

Objectives	Actions/measures	Timeline	Responsibility
Energy consumption – main focus this financial year			
<p>Reduce electricity consumption by 5% academic buildings/ 2% residences and gas consumption by 8% academic buildings/ 6% on residences against 22/23</p> <p>22/23 consumption: Electricity: 33,867,759 kWh Gas: 27,737,988 kWh</p> <p>Note: 11-13 Charterhouse, 13 Clerkenwell Road, IoT, Lincoln Inns Field were new buildings added towards the end of 22/23.</p>	<p>Christmas switch off: Proceed with shut-down schedule implemented in previous years. Routine for academic buildings by reducing heating to 15 degrees (not switched off as we would have several major floods). Carbon Number undertake this, as well as ventilation. Implement additional shut down plan as detailed in the appendix</p>	Between Friday 22/12 and Tuesday 02/01/24	Carbon Numbers under direction of Engineering and Maintenance
	Remove electric radiators that were deployed in 2023 when heating systems broke down (where possible) – John Vane, Engineering, Queen’s Building	01/24	Maintenance team
	Look at a method of controlling electric heaters and eligible equipment, etc, which can be interfaced with BMS i.e. Bluetooth - Including the catering display equipment that can be switched off overnight.	End of April	Carbon Numbers, requested by Engineering team
	Explore Energy Performance Contract proposal	ongoing	Maintenance
	<p>Building Management Systems Reconfigure existing BMS during upgrades to have closer control of the areas we are heating and cooling. Identify and approve BMS upgrade projects with the highest savings and quickest payback:</p> <ul style="list-style-type: none"> • New connections to BMS • BMS system upgrades – quotes for SU Hub (£57,846), Peter Landin (£48,990) • Optimisation of BMS schedules 	ongoing	Carbon Numbers with Engineering, Maintenance and Sustainability teams
	<p>Dept W Request technical costed proposal for how we can better zone the building for future low occupancy periods (likely to require motorised dampers to be installed and interfaced with the BMS)</p>		Carbon Numbers and Engineering
	Heating and cooling policy to be redrafted and proposed for sign off	04/24	Sustainability and Engineering teams
	SHRIF Room project (JPMR) - Data room expansion and capturing the heat for residences	Starting in 04/24	Engineering and Projects
	<p>Research buildings: Work with Lab managers to ensure equipment is switched off if possible (use of labels) Encourage research teams to set ULT freezers to -70C instead of -80C</p>	Ongoing	Sustainability team with Research teams
	<p>Energy Reporting and Communication: Display energy consumption information digitally.</p>	Ongoing	Sustainability team with Systems and information Manager
	<p>Awareness campaign: Campaign developed with Student Union, interested academics, Communications, Building and Laboratory Managers.</p>	Ongoing	Sustainability team with support from Communications
	<p>Submeter buildings to better monitor energy usage Upgrade to smart utility meters/AMRs</p>	<p>Install submeters where a fiscal meter feeds more than one building – Charterhouse Sq. Install additional building submetering where needed (<i>add info about competed buildings</i>) Continue to install AMRs on gas meters and non half-hourly electricity meters</p>	Completed for top 10 buildings
Re-Engineering of Combined Heating Plant (CHP)	<p>Combined Heat and Power (CHP) units to be reconfigured to match both Electrical and Mechanical loadings to 100% of the plant operational status. Rectify issues with Mile End CHP system.</p>		Engineering and Maintenance
Energy Efficiency Inspections (included in CN’s extension contract)	Energy Efficiency Inspections to be carried out by Carbon Numbers as part of the contract – 3 buildings per quarter (define buildings for this quarter)	3 per quarter	Carbon Numbers
Waste and resource management			

