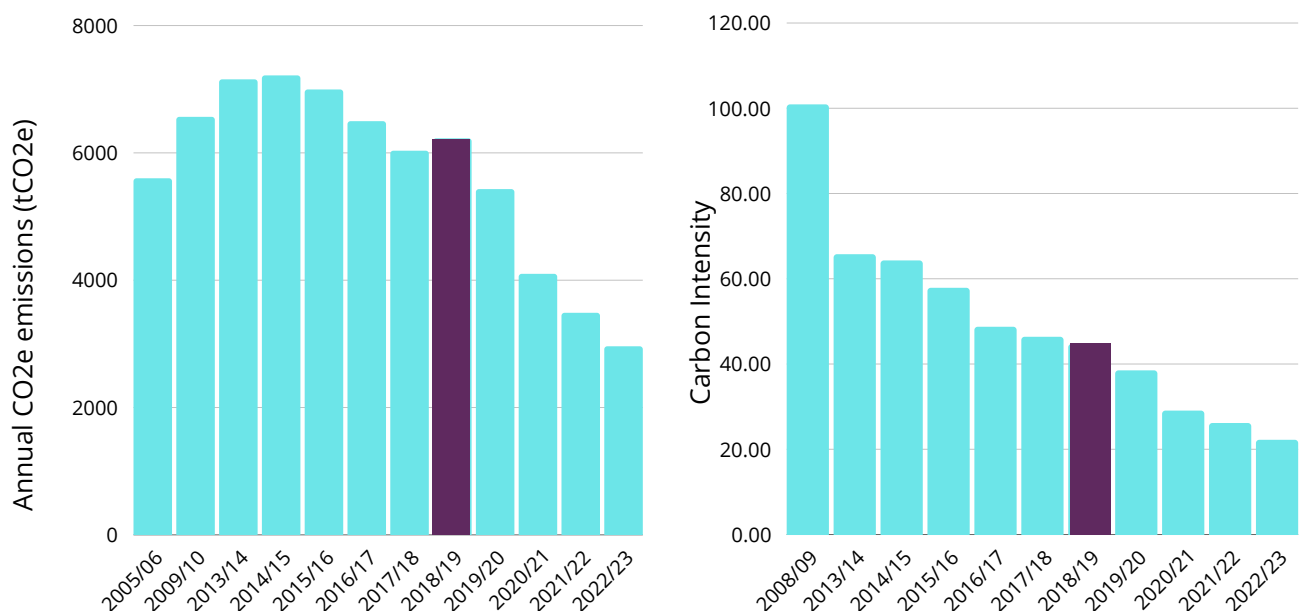
EHUs 2022-25 CMP has established new baselines against which we are measuring our carbon emissions using the academic year 2018/19. These baselines are:

- 1) Total scope 1 and 2 CO<sub>2</sub>e emissions: 6229 tCO<sub>2</sub>e
- 2) Estate carbon intensity: 44.7 kgCO<sub>2</sub>e/m<sup>2</sup>

Against these baselines we have set the following targets:

- 1) Reduce our carbon emissions by 10% by 2025
- 2) Become Carbon Neutral by 2030
- 3) Reduce our carbon intensity by 30% by 2025
- 4) Reach Net Zero by 2035.

Carbon emissions (tCO<sub>2</sub>e) and carbon intensity (kgCO<sub>2</sub>e/m<sup>2</sup>) have both shown a marked decrease as seen in the graphs below. Currently reporting for 2020/21 onwards excludes electricity due to the move to REGO-backed electricity supply in 2020, however there are plans to begin dual reporting within the next 12 months with emissions reported with and without electricity consumption to follow best practice in the sector.



\*Baseline year is in purple in both graphs

It should be noted that the 2019/20 data includes periods of change to standard operations due to Covid-19.

Against the baseline the following progress has been made:

- Total emissions have reduced by 52%
- Carbon intensity has reduced by 50%

These results keep us on track for meeting targets 1, 2 and 3 above.

