

Sustainability Committee Meeting

Date: 4 August 2021

Time: 11:00 Hours to 13:00 Hours

AGENDA

| SN | Items | Paper | Lead | Overview |
|---|--|--------------------------|-----------------------------------|--|
| 1. | Apologies | NA | P. Lloyd | <ul style="list-style-type: none"> Information |
| 2. | Draft Minutes | NA | P. Lloyd | <ul style="list-style-type: none"> Approval |
| 3. | Action Log & Matters Arising | NA | P. Lloyd | <ul style="list-style-type: none"> Discussion Approval |
| 4. Terms of Reference (Review) | | | | |
| 4a. | Sustainability Committee: Terms of Reference | SC.21/32 | P. Tamuno / P. Lloyd / I. McManus | <ul style="list-style-type: none"> Information Discussion Approval |
| 5. Environmental Sustainability Action Plan (ESAP) | | | | |
| 5a. | Environmental Management System: EcoCampus Gold Certification Audit | SC.21/33 | P. Tamuno | <ul style="list-style-type: none"> Information Discussion Assurance |
| 5b. | ESAP: 2020/21 Review and 2021/22 Insight | SC.21/34 | P. Tamuno / P. Lloyd / I. McManus | <ul style="list-style-type: none"> Information Discussion Assurance |
| 6. Teaching and Research | | | | |
| 6a. | Embedding Sustainable Development into the Curriculum: School of Geography | Presentation | K. Heppell | <ul style="list-style-type: none"> Information Discussion |
| 6b. | Ecological Awareness among Religious Communities | Presentation | V. Noreika | <ul style="list-style-type: none"> Information Discussion |
| 6c. | Towards Sustainable Research Culture: International Partnership in Carbon Usage and Infrastructure | Presentation | G. Chass | <ul style="list-style-type: none"> Information Discussion |
| 7. Embedding Good Environmental Practices | | | | |
| 7a. | Biodiversity Enhancement | SC.21/35 | D. Sopsis / G. Pritchard | <ul style="list-style-type: none"> Information Discussion Assurance |
| 8. Energy Management and Energy Procurement | | | | |
| 8a. | Building Energy Performance: Update | SC.21/36 | P. Tamuno / G. Pritchard | <ul style="list-style-type: none"> Information Discussion Assurance |
| 8b. | Energy Procurement Strategy 2021-23 (Outcome) | SC.21/37 | P. Tamuno | <ul style="list-style-type: none"> Information Discussion |

| SN | Items | Paper | Lead | Overview |
|--|--------------------|-------|----------|--|
| | | | | <ul style="list-style-type: none"> • Escalation |
| 9. Other Business | | | | |
| 9a. | Any Other Business | NA | P. Lloyd | <ul style="list-style-type: none"> • Information • Discussion • Actions |
| Date of Next Meeting: Monday 25 October 2021 (10:00 Hours to 12:00 Hours) | | | | |



Sustainability Committee: Terms of Reference

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| Outcome requested: | That the Sustainability Committee should: <ul style="list-style-type: none"> • Endorse this updated version of the Terms of Reference of the Sustainability Committee (SC) • Approve the presentation of this strategy for approval by the Estates Strategy Board (ESB) |
| Executive Summary: | We have updated the Terms of Reference of the Sustainability Committee (SC) for the purpose of: <ul style="list-style-type: none"> • Streamlining the membership of this governance group • Ensuring that all relevant stakeholders and interested parties are represented in the membership of this governance group • Ensuring effective governance of the delivery of our environmental sustainability objectives • The inclusion of management review of our Environmental Management System (EMS) as one of the responsibilities of this governance group • Ensuring that we have a robust governance structure that supports the delivery of our commitment to attain ISO 14001:2015 certification by July 2022 |
| Alignment with: <ul style="list-style-type: none"> • QMUL Strategy • Internal Policies/Regulations • External Statutory Requirements | <ul style="list-style-type: none"> • Queen Mary Environmental Sustainability Policy 2020 • Queen Mary's Environmental Sustainability Action Plan (2020-23) • The Environmental Protection Act 1990 • The Environment Act 1995 • The Clean Air Act 1993 • The Climate Change Act 2008 • Environmental Permitting Regulation (England and Wales) 2016 |
| Consideration of Strategic Risks: | <ul style="list-style-type: none"> • Regulatory compliance • Reputation |
| Subject to Prior and Onward Approval by: | <ul style="list-style-type: none"> • Estates Strategy Board (ESB) |

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|--|---------------------------------------|
| Confidentiality and Distribution: | Not Restricted |
| Equality Impact Assessment: | Not Applicable |
| Author(s) : | Philip Tamuno, Head of Sustainability |
| Date: | 30 July 2021 |

Sustainability Committee: Terms of Reference

Overview

Queen Mary University of London (Queen Mary) is committed to embedding the principles of sustainable development across all areas of its teaching, research and operational activities. We are actively using the United Nations Sustainable Development Goals (UN SDGs) as a framework to planning and communicating our sustainability performances and the ISO 14001:2015 standard to deliver our committing to environmental compliance and continuing environmental performance improvement.

