Environmental Sustainability Report

2018-2019

I ♥ MY Campus

LIVERPOOL HOPE UNIVERSITY
Est. 1844

Welcome

Welcome to this progress report which summarises the activities, initiatives and projects undertaken during the 2018-2019 academic year. The report also details progress against the key goals set out in the 2017-2018 annual report.

Commitment

Sustainability is central to the University's Mission and Values and is included within the University's Corporate Plan Key Goals 2016-2020, which commits the University to:
- redouble its efforts to engage students in learning to live responsibly and to instil virtues of global responsibility;
- continue to seek value for money in all its activities and regularly review its purchasing, budgeting and operating procedures;
- reduce the University's carbon footprint by reducing utilities by 25% [from the 2005-2006 baseline] plus a 2.5% year-on-year carbon saving between now [2015-2016] and 2020;
- include environmental sustainability into all refurbishments and new build projects;
- ensure space utilisation is optimised; and
- maintain and enhance a high quality estate that is inspiring, aesthetically pleasing, welcoming and accessible, using the best technological solutions were appropriate

The University's draft Sustainability Strategy (2015-2016 to 2020-2021) aligns with, and directly supports, the delivery of the Corporate Plan Key Goals and defines the objectives and targets to maintain, and where possible, enhance the quality of its environment for its staff and students living and working at the University in eight key impact areas; namely: Awareness and Engagement, Utility Management, Travel and Transport, Waste Management, Campus Development, Procurement, Sustainable Food and Biodiversity and Landscape. The targets contained within the draft Sustainability Strategy informed the 2017-2018 annual report key goals.

Governance

The Sustainability Manager will facilitate the implementation of the actions and will lead on the Awareness and Engagement, Utility Management, Travel and Transport, and Waste Management impact areas, working with other departments as required. The Campus Development, Biodiversity and Landscape, Procurement and Sustainable Food impact areas are managed by Estates, Procurement and Catering with input from the Sustainability Manager as required.

The overall responsibility, and accountability, of the sustainability agenda sits with the University Council and the Office of the Vice Chancellor. Whilst the University accepts the main responsibility, all staff, students and visitors have a very important role to play in managing material and resources responsibly and accounting for the impacts of their individual choices and actions. Every one of us is able to make a positive contribution.

Author: Dr Suzanne Moody
Date: September 2019

Community Awareness and Engagement

Awareness and Engagement continues to play a critical role to ensuring that the key goals set out in the Corporate Plan, draft Sustainability Strategy (2015-2016 to 2020-2021) and 2017-2018 Annual Report are met.   All activities are branded as I ❤ MY Campus and we are continuing to increase our activities and making it hard not to notice the sustainability agenda.

All awareness raising methods are essential to promote and publicise details of our activities and the progress that we've made.

Regular **communications** are released via:
- Social Media – via the Living Sustainable at Hope Facebook page. Information is posted at least twice a week, including 'Top Tip Tuesday'
- Sustainability Website
- Hope Bulletin - including utilities performance update, promotion of the Switch Off Over Christmas event and the numbers of cups saved since the introduction of a 25p charge
- Campus Screens – including Pack For Good and the Cycling and Walking Event
- Presentations and workshops – such as the Procurement Working Group, Education Faculty Forum, Women's Network (the I ❤ My Campus Challenge was used to demonstrate how participating in the Challenge has developed the team's leadership skills)
- Publications and newsletters – including the student induction essential information and notebook; accommodation moving in guide; staff induction booklet; and alumni newsletter (November)

Events have been held throughout the year to showcase sustainability within the University, including:
- A stand at Fresher's Fair to promote waste and recycling
- Cycling and Walking Event – attended by I ❤ MY Colleagues, Living Streets, Arriva and Merseyside Sports Partnership
- University Mental Health Day – stand promoting safe cycling, Hope Park tree walks, Cyclescheme, Arriva Click, Arrive bus discount tickets, drive smarter, a cyclist's breakfast and a cycle ride between Aigburth Park and Hope Park led by the Aigburth local councillor and British Cycle Leader.
- Cycle ride around Calderstone's park from Hope Park
- #winterwoolly competition was launched at the end of November with the staff prize being awarded at the Christmas Carol Service
- New Year, New You
- University Mental Health Day, featuring the University premiere of the Closing the Loop documentary

The **I ❤ MY Campus Challenge** is one of the main ways that staff and students can engage with the sustainability agenda through the completion of a series of quick and simple actions. The Challenge was launched to staff and students in November.

Staff teams compete against each other to complete the actions between November and April, are audited by other teams in the Challenge and then presented with their awards by the Vice Chancellor at the end of the academic year. Information and support is provided through regular emails, Facebook posts and workshops. This year seven team completed the challenge (compared to ten teams during 2017-2018). The Challenge welcomes and encourages innovation and this year members of the Personnel team have set

up and run the Walkers / Terracycle crisp recycling scheme, with over 1,000 bags being recycled from just three offices in six months. The scheme is now adopted by offices and teams across the University.

Students in halls compete against each other to reduce their electricity consumption (between October and April) and whichever hall reduces its consumption (per student) by the most wins an end of year celebration. The student challenge is run via Facebook with weekly 'Top Tip Tuesdays' providing energy saving hints and tips. Between October and January only five of the eleven (measurable) halls had reduced their electricity consumption per student compared to last year.

KEY GOALS for 2018-2019

Theme	Commitments	Priority	Progress
Policy & Procedures	• Approval of the Sustainability Strategy and the Carbon Management Plan 2015-2016 to 2020-2021	High	No progress – still in draft
Communication & Information	• Continue to develop and establish activities, and raise the profile of I ❤ MY Campus	High	Ongoing.
Communication & Information	• Enhance coherence of all activities and achievements cross the University	Medium	Ongoing.
Communication & Information	• Form a close working partnership with the Student's Union and other student focussed departments to ensure greater engagement with our student body	High	Ongoing. Limited progress made
Project	• Deliver a successful I ❤ MY Campus Challenge	High	Ongoing. The Challenge requires a refresh to ensure that it is relevant and engaging for both staff and students.
Control & Reporting	• Provide regular progress reports to all stakeholders	Medium	Ongoing.
Personnel	• Recruit a network of sustainability champions from across the University to become the 'eyes and ears' of sustainability and engage with their colleagues to encourage department / faculty specific actions to be taken and also provide a method for feedback and to report on available opportunities	Low	No progress.

Carbon Management

The University collects and measures its carbon emissions (Scope 1 – gas, fugitive emissions and fuel used within University owned or leased vehicles (fuel); Scope 2 – electricity; and Scope 3 - water consumption and waste water disposal, recycling and waste disposal, staff and student commuting, business travel and supply chain).