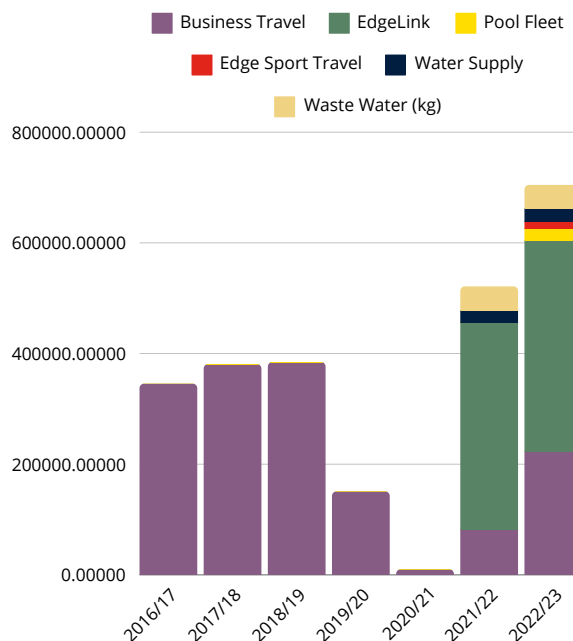
The reduction illustrated above is a reflection of a range of measures that have been implemented across campus including:

- Switching to LED bulbs in certain buildings.
- Improvements to insulation and the installation of triple glazing in places.
- In 2020 EHU switched to REGO back electricity supply meaning that emissions related to electricity consumption have been reduced.
- During the academic year 2021/22 changes to the implementation of the Heating and Cooling Policy, along with a strategic approach to ensuring equipment was taken offline when not in use supported with the reduction of energy consumption across the University.
- As part of works undertaken on Faculty of Education heating, modern more energy efficient boilers were installed.



## Scope 3 Emissions

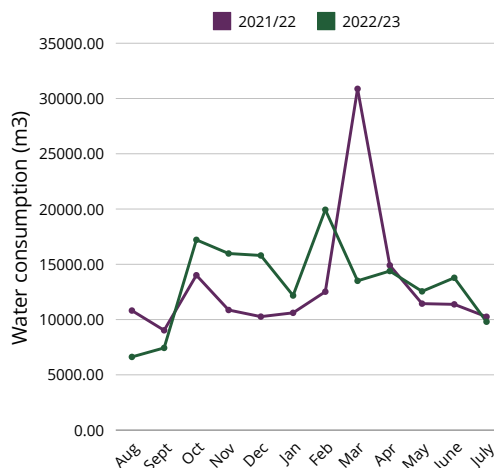
EHU currently records and monitors our Scope 3 emissions across several of our indirect activities, however we do recognise that there is still more work to do around this. Current data collected is illustrated below.



Over time there has been a clear increase in the range of Scope 3 data being collected at EHU: from 2016/17 to 2020/21 only business travel and the pool fleet are represented, while in 2021/22 and 2022/23 we started recording water supply and waste water data, before then introducing the recording of Edge Sport travel in 2022/23. This increase in the number of datasets recorded is the reason behind the marked increase in Scope 3 emissions seen in the graph.

## Water Consumption

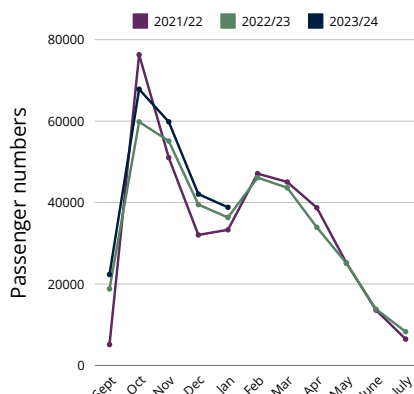
Water consumption data (for Ormskirk Campus including 57 St Helens Road and Milton House) in 2021/22 was 156,966 m<sup>3</sup> and rose to 159,186 m<sup>3</sup> in 2022/23. When we take into account variations in staff and student numbers this equates to an average water consumption per person per year of 9.99 m<sup>3</sup> in 2021/22 and 9.69 m<sup>3</sup> in 2022/23.