Queen Mary's Sustainability Committee (SC) is the governance group made up of relevant leaders, stakeholders and interested parties. The SC is responsible for: reviewing its Environmental Management System (EMS); coordinating all environmental sustainability initiatives as well as providing assurance of Queen Mary's environmental sustainability performance and environmental regulatory compliance obligations.

The SC reports to Queen Mary's Senior Executive Team (SET) and the Estates Strategy Board (ESB) whenever required.

The Vice Principal Policy and Strategic Partnerships (a member of our SET) provides strategic oversight of our environmental sustainability priorities and Chairs the SC. The Vice Chair of our SC is the Director of Estates, Facilities and Capital Development.

Senior Executive Team (SET): Responsibilities

Queen Mary's Senior Executive Team is responsible for:

- The strategic overview of our performance in the aspect of climate change adaptation and embedding good environmental practices into the way we deliver teaching, learning and all associated activities
- Oversight and ownership of our environmental performance and compliance with all relevant environmental regulations and standards

- Ensuring that resources are available across our University to enhance our resilience to extreme weather conditions as well as current and emerging environmental challenges

Sustainability Committee: Responsibilities

Below are the responsibilities of members of the Sustainability Committee

- Oversee, co-ordinate and drive continuing environmental sustainability performance improvement across all significant aspects of Queen Mary's operations
- Review and approve all relevant environmental sustainability policies, procedures, plans, objectives and key performance indicators (KPIs)
- Monitor progress towards achieving its environmental sustainability objectives and regulatory compliance commitments
- Oversee and coordinate the implementation of its Environmental Management System (EMS) and its commitment to attain and maintain ISO 14001:2015 EMS certification
- Provide assurance of all implemented carbon reduction, resource efficiency and energy efficiency initiatives implemented across Queen Mary
- Review, prioritise and quantify initiatives that contribute to the delivery of Queen Mary's environmental, carbon reduction and resource efficiency objectives
- Coordinate and communicate all environmental sustainability activities across Queen Mary including its annual environmental sustainability report
- Optimise all resources and expertise across Queen Mary to support the delivery of environmental objectives and obligations
- Explore opportunities and engage with all relevant stakeholders to appropriately embed the principles of sustainable development and the United Nations Sustainable Development Goals (UN SDGs) into all our academic offerings
- Provide opportunities and platforms for inter and cross disciplinary collaboration across all areas of sustainable development, environmental sustainability, UN SDGs and decarbonisation
- Ensure that there are adequate resources to support the delivery of Queen Mary's environmental sustainability objectives
- Report and escalate all relevant environmental sustainability issues and compliance obligations to the ESB and/or SET

Sustainability Committee: Membership

The membership of the SC will continue to be made up of senior managers and leaders across our University, representative of staff trade union, staff groups, students, the Students' Union. Members of our Sustainability Committee are expected to have the mandate / authority to make decisions on behalf of their respective departments or service areas.

The Committee's membership is currently drawn from:

- Academic Faculties / Schools / Departments (including international campuses)
- Human Resources
- Students' Union
- Student Representative
- Staff Trade Union
- Staff Group
- Finance
- Procurement
- Information Technology Services
- Marketing and Communications
- Centre for Public Engagement
- Business Development, Innovation and Enterprise Unit
- Health and Safety Directorate
- Sustainability
- All Operational Areas within the Estates, Facility and Capital Directorate (Assistant EAF Directors)

Sustainability Committee: Responsibilities of Members

The responsibilities of members of the Sustainability Committee are:

- Attend all scheduled Committee meetings or nominate deputy whenever they are unable to attend these meetings
- Actively support the delivery of Queen Mary's environmental sustainability objectives and champion embedding good environmental practices across their departments or service areas

- Coordinate the monitoring, reporting and management of all environmental sustainability initiatives and compliance responsibilities within their departments or service areas
- Explore opportunities to integrate the UN SDGs framework across their departments and service areas
- Ensure that all staff members within their departments or service areas are aware of Queen Mary's environmental sustainability priorities and their responsibilities to support the delivery of Queen Mary's environmental sustainability objectives
- Actively encourage members of their teams to participate in all Queen Mary's environmental sustainability initiatives
- Actively support and allocate resources towards achieving Queen Mary's commitment to attain and maintain ISO 14001:2015 EMS certification
- Inform the Chair, Vice Chair and the Head of Sustainability whenever they want to relinquish their membership of the Committee

Sustainability Committee: Quorum

As part of the governance of the Sustainability Committee; the minimum number of members required to form a quorum of the Committee are as follows:

- The Chair / Vice Chair
- At least one of the Assistant Directors Estates and Facilities
- At least two Academic Staff or Researcher
- Director of Health and Safety / Assistant Director of Human Resources
- Deputy Director of Financial Management / Finance Partner Estates and Facilities / Deputy Director of Procurement Finance
- Director of the Centre for Public Engagement / Assistant Director Business Development, Innovation And Enterprise Unit / Assistant Director Marketing and Communications
- Chief Executive Students' Union / Students' Union President / Staff Union Representative / Student Representative / Coordinator of the Environmental Sustainability Champions / Representative of the Staff Group (Cycle Group)
- Assistant Director Research Information Technology System / Executive Manager Innovation and Enterprise Unit
- Head of Sustainability / Nominated Deputy

All meetings at which quorum is attained implies that all approvals, endorsements and decisions reached are binding.

