University of Nottingham
UK | CHINA | MALAYSIA

Carbon Management Plan

2030

Our Ambition

Over the last decade, the University of Nottingham has demonstrated a strong commitment to environmental sustainability. Consultation on the University Strategy demonstrated that sustainability is highly valued by our University community and this was a major factor in its inclusion in the goals of the strategy:

> *We will make an outstanding contribution to supporting the United Nations Sustainable Development Goals (SDGs) through our research and education, our engagement with partners and our behaviour on campus and in our communities. We will place a special emphasis on environmental sustainability, supporting the City of Nottingham's desire to be a net zero carbon city by 2028 and working with partners in China and Malaysia to improve sustainability within their regions.*

Extract from the University Strategy Goals

In March 2020 the University declared a climate emergency, and to support the delivery of the University Strategy has developed an Environmental Sustainability Strategic Delivery Plan. This plan, which in the UK is informed by the establishment of an evidenced science-based carbon reduction target, has huge ambition – to be net zero by 2040 and zero carbon by 2050, with an interim target for 2030.

Over the last decade we have seen a rapid decarbonisation of the national electricity grid as a result of government policy interventions that have promoted investment in renewable energy schemes such as wind and solar power and this has contributed substantially to the delivery of our 2020 carbon targets. However, the national gas grid has seen no reduction in its carbon intensity during this time as the vast majority of currently installed boiler and heating technology are designed to be fuelled by 100% natural gas only. Reducing gas consumption can have financial benefits as well as carbon benefits and we have the opportunity to make further policy and investment decisions to reduce demand for gas now. **As an organisation, we cannot wait for actions of the Government alone and in order to reach our ambition and we must invest in projects that can deliver ultra-low carbon heating and cooling to our Estate.**

This 2030 Carbon Management Plan sets out a framework that will deliver a pathway to achieve net zero carbon emissions by 2040 or earlier. The Estate Development Framework and the campus planning process will provide the framework for how we will invest in and develop our estate over the coming years and will be a key enabler and delivery body for our carbon ambition.

As well as specific policy and project interventions, people are at the heart of the delivery of this plan. It is vital that we empower everyone in the University to take personal and professional, positive action to reduce our carbon impact. As a research led University will can have significant global impact on tackling climate change, however more locally it is essential that we deliver our

research and teaching in the most sustainable and low carbon way. To do this, active engagement and support from the University community will be essential. The 'go!' campaign will be an important part of the delivery of this plan.

Our ambition is aligned with the ambitions of the communities in which we are located and we will continue to develop through mechanisms such as Universities for Nottingham collaborations and joint working that supports the transition to a lower carbon world.

Our Target - Taking a Science Based Approach

In 2010 the University, in response to an initiative led by the Higher Education Funding Council for England (HEFCE) and in line with Government policy, developed carbon reduction targets in line with the rest of the sector. Targets for the sector were to reduce direct emissions and those caused by electricity purchases by 43% by 2020 and 83% by 2050.

Carbon emissions are generally classified into one of three scopes:

Scope 1.

Direct emissions, primarily from carbon-based fuel combustion, including operational vehicles, but also fugitive emissions due to refrigerant leaks;

Scope 2.

Emissions which arise from purchased electricity, heat, steam, etc.

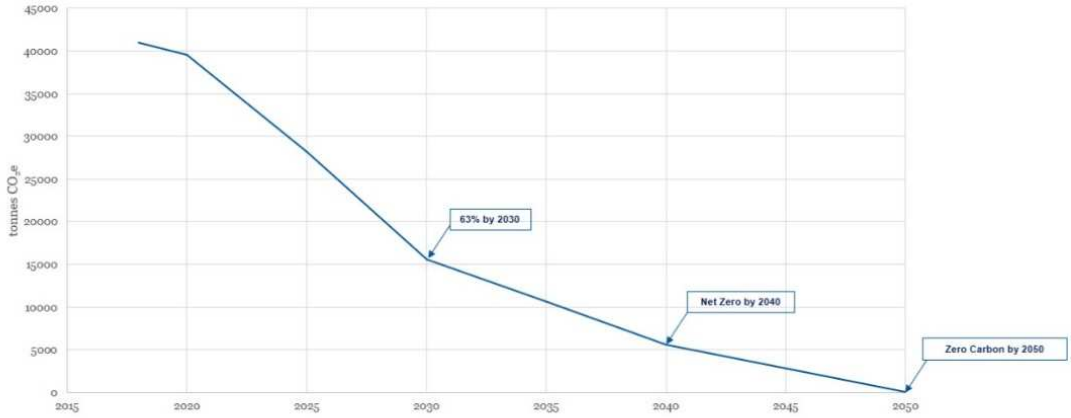
Scope 3.

