Campus Management Climate Action Plan

This Plan sits alongside the Campus Management Climate Action Policy, which sets our policy commitments to achieve carbon reduction towards net zero and the effective management of environmental impacts, in line with the Campus Management strand of the Climate Action Strategy and the University's ISO certified environmental and energy management systems.

It sets out long and short term objectives for each policy commitment to both achieve the University's carbon goals, and where relevant, the reduction of other relevant environmental impacts identified through the ISO systems. This version of the Campus Management Climate Action Plan includes long term targets to meet 2030 commitments as well as short term objectives to complete in the 2023/24 year.

Progress against these objectives will be monitored and reported annually to the Climate Action Strategy Group, and the Campus Management Monitoring Tool will be used as a live document to project actual energy consumption and annual targets as well as the potential carbon impact of actions whilst recording achievements to continually monitor progress against the 2030, 2038 and 2050 targets of the University's Climate Action Strategy. The tool will be used to highlight where targets are or are not being achieved, with findings inputting into annual reviewed objectives to ensure they remain as accurate, relevant and realistic as possible.

Plan Commitments

Campus Energy Management

(Scopes 1 and 2)

2018/19 Baseline footprint

- 8,046,229 kg CO_2e
- 36,484,350 kWh

2030 Target reduction net zero on direct emissions

Purchased electricity and heat used on the estate equates to a sizeable proportion of the Scope 2 carbon footprint for SHU. A considerable proportion of the potential savings of the University's Scope 2 carbon footprint is projected to be achieved through grid decarbonisation over future years (to 2030), the remainder of the potential savings will be achieved through developing a smaller, better utilised and more energy efficient estate, details of which are identified below within the Campus Development section, a commitment to the procurement of 100% green energy and through ongoing effective energy management.

It has been identified that to further improve energy reporting and management, building level targets would improve the University's ability to have an overview of consumption and better targeted energy projects. The University is committed to maintaining university wide energy and carbon reduction, consistent with the downward trajectory achieved in the application of the previous Environmental Plan. To achieve this, a 'Climate Action Readiness Plan' will be created to establish a more detailed baseline of carbon (and equivalent) emissions across the campus at building level and develop bespoke targets and action plans based on this to achieve in the long term.

To achieve these long-term objectives, the following actions have been set for the 2023/24 year:

- Conduct carbon assessment of key buildings across the estate in preparation for building level target setting
- Create energy plan for each key building using DEC data as baseline
- Use increased resource to analyse energy data to identify savings through small projects and interventions, to reduce baseload consumption across the estate
  Begin process of purchasing energy that meets UKGBC (UK Green Building Council) criteria to be recorded as 100% green.

Campus Development

(Scopes 2 & 3)

- 2018/19 Baseline footprint as above
- Development on campus including physical interventions, planned maintenance and the accelerated campus plan are projected to reduce the direct energy consumed (kWh) by 41% by 2030, with decarbonisation of the grid this is projected to reduce the carbon footprint of the physical estate by 53% compared to the baseline.

The effective development of the estate is one of the most significant carbon savings that can be achieved. The long-term target is to achieve savings outlined above, taken from the Climate Action Strategy, by implementing the accelerated campus plan. In the long term, this will reduce the size of the estate by 30% and ensure the construction of efficient buildings and facilities. In 2023/24 short term objectives are:

- To ensure the accelerated campus plan remains on schedule
- To undertake a full review of the physical and social interventions outlined in the Climate Action Strategy to assess feasibility and develop project plan for 2030

Travel and Transport

(Scopes 1and 3)

2018/19 Baseline footprint

- 30.052 kg CO_2e (Scope 1 – fleet)
- 4,349,589 kg CO_2e (Scope 2 – business travel and commuting)

Target to have a fully electrified fleet by 2024 and halve scope 3 emissions by 2030.

Scope 1 travel is the fuel used by the University's leased vans and vehicles used across the estate, this has decreased through the years as more electric vans have been added to the

fleet and plans are in place to fully electrify the fleet by 2024 on a cyclically replacement programme.