Carbon Management is not one of the key impact areas as defined in the draft Sustainability Strategy (2015-2016 to 2020-2021), but it commands its own section as the subsequent impact areas (excepting Biodiversity and Landscape) produce carbon emissions. These emissions form part of the Corporate Plan Key Goals and are reported in the Estates Management Record (annual data submission to the Higher Education Statistics Agency), though Scope 3 emissions are reported voluntarily.

Corporate Plan targets

The 2015-2016 to 2020-2021 gas, fuel and electricity carbon emission reduction target is an:

Annual reduction target: 2.5% from 2015-2016
i.e. at least 12.5% between 2015-2016 and 2020-2021
(reducing carbon emissions from 5022 to 4394 tonnes CO_2e)

For HEFCE requirements[1] this is equates to a 25.9% by 2020-2021 from a 2005-2006 baseline (reducing emissions from 5928 to 4394 tonnes CO_2e).

---
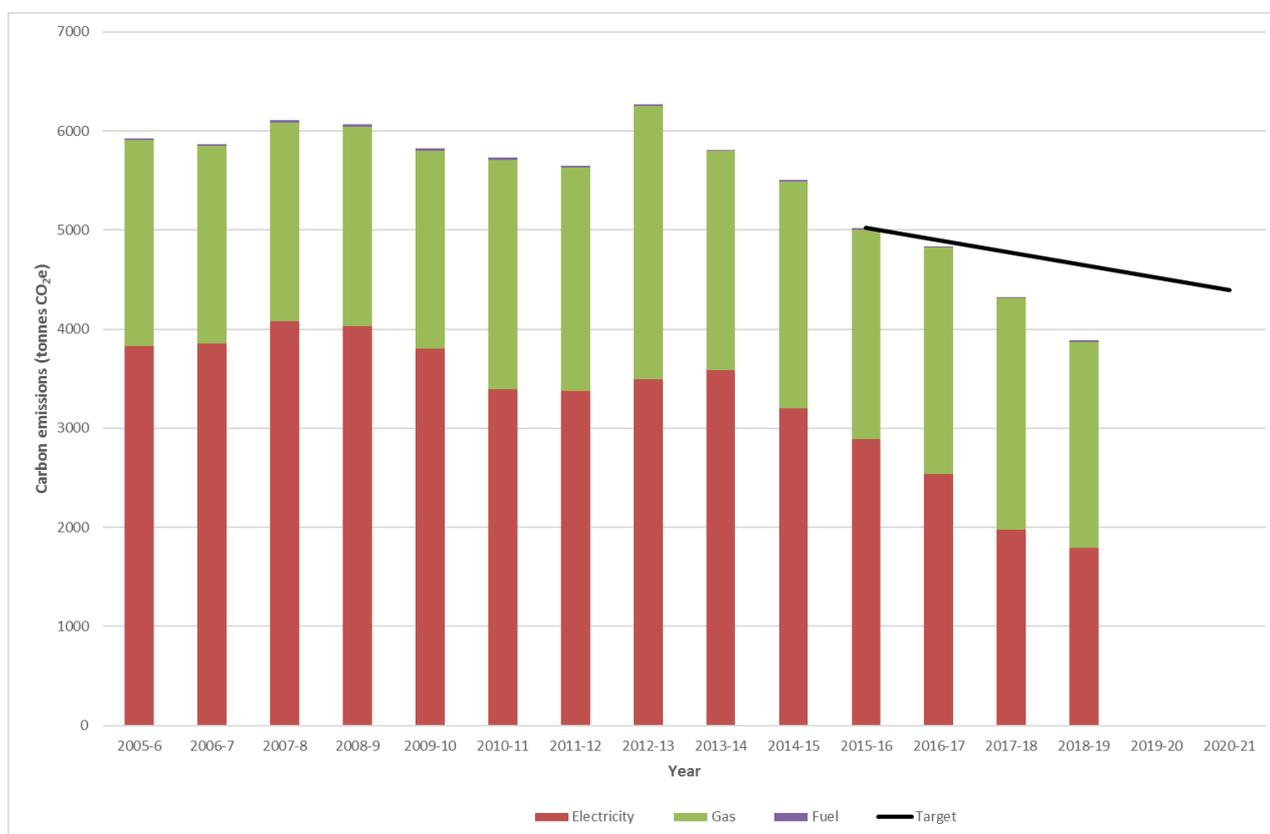
[1] The Higher Education Funding Council for England stated that Higher Education needs to play a part in meeting national targets for carbon reduction; and that it was uniquely placed to lead the way. The carbon reduction target and strategy for higher education in England (January 2010/01) statement of policy required all institutions to set their own reduction targets for 2020 against a 2005 (August 2005 to July 2006) baseline to contribute to the sector target of a 29% reduction by 2017-2018 and a 43% reduction by 2020-2021. A 2005 baseline was chosen as it is used for reporting against UK targets and it was demonstrated that robust Scope 1 and 2 data are available for this year at an institutional level.

Scope 1 and 2 emissions

The gas, fuel and electricity carbon emissions, see Table 1, continues to show a positive downwards trend and the University has reduced its emissions to 3,885 tonnes CO_2e, a reduction of 10.2% from last year. This means that the University continues to limit its emissions below the 4394 tonnes CO_2e target set within the Corporate Plan.

	2005-2006		2015-2016	2016-2017	2017-2018	2018-2019	% change from 2005-2006
Gas (Scope 1, 3)	2,079		2,111	2,282	2,340	2,076	-0.1
Fuel (Scope 1, 3)	16.5		16.4	15.9	12.4	15.0	-9.1
Electricity (Scope 2, 3)	3,832		2,895	2,542	1,974	1,794	-53.2
TOTAL	5,928		5,022	4,840	4,326	3,885	-34.5

These reductions, however, are predominately caused by continuing decrease in electricity carbon conversion factors (i.e. the factor used to convert kWh to carbon emissions). The conversion factor has reduced annually from 0.58878 kg CO_2e in 2005-2006, to 0.5168 kg CO_2e in 2015-2016 to 0.31598 kg CO_2e in 2018-19 because of the higher proportion of gas and renewables used to generate the electricity, replacing coal. However, a number of carbon reduction projects have also been implemented including the installation of Building Management Systems across the majority of the estate; a rolling programme of LED installation, replacing single with double glazing, roof repairs with increased insulation; and increased awareness and engagement activities.