All other emissions, notably those that arise from: Purchased goods and services, (including the materials and processes used in constructing new buildings), Business travel & Employee commuting and waste disposal.

Reflecting on this approach and recognising the urgency of the climate crisis, the University has adopted a science based approach to setting targets contained within this plan. In simple terms, a carbon emissions target is defined as science-based if it is in line with the scale of reductions required to keep global temperature increase below 2°C above pre-industrial temperatures (*ideally limiting the temperature increase even further to 1.5 degrees Celsius).* These targets have been developed using models and scenarios that calculate the level of carbon reduction we need to achieve in order to do our 'fair share' in reducing global emissions. We have chosen this approach for a number of reasons including:

- They are based on the science of climate change and are consistent with the requirements for a low carbon future;
- They are consistent with and driven by the Paris Agreement;
- They are based on a transparent, rigorous and credible methodology;
- They define our 'fair share' of emissions;
- They can be applied in different geographical settings with methodology that reflects the locality.

In March 2021 the University endorsed the Science-Based approach to setting carbon reduction targets for our UK operations. Initially focusing on scope 1 and scope 2 emissions, using historical data and years 2018/2019 as the baseline year we have established the following target pathway in line with the protocols of the Science Based Target Initiative (SBTi)[1]:



Scope 1 and Scope 2 emission targets
2030 – 63 % reduction from 2018 /2019 baseline
2040 – Net zero carbon target
2050 – Absolute zero carbon target

Whilst Scope 1 and 2 emissions are significant it is our Scope 3 emissions, the indirect emissions that occur through our value/supply chain, that are a more significant element of our overall emissions. Initial analysis has been undertaken on our Scope 3 emissions using the Greenhouse Gas Protocol (GHGP) Scope 3 categories[2].

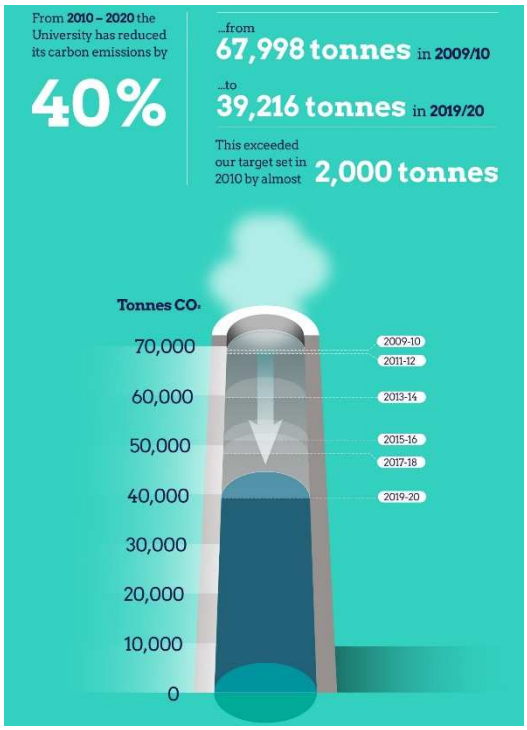
[1] Science Based Targets - https://sciencebasedtargets.org/
[2] https://ghgprotocol.org/scope-3-technical-calculation-guidance

