UCL

Degrees of Change

A plan to reduce UCL's carbon emissions across its campus, teaching and research

2016 - 2020

CONTENTS

Introduction

A Vision for **carbon management**

UCL was established by a community keen to tackle pressing social challenges. And in keeping with this tradition, by 2050 we will have redefined what people perceive to be 'normal'; we won't need to think about making 'green choices', these will be the obvious choices in a university where sustainability is an intrinsic value. Carbon saving will be embedded in every aspect of UCL, from operating our buildings, processing our waste, buying products to travelling and teaching.

Our environment will be one that is inspirational, healthy and enjoyable to inhabit. Students and staff will be conscious of how the actions they take, contribute to a more sustainable planet. Our graduates will be motivated by their time here to become leaders in their own fields, taking with them UCL's exciting, sustainable ways of living and working.

We will be collaborating with academics and students, using UCL's ground-breaking sustainability research to put us at the forefront of new low carbon ways of working.

An exemplar in the heart of London, UCL will show the world how an Institution founded in the 19th Century is at the vanguard of meeting a 21st Century challenge.

Strategic aims

For a large, diverse (and rapidly growing) institution, the challenge of achieving our vision is hard to overstate. What is certain is that if we are to succeed, this agenda really must encompass, engage and empower everyone at UCL. We all have a part to play.

UCL 2034 sets out the Institutional Strategy for the next 20 years, which puts sustainability at the heart of UCL's future direction. In this context, we have revised the Carbon Management Plan. UCL's research and innovation will be at the heart of our approach; used to create a truly distinctive, collaborative approach to addressing climate change.

This document outlines the actions we will take to reduce the carbon emissions from UCL's operations[1], structured around four key strategic aims:

EMPOWERING THE UCL COMMUNITY TO MAKE SUSTAINABLE CHOICES

Actions: providing information, normalising low-carbon behaviours, harnessing research, supporting low-carbon travel and creating more sustainable labs

CREATING A WELL-MAINTAINED, SUSTAINABLE CAMPUS

Actions: improving control of temperatures, creating more sustainable buildings, increasing low carbon computing, developing more efficient heating, lighting and cooling

SUPPLYING LOW-CARBON ENERGY TO UCL

Actions: developing energy policy and strategy, generating revenue from demand-response, investing in renewables, improving the efficiency of on-site energy generation
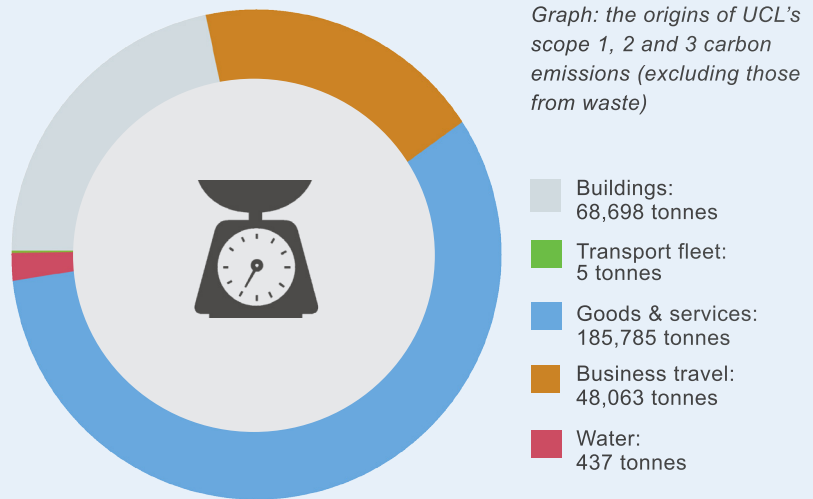
BUYING BETTER AND SHARING WHAT WE HAVE

Actions: developing guides and standards, training and engaging key staff, reducing the impact of delivering goods to UCL, increasing sharing and re-use

1. This plan does not include carbon resulting from UCL's investment portfolio. This is considered through the UCL Investment Committee.

UCL's carbon emissions

Climate change is one of today's most pressing social challenges; one that UCL as an institution is not only morally obligated to rise to, but one that our knowledge and world-class sustainability research makes us ideally placed to deliver on.

In line with other Higher Education Institutions (HEIs), UCL has adopted 2005/06 as its baseline year to report scope 1 and 2 carbon emissions against. We have only recently started to collect and monitor data for UCL's scope 3 emissions. Travel and the goods and services that we buy are the main sources of these scope 3 emissions.