Scope 3 emissions

Scope 3 emissions are the most significant contributor to the University's carbon footprint (~70%), which are a consequence of our actions, but occur at sources which are not owned or controlled by us. The data shown is still incomplete and does not show our full Scope 3 impact with limited data included from construction waste and recycling and business travel (limited resources are available to interrogate the data from payroll expense claims and Barclaycard purchases) from 2015-2016 and the 2018-2019 procurement / supply chain data has not yet been received from the North West Universities Purchasing Consortium (NWUPC).
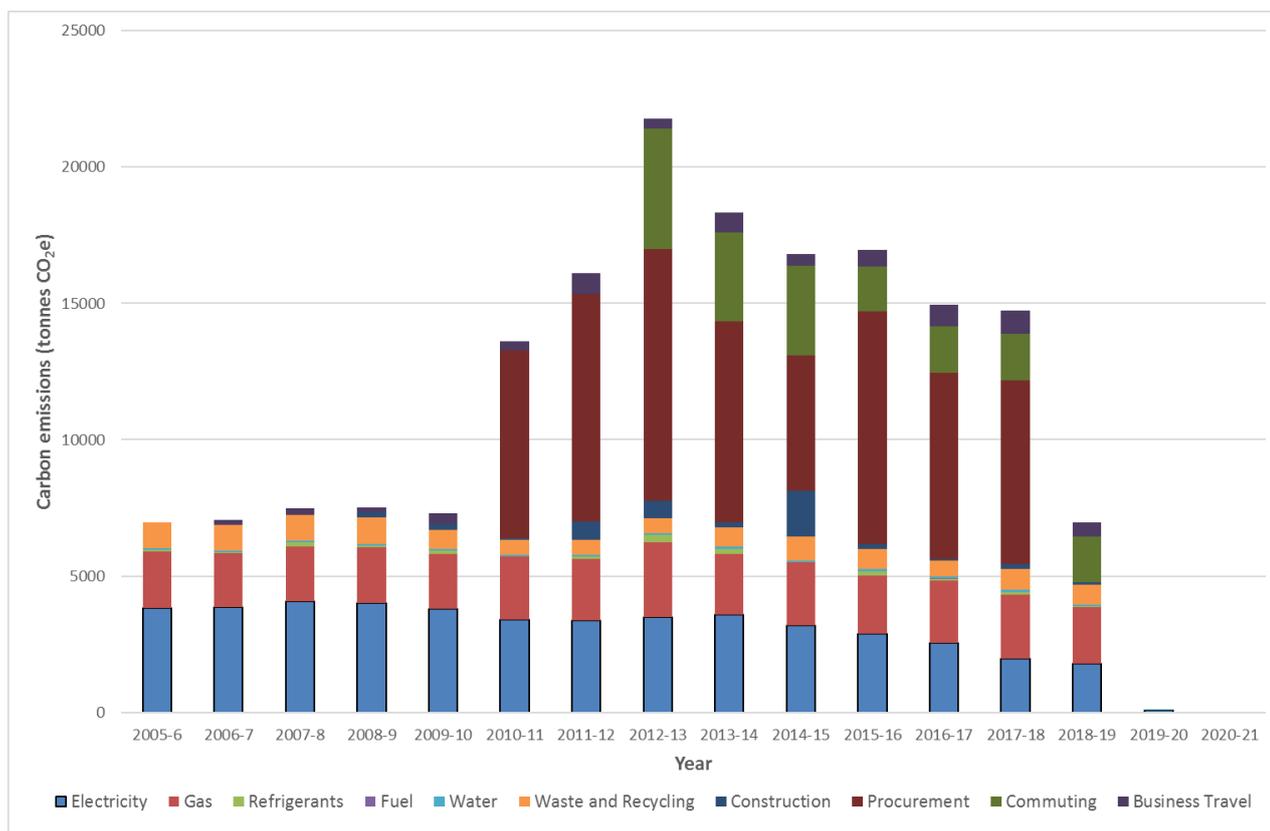
The data provided for Scope 3 emissions is variable and depends on which year the carbon conversion factors became available and in the last few years the availability of, and resources to collate, the data and calculate the emissions.

KEY GOALS for 2018-2019

Theme	Commitments	Priority	Progress
Data Gathering & Analysis	• Ensure that all data is collected to enable the calculation of our carbon emissions	Medium	Ongoing. Outstanding (from 2015-2016) – construction recycling and Waste data. Estates to provide. Outstanding (from 2015-2016) – business travel. Additional resources are required to collate and interrogate the data from payroll travel expenses and Barclaycard. Outstanding (2018-2019) – procurement / supply chain data from the NWUPC
Project	• Continue to reduce the carbon emissions of the University through the implementation of identified projects	Medium	Ongoing.
Control & Reporting	• Produce Scope 3 carbon reduction targets to 2020-2021	Low	No progress.

We recognise that we need to do more to reduce our carbon emissions across all scopes.

Utility Management

Utilities (gas, electricity, water and waste water) were a significant proportion (~9%) of the University's 2018-2019 non-pay spend and contributed ~30% of the University's carbon footprint.

Please note, the utilities reported here do not include those from the residential houses that the University owns and rents out.

Electricity and Gas
The University reduced its consumption of electricity by 12.8% and its consumption of gas by 11.1% between 2005-2006 and 2018-19; falling well short of the 25% reduction by 2020-2021 key goal within the Corporate Plan.
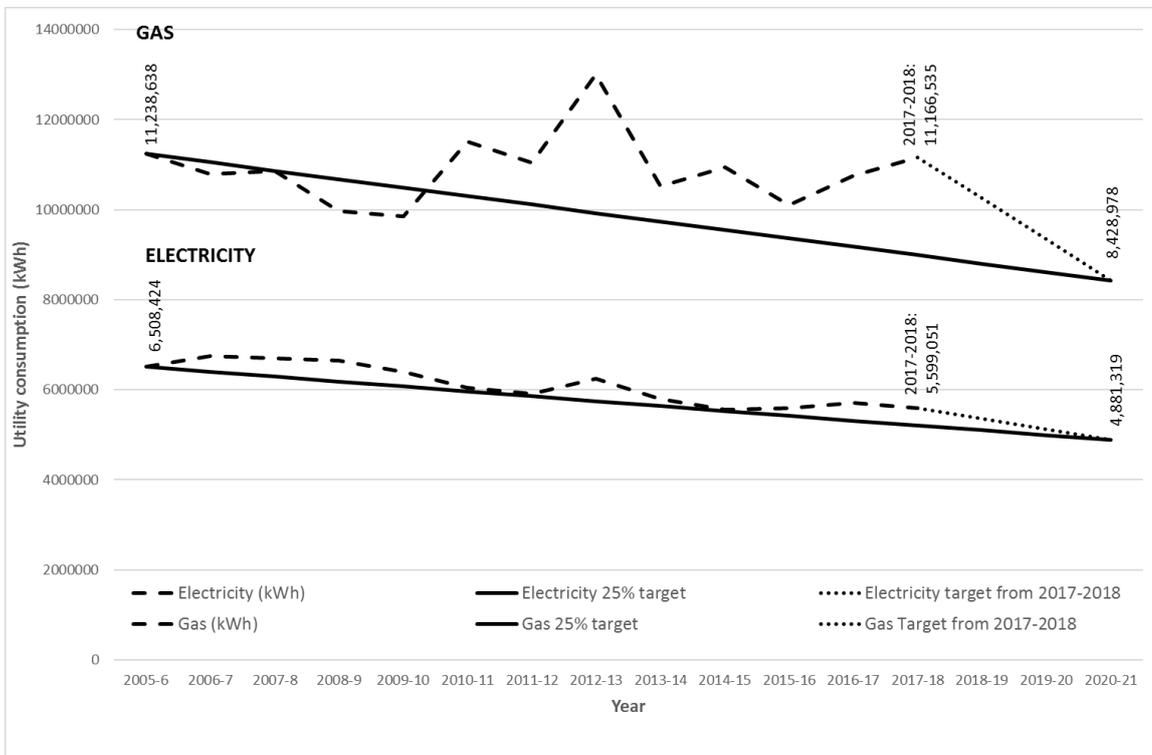
To achieve the Corporate Plan targets the university has to reduce its electricity consumption to 4,881,319 kWh and gas consumption to 8,428,978 kWh. To achieve these targets we would have to immediately reduce consumption by the equivalent of turning off the electricity and gas supply to the Creative Campus (Cornerstone, Capstone, Hopkins Halls and security lodge). This is not an acceptable option as it would compromise University business and operations, therefore a new carbon / utilities management plan with revised targets is now urgently required to reduce consumption by the greatest amount within the resources that are available.