Accurately measuring Scope 3 emissions remains a challenge but this area is fast developing. Using a combination of the GHGP and the Higher Education Supply Chain Emissions Tool (HESCET), **the University's Scope 3 emissions in 2018/19 are calculated to be in the region of 160,000 tonnes, just under 80%** of our overall carbon emissions. Over 50% of these scope 3 emissions fall into 4 key categories:

- Construction / Refurbishment
- University Travel
- Paper products
- Food and catering

Due to the complexity and uncertainty in relation to the accurate calculation of Scope 3 emissions, we have not include Scope 3 emissions (those associated with our supply chains) within our explicit Net zero target. For scope 3 emissions, our plan focuses on four key areas: business travel, food, paper use and construction and refurbishment. Together these account for more than half of our Scope 3 emissions. Work is underway to more accurately measure and manage emissions from these sources.

Building on our past success



For a number of years, we have set ambitious targets to deliver meaningful change. In 2010 the University, in response to an initiative led by the Higher Education Funding Council for England (HEFCE) and in line with Government policy, developed carbon reduction targets and launched a Carbon Management Plan (CMP) with the aim of reducing our Scope 1 (predominantly gas combustion in boilers) and Scope 2 (electricity use) emissions for buildings for which we have operational control. At the end of 2019/20 the University had reduced its emissions from 68,000 tonnes in 2009/10 to 39,216 t CO_2 and exceeded our target of 41,000 tonnes set in 2010. Further detail on our performance to date can be found at:

https://www.nottingham.ac.uk/sustainability

The significant progress was largely due to success in a number of key areas:

Decarbonisation of the power (electricity) grid

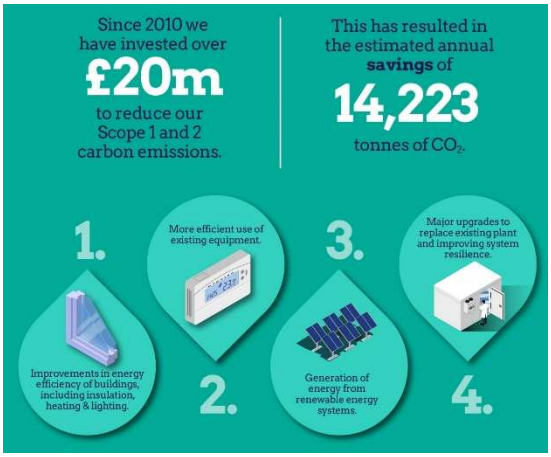
Since the 1990s, emissions reductions in the power sector have accounted for a significant proportion of the UK's overall emission reductions. The power sector's emissions have halved over the last decade, in part due to a substantial reduction in coal-fired generation and a corresponding increase in the share of renewables in the energy mix. This has delivered significant carbon emissions reduction to us and will continue to do so as the grid further decarbonises

Investing in energy efficiency projects

Drawing on a combination of external and internal funding we have invested in a large number of projects to date, including plant replacements, lighting upgrades, insulation works, improved controls, thermal upgrades as well as significant investment in fume cupboards.

Investing in on site generation

We have proactively increased our capacity to generate and distribute smart renewable and low carbon energy on-site across our estate. We have more than 20 solar energy generation schemes across the Estate, including a 1,000 m2 solar array on the School of Veterinary Medicine and Science building.



Across the estate we have incorporated various renewable low carbon technologies including:

- Air source heat pumps
- Combined Heat and Power (Biofuel)
- Ground source heat pumps
- Lake source heat pumps
- Biomass boilers
- Solar thermal

Upgrading and investing in our Estate

Over the last decade we have continued to invest in our Estate both in terms of new buildings and also major refurbishments. Sustainability has been a key element of new building and refurbishment plans and we have aimed for the very highest standards. For example, the GSK Carbon Neutral laboratories were awarded BREEAM outstanding and LEED Platinum certification – some of the highest levels of green building certifications.

Developing our plan

As well as working in partnership with specialists teams within the Estate office to develop this plan, we have undertaken a range of activity to ensure our approach is consistent with local and regional carbon targets:

Stakeholder engagement

In developing this plan we have invited expert input from academic experts and specialists within the Estate office. We have hosted workshops to engage directly with the University community to help understand and shape the plan and the proposed actions. We will continue to engage students and staff in the ongoing oversight, review, and development of the plan through our established 'go!' campaign launched in 2021.