Graph: the origins of UCL's scope 1, 2 and 3 carbon emissions (excluding those from waste)

Buildings: 68,698 tonnes

Transport fleet: 5 tonnes

Goods & services: 185,785 tonnes

Business travel: 48,063 tonnes

Water: 437 tonnes

DEFINITIONS

CO_2e: Carbon Dioxide Equivalent, which is a standard unit for measuring carbon footprints. It expresses the impact of each different greenhouse gas in terms of the amount of CO_2 that would create the same level of warming.

Scope 1 emissions: CO_2e generated from burning fuels such as gas and oil on campus.

Scope 2 emissions: CO_2e produced in the generation of electricity used on campus.

Scope 3 emissions: CO_2e generated from waste, water, transport and the goods and services that UCL uses.

Although scope 1&2 emissions have remained largely static over the period since 2005/06, this should be viewed in light of the unforeseen growth that UCL has experienced over this time (a 10% increase in floor space and a 37% increase in staff and student numbers). The table below shows UCL's relative performance over this period.

UCL'S RELATIVE CARBON EMISSIONS

FACTOR	2005/6[1]	2014/15	CHANGE (+/-%)	
Floor Space (m²)	341,022	374,012	+ 10%	↑
Student and Staff numbers (FTE)	28,433	40,060	+ 41%	↑
Energy Consumption (MWh/yr)	190,146	229,449	+ 21%	↑
Carbon Emissions (Tonnes)	68,160[2]	68,698	+ 1%	↑
CO_2e per person (TonnesCO_2e/FTE)	2.0	1.7	- 14%	↓
CO_2e per m2 of space	0.20	0.18	- 8%	↓

1 Unless otherwise indicated all data used in this document is sourced from UCL's own energy, waste and water monitoring systems
2 This baseline includes CO_2e emissions from the School of Pharmacy which merged with UCL in 2012/13 and the Institute of Education which merged with UCL in 2014
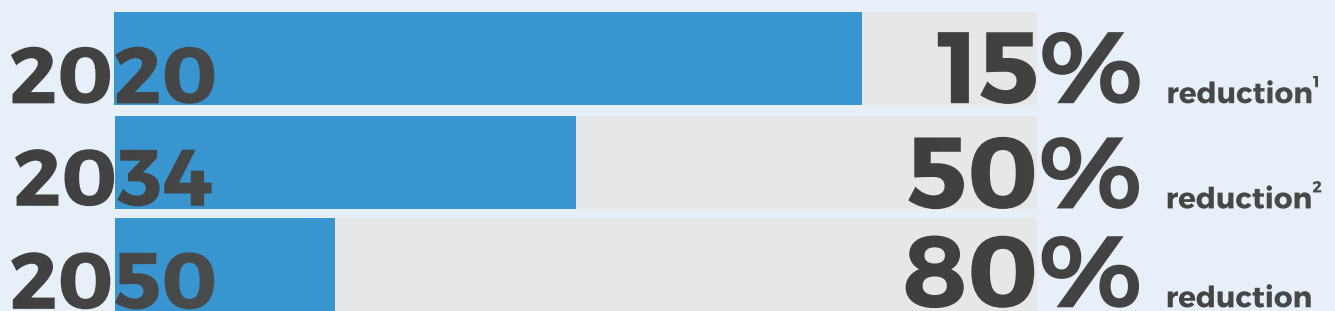
DEGREES OF CHANGE

UCL's carbon targets

SCOPE 1 AND 2 CO_2e EMISSIONS

UCL is required by HEFCE to set absolute carbon emission reduction targets. However, given the uncertainty over grid decarbonisation, the levels of growth required to maintain UCL's status and changes to the way that research is undertaken, it is prudent for UCL to adopt a conservative approach to such targets in the short term.

UCL is also setting a more ambitious longer term programme of carbon reduction – stretching beyond 2020, consistent with the UCL 2034 timeframe and the Government's Climate Change Act which commits to an 80% reduction in emissions by 2050.

It is therefore proposed that UCL adopts the following revised carbon reduction targets:

UCL's scope 1&2 carbon emissions

2005-6:
68,160 tonnes

2014-5:
68,673 tonnes

2020   **15%** reduction[1]

2034   **50%** reduction[2]

2050   **80%** reduction

The targets outlined above are based on the current UCL floor area of 374,012m2 of the estate[3]. If there is no net change in the size of the estate, progress towards the 15% target would be reported on as planned. In this scenario by 2020 UCL's total carbon emissions would not exceed 58,000 tonnes (2005/6 emissions minus 15%).

If there is significant growth in the estate then progress towards the 15% target would still be reported on for the existing estate. However, carbon emissions associated with any new buildings would be reported on separately, with distinct targets for these buildings determined as appropriate.