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Improve our recycling rates by at least 7% against 2022/23 (Bywaters collections)	Develop and deploy new bin signage across all QM buildings (general waste, mixed recycling and food waste). <i>Note: limited by current budget constraints, 500 copies of bin signage ordered and being deployed. More bins and signage to be ordered in batches as required</i> <i>KPIs: % buildings completed</i>	07/24	Sustainability and Campus Services teams
	Introduce collection of food waste in office kitchens by deploying food waste caddies with new signage. Ensure that there are outdoor bins available for the collection of food waste. <i>KPIs: # completed kitchens/# eligible kitchens</i>	07/24	Sustainability and Campus Services teams
	Deliver regular toolbox talks to cleaning team leaders and cleaners to ensure a good level of knowledge about segregation, keeping bin lids down and bin enclosures locked (where possible). Toolbox talks need to include residences team. <i>Note: verified with training records</i> <i>KPIs: % team leaders trained; % cleaners trained</i>	Every 4 months	Campus Services team
Implement waste improvement plan (academic and residential)	Rationalise bin stations (removing bins from classrooms, etc, and relocating them to centralised bin stations). Standardise bin designs, convert spare general waste moon bins to mixed recycling. Phased replacement of existing DMR cardboard bins with these 'moon bins' Standardise colours of bin liners across campuses, clear bag for general waste and green bag for mixed recycling. <i>Note: previously purchased bags of different colours will be used up</i> <i>KPIs: % buildings completed</i>	07/24	Sustainability and Campus Services teams
Improve external bin storage	Mile End waste yard and external storage improvements: <ul style="list-style-type: none"> - All external bins to have clear signage. Where needed, also place signage on bin enclosures. - Deliver toolbox talks to cleaning team leaders and cleaning teams. 		Campus Services team
Reduce volume of waste by 8% against 22/23	Run Reuse fair in September (move-in weekend) to donate household items left by students at the end of academic year to new students (run by the SU). Run Wardrobe Refresh Fair during Sustainability week to donate clothing left by students at the end of academic year to new students (run by the SU).	09/23 and 11/23 Completed	Student Union
	Change to China cups at Dept W café for customers staying in. Introduce and roll out reusable cups and containers scheme to reduce the volume of single-use items. Trial scheme at Dept W. Design signage for collection points.	Starting in 01/24	Catering and Sustainability teams with supplier Reuser
Food			
Provide more sustainability information in catering outlets	Posters on screens and coffee table signage about Reuser cups. Communications to be sent by email to update staff on Reuser trial and progress. Posters about Angry Monk and other sustainable sourcing choices.	07/24	Catering and Sustainability teams
Improve affordability of catering offering	Introduce new options at lower price points to offer a better variety of alternatives to students and staff (smaller hot food meals at £4 or 4.50, together with upgrade options)	Completed	Catering team
Water consumption			
Retender water contract	Assess if TEC water supply and associated services offering is suitable for our needs, as TEC has previously approved as the energy partner (gas and electricity). Wave will request additional investigations for meters that are not found.	Completed	Sustainability and Procurement teams

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	Agree all QM's requirements with Wave ahead of the switch. Switch to Wave on the agreed date, ensuring that we can provide support for meter readings.	Completed	Sustainability and Procurement teams
Improve knowledge of water supplies and monitoring of consumption	Commission new water supplier Wave, starting in March 24, to carry out a survey of our water meters to determine meter locations and which buildings are supplied by each meter (currently unavailable).	Tbc, may shift to next year	Sustainability team and Procurement, with support from Maintenance
	Install AMRs in all water meters to improve monitoring of water consumption and help identify spikes caused by leaks or other over-consumption causes. <i>Note: there are some digital meters owned by the wholesaler, it's harder for Wave to get the information from them and we they have access to the wholesaler's portal.</i>	07/24	Sustainability team and Procurement, with support from Maintenance
Carbon emissions			
Reduce carbon footprint from scopes 1 and 2 by 5% against 22/23	Implement energy reduction plan detailed above to reduce emissions from gas and electricity.	07/24	Sustainability team with Engineering, Maintenance, Campus Services, with Carbon Numbers
Expand carbon footprint calculations to include supply chain emissions	Calculate supply chain emissions based on spend (APUC/HESCET tools).	07/24	Sustainability team with Procurement
Travel and transport			
Develop sustainable travel guidance	Develop a sustainable travel guidance that highlights the impact of different travel options and encourages staff to embrace low carbon travel.	Tbc, may shift to next year	Sustainability team
Start reviewing Mile End and Charterhouse Square car parking arrangements	Start the process of evaluating and reviewing QM's long-term plan for car parking at both campuses. Establish a database of suppliers and their expected parking needs. Review parking allocation for each supplier and communicate our expectations going forward.	07/24	AD for Campus Services
Construction and refurbishment			
Decarbonise the estate through refurbishment projects	ITL refurbishment project will replace gas boilers with heat pumps and improve efficiency of the building (but building will duplicate in size). Add FOGG building project benefits.	Ongoing project	Projects team supported by consultants
Sustainable procurement			
Review and update Sustainable Procurement Policy and supporting guidance	Review and update our Sustainable Procurement Policy (last updated in April 2019). Develop more robust Sustainable Procurement guidance, starting this financial year. Responsible Procurement - Procurement (qmul.ac.uk)	Policy update by 06/24	Procurement and Sustainability teams
Community			
Participate in Tower Hamlets Climate Partnership	Participate in Tower Hamlets Climate Partnership and relevant subgroups	Sustainability team	Ongoing commitment
Continue to deliver the annual Festival of Communities	Continue to deliver Festival of Communities, scheduled for the second weekend of June 24 (in collaboration with Tower Hamlets community groups and organisations)	Various teams	June 2024