Scope

Our plan focusses on our on-site carbon emissions (scope 1 and scope 2) which are under our direct control, such as emissions from fuels and heating sources for our UK operations. It should be noted that the new Science based approach has brought into scope additional areas within scope 1 previously not included within our reporting (fugitive emissions).

Leadership and Governance

The Environmental Sustainability committee are responsible for the oversight, implementation and review of the Carbon Management Plan, but it is the *collective responsibility* and actions of all members of our University community that will be key to successful delivery of our ambition. The day-to-day lead for the delivery of the plan will be through the through the Estate office development plans and Environmental Sustainability operational sub group.

Reviewing and reporting our progress

The University will review and report the progress through the performance framework and we will continue to report performance in the well-established annual Environmental Sustainability Report.

Resourcing this plan

We will need to support our ambitious Carbon Management Plan with appropriate levels of financial investment. The delivery of the reduction targets will require significant capital expenditure over the next decades. This investment will be through both explicit carbon reduction projects such as the University Park district heating scheme and solar power projects

but also through embedding the plan in the delivery of broader campus planning projects, the capital backlog replacement programme and capital investments such as Project Stay. Reducing emissions from the estate we have now is going to be key – through the refurbishment and improvement of the building envelope. Project Management Groups will be tasked with ensuring our standards and policies are effectively implemented.

Data, information, and assumptions

Unless otherwise stated, data and information provided within this report relate to the University's academic year, which runs from 1 August to 31 July. The baseline year used to calculate the carbon emission reduction was academic year 2018-2019. Carbon emissions projections for electricity and gas are based on estimates from the Department for Business, Energy, and Industrial Strategy (BEIS) Energy and Emission Projections.

Delivering our ambition

The challenge ahead is significant in terms of delivering against our scope 1 and scope 2 target. Some of the bigger challenges include:

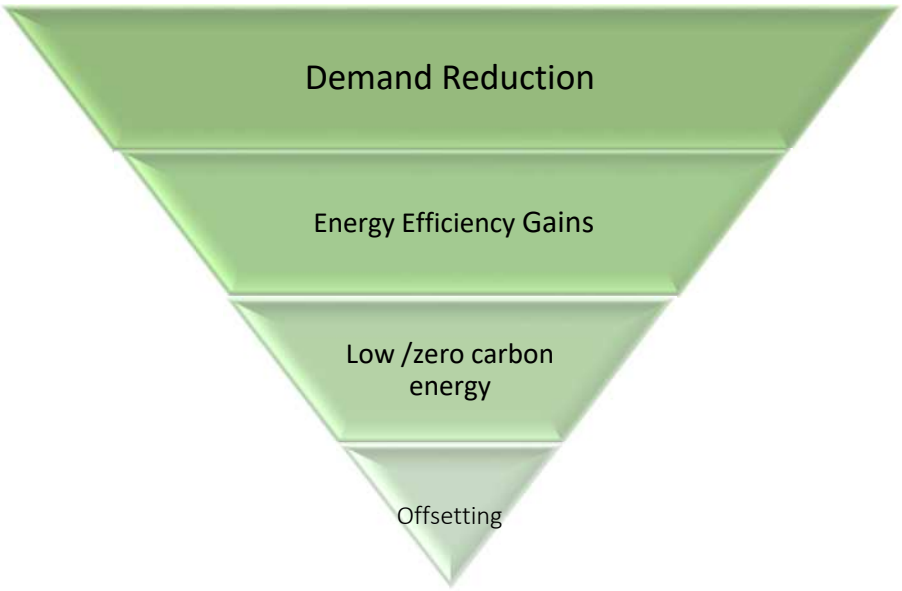
- Financing investment;
- Decarbonisation of heat in an aging estate (removing gas);
- Future growth – targets will be absolute not relative;
- Delivering Renewables at Scale;
- The role of zero carbon Power purchase agreements;
- Net / Absolute/ In-setting / off-setting;
- Replicating this across our international locations.