The next full revision of the CMP is scheduled for 2020, at which point interim targets for the whole estate (taking into account any growth experienced over the next three years) will be proposed.

1 This targets assumes no contribution from grid decarbonisation
2 National carbon budgets commit the UK to a 50% reduction by 2027. The carbon budget covering the period beyond 2027 is not due to be published until summer 2016
3 Floor area figure represents Net Internal Area

Key performance indicators (KPIs) will also be a useful tool to understand our performance in light of UCL's growth. UCL will monitor performance through the KPIs in the table below.

KEY PERFORMANCE	WHAT DOES THIS TELL US?
CO_2e/m2	How carbon efficiently UCL is using its space
CO_2e/FTE	UCL's carbon efficiency per person, staff and students
CO_2e/m2 laboratory buildings	As a KPI against existing Higher Education (HEEPI) benchmarks[1]
CO_2e/m2 office/ teaching buildings	As a KPI against existing Higher Education (HEEPI) benchmarks[2]

## SCOPE 3 CO_2e EMISSIONS

Although our understanding of UCL's Scope 3 emissions is more limited, there are some areas where we have good data and are able to set targets for reduction as set out below. For the areas that are less well understood (procurement, business and non-business travel), we will be working to gain a clearer picture of the source of current emissions prior to target setting in 2017/18.

• Water: 9% reduction in Scope 3 CO_2e emissions from water by 2020 against a 2013/14 baseline.
• Waste: To be within the Top 10 Russell Group institutions for waste per FTE (excluding construction waste).

Further detail about how the targets for waste and business travel will be achieved can be found in UCL's Environmental Sustainability Strategy, Waste Strategy and Travel Plan respectively.

UCL'S APPROACH TO THE CARBON CHALLENGE

To deliver these carbon targets, in a climate of growth, will require a step-change in the way UCL approaches carbon saving. Investment alone will not be sufficient. It will require buy-in and leadership across UCL, and a culture change within the UCL community; to identify and act on opportunities to save carbon, accept different environmental conditions and change working practices. The strategic aims are the basis of our four carbon action areas.
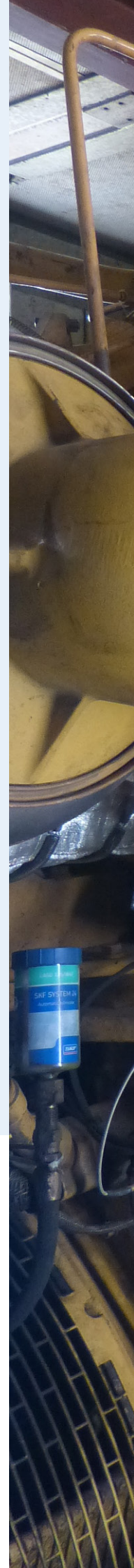
1   HEEPI – Higher Education Energy Performance Indicators
2   HEEPI – Higher Education Energy Performance Indicators

One of UCL's Combined Heat and Power engines. Responsible for much of UCL's energy and heat generation, big savings will be created through modernisation of these systems.

Empowering and enabling the UCL community to make sustainable choices

Action from the wider UCL community sits at the heart of reducing our carbon emissions. And while members of Estates and Sustainability staff can make the campus infrastructure and operations more sustainable, the behaviour, research and insights of staff and students will play an essential role in reducing our impact on climate change. This needs to be championed through strong and visible leadership from senior management.

Heads of Department and an active network of Green Champions are already delivering improvements in their own departments and divisions. We will aim to create an environment where these improvements are contributed to by the whole UCL community.

PROVIDING INFORMATION TO INSPIRE ACTION

UCL already has a large network of energy and water meters across the campus. These will be supplemented to achieve metering of each floor and department as well as for energy intensive equipment. The CarbonCulture web platform (which currently shows electricity use) will be updated to show this information in real time for gas, water and waste. This will be displayed through departmental websites and existing screens across campus.

CREATING AN ENVIRONMENT WHERE LOW CARBON SEEMS NORMAL

Key to motivating a change in behavior will be a campus environment where sustainability is visibly seen as an intrinsic UCL value. As part of the Transforming UCL programme, we will create this environment; not only through obvious infrastructure such as recycling facilities, green roofs and solar panels, but also through signage to explain subtler low carbon features such as water saving taps and low energy lighting.

Some of UCL's student Green Impact auditors

ENGAGING STAFF AND STUDENTS

We will continue to run sustainability events for both staff and students to gather ideas, raise awareness and recruit volunteers. These will be complemented by information on the Green UCL website and social media and newsletter updates.Increasing the reach and impact of these platforms will form a vital part of our future work. UCL's carbon performance will be reported upon officially through the UCL Sustainability Annual Report.

