

UCL Sustainability Bond Impact Report 2022/23



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Introduction

UCL is a sustainability leader in the higher education sector. In 2023, UCL proudly received The Sunday Times accolade of 'University of the Year,' a recognition reinforced by our ambitious work on sustainability. This acknowledgement highlighted our innovative interdisciplinary approach to both teaching and research, with a primary focus on tackling the biggest challenges facing our planet, notably our ground-breaking research on the climate crisis. With our Generation One campaign, our research impact has extended to influence global politicians and businesses, with over 30 academics and the Student Union Affairs Officer representing UCL at the COP28 climate negotiations. Moreover, the accolade recognised our new and 'visionary' UCL East campus, on Queen Elizabeth Olympic Park, featuring UCL's first net-zero-carbon building. This award closely followed the achievement of retaining our first-class honours in the People and Planet University League for the 7th consecutive year.

In the last year, we have embarked on a comprehensive review of our 2019-24 Sustainability Strategy and started the development of our next Sustainability Plan, aligning

closely with UCL's 2034 Strategy. This plan will integrate the institution's new Climate Crisis Grand Challenges Programme, linking our teaching and research, to our operational work on carbon reduction. Sustainability is also a core principle in UCL's new Estates Strategy, helping us to realise the commitments in the existing Sustainability Strategy and superseding Plan.

The Sustainability Bond supports the delivery of UCL's sustainability ambitions. The projects summarised in this report, fall under the 'Green Buildings' category within UCL's Sustainable Finance Framework. This report allocates our bond proceeds and covers the finance period from August 2021 to July 2023. With all proceeds now allocated, this is the final report.

This report has been approved by UCL Council, the UCL governing body which oversees the management and administration of the University. It has also been reviewed by the University Management Committee (UMC) which has a key governance role in the process: assessing spend allocation, projects and investments allocated or financed under the Framework.

Allocation of Funds

UCL issued the Sustainability Bond in June 2021 and proceeds from the bond have been allocated to the financing of eligible projects. The main requirement for a project to be eligible per the Sustainability Finance Framework is that it must make a positive environmental or social impact against several key criteria.

Table 1 below provides the details of the UCL Bond, including the total value allocated to eligible sustainability projects through to July 2023.

Bond Par	£300,000,000
Fund Size (Net Proceeds)	£290,250,000
Currency	GBP
ISIN	XS2343114331
Issuance Date	June 2021
Total Proceeds allocated to July 2023	£290,250,000
Percentage of proceeds allocated	100%

Table 1 – Details of the UCL Sustainability Bond

The projects which have been allocated in this period were identified as contributing towards the ‘Green Buildings’ category. Under this category, the Finance Framework notes that the UCL Sustainability Bond funds will be used to deliver ‘new construction projects, existing buildings and major refurbishment projects’ achieving or aiming to achieve at least one of:

- For new buildings: Construction in line with the UK Green Building Council’s (UKGBC’s) Net Zero Carbon Building Framework; BREEAM ‘Excellent’ or higher; giving due regard for life cycle value.
- For major refurbishments: Construction in line with the UK Green Building Council’s (UKGBC’s) Net Zero Carbon Building Framework; BREEAM ‘Excellent’ or higher; giving due regard for life cycle value.
- For smaller refurbishments: Construction in line with RICS SKA HE with a target assessment level of Gold.

The table below details the allocation of Sustainability Bond proceeds from the 2020/2021 through 2022/23 financial years to 31 July 2023, and the current BREEAM rating for the respective projects.

Eligible Project					BREEAM Certification Rating
	FY 2021	FY 2022	FY 2023	Total	
Green Buildings UCL East	£44,791,000	£163,503,000	£968,000	£209,262,000	Excellent (Marshgate - Interim Certification) Outstanding (Pool Street - Academic Facilities) (Interim Certification) Excellent (Pool Street Residences) (Interim Certification)
Green Buildings ION	£6,785,000	£37,286,000		£44,071,000	Outstanding (Interim Certification)
Green Buildings Oriel	£1,508,000	£764,000	£26,427,000	£28,699,000	Excellent (Projected)
Green Buildings Pearl	£1,434,000	£1,067,000		£2,501,000	Outstanding (Final Certification)
Green Buildings Cave	£4,000	£5,713,000		£5,717,000	Outstanding (Final Certification)
Total	£54,522,000	£208,333,000	£27,395,000	£290,250,000	

*Note: Based on accepted UK GAAP accounting principles on the recognition of expenditure.

Frequency of Reporting

The reporting process occurred on an annual basis until the full allocation of the Net Proceeds. This allocation has now been completed.

Future Allocation

All funds have now been allocated and this is the final report.

External Review

External verification of the allocated and unallocated portions of the Net Proceeds has been provided by an external auditor and the accompanying certification is provided.