Comparison with 2017-2018
Comparing against the same period last year electricity consumption has increased by 1.5% (with an increase in costs of 36%) and gas consumption has decreased by 10.5% (with a decrease in costs of 5.2%). Further detail and progress against our targets are shown below:

Consumption (kWh)	Electricity	Gas
2018-2019	5,678,523	9,990,682
2017-2018	5,595,258	11,166,535
Difference	+83,265	-1,175,853
Difference (%)	+1.5	-10.5
2018-2019 target	5,359,807	10,254,016
Progress against target	+318,716 (+5.9%)	-263,334 (-2.6%)

Cost (£)	Electricity	Gas
2018-2019	847,680	290,842
2017-2018	621,703	306,642
Difference	+225,977	-15,800
Difference (%)	+36.3	-5.2
2018-2019 budget profile	896,482	283,127
% against budget profile	-5.4	+2.7

Electricity consumption have increased despite a number of reduction projects being completed namely: improved roof insulation in St Michaels, LED lighting replacement in the library ground floor and improved lighting control in the FML Chapel. Electricity is mainly user controlled and therefore it is imperative that our staff and students engage with this agenda. Costs have increased significantly compared to last year following the start of a new flexible electricity contract in October 2018 (see below for more details).

During 2017-2018 the University acquired three new buildings: 285 Woolton Road (November 2017), 3-7 Shaw Street (January 2018), and 3 Islington Square (the utilities transferred to the University in April 2018). These new buildings increased our electricity consumption by 30,365 kWh in 2017-2018 and 112,733 kWh in 2018-2019; if these buildings had not been added to our portfolio the electricity consumption in 2018-2019 would have increased by 0.02%. However, these buildings are part of the Strategic Plan / direction of the University and therefore additional carbon reduction projects have to be quantified and implemented to ensure that consumption, and carbon emissions, reduce.

The University's sub-meters allows us to compare consumption down to building level in the majority of cases; this allows us to focus our activities on those buildings which have either increased their consumption by the largest amount compared to the same period last year; and / or consume the a high proportion of the total consumption, which then enables us to prioritise our actions. The sub-meters also provide data on a half-hourly basis, which allows us to interrogate the timing of consumption to investigate any potential wasted energy, such as in the evenings, overnight or at the weekend. Those buildings which have increased their usage during 2018-2019, compared to last year are shown below; further investigations and interventions are required to reverse this trend.

Meter / Location	kWh (% change)	Consumption (% of Total)	Priority
Cloisters and Malachy Lodge	111%	0.0%	Low
Creative Campus Security Lodge including external lighting and foutains	68.0%	2.0%	Medium
Cornerstone	16.0%	6.0%	High
Business School	10.0%	1.0%	Low
Hermitage	10.0%	0.0%	Low
Austin	7.0%	1.0%	Low
Angela	5.7%	0.7%	Low
Frances Mary Lescher, Green Lane Building, Security Lodge	5.6%	20.5%	High
Hopkins Hall	4.7%	3.2%	Medium
Hilds Constance Allen, Estates, EDEN (Non-Residential), Hope Park Sports, Health Sciences	1.4%	28.2%	High

Gas consumption (and therefore costs) have decreased, despite the increased footprint of the University estate, because of the completion of a number of projects namely: 1) Phase 1 and 2 of the Building Management System (the BMS now controls ~73% of the University's total gas consumption) in the third quarter of 2017 and first quarter of 2019 – the controls are continuing to be optimised to ensure that the heating and hot water systems are operating as effectively and efficiently as possible 2) the strict enforcement of the University's Heating Policy, limiting heating to 21°C; 3) replacing roofs with increased insulation; 4) replacing single with double glazing; 5) installing Thermostatic Radiator Valves throughout campus.

The three new buildings acquired in 2017-2018 increased the gas consumption by 119,447 kWh in 2017-2018 and 65,941 kWh in 2018-2019; if these buildings had not been added to our portfolio there still would have been a reduction in consumption of 10.2%; meaning that the gas reduction projects implemented have mitigated the increase. It must be noted that 2018-2019 will be the first year that we have complete consumption data for the new buildings, and consumption is likely to increase given the redevelopment of the buildings.

Automatic meter readers have been installed on the majority of gas fiscal meters, again allowing us to compare consumption down to a half hourly basis. The buildings which have increased consumption during 2018-2019 compared to the previous year are shown below; further investigation is required and intervention where necessary to manage and mitigate this increasing trend.

Meter / Location	kWh (% change)	Consumption (% of Total)	Priority
France Mary Lescher main kitchen, Green Lane Annexe, Green Lane Buildings, Austin from 11/3	33%	2%	Low
Taggart Lodge	11%	1%	Low
Malachy	10%	0%	Low
EDEN Kitchen	6%	1%	Low
Stand Park Lodge	6%	0%	Low
Stand Park Lodge / Hilda Constance Allen	4%	0%	Low

Please note, that no consideration is given to the weather patterns or any other external factors when comparing consumption against previous year's data.