PROVIDING SUPPORT AND TRAINING

The Green Impact programme currently has 47 teams taking part to deliver carbon savings in their department. We will increase the reach of the Green Impact programme, and support individuals to develop their own carbon saving projects tailored to their department.

Many of the activities identified in this Plan will require action by Estates and Departmental staff to change working practices to achieve environmental improvement. Training will be provided to key staff, for example maintenance, security, catering, Green Champions and facilities managers to enable this.

47 teams currently taking part in Green Impact

In 2014-15, the programme motivated over **1,500 actions** to save energy, and resources, boost biodiversity and raise awareness

HARNESSING UCL'S RESEARCH THROUGH THE LIVING LAB

The UCL Living Lab programme uses the university campus and operations as a focus for research or study. It works to unlock UCL's expertise and tackle sustainability challenges by bringing academics and Professional Services staff together to use the campus as a test bed for new ideas. We will build on this programme to provide research opportunities to students and trial UCL-grown innovations on the campus that create carbon reductions.

Plumbers and students working together

CASE STUDY

UCL students and plumbers collaborate to save water

Waterless urinals have presented reliability problems when connected to the antiquated drainage systems found around the Bloomsbury Campus. In collaboration with UCL's plumbers, students from the 'Engineering Thinking' module of UCL's BASc degree compared water consumption from current automatic flush systems against that of urinals fitted with individual press-button flushes. The water consumption data gained will be used to inform the design of upcoming refurbishment works.

PALS Green Impact team receive their Green Impact award from UCL President and Provost Professor MIchael Arthur

CASE STUDY

Psychology and Language Science bring energy to life

The winner of the UCL Department of Psychology and Language Science's competition for the best energy saving idea was from a student who suggested displaying PALS energy consumption on the screens throughout the building. Specific targets were displayed alongside data comparing energy consumption relative to the previous year. The concept was so successful that UCL has now rolled out a similar system, CarbonCulture, for the whole estate. Find it at: https://platform.carbonculture. net/communities/ucl/30

ENABLING LOWER CARBON TRAVEL

Travel choices by staff have a significant impact on UCL's carbon emissions. We will work with staff to understand how this could be reduced, for example re-examining the link between international conference attendance and academic promotions. We will improve facilities to reduce the need for travel, e.g. video-conferencing, as well as the impact of travel e.g. by promoting on-campus cycling and walking infrastructure to encourage lower carbon commutes to UCL.

PROVIDING A FINANCIAL INCENTIVE FOR REDUCING CARBON

A major barrier for departments to take action to reduce carbon emissions is the lack of financial incentives for re-ducing energy use. We will work with the UCL Finance team and departments to implement an incentive mecha-nism, based on departmental energy consumption collect-ed through the CarbonCulture platform.

GREENER LABORATORIES

We will help laboratory staff to reduce consumption, through training and reviewing ways to reduce the extra costs of lower energy equipment, such as fridges, freezers and drying ovens.

Ongoing consultation with the UCL community will provide a feed-back loop to improve these programmes. Becoming more transparent, accessible and involved in a two-way dialogue with the wider UCL community will ensure the buy-in and participation we need.

The Sainsbury Wellcome Centre, which has achieved a BREEAM 'Excellent' award for its sustainability credentials.
Image by Grant Smith

Creating a well-maintained sustainable campus

UCL's campus is spread over 230 buildings, ranging from Victorian townhouses to modern laboratory buildings. Each have their own unique challenges to reducing carbon emissions. 80% of UCL's energy is used in around 30 of these buildings, mostly housing our scientific research departments. These buildings have complex heating, cooling and ventilation infrastructure and high energy using equipment such as computer servers, MRI scanners and X-ray machines. Much of this is necessary in order to facilitate the research, but there are many opportunities for minimising energy and water use.

The £1.25 billion investment in UCL's estate offers a rare opportunity to reduce carbon emissions and make buildings that are intuitively sustainable. New sustainability targets for all UCL building and maintenance projects are already delivering 3,000 tonnes of carbon savings/year, and reducing the embodied energy associated with this construction work.

While investment in infrastructure is important in reducing carbon emissions, this will not be successful without careful management, engagement with building users and processes that make it easy for staff and students to make low carbon choices. In particular, improved control of heating and cooling (using data analytics and intelligent sensors) will deliver significant energy savings.