## EdgeLink Bus Service

As part of EHU's commitment to both the environment and its community a regular bus service is provided free of charge for all staff, students and Sports Centre users from Ormskirk to the campus.

The service consistently performs well when various criteria are examined including CO<sub>2</sub> kg/passenger, idling time and the timing of the service. In 2021/22 the CO<sub>2</sub> kg/passenger was 0.113, in 2022/23 this fell to 0.106.

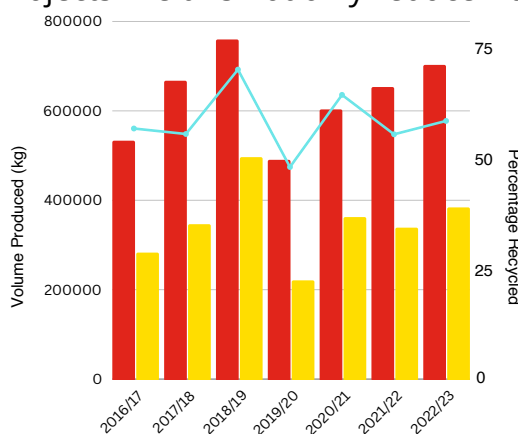


## Waste

EHU are committed to maximising recycling and minimising waste going to landfill. Over the last 6 years 0% of waste has gone to landfill, the percentage of waste recycled has increased overall and our infrastructure for managing waste has been reviewed with an aim to implement the waste hierarchy approach to waste.

Waste data for 2016/17 to 2022/23 is reported below and clearly demonstrates an increase in total volume of waste produced on campus over the last four years. The upcoming Waste Management Strategy aims to support with addressing this along with other aspects of waste management.

Over the summer of 2023 the Big Campus Clear Out was run with approximately 1.9 tonnes of goods donated to either Tawd Vale Lions or Ormskirk Food Bank. During 2022/23 EHU also donated three ovens to Tawd Vale Lions and several desks and tables to Rainbow Hub. Projects like this not only reduce waste but also support local charities.



Red bar - total waste volume ; Yellow bar - total recycling volume; Blue line - percentage waste recycled.

# Strategic Theme 5: Energy Use

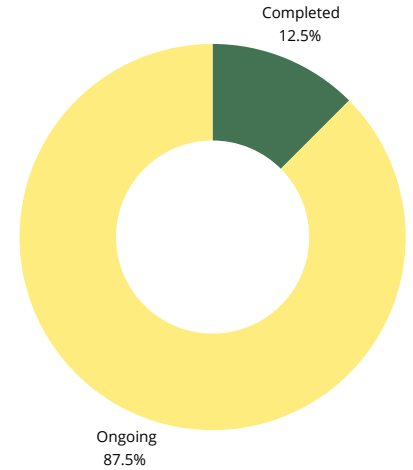
This theme focuses on working towards reducing the overall energy consumption across EHU. There are eight objectives under this theme that were either due to be completed or initiated in 2022/23. Progress against these are reported below.