Sustainability Committee: Meeting Schedules and Attendance

The Sustainability Committee meets at least four times every academic year. One of these meetings will be dedicated to conduct the management review of Queen Mary's EMS. Meeting invitations are sent from the sustainability mail box sustainability@qmul.ac.uk

Members that did not attend at least 50% of scheduled meetings (without communicating their reasons of non-attendance) during any academic year would invariably forfeit their membership. This approach will ensure that the Committee is always adequately resourced.

Sustainability Committee: Secretariat and Reporting

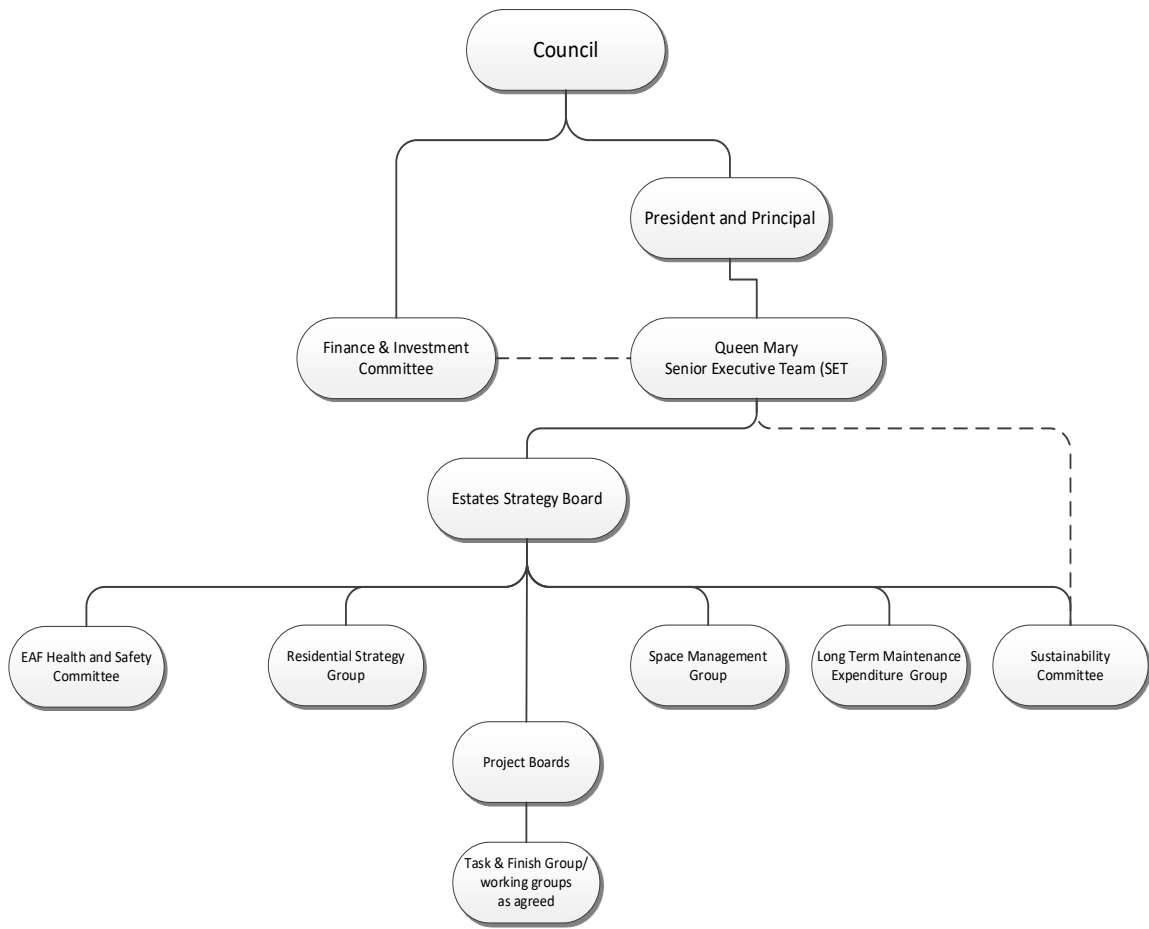
The Sustainability Team is the Secretariat of the Sustainability Committee. Any member of the Sustainability Committee or member of the University community that want item(s) to be included in the agenda of the Committee should send this / these at least a month prior to scheduled meetings. Specifically, all Committee papers and outstanding actions should be sent to sustainability@qmul.ac.uk at least ten days prior to scheduled meetings. In addition,

Previous minutes of meetings, updated action log and committee papers must be distributed in good time prior to every scheduled meetings.

Sustainability Committee: Reporting Structure

Figure 1 details the reporting structure of the Sustainability Committee.

Figure 1: Estates and Facilities Governance and Report Structure



Head of Sustainability
 Sustainability Team
 Estates, Facilities and Capital Development Directorate

Approved by Sustainability Committee
 4 August 2021

Approved by Estates Strategy Board
 XX September 2021

To be reviewed annually or as required.

All Committee’s discussions are confidential and cannot be shared without prior consent.