Current building and maintenance projects at UCL are saving **3000 tonnes** of carbon dioxide per year
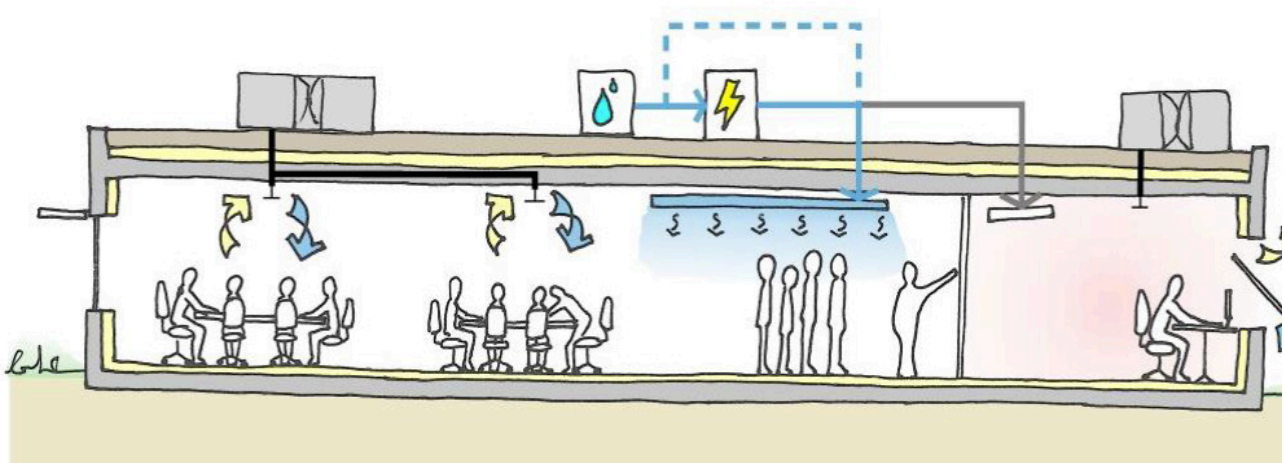
Natural ventilation and cooling in UCL's new architecture building, 22 Gordon Street

IMPROVED CONTROL OF SPACE TEMPERATURES

We will improve the central control of heating, cooling, ventilation and lighting in line with the revised Heating and Cooling Policy, which specifies appropriate operating hours and temperatures in UCL's buildings. This will provide a more comfortable environment for staff and students.

SUSTAINABLE NEW AND REFURBISHED BUILDINGS

Refurbishment of UCL's buildings should deliver a **2% reduction** in carbon dioxide per year

New building projects will aspire to achieve the national sustainability standard BREEAM Outstanding and will showcase the latest thinking and developments in sustainable building design. These standards ensure that new buildings are energy and water efficient and that construction materials with a low embodied energy are used. Work on existing buildings will aim to achieve BREEAM Excellent for major refurbishments and SKA Gold for minor refurbishments. This refurbishment work should deliver a 2% reduction in carbon emissions per year[1].

LOW CARBON COMPUTING

Currently UCL has lots of small inefficient server rooms across the campus. These will be consolidated into UCL's main high efficiency data centres, allowing heat generated from the data centre to be used to heat our buildings. Desktop@UCL computers can also run scientific research computing activities on the local machines overnight (thereby saving on cooling in data centres).

MORE EFFICIENT HEATING, COOLING, LIGHTING

£10 million will be invested in energy saving improvements to existing buildings over the next 10 years, targeted at the most energy intensive buildings. This will include insulation, more efficient equipment (such as boilers and lights), and improving the central control systems for heating, cooling and lighting. Energy bill savings from these actions will be reinvested into further energy efficiency projects.

1 Based on the current energy consumption of buildings that are being refurbished, and the likely reduction in energy consumption that could be achieved through the refurbishment process


The Sainsbury Wellcome Centre. Image by Grant Smith

CASE STUDY

UCL achieves BREEAM Excellent rating for Sainsbury Wellcome Centre

The Sainsbury Wellcome Centre has achieved a BREEAM 'Excellent' award for its sustainability credentials. This includes a combined heat and power system that will also supply heating to the nearby Astor College; a smart lab ventilation system (the first of its type in London) which continually samples the air to maintain optimum environmental conditions; a grey water recycling system to provide water for WC flushing; and wildflower green roofs, green walls and nesting boxes to improve the ecology and biodiversity of the site.
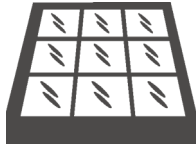
Low carbon energy supplied to UCL
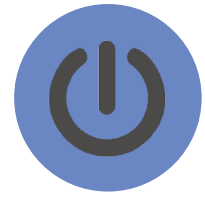
In order to meet the UK's current carbon reduction targets, significant changes are required in the way energy is generated and supplied. This will include generating more electricity from renewable sources, shifting from gas to renewable electricity for heating, developing more efficient energy storage and matching the time of electricity use to the availability of energy. These necessary changes to the UK energy landscape are a key consideration for the future of UCL's energy supply.