It must be remembered that any redevelopment or refurbishment of the Estate (see Campus Development section) will increase the consumption of utilities and therefore erode any progress made.

It is more important than ever to reduce consumption to keep costs at a manageable level. Immediate focus must be given to the reduction in electricity consumption given the large increase in consumption (and therefore costs); despite gas being further away from achieving the 25% reduction target, great strides have been made in reducing the consumption and this will continue with further installation and fine tuning of

Building Management Systems and the replacement of single glazed windows and roofs with increased insulation.

A carbon reduction project list has been created as part of the draft Carbon Management Plan; the implementation of these projects and activities are required to ensure that we achieve a reduction in consumption, costs and achieve our targets. This project list is not a static document and changes as projects are completed and new projects are identified, and, where possible, quantified.

Water
Consumption has decreased by 1.4% with a corresponding decrease in costs of 11.0% compared to 2018-2019; this reduction in costs is in the main due to a large credit from one meter which had not been accurately read for two years. Meaningful comparisons are very difficult to make because of the change in billing period for most meters from quarterly to monthly and a number of the larger accounts have been credited and re-billed over a long time period. To ensure that more accurate data, and therefore invoices, are received meter reads are now being submitted on a monthly basis, where the data is available.

Water has not previously been given high priority because of its low carbon footprint (72 tonnes in 2018-2019; compared to 1,794 tonnes for electricity and 2,076 tonnes for gas) and having the lowest cost of the three utilities (£261k in 2018-2019; compared to £978k for electricity and £336k for gas including VAT where appropriate). However, with the increasing consumption and costs, we now need to give higher priority to managing and reducing our water consumption.

Contracts
The University renewed its **electricity contract** in October 2018 via The Energy Consortium's (TEC) framework, following the end of a three year contract. The University's new energy contract adopts a risk managed flexible approach (rather than the previous fixed price / fixed term contract with higher risk premiums with prices set at a particular date and time). A flexible contract means that the energy is procured following the market price and therefore purchases are made throughout the contract at the lowest price and therefore avoid the dramatic price increases that happen at the end of fixed contracts.

Purchasing electricity is complex comprising of both a commodity (i.e. the wholesale cost, which is traded on the open market) and Non-Commodity Costs (the cost of operating and upgrading the transmission and distribution network and a number of additional charges which are levied to ensure security of supply, delivery of affordable energy and to support the Government achieving its carbon budgets and Climate Change Act reduction targets). Since the start of the previous contract in October 2015, average Commodity costs have increased by 61% and in 2018, increased volatility saw Commodity prices spike at levels not seen for two years, in which time the Non-Commodity Costs (NCC) also increased by 25%. The Commodity costs are only ~40% of the total electricity cost and are charged on a p/kWh basis – which is set dependent on the market price at the time of purchase. The NCC accounts for the remaining 60% of the total cost and are charged on both a p/kWh and fixed price (i.e. p/day) basis; these charges cannot be influenced or changed by the University. The only option to reduce our costs, is to reduce our consumption and to investigate when the energy is being used (i.e. trying to avoid the peak charges of between 1600 and 1900).

The new contract has seen the University's electricity charges per kWh (total costs including VAT) increase from ~12p/kWh to ~19p/kWh. The graph below has been provided by The Energy Consortium to show the changes in Commodity and Non-Commodity Costs (NCC) between 2015 and 2020 for a University who consumes a similar amount of electricity. They have also seen price increases from ~11p/kWh to ~16p/kWh; however, the increase to ~19p that we have seen can be explained by:
• The comparable University has been a TEC member for a number of years and has therefore been able to take greater advantage of the forward purchasing strategy
• Distribution charges are different depending on where you are located in the country

- TRIAD charges differ depending on the meter – The TRIAD refers to the three half-hour settlement periods with highest system demand between November and February, separated by at least ten clear days. National Grid uses the TRIAD to determine Transmission Network Use of System charges for customers with half-hour metering. TRIAD charges can add up to 4p/kWh to the costs.
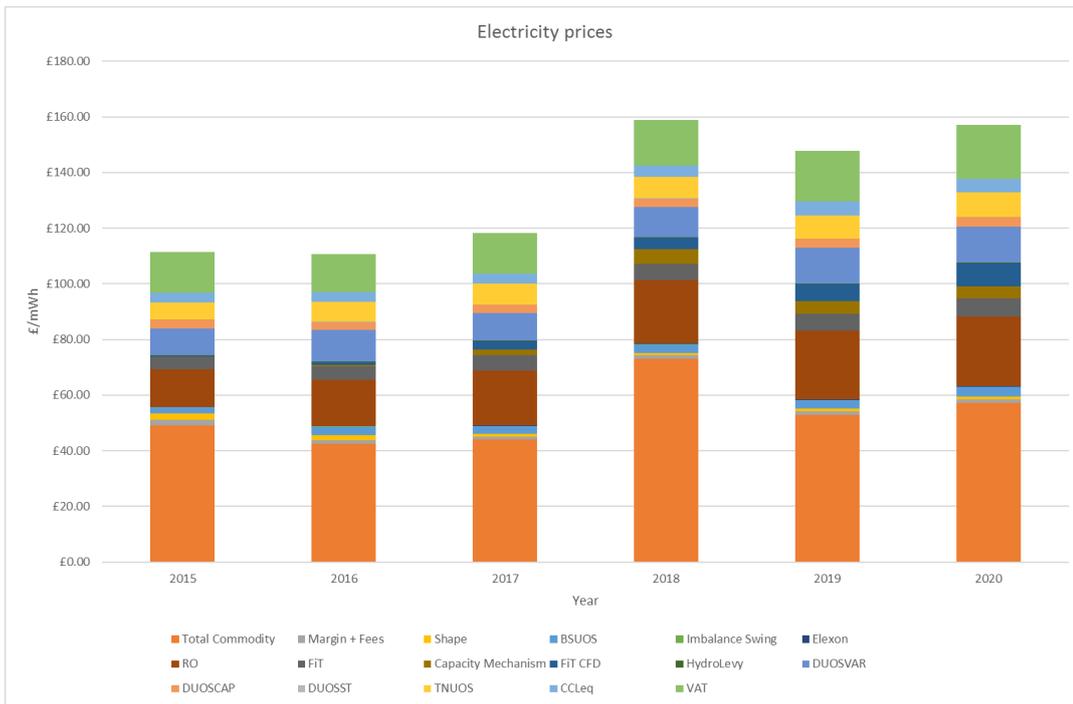
Commodity costs are continuing to increase and become more volatile with the potential currency fluctuations as a result of Brexit; while NCC costs are set to increase with: 1) the increase in Climate Change Levy (CCL) in April 2019; 2) the potential lowering of the Energy Intensive Industries exemption threshold, which will pass in additional costs onto non-energy intensive consumers; and 3) the Targeted Charging Review, which is examining how distribution costs are charged to consumers, amongst others.