Version Control

| Date | Version | Lead | Due for Review: |
|---------------|---------|------------------------|-----------------|
| 4 August 2021 | 5.0 | Head of Sustainability | 3 August 2022 |



Environmental Management System: EcoCampus Gold Certification Audit

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| <p>Outcome requested:</p> | <p>That the Sustainability Committee should:</p> <ul style="list-style-type: none"> • Take assurance of this report • Mandate all relevant individuals to provide evidences to close-out the minor non-conformance (MNC) and the three opportunity for improvement (OFI) identified from this audit (by 31 October 2021) |
| <p>Executive Summary:</p> | <p>Our recent EcoCampus Environmental Management System (EMS) Gold Certification Award after a full-day external environmental audit conducted on 8 July 2021 is our third EMS certification since December 2020.</p> <p>Attaining this EMS certification demonstrates that we at an advance stage towards attaining our commitment to attain ISO 14001:2015 by July 2022 and it aligns with our commitment to continue to improve our environmental performance, comply with all relevant regulations and embed good environmental practices across all areas of our operation.</p> <p>Attaining ISO 14001:2015 certification is one of our priorities to embed good environmental practices across all areas of our operations.</p> <p>This full-day external environmental audit covered the following areas:</p> <ul style="list-style-type: none"> • Gold Environmental Management System Procedures • Environmental Compliance Obligations Register • Roles and Responsibilities Register (including staff training records) • Communication and Awareness (internal and external communications) • Emergency Response and Preparedness Procedures • Operational Control Procedures: <ul style="list-style-type: none"> ○ Hazardous Waste Management (including storage and disposal of hazardous wastes and consignment notes) ○ Non-hazardous Waste Management (including waste management facilities and duty of care notes) ○ Discharges to Water Procedure |

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|--|--|
| | <ul style="list-style-type: none"> ○ Emergency Spill Response Procedure ○ Emissions to Air Procedure ○ Contractor Control Procedure ○ Construction and Refurbishment Procedure ○ Energy Management Procedure (including operational control: energy; water and carbon reduction) ○ Heating, Ventilation and Air Condition (HVAC) and F-Gas Regulations (F-gas maintenance and leak testing records, equipment asset register, training records for maintenance engineers) <p>This audit was conducted remotely due to restrictions associated with the COVID-19 pandemic. The External Auditor met with various stakeholders and interested parties across our University.</p> |
| Alignment with: <ul style="list-style-type: none"> • QMUL Strategy • Internal Policies/Regulations • External Statutory Requirements | <ul style="list-style-type: none"> • Queen Mary’s Environmental Sustainability Policy 2020 • Queen Mary’s Environmental sustainability Action Plan (ESAP) 2020-2023 • The Environmental Protection Act 1990 • The Environment Act 1995 • Clean Air Act 1993 • The Climate Change Act 2008 • Environmental Permitting Regulation (England and Wales) 2016 • The Waste (England and Wales) Regulations 2011 |
| Consideration of Strategic Risks: | <ul style="list-style-type: none"> • <i>Compliance with relevant regulations</i> • <i>Reputation</i> |
| Subject to Prior and Onward Consideration by: | <i>Not Applicable</i> |
| Confidentiality and Distribution: | <i>Non-restricted</i> |
| Equality Impact Assessment: | <i>Not Applicable</i> |
| Author(s) : | Philip Tamuno, Head of Sustainability |
| Executive Lead(s): | Ian McManus, Director of Estates, Facilities and Capital Development Philippa Lloyd, Vice Principal Strategic Partnerships |

Date:

4 August 2021

Environmental Management System: EcoCampus Gold Certification Audit

Overview

Our recent EcoCampus Environmental Management System (EMS) Gold Certification Award after a full-day external environmental audit conducted on 8 July 2021 is our third EMS certification since December 2020.

Attaining this EMS certification demonstrates that we are at an advanced stage towards attaining our commitment to attain ISO 14001:2015 by July 2022 and it aligns with our commitment to continue to improve our environmental performance, comply with all relevant regulations and embed good environmental practices across all areas of our operation.

Attaining ISO 14001:2015 certification is one of our priorities to embed good environmental practices across all areas of our operations.

This full-day external environmental audit covered the following areas:

- Gold Environmental Management System Procedures
- Environmental Compliance Obligations Register
- Roles and Responsibilities Register (including staff training records)
- Communication and Awareness (internal and external communications)
- Emergency Response and Preparedness Procedure
- Operational Control Procedures:
 - Hazardous Waste Management (including storage and disposal of hazardous wastes and consignment notes)
 - Non-hazardous Waste Management (including waste management facilities and duty of care notes)
 - Discharges to Water Procedure
 - Emergency Spill Response Procedure
 - Emissions to Air Procedure
 - Contractor Control Procedure

- Construction and Refurbishment Procedure
- Energy Management Procedure (including operational control: energy; water and carbon reduction)
- Heating, Ventilation and Air Condition (HVAC) and F-Gas Regulations (F-gas maintenance and leak testing records, equipment asset register, training records for maintenance engineers)

This audit was conducted remotely due to restrictions associated with the COVID-19 pandemic. The External Auditor met with various stakeholders and interested parties across our University.

EcoCampus Gold Certification Audit: Outcome

This remote was conducted to assess the extent to which we have developed an Environmental Management System (EMS) that meets the assessment criteria associated with EcoCampus Gold Phase requirements.