Scope 3 travel is much wider. The staff commute and business travel are areas that have been monitored for years through the ISO systems, however the University has little information on student travel, which, when accounting for overseas students, is potentially a large element of the University's scope 3 carbon footprint. The long-term target is to halve the University's scope 3 emissions by 2030, and be net zero in scope 3 by 2050, however, to achieve this, the University first needs to know how large the footprint is.

During the 2022 year, the University engaged with travel consultants to map the remainder of the University's scope 3 travel carbon footprint and develop a travel plan to meet the long-term targets and encourage active travel through communications, initiatives, infrastructure and the accelerated campus plan. Actions to complete in the 2023/24 year are:

- Finalise and publish a SHU-wide travel plan, and use this to set clear direction for sustainable travel across the University, including establishing an action plan to achieve scope 3 reductions
- Continue electrification of vehicle fleet as projected in Climate Action Strategy (42.68% reduction in CO_2e compared to 2018/19 baseline)
- Complete full baseline for scope 3 travel including student travel through distribution of staff and student travel surveys

Water Management

(Scope 3)

2018/19 Baseline (water and wastewater);

- 92,810 kg CO_2e
- 178,025 m^3

Target to halve scope 3 emissions by 2030.

Whilst water consumption is a small part of the University's Scope 3 carbon footprint, the consumption of water as a natural resource is a significant environmental impact as identified through the University's ISO management systems. The baseline water consumption has decreased, largely due to the COVID-19 pandemic lockdowns and move to hybrid working. Whilst this has become the 'new normal' it is uncertain what a realistic level of consumption will be, especially with the roll out of the accelerated campus plan. Whilst the size of the estate will decrease, the number of people on campus is likely to plateau and point of use water consumption may not fall by a comparable percentage. Long term scope 3 targets are to halve emissions by 2030, however it is felt more data, is required to set better informed long- term consumption targets. Actions to achieve for 2023/24 are:

- Continuous monitoring of consumption and application of reduction projects as identified

- Use data and projects planned to estimate achievable long term water consumption targets

Waste Management

(Scope 3)

2018/19 Baseline;

- 14,825 kg CO_2e
- 706.5 tonnes produced (30% recycled/ recovered)

2030 Targets;

- To halve scope 3 emissions
- To have achieved full roll out of centralised recycling stations across the estate

As with water, the production and disposal of waste is a relatively small proportion of the University's scope 3 footprint, however the disposal of approximately 460 tonnes of waste (2021/22) per year is a potentially significant local environmental impact as identified through the University's ISO systems.

The University has overachieved all waste targets in previous Environmental Plans and put in place many waste management procedures and controls including behaviour change campaigns, provision of segregated streams and diversion of all waste from landfill. It is felt that a move away from data driven targets and focus on achieving high level objectives would have a greater positive influence on the environmental impacts of waste management and any improvement in waste practices would have a positive impact on the Scope 3 emissions. In addition to applying procurement actions as outlined in this plan, which would reduce waste produced, long term waste targets are to achieve a 100% roll out of centralised recycling stations across campus by 2030, which should improve both segregation rates and waste produced, as well as reducing scope 3 emissions embedded within the waste management process. The success of these schemes will be measured in the data, but not driven by it. Annual targets will be set and reviewed to achieve these objectives, for 2023/24 waste objectives are:

- Continued data collection to be maintained as measure of success as roll out of recycling stations continues
- In depth data analysis (recycling rates and quantities) to be undertaken on buildings with the recycling stations already installed, measured success to be used to further the roll out of the waste stations
- Although a baseline scope 3 footprint has been developed in the Carbon Action Toolkit, this has been developed according to sector averages according to weights, by working with the University's waste contractors and looking at the process a much more accurate footprint could be developed. The aim is to calculate average carbon figures per bin collection (or similar calculation to be discussed) and CO_2e of disposal and consequently update the Carbon Management Monitoring Tool.