- Brexit - The UK is a net importer of both gas and electricity to meet our energy needs; from interconnectors with continental Europe to LNG deliveries, mainly from the Middle East. Being part of the Internal Energy Market makes it easier to trade energy across borders, keeping tariffs down, improving security of supply and facilitating the integration of more renewables onto the system. The UK will be increasingly reliant on gas to meet our needs when renewables are not available, with the closure of coal-fired power stations and uncertainty over new nuclear plants. Although it is unlikely that cross border trading will cease; leaving Europe without a, or a poor, deal means that trading could not be as frictionless as it currently is, which would increase costs (potentially costing the UK up to £500M/year), reduce efficiency and potentially derail our transition to a low carbon economy. Brexit could also lead to the fall in value of the pound relative to the euro and dollar (as we purchase a portion of our energy through these currencies) which would push wholesale costs up. Non-commodity costs are currently paid in Sterling and should not be immediately affected.
- Carbon Reduction Energy Efficiency Scheme (CRCEES) – the scheme ends in April 2019 (final reporting year is April 2018 to March 2019), with the final payment due in September 2019. To recover the revenue that will be lost through the close of the scheme (reported to be ~£790M), the CCL will increase in April 2019.
- Climate Change Levy - The CCL will rise 45% for electricity (from 0.0583p/kWh to 0.00847p/kWh) and 67% for gas (from 0.00203p/kWh to 0.00339p/kWh). Over the next few years, the Government will ensure that the CCL charges are equal for electricity and gas, though there is some uncertainty how and when this will happen.

<u>TEC Spend and Benefits Statement</u>

The University receives an annual spend and benefits statement from TEC to quantify and demonstrate the benefits of using their collaborative flexible contract framework; the highlights are that the University has:

- Saved £8,621 by procuring electricity via a flexible contract
- Achieved a financial benefit of £3,364 for being part of an aggregated purchasing group
- Achieved a return on fees of £7.03 for each £ paid to TEC in fees
- Avoided total costs of £20,296 including sector agreed figures for avoiding procurement costs, plus the difference in TEC fees versus private sector intermediaries

The **gas contract** will be renewed (also through TEC) in October 2019 and we can expect to see similar price increases that we have experienced with the electricity contract.

Costs

Costs for all elements of utilities are set to continue to rise and become more volatile. To mitigate these effects it is imperative that we consume less and ensure that we review existing processes to make sure they are efficient as possible, and to ensure that we are not paying for wasted usage.

KEY GOALS for 2018-2019

Theme	Commitments	Priority	Progress
Data Gathering & Analysis	• Scrutinise the sub-meter electricity and gas data to identify any areas of wastage	High	Ongoing. The sub-meter data is regularly checked, analysed and any issues reported to Estates.
Data Gathering & Analysis	• Continue to report energy wastage to Estates to resolve	High	Ongoing. As above. Monthly meetings are held with Estates to discuss any utility issues
Project	• Reduce consumption of utilities and costs to achieve the reduction targets and available budget	High	Ongoing. The University is <u>not</u> on course to achieve the 25% reduction in utilities target set within the Corporate Plan. It is imperative that focus be placed on reducing the consumption of utilities.
Policy & Procedure	• Explore the feasibility of tendering our water provision via the Crown Commercial Services framework	Low	Complete. The University engaged with the Crown Commercial Services' competition for Water and Wastewater Services, but ultimately did not switch supplier.

Travel and Transport

The University continues to promote sustainable travel options to enable staff and students to make informed decisions about which travel mode to use, such as Cyclescheme, Arriva discount bus tickets, Arriva Click and Liverpool City Bikes.

Staff Travel Survey – a snap shot travel survey was taken in April 2018 and a number of actions were identified to improve sustainable travel choices; progress against which can be seen below:

Action	Detail	Progress
Improve cycling facilities	a) Monitor the usage of the cycle parking to understand if supply meets demand. b) Investigate opportunities to make cycle facilities more secure c) Investigate opportunities to provide more facilities for cyclists, including access to showers, lockers and changing facilities	a) No progress b) No progress c) No progress
Encourage staff to try walking and cycling	a) Organise challenges to encourage people to try walking or cycling; b) Provide prizes for challenges to incentivise and increase participation; c) Organise promotional events to increase awareness and the benefits	a) Plas Caerdeon Challenge – (19/09 to 10/10) to cover the 90 miles from Hope Park to Plas Caerdeon. A Fit Bit was offered as an incentive. b) Branded water bottles are available as prizes / incentives for staff to walk or cycle to work c) Dr Bike Session organised for New Year New You event (January)
Increase walking and cycling to the site	a) Set up a 'Bicycle User Group' / 'Walking Group' and appoint a 'cycle champion' / 'walk champion' as a point of contact to lead on workplace initiatives; b) Encourage lunch-time walk or cycle-rides c) Walk leader training can be offered to staff through Living Streets d) Promote or organise cycle training, such as BikeRight e) Provide cycle equipment e.g. puncture kit, D-locks to facilitate cycling; f) Promote the use of the 'Cycling Works' website that supports and promotes cycling in Merseyside g) Promote cycle groups to staff to make them aware of services available in Merseyside e.g. Cycling Projects, Wheels for All and Pedal Away h) Provide cycle/walking information/routes to staff, such as 'Get to Guides'; Merseytravel public transport area and route maps; cycle maps; details of cycle parking, showers/lockers; etc. i) Promote use of online journey planning tools (e.g. www.Walkit.com; www.cyclinguk.org, Merseytravel journey planner)	a) No progress b) No progress c) Details available on website d) Details available on website and emailed to I ❤ MY Campus Challenge teams e) No progress f) Details available on website g) No progress h) Partially complete. Some links available on website i) Details available on website

	j) Promote bike purchase through the Cycle to Work Scheme		j) Details available on website and in staff induction brochure
	k) Make staff aware of Citybike and Bike&Go		k) Details available on website
Encouraging Public Transport Use and Car Sharing	a) Hold events on site to share travel information		a) Events held on 19th September and New Year New You Event
	b) Liaise with bus and rail operators to investigate specific discount and ticketing schemes and to understand any upcoming changes/improvements to services		b) Arriva annual bus ticket payable by DD is advertised on website and at the events. Stagecoach do not provide a similar offering
	c) Consider the introduction of an informal or formal car share scheme for Liverpool Hope University staff. https://liftshare.com/uk		c) No progress

Fuel used within University owned or leased vehicles – usage is collected and monitored via purchases made on our Fuelcards. The University has increased its consumption of diesel by 14.9% and petrol by 60% compared to 2017-2018; petrol has increased with the increased usage of the gardening equipment. Despite fuel carbon emissions being part of the reduction targets, the emissions are minimal (~15 tonnes CO_2e) therefore no specific reduction projects or reduction targets have yet been identified.