## Completed

- FoE heating

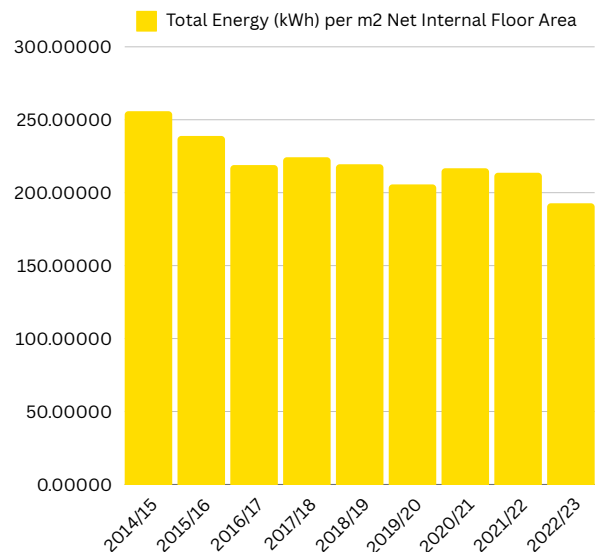
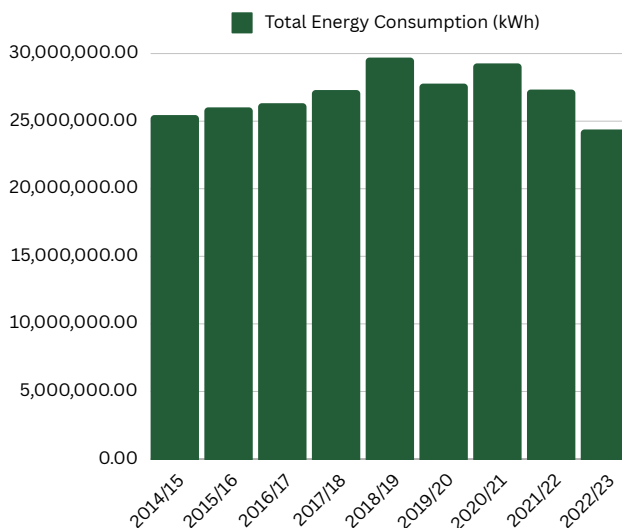
## Ongoing

- Pipe lagging
- Lighting upgrades
- Installation of photocells in external areas
- BMS controllers
- Window upgrades
- FoH heating and cooling
- Life Sciences Development sustainability tracker.



Over the last 12 months progress has been made against the ongoing objectives including installation of LED lighting in strategic locations across campus, onboarding of a supplier to address upgrades to the BMS (including controllers) and and starting to implement the sustainability tracker on the Central Campus development.

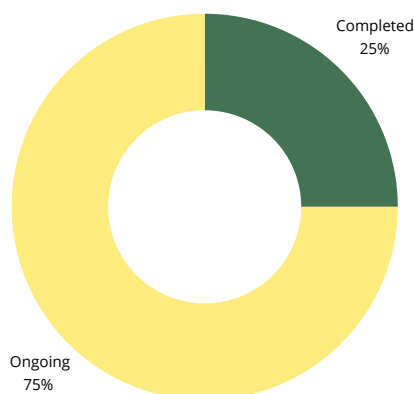
From the graphs below we can see that total energy consumption has fallen between 2014/15 and 2022/23 and while the total energy per m Net Internal Floor Area (NIA) has also decreased; over the same time frame NIA has increased by 27,044 m highlighting that sustainability features embedded in the new builds are clearly working to keep energy consumption down.



## Strategic Theme 6: Decarbonisation

The decarbonisation theme focuses on reducing the carbon footprint of EHU's campus, initially through reducing gas consumption, and eventually through moving to more behind the meter energy creation (as covered in the third theme below).

There are four objectives under decarbonisation that were due to either be delivered or started in 2022/23. The progress of these is summarised below.



### Completed

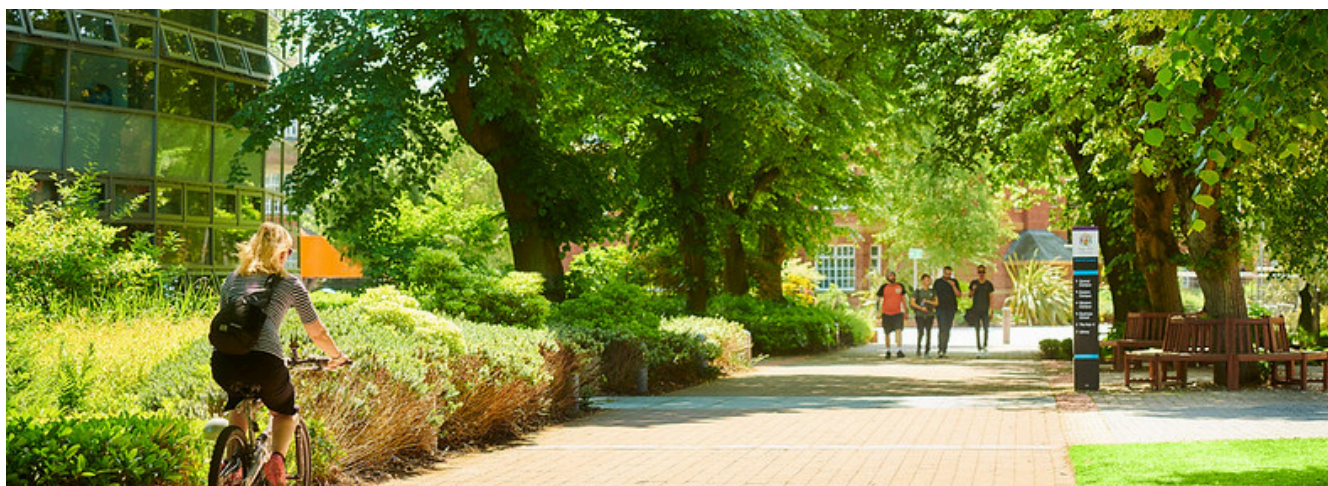
- Carbon tracking - implementation now beginning.