Energy use for building power, heating and cooling represent over 98% of our scope 1 and scope 2 emissions. Reducing Scope 1 and 2 emissions will be achieved through a combination of interventions by Government policy and interventions by the University itself.

We have seen a rapid decarbonisation of the national electricity grid over the last decade as a result of government interventions. However, the national gas grid has seen no reduction in its carbon intensity during this time as the vast majority of currently installed boiler and heating technology are designed to be fuelled by 100% natural gas only.

Our carbon reduction ambition will be delivered through a combination of policy changes, people and investment in projects, and we will use the carbon management hierarchy to prioritise interventions.

To meet our 2030 target, we will need to reduce our carbon emission by 26,848 tonnes.



There is no single intervention that will deliver our ambition. To achieve our objectives we need a blend of interventions that will need to be delivered over the next decade to deliver our 2030 target. As most of our estate and the electricity and gas transmission and distribution systems are already existing, most of our work will involve retrofit and refurbishment projects and will be supported by strong policy and engagement activity that will drive down demand for energy consumption.

There are few 'one size fits all' approaches that can be taken and each building will need to be looked at closely depending on location, age, condition, function, ownership, and future changes. A combination of the following interventions will be adopted to contribute to delivering our target:

Measure to manage

In order to reduce energy demand, it is essential that we understand where, when and how energy is being consumed and a good metering strategy is key to this. We have some metering across our Estate and will need to build on this. Metering alone won't deliver carbon reductions but is an essential tool to target interventions and deliver carbon savings. It is also a key tool to enable and facilitate positive behaviour change.

Engagement and Collaboration

Over the last decade we have conducted various engagement schemes and projects. We actively engage with our staff and students on carbon reduction through our Sustainable

Technicians initiative, Green Rewards Scheme, Go Campaign, and our network of Environmental Coordinators.

It is essential that we build upon this work. It will be impossible for us to meet our net zero and other carbon targets without the support and efforts of the entire University community and assistance from partners outside of the University. In the region of 75% of our electricity use is directly influenced by individual's actions.

Externally, we collaborate with bodies including local authorities through the Universities for Nottingham initiative, The Nottingham Green Partnership, the general public and other commercial and research partners. We also work closely with our public sector neighbours in the Nottingham University Hospitals NHS to share best practice and experiences in search of our common goals.

Our Engagement Plan will describe our goals, targets and empower the University community to take positive actions.

Smarter Buildings

A large proportion of our buildings have a Building Management System (BMS) with thousands of sensors across the estate measuring a whole host of conditions (temperature, humidity and CO_2 levels). The system is designed to deliver optimum conditions within spaces and controls the operation of the primary building services on a day-to-day basis. These systems can provide great opportunities for improvements in carbon reduction. The opportunity exists to upgrade and expand the current BMS systems to provide a greater degree of smart building control through additional monitoring and intelligence. Further benefit (preventing reactive maintenance costs, increasing the useful life of assets, and driving a smarter workforce) could be delivered through the use of Artificial Intelligent and neural learning.

Improving Thermal Efficiency

The complexity, age, and construction of our buildings result in differing thermal properties, with some being very poor at retaining heat and maintaining appropriate internal temperatures. As such a major investment is needed to improve their thermal performance, thereby reducing heat and carbon demands.

The extent of the works required will vary from building to building and will include elements such as upgrading roofs, walls, glazing and floors by introducing high levels of insulation. Improving the thermal performance of our buildings is a key enabler to decarbonise heat and introduce heat pump technology to our buildings.

Infrastructure investment

This area of work covers the majority of the building services engineering plant and equipment replacement and includes heat sources such as boilers, chilled water plant, ventilation plant, heating and hot water circulation pumps, lighting and lifts etc. Ongoing work continues with the replacement of many of our ageing engineering assets such as boilers, chillers, smaller AC units, pumps, fans, and controls etc. This capital backlog replacement programme will contribute to improvements in system resilience, reduce operating cost in terms of reduced energy consumption and reduced reactive maintenance and will also deliver carbon emission reductions.