Impact Reporting

Featured Projects – Green Buildings

The following section details the environmental and social features impact of each the projects against which proceeds have been allocated in this report.



UCL East

UCL East – Marshgate

UCL East – One Pool Street

**Institute of Neurology – Dementia
Research Institute (IoN – DRI)**

Project Oriel (Joint Venture)

PEARL (Person-Environment-Activity
Research Laboratory)

CAVE (Controlled Air Ventilation Environment)

UCL East



UCL East

UCL East represents a new phase in UCL's development and an expansion of our campus to the east of London. It builds on our progressive history, positive impact, and disruptive spirit. We are bringing together UCL academics, students, local communities, and industry to solve the biggest challenges affecting people's lives and the planet – today and into the future. The first phase included a new academic building (Marshgate) and a new mixed academic/residential building (One Pool Street).



UCL East – Marshgate

Status: Complete



UCL East – Marshgate

Status: Complete

The Marshgate building, opened in September 2023, features predominantly academic uses but also community and engagement functions.

At the heart of the building is a central atrium that is open and accessible, helping to encourage inclusivity and community engagement, with the use of ‘Fluid Zones’ at ground and first floor level to draw people into the building. Floor space above these levels has been designed to encourage collaboration and engagement between academic uses through largely open plan and circulatory spaces.

Marshgate houses spaces for the Experiential Learning and Research Hub, the Advanced Propulsion Lab, the Manufacturing Futures Lab, the Urban and Built Environment Co-Labs, as well as the Institute of Finance and Technology and the Global Business School for Health, which caters to leading professionals’ needs.

The Institute of Making, a multidisciplinary research club for those interested in the ‘made world’, occupies space on the

ground and first floor levels. As does the School for Creative and Cultural Industries, which comprises a media lab, an object-based learning laboratory, and a suite of conservation facilities.

Sustainability features

Ensuring sustainability performance that goes well beyond regulatory requirements has been a priority since the project’s inception and it has achieved a rating of BREEAM Excellent at final certification, with specific features including:

- Life cycle costing: planning and budgeting which accounts for the whole building life cycle.
- Energy efficiency: highly efficient building fabric; LED lighting; mechanical ventilation with heat recovery; 1200m² solar (PV) array.
- Energy/Carbon performance: 40.7% improvement over Part L Building Regulations 2013 (predicted).
- Water saving sanitary equipment.
- Focus on active transport with extensive cycle storage.
- Life cycle materials analysis focussed on reducing embodied carbon (e.g., through use of high levels of cement replacement).
- 17.3m³ of project-related timber waste saved to date (diverted to community projects).
- 99% of construction waste diverted from landfill (to date).

UCL East – One Pool Street

Status: Complete



UCL Disruptive
thinking
since 1826

UCL East – One Pool Street

Status: Complete

One Pool Street opened in the Autumn term 2022, and includes a range of uses, including student accommodation, academic, retail, community and engagement.

The design of One Pool Street encourages innovative academic programming, as well as a range of events and activities. Performances, exhibitions, workshops and lectures contribute to a lively and creative learning atmosphere. In addition to a centre for Robotics & Autonomous Systems, it houses the Urban Room, a major public and community space, but also School for Creative and Cultural Industries spaces - namely, a Slade studio and a London Memory Workshop. Meanwhile, the Nature-Smart Centre uses the Park as a 'living lab' and the Global Disability Innovation Hub has also moved there.

The lower levels of the building also feature a range of retail and food and drink units from Gather & Gather to cater to both the public and UCL students and staff.

Sustainability features

The project has received interim BREEAM certifications with both the academic facilities, and residential towers above, likely to ultimately achieve high 'Excellent' ratings. Some of the key features in the facility include:

- Energy efficiency: efficient building fabric for excellent thermal performance; heat recovered from shower waste water; connection to local district heating network.
- Energy/Carbon performance: 47.74% carbon reduction over Part L Building Regulations 2013 (RIBA Stage 4 prediction).
- Healthy lifestyles: strong connections between indoors and outdoors, as well as surrounding facilities, and a range of planting to improve biodiversity around the building. Provides scope for a wide range of outdoor activities.
- Healthy building design – maximising natural daylight, indoor air quality, thermal comfort and acoustic performance.
- Water saving sanitary equipment.
- Adaptable and flexible design, allowing for the evolution of uses into the future.

Institute of Neurology – Dementia Research Institute (IoN – DRI)

Status: Construction Stage / Projected Completion: Summer 2025



Institute of Neurology – Dementia Research Institute (IoN – DRI)

Status: Construction Stage / Projected Completion: Summer 2025

This building provides a new world-class environment to fight neurological disease through the IoN-DRI programme. The centre of excellence will support 500-600 people with a 200-seat versatile seminar theatre, six new MRI scanners as well as new public spaces and a café, open to the whole community. It will be designed with patients in mind, offering bright and welcoming spaces to move away from traditional institutional design. First class conferencing facilities will be included in the building to allow the centre to host international events in dementia care and research. As well as offering a modern space for work and collaboration, the new facility will have excellent sustainability credentials.