### Ongoing

- Heat Decarbonisation Plan
- Degasification of heating
- Procurement Approved 'Green List'

### **Successes**

During the summer of 2023 the refurbishment of the Hub Market area was taken as an opportunity to degasify the kitchen area. Changes to gas consumption levels will hopefully be seen in the 2023/23 annual statistics. Commitments such as this, along with the program of works previously undertaken parts of Main Building to move away from wet, gas-based, central heating to electricity based central heating are all contributing to our carbon emission and degasification aims.



# Strategic Theme 7: Renewables

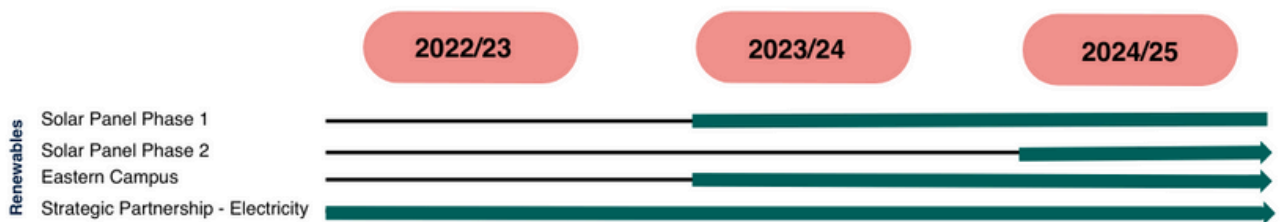
This theme focuses on increasing the amount of behind the meter energy created for consumption on campus via renewable energy sources.

There was one objective under this theme due to be delivered in 2022/23:

- Strategic Partnership – Electricity: Completed.

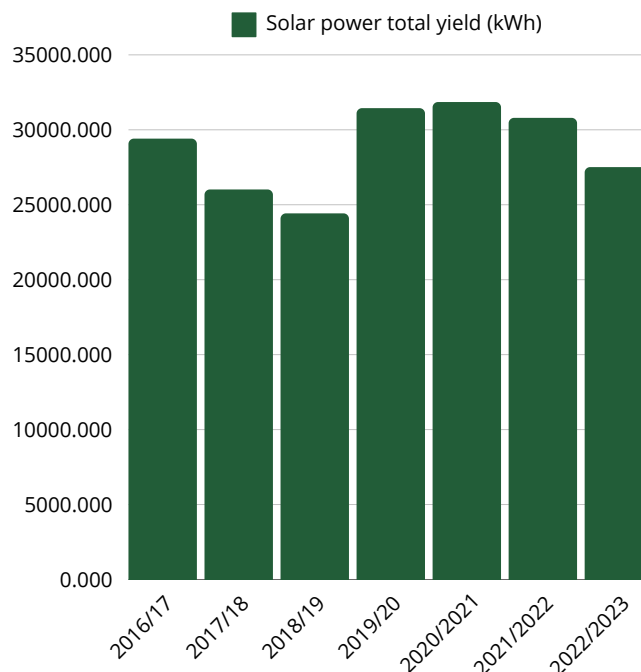
## Ongoing

The next steps over the next few years around renewables are summarised below.