UCL's energy supply is a mixture of grid electricity, natural gas, and energy generated from a district network. In the network heat, steam and electricity are provided by four energy centres containing gas-fired Combined Heat and Power engines[1] and gas boilers.

Current Government policy means that buying "green tariff" electricity does not deliver a net carbon benefit. Energy suppliers are required to generate a certain amount of electricity from renewable sources, but although buying this attracts a significant premium it does not increase the overall amount of renewable energy generated. Therefore to reduce carbon emissions, a direct investment in renewable energy is currently required.

Until further progress towards grid decarbonisation is made, UCL is acting to improve the sustainability/ efficiency of our onsite energy generation, including our district energy network. We have already installed 250m^2 of solar electricity panels on Central House and New Hall. However, the limited roof space on campus means this will only ever make a small contribution to UCL's energy needs.

We have already installed 250m^2 of solar panels

As a prominent institution UCL can influence the direction of policy/support sector growth (in conjunction with other institutions) by our energy supply choices, and we will be working closely with UCL academics to ensure that our approach continues to reflect latest industry thinking.

Photovoltaic solar panels on UCL's newly-acquired space at Here East, in the Queen Elizabeth Olympic Park

ENERGY POLICY AND STRATEGY

UCL will develop an energy supply transition strategy, by reviewing the economic and environmental impact of alternative energy supplies and expected sector developments. We will also act in conjunction with other institutions to influence government energy policy by our actions.

DEMAND-RESPONSE

We will look to generate revenue from Demand-Response schemes (where UCL is paid to match the time of electricity use to times of high generation). This reduces carbon emissions by allowing more renewable energy technologies to be used, and reducing reliance on gas and coal-fired power stations.

INVESTING IN RENEWABLE ENERGY TECHNOLOGY

We will explore the potential for either directly investing in renewable energy or entering into a Power Purchase Agreement (a long term commitment to a renewable energy provider enabling new renewable energy installations to be financed and built).

ENERGY GENERATION AT UCL

We will develop a long term programme to update the district heating network; which will include:

• Evaluating future fuels and technologies to provide heat and generate electricity for the network.
• Considering the benefits of connecting to other local heat networks such as University of London and the Camden King's Cross network – allowing a greater diversity of fuel choices.
• Decommissioning the existing inefficient steam heating network across campus by 2020.
• Adding a cooling element to the heat network. A test borehole is currently in operation to identify whether this could be fed by the latent coolth of the aquifer beneath UCL.
• We will continue to install solar panels across campus where space allows, with real time energy displays showing how much electricity is being generated.

An artist's impression of the new Wilkins Terrace

CASE STUDY

A new ground source cooling network for UCL

UCL is investigating the use of a ground source cooling network for the central campus. The earth has latent coolth in the summer and heat in the winter which can be used to provide low carbon cooling and heating in our buildings. A test borehole has been drilled underneath the new Wilkin's Terrace, and is being monitored to understand how much cooling could be available. More boreholes are planned underneath the New Student Centre to form a campus-wide cooling network.

Buying better and sharing what we have

The carbon emissions from the manufacture and delivery of goods and services that UCL buys is over 2.5 times that from the energy that we use. Once at UCL these goods often directly impact energy use, for example freezers, laboratory equipment and computers, which make up around a third of UCL's energy consumption. This is therefore a major area for action. Buying more sustainable products is only part of the story; delivering significant carbon savings will also require us to waste less, take the opportunity to re-use products and to share equipment and other resources. Such an approach to resources will require a more systematic and collaborative approach to buying and using goods than we currently have, but could result in substantial cost as well as carbon savings.

DEVELOPING SUSTAINABLE PURCHASING GUIDES AND STANDARDS

Purchasing of goods and services is undertaken through central procurement frameworks, but also locally by departments. To ensure that these purchasing decisions consider the whole-life carbon and economic cost of a product, we will develop a sustainable purchasing guide that can be used by all buyers to make smart, sustainable purchases.

We will also develop more in-depth buying standards and policies for key purchasing areas that have a high carbon impact. The initial focus of these standards will be:

- Fridges and Freezers (in particular -80°C freezers used in laboratories)
- Laboratory equipment – e.g. autoclaves, drying ovens and incubators
- Computing equipment – desktop computers, laptops and servers
- Heating, ventilation and cooling equipment
- Travel, with the aim of moving shorter journeys to more sustainable modes of transport, for example switching from plane to train.

Further categories of priority spend will then be identified for later action.