The design of the building is forward-thinking. It has longevity and it will be able to adapt to ever-changing practices in scientific research and modern ways of science. There are some elements that will always be required, such as wet labs, but the building works will take approximately four years and it cannot be predicted where science will be when the building opens.

Therefore, it is being designed to be flexible and reconfigurable. It will be very technologically advanced, and it will be cost effective and sustainable because numerous researchers will share technology, laboratories and equipment rather than each department having its own.

Respect for the environment and local community are key principles underpinning the development.

Sustainability features

The project is currently on track to achieve the highest BREEAM Outstanding rating reflecting exemplar sustainable design. Key features include:

- Energy/Carbon performance: 19% improvement over Part L Building Regulations 2013 (predicted).
- Significant improvements to green infrastructure focussing on native and biodiverse planting whilst also increasing ecological value.
- Energy demand reduction has been prioritised through passive design analysis resulting in highly efficient building fabric as well as the addition of up to 300m² solar (PV) panels across the wider site.
- Additional energy efficiency through lighting specification; design of heating and cooling plant; and selection of lab equipment.
- Healthy environments: design for visual and thermal comfort; optimum acoustic performance; inclusion and accessibility.
- Active transport: excellent public transport access and travel planning has focussed on active transport (i.e., walking and cycling facilities). The building is required to provide 242 short and long stay cycle spaces.
- Water consumption anticipated to be 45% improvement over typical new buildings.



Project Oriel (Joint Venture)

Status: Design Stage / Projected Completion: 2026



Project Oriel (Joint Venture)

Status: Design Stage / Projected Completion: 2026

Oriel is the joint initiative between Moorfields Eye Hospital NHS Foundation Trust, the UCL Institute of Ophthalmology (IoO) and Moorfields Eye Charity that would see services move from Islington to a new, integrated centre on part of the St Pancras Hospital site in Camden.

The new facility will create a world-leading centre for advancing eye health, harnessing the expertise of the partners under one roof to enable the delivery of the highest-quality care, research and education.

Sustainability features

This project is aiming for a BREEAM Excellent rating with the interim assessment currently in progress. Prominent sustainability features of the project include:

- Strong circular economy/material efficiency principles focussing on: design for flexibility/adaptability, reusability and recover; minimising construction waste; waste segregation.
- Low and zero carbon technologies: air source and ground source heat pumps; solar (PV) panels.
- Energy efficiency: 27% improvement over Part L Building Regulations 2013 (predicted).
- Water efficiency: sanitary equipment; leak detection; flow control devices.
- Biodiversity net gain assessment used to plan for improvements to green infrastructure/ecological value.
- Climate change adaptation: sustainable urban drainage strategy; drought resistant planting; thermal comfort modelling.

PEARL (Person-Environment-Activity Research Laboratory)

Status: Complete



PEARL (Person-Environment-Activity Research Laboratory)

Status: Complete

Person-Environment-Activity Research Laboratory (PEARL) is a unique facility to explore the ways in which people interact with their environment. It is a large space – around 4,000m² and 10m high – in which life-sized environments can be simulated. For example, a railway station, high street, town square – under controlled conditions. This is to examine how people interact with the environment and other people in these types of places. The profile, type and material of the floor can be changed. It can also simulate lighting of any colour and intensity, create sound from the tiniest bird song to the most massive explosion, include other senses, such as smell, and much more. PEARL is also the first net zero carbon building in the UCL portfolio.

Social impact features

- As at One Pool Street and Marshgate, PEARL included installation of a Changing Places toilet so the building can meet the toileting needs of all users.

CAVE (Controlled Air Ventilation Environment)

Status: Complete



CAVE (Controlled Air Ventilation Environment)

Status: Complete

The world's first Controlled Air Ventilation Environment (CAVE) will work adjacent to PEARL and opened in Autumn 2023. It will allow scientists and engineers to understand how airborne particles – including viruses and pollution – move around transport systems and buildings from airports to theatres, enabling better designs that improve our health and well-being.

Sustainability features across both PEARL and CAVE

- Both buildings benefit from zero carbon electricity generated by the extensive solar array on the Pearl building, supplied to Cave via the local energy network. This has already helped to make Pearl UCL's first net zero carbon building.
- Internal environment: focus on healthy materials; thermal comfort; acoustics.
- Building energy use – passive design analysis to minimise energy use intensity.
- Active travel – proximity to a range of amenities/outdoor spaces, with facilities for cyclists on site (parking, showers).
- Water saving – anticipated 40% improvement over baseline typical new buildings.



UCL

UCL Sustainability

Bond Impact Report

2022/23

**Read more about our
Sustainability Bond:**

www.ucl.ac.uk/sustainable/bond