2023/24 sees us starting to focus on increasing solar panel numbers on campus and exploring options in Eastern Campus around GSHP/ASHP installation. This is initially being done through a new Heat Decarbonisation Plan (HDP) for campus.

Electricity generation behind the meter for Durning Centre solar panels (see graph below) indicate that, with the exception of 2018/19, total annual yield has remained above 25,000 kWh. As part of the Environmental Sustainability Delivery Plan the aim is to increase the total amount of solar panels across the campus to increase solar power yield both in total, but also as a percentage of power consumed.



# Future Developments

## Planning for 2025 and beyond

2025 marks the launch of the next iteration of several key policies and strategies that underpin sustainability at EHU. The Environmental Sustainability Strategy, Carbon Management Plan and Environmental Sustainability Delivery Plan are all due to be refined to build upon the work already undertaken and reflect the evolving position of EHU in regards to Sustainability, with the aim that by the end of their lifecycle we will have reached Carbon Neutrality and be on our way to Net Zero.

Stakeholder engagement across the University is critical over the next 12 months as we develop the next iteration of our strategies, policies and plans. The development of our strategy and associated documents are key for EHU's progress towards our ambition of having an Environmental Management System in place within the next 12 to 24 months.

Progress against the current Environmental Sustainability Delivery Plan as outlined earlier in this report indicates positive movement towards meeting our overarching targets under the seven themes. As objectives are met and their outcomes reported on, it is important that we do not become complacent and instead look to establish new objectives that continue our positive trajectory. Looking to create long-lasting partnerships for the delivery of projects is also key as this ensures positive outcomes remain after implementation.

With 2025 just around the corner we have taken action to start reporting on our Scope 3 emissions. This report summarises the Scope 3 data we currently have available. By the next annual report, we plan to be further along in our ambition to fully report on all our Scope 3 emissions. Only by knowing our Scope 3 emissions can we start to fully understand how to tackle and reduce them. EHU are looking to fully engage suppliers to ensure carbon reductions are happening at every stage of our activities, and where needed provide best practice examples to them around reduction of their carbon footprint.

Over the next 12 months, Corporate Sustainability will be developing a clear communications and reporting framework, starting with the development of a Communications Framework for the University. This work will support a more holistic approach to communicating EHU's sustainability progress.

EHU is committed to the continuous evaluation of technology and will be undertaking regular reviews of our performance, staffing and outputs. We fully recognise that without innovation and persistence we will not meet our commitment to increasing the sustainability of our operations. The 2025 Strategy will continue with our commitment to ensuring all building works and refurbishments/renovations deliver the highest level of sustainable construction considerations possible.

# General updates from the Corporate Sustainability team

During 2022/23 and at the start of the 2023/24 academic year, Edge Hill University ran a range of outreach events aimed at engaging staff, students and the wider community in sustainability. Some of these are highlighted here.

## Community Litter Pick

In April 2023 staff undertook a litter pick along St Helens Road and collected several bags of litter.



## Lancashire Community Climate Forum

In May 2023 EHU hosted the first Lancashire Community Climate Forum which welcomed over 160 people from over 80 organisations to campus with the aim to capture Lancashire's community voice on climate action and establish an organised way forward of mobilising this community voice over the longer-term to help advance the county's broader efforts on climate action.

A second meeting is currently being organised for 2024 and out of the first meeting the Lancashire Climate Action Network (LancsCAN) has been created to help steer future work.

## 2024 Sustainability Fair

On November 14 and 15 a Sustainability Fair was run on campus which was attended by a range of external and internal stall holders including:

- B & M Waste
- Ormskirk and Croston Beekeepers
- EHU Sustainability Society
- EHU Horticultural Society
- EHU Corporate Sustainability - running the carbon footprint game How Bad Are Bananas?

# Find out more

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 @SustainableEHU

 [ehu.ac.uk/sustainability](http://ehu.ac.uk/sustainability)