Green Infrastructure

2018/19 Baseline 273 species on site
Target to increase species and/or provision by 20% by 2030

How the University interacts with and impacts its surrounding environment is potentially significant within the ISO systems and a holistic climate action approach. There are several activities in place which should positively impact the natural environment around the University campus, including the accelerated Campus Plan which will introduce significant new green spaces and the ongoing 3-year Grounds Management Plan, which includes diversifying planting, creation of wildflower areas and encouragement of both flora and fauna onto the Estate. The University has previously undertaken annual biodiversity surveys to assess the number of species on campus, which will continue to be undertaken as a measure of success of these schemes and data used to set ambitious biodiversity targets within the Accelerated Campus Plan. Actions for the 2023/24 year include:

- Conducting the 2023 biodiversity survey
- Incorporate results into Campus Plan targets and remain on track to deliver
- Continue to apply the Grounds Management Plan aligned with outcomes of biodiversity survey

Procurement

(Scope 3)

2018/19 Scope 3 Baseline footprint 27,254,000 kg CO_2e
Target to halve scope 3 emissions by 2030.

Procurement is potentially the largest section on the University's scope 3 footprint, using the Higher Education Supply Chain Emissions tool, it has been estimated at almost 4 times the size of the University's combined Scope 1 and 2 emissions. This includes central procurement, ICT, maintenance as well as food and catering. The University's long-term target is to achieve net zero in Scope 3 emissions by 2050 and to have made significant progress by 2038.

This is the first time the University has mapped its procurement carbon footprint. So far two years' worth of data has been mapped in the Campus Management Monitoring Tool and emissions have been estimated according to spend. These two years demonstrate a wide variation especially in central procurement spending due to COVID lockdowns, IT spending to respond to the move to hybrid and remote working, as well as variations due to onsite construction projects. Whilst it is positive this is now being mapped, a few more years data will provide a more accurate picture.

Procurement across the University presents a large challenge due to the size of activity and number of stakeholders making purchases across all departments. It requires both behavioural and cultural change across the whole organisation and it cannot be tackled by a single workstream or Directorate. Elements of this are included within the Leadership and Governance workstream of the Climate Action Strategy to influence practices and alternative approaches to commit to carbon and ethically responsible decisions whilst moving towards holistic assessment of supply chains embedding full lifecycle implications into decision-making. Within the Campus Management workstream, procurement impacts are most evident within the catering environmental risk profile, particularly local impacts. Long term ambitions include moving towards a more plant based and locally sourced menu, with over 50% sourced from within the Sheffield City Region, delivered through the Hallam Sustainable Food Policy. Actions to achieve over the 2023/24 year include:

- Continuing to use and develop the Hallam Sustainable Food Policy and begin to develop sustainable food metrics and KPIs to incorporate into the long-term plan
- Measure and report on % food purchased from Sheffield City Region

Beyond Campus Management

Whilst the above Campus Management Climate Action Plan covers all areas of potentially significant environmental risk on campus as identified through the ISO management systems, there are areas that span across multiple strands of the Climate Action Strategy, such as procurement which require a collaborative and integrated approach which will be applied throughout the project. Another of these is offsetting, whilst the majority of actions to achieve net carbon zero in scope 1 and 2 emissions by 2030 sit within Campus Management, it is likely that some offsetting will be required. Leaving this until the plan and strategy is significantly underway to see the success of schemes could result in a large expense. Having started in 2023, the University commenced assessing likely successes through the Campus Management Monitoring Tool which supports with calculating and identifying an annual offsetting budget. Due to large potential budget implications, this sits outside of Campus Management, within the Governance and Leadership strand of the Climate Action Strategy, however monitoring, measuring, progress and actions undertaken as part of this Plan will be provided to inform offsetting decisions.

Further Information:

Campus Management Climate Action Policy
Sheffield Hallam Climate Action Strategy - 2023.pdf