KEY GOAL for 2018-2019

Theme	Commitments	Priority	Progress
Data Gathering & Analysis	• Ensure that data is collected to enable the calculation of the carbon emissions	Medium	Ongoing. Resources are unavailable to interrogate the business travel collected via payroll or Barclaycard
Communication & Information	• Continue to promote sustainable travel options	Low	Ongoing. 7th March – University Mental Health Day promoting walking and cycling May – National Walking Month / pedometer challenge
Project	• Explore the implementation of actions raised in the staff travel survey	Low	See table above.

Waste Management

The principles of the waste hierarchy (prevent, reduce, reuse, recycle, recover) are continuing to be embedded throughout the University and we continue to promote the British Heart Foundation and Better World Books reuse and recycling schemes.

Operational waste – We continue to send zero waste to landfill and have recycled an estimated 52% through source segregation of our waste (through the provision of plastic, can, paper, card, confidential paper, glass and food waste collections) compared to 41% last year, though it must be noted that the confidential paper, glass and food waste weights are estimated. We have also reduced our general waste by 11% (213 to 189 tonnes). We are continually exploring ways to continue increase our recycling rates, which will, in turn, reduce costs as recycling is cheaper than general waste. Audits of our waste and recycling will determine the composition of materials within the bags and therefore help us determine whether we have the right bins in the right locations and what materials we need to focus on to increase recycling, decrease contamination, and ultimately reduce costs.

Additional, clearer, communications are required to ensure that the right thing goes in the right bin. When funding is available, signage is required above each recycling station across campus to promote what can go in each bin.

Donations – the University works with the British Heart Foundation to run the Pack for Good campaign where students donate their unwanted items before they move out of student accommodation. This year the students donated 444 bags of items between October and July raising an estimated £6,216 and saving 3.6 tonnes from the general waste. The students also collected over 20 boxes of kitchen items which were donated to the local asylum seekers charity. The Salvation Army received 162 pairs of curtains and 90 desktop fridges following the refurbishment of student accommodation. The library's partnership with Better World Books resulted in 4.3 tonnes of books being reused or recycled.

KEY GOALS for 2018-2019

Theme	Commitments	Priority	Progress
Communication & Information	• Increase promotion of what can go in each bin to reduce contamination and increase recycling	High	Ongoing. SUEZ (waste and recycling contractor) attended the New Year, New You event
Data Gathering & Analysis	• Ensure waste and recycling data is provided by our construction partners	Medium	Outstanding - Estates to provide the required data
Communication & Information	• Continue to promote donations through the BHF donation banks and Better World Books	Low	Ongoing. Bulletin articles, social media posts and TV screen information have been released
	• Look at ways to reduce the waste produced throughout the University	Low	Ongoing.

Campus Development

The University estate continues to grow and develop to meet the many demands placed upon it. The major acquisitions and developments during 2017-2018 included the purchase of 3 Islington Square, 3-7 Shaw Street and 285 Woolton Road (adding 3,728m^2 (gross internal area) to our building footprint) and the redevelopment of HCA West Wing; and in 2018-2019 the redevelopment of 3-7 Shaw Street and Cornerstone Ground Floor were completed. The conversion of 285 Woolton Road from accommodation into a new Social Sciences building began in summer 2018 with completion due for the start of the 2019-2020 academic year.

A new Estates Strategy is currently being written which will which help shape the transformation of the estates to ensure that it meets the needs of its students and achieve its strategic vision. Sustainability will be embedded within the Strategy to ensure that it is considered at all stages of planning, refurbishment and construction to ensure that all developments are achieved in the most utility and resource efficient manner.

KEY GOALS for 2018-2019

Theme	Commitments	Priority	Progress
Policy & Procedure	• Ensure sustainability is integrated in all aspects of refurbishment and construction works	Medium	Ongoing.
Data Gathering & Analysis	• Consider the rationalisation of the Estate, especially over the summer period	Low	No Progress.
Data Gathering & Analysis	• Investigate the utilisation of the available space and explore whether it could be used more efficiently such as evening and weekend teaching and events	Low	Ongoing. Evening and Weekend teaching moved into FML from November 2018 and conference bookings have predominately moved into FML from January 2019. Hope Park Sports and Sheppard Worlock library are also available for Evening and Weekend teaching and events.

Procurement

The University continues to work towards obtaining best value for money when procuring goods, services and works and takes into account the social, environmental and economic impacts, such as the use of the wide range of collaborative purchase agreements available via the NWUPC.

The **Procurement Working Group** met in November 2018 to provide updates of available frameworks / contracts, identify, share and promote best practice, and allow feedback

NetPositive's Supplier Engagement Tool continues to be promoted to assist our supply chain in further identify opportunities to embed sustainable practices; though we acknowledge that we need to work with more suppliers (especially those of high-spend, high-risk) to ensure that they sign up and create their own bespoke action plans, which can be used as part of the contract management meetings.

KEY GOALS for 2018-2019

Theme	Commitments	Priority	Progress
Data Gathering & Analysis	• Work with suppliers to create their bespoke sustainability action plan using the Supplier Engagement Tool	Low	Ongoing.
Communication & Information	• Continue to promote sustainable procurement principles and practices	Medium	Ongoing. Regular procurement working group meetings take place. The Procurement Strategy has been updated and is in draft form awaiting approval.
Project	• Undertake a supply chain risk assessment to identify any potential gaps in compliance of the Modern slavery and human trafficking statement	Low	No progress.

Sustainable Food

Catering introduced a **25p charge for takeaway cups** at the end of September and by the end of July over 38,000 disposable cups were saved by either customers drinking in or bringing their own mugs (~47% of all hot drinks sales). This is almost 32,000 more than 2017-2018 when a 10p discount was offered.

A new range of **branded mugs** is being investigated for sale within the catering outlets. Our onsite Starbucks have their own range of £1 reusable mugs for sale.

A **50p container charge** was also introduced to encourage customers to eat in or bring their own containers, though limited information is available on numbers.

Paper straws are now available across campus at a charge of 5p, except where straws are required in the drink such as the Our Place 22oz soft drink and Starbucks frappés.

All **plastic cutlery and stirrers** have been removed from the catering outlets and have been replaced by metal and wooden cutlery; however, it must be noted that a large number of metal cutlery (and mugs) are not returned to the outlets, placing additional pressure on the catering budget.