Appendix I – Christmas switch off

Objective	Action/measure	Responsibility	Timeline	Progress updates
Energy consumption – main focus this financial year				
Reduce electricity consumption by 5% academic buildings/ 2% residences and gas consumption by 8% academic buildings/ 6% on residences against 22/23 <i>Note: 11-13 Charterhouse, 13 Clerkenwell Road, IoT, Lincoln Inns Field were new buildings added towards the end of 22/23.</i>	Christmas shutdown detail: Proceed with switch off schedule implemented in previous years. Routine for academic buildings by reducing heating to 15 degrees (not switched off as we would have several major floods). Carbon Number undertake this, as well as ventilation.	Carbon Numbers under direction of Engineering and Maintenance	Between Friday 22/12 and Tuesday 02/01/24	
	Close and turn off Department W and Queens building between 22/12 and 02/24 (attempt to shut down floors 2 and 3 during CW51 failed after complaints from building users)		Between Friday 22/12 and Tuesday 02/01/24	
	School of Electronic Engineering and Computer Science All the buildings within the EECS portfolio (including PhD spaces and workshops) will be closed during the festive period. The buildings will be closed from 5pm Thursday 21/12/23 and reopen on Tuesday 02/01/24. Areas that will be closed: ITL Temporary building, Electronics Lab Eng3.52 and Eng3.56, Computer Science/ Peter Landin, Engineering East, Mat Lab, Performance lab, Power lab, Mat workshop, Antenna Lab, North East Tower Floors 1,2 and 4 MMV Antennas and C4DM	EECS School Facilities Manager, with Engineering	Between Friday 22/12 and Tuesday 02/01/24	
	School of Physical and Chemical Sciences The G. O. Jones Building and the SPCS area of the JP Building will be closed over the Christmas, commencing at 4pm on 22/12/23 and reopening at 8 am on 02/01/24. Caveats: they will need to have the temperature maintained at a reasonable level, e.g. the NMR machines (JP) are programmed to work at 21°C. Although the ventilation can be slightly adjusted, e.g. to 0.3 m/s, they need absolute certainty that it will go back to 0.4 m/s on 2 nd January. They need to maintain constant ventilation, including during the festive period as most of the chemical storage cabinets (in both buildings) are ventilated.	SPCS Technical Facilities Manager, with Engineering	Between Friday 22/12 and Tuesday 02/01/24	
	Visit all buildings/offices to manually turn off local air conditioning with local control, lighting, office and kitchen equipment, room wall heaters, unplug electric heaters, including those plugged in under desks (to be documented)	Contractors managed by Engineering	22/12/23	
	Research buildings Lab teams to shut down fume cupboards and equipment, where possible. Faculties to send list of areas that could be shut down to Engineering (agreed in Technical Forum)	Lab teams, supported by Engineering	Between Friday 22/12 and Tuesday 02/01/24	
	Residences Communication to be sent out by Residences team asking residents to switch off when they leave their rooms, communal areas on motion timers to ensure lights turn off if no one is in the area. Heating is already on timers (except for older buildings such as Albert Stern House, Foyer House) Over the closure residences will have cleaning teams and Halls Managers in throughout so they will also be encouraged to switch off.	Residences team		