The External Auditor commended Queen Mary for the progress made since December 2020 and recommended that we proceed to the EcoCampus Platinum Phase and full ISO 14001:2015 EMS certification. However, 1 minor non-conformance (MNC) and 2 opportunities for improvement (OFIs) were identified during this external audit, while 1 MNC was carried forward from the EcoCampus Silver EMS certification audit.

The MNC was regarding compliance with Waste (England and Wales) Regulations 2011 regarding our non-hazardous waste management processes (still open). The MNC was because of:

- Incorrect Standard Industrial Classification of Economic Activities (SIC) code used on some Waste Transfer Notes (WTN) as well as some unsigned WTN.

The 3 OFIs were in the areas of:

- EMS Training Matrix and Plan: Blank and incomplete training records of some key stakeholders and interested parties
- Emergency Response and Preparedness Procedure: We are expected to confirm that we have implemented emergency training programme and have documented evidences that this procedure is periodically tested
- Environmental Policy (carried forward from the Silver EMS Audit): The specified ISO 14001:2015 EMS' clauses below were not included in our current environmental policy:

- The protection of the environment, including prevention of pollution
- Fulfil its compliance obligations
- Continual improvement of the environmental management system to enhance environmental performance

As part of our commitment to continue to improve our environmental performance, we will:

- Ensure that the open OFI on our environmental sustainability policy will be closed-out in October 2021 (when this policy is due for review)
- Continue to offer environmental compliance training sessions and the CPD certificates in Environmental Sustainability Skills for the Workforce to all individuals whose responsibility could directly or indirectly affect our environmental performance and compliance obligations
- Ensure that environmental emergency briefing is developed and made available to all relevant stakeholders and interested parties
- Be developing and implementing robust internal environmental audit programme to test the robustness of our environmental management system and procedures

Recommendations

That the Sustainability Committee should:

- Take assurance of this report
- Mandate all relevant individuals to provide evidences to close-out the minor non-conformance (MNC) and the three opportunity for improvement (OFI) identified from this audit (by 31 October 2021)



Environmental Sustainability Action Plan (ESAP): 2020/21 Review and 2021/22 Insight

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| <p>Outcome requested:</p> | <p>That the Sustainability Committee should:</p> <ul style="list-style-type: none"> • Take assurance of this report • Consider issues that should be escalated • Endorse the proposed initiatives developed to support the implementation of our ESAP during the 2021/22 academic year • Approve the presentation of this report to the Estate Strategy Board (ESB) |
| <p>Executive Summary:</p> | <p>Our Environmental Sustainability Action Plan (ESAP) 2020-2023 was developed as part of our immediate response to these global environmental risks and commitment to embed good environmental practices across all areas of our operation.</p> <p>Specifically, our six-year 30% carbon reduction target against our 2018/19 baseline is one of our immediate responses to the global risks associated with climate change as well as optimise all existing and emerging opportunities.</p> <p>This report details our recent performances and provide insight into proposed initiatives that would be implemented during the 2021/22 academic year to support the delivery of our ESAP (2020-23).</p> <p>The scope of our ESAP (2020-23) are:</p> <ul style="list-style-type: none"> • Responding to Climate Change (Managing Carbon) • Building Energy Efficiency • Travel and Transportation • Water Management and Efficiency • Recycling and Waste Management • Construction, Refurbishment and New-Builds • Sustainable Procurement • Sustainable Food and Catering • Biodiversity and Ecological Enhancement |

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| | <ul style="list-style-type: none"> • Embedding Good Environmental Practices • Civic University and UN SDGs • Environmental Management System (EMS) • Ethical Investment and Fossil Fuel Divestment |
| Alignment with: <ul style="list-style-type: none"> • QMUL Strategy • Internal Policies/Regulations • External Statutory Requirements | <ul style="list-style-type: none"> • Queen Mary's Environmental Sustainability Policy 2020 • Queen Mary's Environmental sustainability Action Plan (ESAP) 2020-2023 • The Environmental Protection Act 1990 • The Environment Act 1995 • Clean Air Act 1993 • The Climate Change Act 2008 • Environmental Permitting Regulation (England and Wales) 2016 • The Waste (England and Wales) Regulations 2011 |
| Consideration of Strategic Risks: | <ul style="list-style-type: none"> • Regulatory compliance • Reputation |
| Subject to Prior and Onward Consideration by: | <i>Not Applicable</i> |
| Confidentiality and Distribution: | <i>Non-restricted</i> |
| Equality Impact Assessment: | <i>Not Applicable</i> |
| Author(s): | Philip Tamuno, Head of Sustainability |
| Executive Lead(s): | Ian McManus, Director of Estates and Facilities Philippa Lloyd, Vice Principal Strategic Partnership |
| Date: | <i>30 July 2021</i> |

Environmental Sustainability Action Plan (ESAP): 2020/21 Review and 2021/22 Insight

Overview

Our Environmental Sustainability Action Plan (ESAP) 2020-2023 was developed as part of our immediate response to these global environmental risks and commitment to embed good environmental practices across all areas of our operation.

Specifically, our six-year 30% carbon reduction target against our 2018/19 baseline is one of our immediate responses to the global risks associated with climate change as well as optimise all existing and emerging opportunities.

This report details our recent performances and provide insight into proposed initiatives that would be implemented during the 2021/22 academic year to support the delivery of our ESAP (2020-23).