End of Life Equipment

There is a need for all departments, particularly those involved in energy intensive research, to replace any end-of-life equipment/appliances with high energy efficiency products. To support this we will be developing guidance and minimum specifications in conjunction with technical experts.

Digital Infrastructure

Our digital infrastructure is a key enabler to allow us to operate as a business. The operational emissions of our digital infrastructure accounts for approximately 7% of our scope 2 emissions. Opportunities exist to continue to embed low carbon principles into the selection and implementation of digital solutions, particularly in relation to scope 3 (indirect) emission impact of cloud providers, as well as supporting the delivery of agile working.

Low Carbon Electricity – Onsite Generation

We currently have 22 roof top solar PV systems comprising of over 3,000 panels with an installed capacity of almost 800kW. These generate over 600,000 kWh per year displacing 135 tonnes of CO_2 from 'grid' supplied power and saving around £65,000. However, this equates to less than 1% of our total electrical consumption. We are undertaking work to identify opportunities to significantly increase the amount of renewable energy we. Examples include:

- A ground based 20MW installation would provide an annual output of around 17,340 MWh which is about 20% of our total consumption and would displace almost 4,000 t of CO_2 at current grid carbon intensities. This scheme would require a significant amount of land in the region of 100 acres and would require 1 to 2 years to mobilise in terms of establishing exact location, suitable 'grid' connection along with all the necessary planning procedures etc. Due to the costs involved with this scheme we are exploring other ways to delivery this project involving joint partners with others wishing to pursue seem ambitions and developers who are looking to form long term partnerships.

- Riverside Solar and windfarm. In 2012 the University was unsuccessful in obtaining planning permission for three 2 MW turbines. However, the political landscape has changed significantly since then and the City of Nottingham now has ambitious target of net zero carbon emissions by 2028. The proposal for the new scheme could be for a number of smaller wind turbines, up to eight 500kW and a ground-based PV array of up to 2MW. This would generate around 10,500MWh of electricity or around 20% of the total consumption of University Park campus, worth around £1m a year and displacing 2,364 t of CO_2 at current grid carbon intensities. 500kW wind turbines are still a substantial structure typically with a hub height of 50m and a total maximum blade tip height of 70m

Low Carbon Electricity – Procurement

We are also exploring options to procure more renewable energy. By investing directly in renewable power through a Power Purchase Agreement, we have the potential to meet 100% of the University's electricity demand from a carbon-free source.

The energy is 100% renewable with auditable technology (usually from large scale wind or solar PV) and source (location specific, and always British) detailing its provenance. Reportable as a zero carbon factor against greenhouse gas reporting protocols (GHG), PPA's are an extremely positive way of supporting Net Zero aspirations. As an extra safeguard the associated and secured REGOs are retired, and evidenced, as the power is supplied in each reporting compliance year, which prevents them being double counted and avoids the risk of them being re-sold.

Decarbonising Heat

The greatest challenge in delivering our ambition is the decarbonisation of heat (primarily for heating spaces and water within our buildings). Currently the vast majority of our heat is generated using natural gas, emissions from gas make up around 50 % of our total scope 1 and 2 carbon emissions. Whilst the carbon intensity of the UK electricity grid has reduced and will continue to do so, gas supply is not expected to decarbonise significantly over the next 20 years or so. Therefore, to ensure our total scope 1 and 2 emissions continue to reduce on line with our Science Based Target, we need to take action to significantly reduce the use of gas across our estate.

Improving the thermal performance of our buildings will allow us to move towards alternative heat options, and we are proactively investigating the suitability of installing low carbon heat technology as part of the capital backlog replacement programme which includes replacing existing gas fired boiler plant. As we transition away from gas heat pumps will likely become our primary source for heating and hot water.

Alternative solutions such as blending hydrogen or other 'green' gases into the national gas network remain at an exploratory phase. The University has academic strengths in Energy Systems and we aim for our campus to be a test-bed for innovation and research – including exploiting opportunities for carbon reduction arising from our own research.