Dr Charlie Dunnill shows an electron defractometer, use of which can now be booked with Quartzy

REDUCING THE IMPACT OF DELIVERING GOODS TO UCL

Improved management **has reduced deliveries to UCL by around** **500** **a month**

The goods that we buy not only have a carbon impact from their manufacture, but also in their delivery to UCL. To reduce the environmental and nuisance impact of construction deliveries to UCL, we are consolidating all construction deliveries from many suppliers onto a single vehicle that delivers to campus. This has been a great success reducing deliveries to campus, we are now investigating rolling this out to the rest of UCL's deliveries.

TRAINING AND ENGAGEMENT WITH KEY STAFF

We will work with key staff within departments who are responsible for purchasing to help them implement these buying standards and to make more informed choices around other goods. Where there is a significant capital cost increase associated with better energy performance we will investigate a fund to cover part of the cost uplift. In 2011, we established a carbon offset fund for business flights - the fund is used for carbon engagement projects. However, as business flights are still a major contributor to UCL's carbon emissions this will be a key area to influence staff to make more sustainable travel choices, for example taking the train instead of the plane for shorter journeys.

INCREASING SHARING AND RE-USE

UCL's Chemistry Department has initiated a chemical sharing database (Quartzy) to minimise chemical wastage and reduce waiting times for chemicals. We will be working to expand this and the current WARP-IT sharing/re-use platforms. Additionally, we will be looking for opportunities to provide central facilities for high energy using equipment such as microscopes, autoclaves and MRI scanners programme is managed. To generate the community-wide support for our vision and targets, this programme has to be managed in a transparent, accessible and participatory way.

**Using Quartzy** **to share chemicals saved around** **£90,000** **in the first year alone**

CASE STUDY

UCL Department of Chemistry saving money and resources with Quartzy

Many of UCL's science departments have large stores of chemicals, lots of which only have a small amount of use. The UCL Department of Chemistry department trialled Quartzy, a chemical sharing database with which research groups can log all of their chemicals and allow sharing of these resources. Once this system was up and running it gained interest from other departments as people could see the efficiencies at work. The safety, sustainability and cost benefits have been huge, with savings from the Department of Chemistry alone at around £90,000 a year.

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Managing UCL's carbon reduction programme
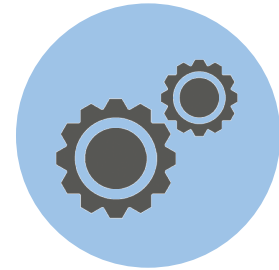
The success of our programme relies on motivating change and action from a diverse range of stakeholders across UCL. And an awareness of this must lie at the core of how our carbon reduction programme is managed. To generate the community-wide support for our vision and targets, this programme has to be managed in a transparent, accessible and participatory way.

The Sustainability Team will work to help staff and students understand their roles and responsibilities for carbon saving and to develop the governance structures to support this. Heads of Department are required through the academic manual to demonstrate commitment to UCL's Sustainability Strategy, including appointing a Departmental Environment Officer. This function is supported by Departmental Green Champions, who act to drive forward environmental improvements at a local level.

Numbers ranking UCL's buildings in terms of their carbon dioxide impact, as part of UCL's Degrees of Change festival.