The scope of our ESAP (2020-23) are:

- Responding to Climate Change (Managing Carbon)
- Building Energy Efficiency
- Travel and Transportation
- Water Management and Efficiency
- Recycling and Waste Management
- Construction, Refurbishment and New-Builds
- Sustainable Procurement
- Sustainable Food and Catering
- Biodiversity and Ecological Enhancement
- Embedding Good Environmental Practices
- Civic University and UN SDGs
- Environmental Management System (EMS)
- Ethical Investment and Fossil Fuel Divestment

Responding to Climate Change (Managing Carbon)

Adopting a five-year 30% carbon reduction target against our 2018/19 footprint of 25,942 tCO₂e is one of our immediate responses to the risks and challenges associated with climate change as well as our long-term commitment to attain net-zero before 2050.

Climate Change: 2020/21 Overview

During the 2020/21 academic year, we have continued to collate all our Scope 1 (fossil fuel used in heating our buildings and fuel used across our fleet), 2 (the electricity we use) and 3 (the volume of water we use and our business travel).

Due to the restrictions associated with COVID-19 and the significant reduction in local, short-haul and long-haul flights we have focused on monitoring our energy and water use. These data are basis on which our carbon management plan would be developed and being used to prepare applications in response to government's funding. During the 2020/21 academic year, we submitted two applications (though submitted after the funds have been allocated) to the Government's decarbonisation fund. See the section on **Building Energy Efficiency** for further details of the energy efficiency applications grants we submitted during the 2020/21 academic year.

We joined and have been participating in the Chair of Party-26 (COP26) University Group. A Group set-up to coordinate UK Universities response to climate emergency. We have used our membership of COP-26 Universities to engage and network with like-minded Colleges and Universities. We are also currently actively involved in the London Borough of Tower Hamlets Carbon and Climate Taskforce.

The highlight of our 2020/21 climate emergency activities is that our School of Law declared a Climate and are working with the Sustainability Team to deliver the underpinning concepts of this declaration.

Climate Change: 2021/22 Insight

We aim to:

- Be including our Malta Campus into the scope of our de-carbonisation commitments
- Be developing a Carbon Management Plan (CMP). This plan will be the framework on which we deliver our short-term carbon reduction objectives and long-term net zero aspirations

- Continue to actively participate in the London Borough of Tower Hamlets Carbon and Climate Taskforce
- Be joining 19 other leading brand (represented by the Head of Sustainability) at the 2021 Net Zero Carbon Conference
- Organising Queen Mary's version COP-26 conference. This conference will focus on research, teaching and practical actions in the area of climate change. This conference will highlight:
 - The Science and Causes (Human Factors) of Climate Change
 - The Evidences and Consequences of Climate Change:
 - Actions to Tackle Climate Change: Policies, Declarations and Agreements
 - The Benefits of Climate Change Response
 - Collating commitment and pledges across our University
- Continue to actively participate in relevant local, sectoral and national climate change and decarbonisation networks

Building Energy Efficiency

The energy used across our UK campuses accounts for 61.8% of our 2018/19 carbon footprint (baseline). Therefore investing in building energy efficiency is fundamental to the delivery of our six-year 30% carbon reduction target.

Building Energy Efficiency: 2020/21 Overview

At the end of the 2020/21 academic year we have almost completed the commissioning of the lighting upgrade, building management system (BMS) and boiler optimisation projects funded from the £2.46 Million energy efficiency loan we secured from Salix. We have also secured a £511,251 energy efficiency recycling funds to support the installation of 12.24 kWp photovoltaic panels on the roof of the Queens' Building, the insulation of the roof of the Queens' Building as well as upgrading the IT Server Room located at the Joseph Priestley Building.

We recently applied for a grant of £124,399.20 to develop a heat decarbonisation plan (HDP) for 55 buildings across our major UK campuses. If successful HDP will serve as the framework on which we deliver our six-year carbon reduction target and develop our long-term net zero delivery plan. We were unfortunate that two of the decarbonisation grant applications¹ we prepared were submitted after the funds were allocated.

¹ Applications value of £5,050,538.57 and £4,176,272.81

During the year under review we are in line to achieve a 15% reduction in the electricity used across our UK campuses compared to our 2018/19 levels but a 1% increase in our gas consumption. These performances are partially affected by the restrictions associated with the COVID-19 pandemic.

Building Energy Efficiency: 2021/22 Insight

We aim to:

- With the cooperation of relevant stakeholders install smart electric and gas meters at the premises that do not currently have smart meters
- Continue to monitor and manage the energy use and performances of our estates
- Implement energy efficiency campaigns across our campuses
- Develop comprehensive profiles of all our buildings. These profiles would contain the energy efficiency and decarbonisation opportunities across each of these buildings
- Commission and monitor the performances of the ongoing energy efficiency projects
- Depending on the outcome of our recent heat decarbonisation application, develop a heat decarbonisation plan

Travel and Transportation

Our business travel contributed 38% of our 2018/19 carbon footprint. The restrictions associated with the COVID-19 pandemic since March 2020 have significantly reduced our local, short-haul and long-haul flights.

Travel and Transportation: 2020/21 Overview

During the 2020/21 academic year we organised two free bicycle maintenance and advice repair sessions on 27 September 2020 and during the Clean Air Day in June 2021.