Offsetting, carbon capture and storage

We recognise that whilst unpopular, the role that offsetting plays in a comprehensive approach to carbon reduction and we are committed to only using it is a last resort to offset those emission that cannot otherwise be removed.

A carbon offsetting working group has been established to develop an internal policy on offsetting and is likely to include a portfolio of measures. The Initial focus of an internal scheme is likely to be on emission from University Business Travel as there is an increasing requirement from a number of funding bodies to have scheme's in place.

Recognising the complexity of offsetting we are working with the Environmental Association of Universities and Colleges and the COP26 Universities network to get a better understanding of what schemes are available and how they work.

Policy Interventions

The delivery of our carbon plan will need to be supported by a broad range of policy and specification documents that will help guide and support investment decisions and design. This will need to include complex specifications and standards to support the construction and major redevelopment of our estate, including a review of the environmental standards that we aspire to build to. Estates and Infrastructure committee have recently endorsed a use-of-gas policy, which states that all new build projects should be designed without natural gas supplies and deep refurbishment must include high levels of thermal insulation to all the main building elements so as to allow heating systems to operate at low temperatures to enable no-gas/ low-carbon heat sources (such as heat pumps) to operate effectively

The principle behind policies will be to support the delivery of net zero scope 1 and scope 2 emissions and minimising scope 3 emissions both during construction and operation. Work has begun on developing many of these policies and standards.

- Construction specification
- Refurbishment specification
- Glazing policy
- University Vehicle policy

- Scope 3 emission policy changes
- Use of Refrigerants policy – gas choices
- Carbon offsetting policy

The Impact of Growth and refurbishment

Over the next few years, the size and shape of the University estate is likely to evolve and change as the acquisition of new buildings and campuses and demolition and disposal of others plays out. We will embed low carbon principles into this process and ensure that pipeline and future projects embed the principles and polices of delivering low carbon solutions across all 3 scopes.

To put this into some context the purchase and creation of the Castle Meadow campus could increase overall annual scope 1 and scope 2 emissions by around 2,100 t, although there are opportunities to significantly reduce this through the deep refurbishment program delivered in line with the interventions described above. This needs to be considered against the alternative of new build which would carry a scope 3 carbon impact of construction of around 26,000 tonnes.

Similarly the proposed refurbishment of the Tower building and Project Stay provide the opportunity to deliver reduced scope 1 and scope 2 emissions and minimise scope 3 emissions through the construction process.

Generally each 1,000m2 of new build comes with an annual operational (scope 1 and scope 2) carbon impact of 35 tCO2/year and a scope 3 carbon impact of 950 t CO2. The actual 'in use' operational carbon impact depends on the type/ use of building and could be higher due to for example, energy intensify research that may be carried out in the new facility.

Driving down scope 3 Emissions

Scope 3 emissions are notoriously difficult to quantify in an accurate way. Due to the complexity and uncertainty of this we have chosen at this time, not to include scope 3 emissions within our explicit Net zero target. Instead we shall focus on key areas to reduce our impacts, whilst at the same time work with the sector to further develop methodologies to facilitate the accurate reporting and target setting for scope 3 emissions in these key areas.

This plan will evolve and is under constant review and we will develop explicit scope 3 targets by the end of 2024. The initial areas we are focussing on are:

Construction & Refurbishment

Clearly there are opportunities to drive down our scope 1 and scope 2 emissions through our construction and refurbishment activity and this will be delivered through policy development and specifications. The construction industry is starting to consider the scope 3 emissions and there are various tools that have been developed to calculate the carbon emissions of construction projects and we are trialled the use of some of these with our design teams.

The amount of construction we do year on year varies significantly and as such it is unlikely to be appropriate to apply an absolute target for projects, however we will introduce a benchmarked target for scope 3 emissions of projects, which is likely to align with the Royal Institute of British Architects' (RIBA) 2030 'Climate Challenge' target for embodied carbon from nondomestic buildings

University Travel

University travel is an important tool for us, it enables us to carry out collaboration, carry out research, knowledge sharing with partnerships across the globe, contributes to our global reach and allows our students and staff to attend opportunities abroad. At the same time, business travel, particularly flying has a significant environmental impact.