KEY GOALS for 2018-2019

Theme	Commitments	Priority	Progress
Project	• Increase the provision of free drinking water	High	Complete. Available in Fresh Hope, LTC foyer, EDEN Café, Chapters Café, and Hope Park Sports Foyer
Project	• Introduce a cup and container levy	High	Complete.
Data Gathering & Analysis	• Investigate the impact of the new NUS / Fairtrade University status	Low	Complete.
Project	• Explore the provision of a branded water bottle	Medium	Ongoing.
Project	• Provide a reusable branded eco-mug for sale	Medium	Ongoing.
Project	• Remove all plastic cutlery, stirrers and straws from use and replace with more sustainable alternatives, and limit their availability where possible	High	Complete.

Biodiversity and Landscape

Following the development of the 4G sports pitch and the removal of the scrub area; new native woodland species were planted following the collaboration of Geography and Environmental Science students and the Wildflower Centre as part of the Northern Flowerhouse initiative.

KEY GOALS for 2018-2019

Theme	Commitments	Priority	Progress
Communication & Information	• Continue to promote biodiversity across campus through our tree walks and other events	Low	No progress
Communication & Information	• Encourage staff and student involvement on the allotment	Low	No progress. The Student's Union took over responsibility of the allotment in 2017

Summary

This report has only been able to provide a brief overview and progress of the wide ranging activities across the University towards transforming into a greener, more sustainable place to live, work and study.

At the end of 2018-2019 the University has reduced its carbon emission from gas, fuel and electricity to 3885 tonnes CO_2e through the implementation of carbon reduction projects and the reduction in carbon conversion factors (converting usage to carbon) and it has continued to limit its emissions to below the 4394 tonnes CO_2e Corporate Plan target. The University, however, is not on track to meet the Corporate Plan key goal of a 25% reduction in utilities consumption between 2005-2006 and 2020-2021 (gas consumption has decreased by 11.1% and electricity by 12.8%); immediate action is therefore required to reduce consumption.

The University's Scope 3 emissions (water and wastewater; waste and recycling; construction waste; business travel; commuting and supply chain) continue to be the main contributor to the University's carbon footprint and work needs to continue to ensure that the required data is collected and analysed. The Sustainability Manager will continue to work with other departments who lead on the key impact areas of Campus Development; Biodiversity and Landscape; Procurement; and Sustainable Food. Although Travel and Transport, and Waste Management have not been treated as a priority, activities have still continued, though on a small scale.

The Future

To ensure that the University continues to improve its environmental sustainability and continue to reduce its carbon emissions beyond the Corporate Plan targets renewed senior management support is required and sustainability needs to be embedded into its day to day operations. Following the retirement of the PVC for Operations, a new SMT member with overall sustainability responsibility should be appointed. The University will continue to implement sustainability projects, where resources (both financial and personnel) allow.

Activities planned for the next 12 months include:
- PRIORITY: A new CMP to 2020-2021, with a broader remit to include utilities, is urgently required to detail the path the University is required to take if it is to meet the 25% reduction Corporate Plan Key Goal and must be ratified by both Senior Management Team and University Council. The new CMP will set out the projects, both technological and behavioural, whose implementation will be essential if the Key Goal is to be met. The projects will include upgrading inefficient requirement, investing in technologies, and using our existing facilities in the most efficient manner without avoidable energy wastage. We must be mindful not to compromise business operations and to remain agile so that we can respond to the challenges ahead within the personnel and budgetary constraints that we face.
- PRIORITY: A new Sustainability Strategy will be written aligning with the Estates Strategy to inform the wider sustainability objectives and targets.
- Ensure that sustainability is considered at the heart of the Estates Strategy which is currently being revised to ensure that resource and utility efficiency are embedded within all developments being undertaken.
- Develop new reduction targets (consumption and carbon) to inform the new Corporate Plan (from 2020).
- Conduct a 'gap analysis' across its activities to ensure that sustainability is embedded throughout its operations considering, amongst other factors, People and Planet's Green League where in 2019, the

University was ranked 120 out of 154 institutions and achieved a third class degree. Many Universities, use their People and Planet scores as a way of marketing their institution.

- Continue to implement sustainability projects, where budgets allow; and write business cases for those discrete projects which fall outside the identified budget allocation.
- Redesign the I ♥ MY Campus Staff Challenge to update the actions and to create a new timeline to allow staff members more time to complete the challenge. Each team / department should be encouraged to participate within the Challenge.
- Work with Student Support and Wellbeing to organise a blackout across campus
- Meet with key members of staff / teams to discuss the sub-meter data, i.e. increased consumption compared to last year, as identified within the Utility Management section
- Continue to liaise with estates regarding the implementation of carbon reduction projects, and use the sub-meter data to fine-tune the BMS to ensure that the building's heating and hot water systems are running as efficiently as possible.
- Continue to identify and quantify sustainability projects
- Liaise with other departments, such as Catering and IT Services to ensure that sustainability is considered and embedded within their activities

The opportunities and challenges faced to improve the environmental sustainability of the University are significant and achieving an improvement requires both technological intervention and behavioural change. Engagement of staff, students and the Student's Union continues to be low and this trend must be reversed. Initiating, and maintaining, behaviour change is, however, notoriously difficult when engaging with already busy individuals and the I ♥ MY Campus Challenge is commonly seen as additional workload and is one of the first activities side-lined, or it is simply seen as unnecessary or 'not my job'!

Everything we do has long term implications and the University needs to balance the often competing aims of Higher Education such as reducing our carbon footprint, whilst increasing (and retaining) student numbers, providing high quality teaching and research facilities, and improving student satisfaction. Carbon reduction and resource efficiency has been gaining more prominence in the public eye following the high profile TV documentaries including Blue Planet II, War on Waste and Drowning in Plastic; school strikes; Extinction Rebellion action; and Climate Emergencies being declared by Government, various local Governments (including Liverpool City Council) and Universities. The Government has recently amended its Climate Change Act target to achieve net zero emissions by 2050 following recommendations by the Climate Change Committee, Liverpool City Council has declared it will target net zero emissions by 2030 and the EAUC (The Alliance for Sustainability Leadership in Education) has called for all post-16 Higher Education Institutions to declare a Climate Emergency and to commit to a 2050 net zero emissions target. Higher Education has a unique position in society and have an important and influential role to play; we are well positioned to make a key contribution to achieving the net zero emissions targets through our teaching and research; through influence on staff and students by empowering them to make low carbon choices; through our business activities; and through the operation of our campuses.

Further Information

For further information, please visit our sustainability pages on the University website and our Facebook page.

http://www.hope.ac.uk/gateway/sustainability/
https://www.facebook.com/LivingSustainablyatHope/