As all COVID-19 restrictions are removed, we would continue to monitor the trend and patterns of our business travels.

Travel and Transportation: 2021/22 Insight

We would:

- Continue to collate and monitor our business travel
- Document and share our learning from the impact of restriction associated with COVID-19 pandemic on travel and transportation

- Explore and embed best business travel practices that are aligned with our environmental sustainability commitments
- Explore, prioritise and quantify sustainable travel options and integrate these into our carbon management plan (CMP)
- Implement a suite of events to celebrate the 2022 Clean Air Day and promote the benefits of sustainable and healthy travel
- Engage with the Cycle Group to improve cycle storage facilities across our campuses
- Introduce car park charging scheme from the 2022/23 academic for the purpose of encouraging the use of public transport

Water Management and Efficiency

The carbon associated with the water we used across our UK campuses accounted for 0.4% of our 2018/19 carbon footprint. In addition, embedding water efficiency into all aspects of our operations is part of contribution to reducing the pressures on water resources as well as responding to climate emergency.

Water Management and Efficiency: 2020/21 Overview

We are in line to achieve 28% reduction of the water used across our UK campuses compared to our 2018/19 levels. This achievement is significantly due to partial closure of our campuses as a result of the restrictions associated with the COVID-19 pandemic.

We have continued to actively monitor the water used across all our buildings.

Water Management and Efficiency: 2021/22 Insight

We aim to:

- Continue to cooperate with all relevant stakeholders to install smart meters across non-smart water meters
- Explore, prioritise and quantify water efficiency measures and integrate these into our carbon management plan (CMP)
- Deliver water efficiency awareness campaigns across our campuses
- Upgrade all urinary systems across our campuses with systemisers

Recycling and Waste Management

33% of the municipal / general wastes generated and collected from our premises during the 2018/19 academic year were recyclable materials. A proportion of these weight were extrapolated based on standard industry factors.

The wastes we generate contribute to climate change and we would continue to promote the waste management hierarchy.

Recycling and Waste Management: 2020/21 Overview

We have continued to sponsor the ReUse programme, the used book collection service and our Catering Outlets have continued to use the Too-Good-To-Go app. These two schemes are been implemented to reduce waste avoidance.

We have continued to use the Sustainability Leadership Scorecard (SLS) to monitor our performance in integrating the UN SDGs into our waste management process.

Recycling and Waste Management: 2021/22 Insight

We aim to:

- Continue to sponsor the ReUse scheme and monitor the waste avoided via these programme
- Continue to promote the used book collection services and monitor the waste avoided and carbon reduction associated with this service
- Continue to monitor and report the volume of food waste avoid by using the Too-Good-To-Go app
- Reduce the volume of our waste streams that are extrapolated by on standard industry factors
- Organise waste reduction and recycling campaigns across our campuses

Construction, Refurbishment and New-Builds

Attaining 'Excellent' and 'Very Good' ratings from the Building Research Establishment Environmental Assessment Method (BREEAM) for all our major new builds and refurbishment projects respectively would contribute to improving the environmental performances our estates.

Construction, Refurbishment and New-Builds: 2020/21 Overview

The refurbishment of the Queens' Building is our major on-going refurbishment project. Therefore to improve the energy performance of this building, we will be investing £152,692 on installing 12.24 kWp photovoltaic panels on the roof of this building as well as to insulate the roof of this iconic building.

We have continued to use the SLS to monitor our performance in integrating the UN SDGs into our construction, refurbishment and new-build processes.

Construction, Refurbishment and New-Builds: 2021/22 Insight

We aim to:

- Monitor and report the energy performance of the Queens' Building post completion compared to its pre-refurbishment status
- Continue to explore opportunities to integrate our energy efficiency and decarbonisation priorities into all our new-builds, conversion and refurbishment projects

Sustainable Procurement

Integrating environmental and corporate social responsibility (CSR) specifications into relevant aspects of our procurement and commissioning processes will influence our supply chain, suppliers, and contractors to reduce the environmental impacts of their operations.

We would therefore continue to challenge our major contractors and suppliers to actively reduce their environmental and carbon footprints.

Sustainable Procurement: 2020/21 Overview

Sustainable procurement is one of the significant aspects of our environmental management system (EMS) and it is one of the priorities within our current environmental sustainability policy.

We have continued to use the SLS to monitor our performance in integrating the UN SDGs into our procurement and commissioning processes.

Sustainable Procurement: 2021/22 Insight

We aim to:

- Share our environmental sustainability policy with all our prospective contractors and suppliers and expect these relevant parties to commit to uphold good environmental standards and comply with all relevant environmental regulations and standards when appointed as Queen Mary's Contractors or Suppliers
- Include relevant environmental sustainability specifications into all our major procurement and commissioning processes
- Develop our sustainable procurement guide. This guidance document would be used as the framework to deliver our sustainable procurement objectives

Sustainable Food and Catering

Embedding good environmental practices into the way we source, prepare and process food has the potential to enhance our environmental performance and reduce the environment impacts of the food we serve across our campuses.

Sustainable Food and Catering: 2020/21 Overview

Our Sustainable Food and Catering policy was updated during the year under review. We have continued to offer vegetarian meal options to patrons of our catering outlets.