At the leadership level, UCL's carbon emissions are reviewed annually by the Senior Management Team (SMT). The Environmental Sustainability Steering Group, chaired by a member of the SMT, provides input into the review process. This process will continue and the improved metering and monitoring of energy and water consumption that will be available will improve the accuracy of this reporting.
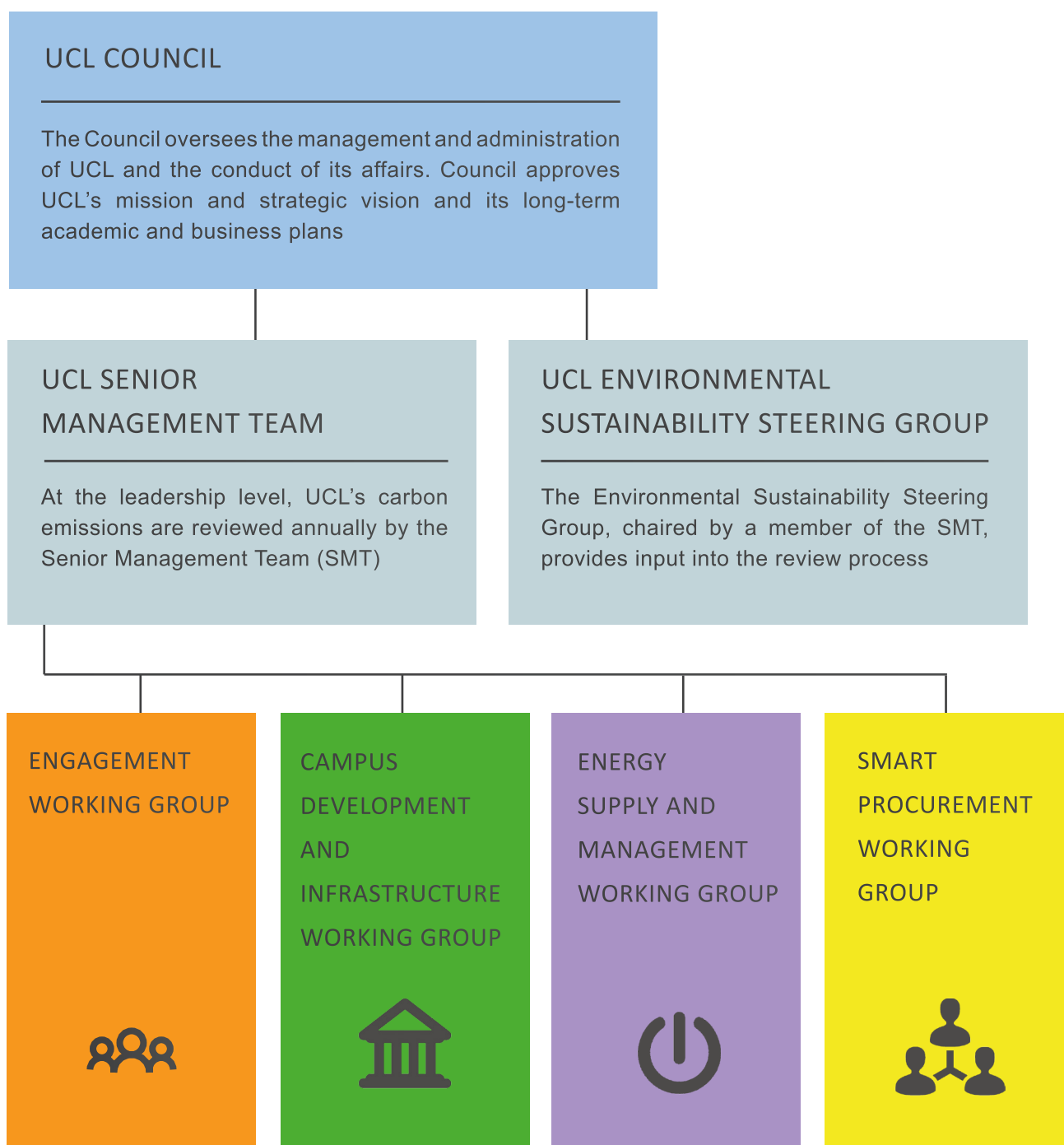
Providing a structure for all our activity is our Environmental Sustainability Management System (EMS). This framework allows us to track performance against the targets set out in our Sustainability Strategy. Currently used in nearly half of Russell Group universities, EcoCampus is the leading tool to assess environmental management systems in Higher Education, and focuses on continuous improvement to UCL's practices, procedures and compliance with environmental legislation. In 2013-14, the Sustainability Team coordinated action across the Institution to successfully achieve the EcoCampus Gold standard. This is the third stage of work towards the ISO 14001 accreditation, which we will seek in 2016.

The four key action areas will be overseen by cross-Institutional working groups which will report to UCL's Environmental Sustainability Steering Group annually.

Each working group will establish a detailed action plan that ties into business plans and the annual budgeting cycle. The action plans will have key targets and monitoring against these. To ensure that the activities undertaken by the working groups remain relevant to UCL and continue to engage staff and students, we will undertake an on-going cycle of consultation with the UCL community, building on existing consultation programmes such as Degrees of Change week that took place in 2014.

MANAGEMENT STRUCTURE

UCL COUNCIL

The Council oversees the management and administration of UCL and the conduct of its affairs. Council approves UCL's mission and strategic vision and its long-term academic and business plans

UCL SENIOR MANAGEMENT TEAM

At the leadership level, UCL's carbon emissions are reviewed annually by the Senior Management Team (SMT)

UCL ENVIRONMENTAL SUSTAINABILITY STEERING GROUP

The Environmental Sustainability Steering Group, chaired by a member of the SMT, provides input into the review process

ENGAGEMENT WORKING GROUP

CAMPUS DEVELOPMENT AND INFRASTRUCTURE WORKING GROUP

ENERGY SUPPLY AND MANAGEMENT WORKING GROUP

SMART PROCUREMENT WORKING GROUP

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FIND OUT MORE ABOUT HOW UCL IS TACKLING ITS CARBON CHALLENGE

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