As a community we travel for a variety of business needs, using a range of modes and to a number of different destinations across the globe. In the last full pre Pandemic reporting year (2018 – 2019) we travelled more than 870,000 car business miles, took just under 15,000 known flights (we recognise that a proportion of flights weren't captured through the systems due to people booking direct) to over 520 destinations clocking up some 31 million air miles and generating more than 10,000 tonnes of carbon from flights. – This data doesn't include any student flights to and from their home countries.

Climate change is one of the most significant global challenges of the century. When considering climate change, flying is one of the most carbon-intensive single actions an individual can take.

At present it is unclear how business travel at the University will look in the medium- or long-term. The impact of Covid-19 has shown that existing tools such as Microsoft Teams, Zoom and Skype are effective at replacing some in-person meetings.

Recognising both the necessity and uncertainty of business travel but also its climate impact we have begun a consultation exercise to help better understand and shape potential interventions to reduce the carbon impact of travel and transition to a more climate conscious approach to travel. – This is likely to include a host of measures and interventions, including carbon off setting.

Food

Food is something that unites us all but, producing food requires significant resources including land, energy and water. Globally, 25–30% of total food produced is lost or wasted, and food waste is estimated by the Intergovernmental Panel on Climate Change to contribute 8-10% of total man-made greenhouse gas (GHG) emissions. If food waste were a country, it would be the world's third largest emitter after China and the USA.

Through our new catering strategy and working with key stakeholders we will look to drive change through our supply chain and also give individuals the tools and support to enable them to make informed decisions. There are opportunities to align our aspirations in this area with external commitments such as the Courtauld Commitment 2030. This is a voluntary agreement that enables collaborative action across the entire UK food chain to deliver farm-to-fork reductions in food waste, greenhouse gas (GHG) emissions and water stress that will help the UK food and drink sector achieve global environmental goals.

Funding our ambition

It is essential that we support our ambitious Carbon Management Plan with appropriate levels of financial investment. The delivery of the reduction targets will require significant capital expenditure over the next decades. This investment will be through both explicit carbon reduction projects but also through embedding the plan in the delivery of broader campus planning projects, the capital backlog replacement programme and capital investments such as Project Stay.

To support smaller scale projects we will seek to establish a small revolving green fund

Potential scale of funding required (indicative costing)

Intervention	Investment
Building Fabric upgrade	£200m to £300m
Metering	£2m
Improved Building management system	£5 m
20Mw solar PV farm	£15m
Riverside solar and windfarm	£15m
Large scale heat pump deployment	£25m
Plant and Infrastructure replacement	£10 - £20 million per annum
Carbon offsetting	£3 - £1,200 per tonne

Each project will be assessed on a business-case basis through existing governance routes, and there are a number on internal and external funding mechanisms to support delivery.

Internal opportunities

- Capital Backlog Replacement Programme
- Long Term Maintenance
- Strategic Capital Funds

As well as internal funding sources we will seek to maximise the use of external sources through Government Decarbonisation funds and other low carbon funding which may include:

Salix Finance

Salix provides interest-free Government funding to the public sector to improve energy efficiency, reduce carbon emissions and lower energy bills. Salix is funded by the Department for Business, Energy and Industrial Strategy.

Energy Service Contracts

Energy service contracts could enable the installation of single or multi technology services solutions funded by 3rd party finance. The University would benefit from the efficiency savings and pays a unit rate or tariff across the lifetime of the asset.

Power purchase agreements (PPA's)

A PPA is an agreement between an electricity generator and a customer under which an agreed amount of 100% guaranteed renewable power is purchased directly from the generator for a fixed period of time, from as few as 6 to as many as 25 years

These investments, combined with a focused engagement strategy, will deliver a sector-leading, rapid and just transition to net zero that enhances the student experience, community wellbeing and our international reputation. Over time, this will also transition to our international campuses.