The Catering Management Team have developed and are rolling out tool box training sessions on sustainable development and waste management to all catering staff. These sessions are aimed at promoting the benefits of good environmental management practices.

We have continued to use the SLS to monitor our performance in integrating the UN SDGs into the way we deliver catering and associated services.

Sustainable Food and Catering: 2021/22 Insight

We aim to:

- Continue to deliver the tool box training sessions to all catering staff
- Continue to use the Too-Good-To-Go app to reduce food waste
- Continue to offer vegetarian meal options to all patrons of our catering outlets

Biodiversity and Ecological Enhancement

Biodiversity and ecological enhancement is an integral aspect of our EMS and we have continued to implement initiatives, which enhance biodiversity across our campuses.

Biodiversity and Ecological Enhancement: 2020/21 Overview

Our Grounds and Garden EMS Procedure was developed to support the delivery of our commitment to improve biodiversity across our campuses.

The Grounds and Gardens was assigned interim responsibility of managing our allotment during the period of restrictions associated with the COVID-19 pandemic.

Our Legal Advice Centre have continued to be proactive on Climate Action and hosted a virtual panel discussion involving our Head of Sustainability on “Should Trees Have Standing” as part of the celebration of the Global Annual Day for Action on Climate Change. This panel discussion by over 70 participants.

The highlight of our 2020/21 is the planting of six Black Poplar Trees across our Mile End and Charterhouse Square campuses. These trees were planted as part of the celebration of the World Environment Day and it is aligned with the London Borough of Tower Hamlets commitment to enhancement across the Borough and the UN Decade on Ecosystem Restoration.

We have continued to use the SLS to monitor our performance in integrating the UN SDGs into the way we manage our grounds and gardens.

Biodiversity and Ecological Enhancement: 2021/22 Insight

We aim to:

- Continue to engage and collaborate with all relevant internal and external stakeholders
- Continue to increase biodiversity across our campuses
- Continue to invest in biodiversity enhancement
- Continue to promote the benefits of biodiversity and ecological conservation
- Develop our Biodiversity Action Plan (BAP) by July 2022

Embedding Good Environmental Practices

Effectively embedding good environmental practices and the principles of sustainable development into all aspects of our operations is one of our environmental sustainability priorities.

Embedding Good Environmental Practices: 2020/21 Overview

From May 2020, we started offering all professional services and academic staff the IEMA Environmental Sustainability Skills for the Workforce (ESSW) course. This continue professional development (CPD) course have been successfully completed by 109 (across 29 departments / service areas as well as our Malta Campus). This course gives participants an opportunity to gain practical knowledge of environmental risks and opportunities as well as tools that could be used to deliver evidence-based environmental outcomes.

In addition to the ESSW, we delivered the five-day IEMA Foundation Certificate in Environmental Management (FCEM) to 9 professional services staff, 1 Post-Doctoral Researcher, 2 PhD Research Scholar and 1 Undergraduate. The 12 participants that successfully completed the FCEM are currently Associate Members of IEMA and are applying the knowledge gained from this course into the way they deliver their responsibilities.

A review of the current 138 undergraduate courses that we offer show that 62% of these courses / programme have varied proportion of education for sustainable development. In addition to this, we are also in conjunction with EcoCampus being offering all Queen Mary students a CPD course on sustainable development. Between May 2020 and July 2021, 454 students across 19 departments / schools have registered for this optional module (delivered online).

As part of our commitment to embed good environmental practices across our laboratories, we have introduced the Laboratory Efficiency Assessment Framework (LEAF). The LEAF tool is being used to improve the environmental performances of our laboratories as well as assist users to appropriately explore opportunities to reduce the environmental impacts of laboratory activities.

One of the highlights of embedding good environmental sustainability across all areas of operations is that we commissioned an Environmental Sustainability Champion group. The Coordinators of this group are currently members of our SC and this group is currently involved in promoting good and responsible environmental practices across their areas of work.

Embedding Good Environmental Practices: 2021/22 Insight

We aim to:

- Continue to offer all professional services and academic staff the ESSW course
- Engage with all relevant stakeholders to integrate an overview of environmental sustainability into our corporate induction programme / activities

- Continue to provide a platform for the Environmental Sustainability Champions to share good practices and promote the benefits of good environmental practices
- Extend the FCEM offering to at least three Undergraduates across the School of Geography and School of Business Management
- Continue to offer the optional online module on sustainable developed to all Queen Mary students
- Introduce environmental sustainability bulletins. These bulletins will be used to promote and showcase environmental sustainability initiatives across our University

Civic University and UN SDGs

We have continued to actively integrate corporate social responsibility (CSR) and the fundamental of the UN SDGs into relevant aspects of our operations.

Civic University and UN SDGs: 2020/21 Overview

We have continued to maintain our memberships of the Environmental Association for Universities and Colleges (EAUC), the Institute of Environmental Management and Assessment (IEMA) and EcoCampus. We have used continued to use these memberships to engage and collaborate with like-minded organisations for the purpose of promoting the benefits of good environmental practices, responding to current environmental risks as well as optimising current and emerging environmental opportunities.

We are also active participants in the Russell Group Sustainability Network, COP-26 University Group and London Borough of Tower Hamlets Carbon and Climate Taskforce. We have used our participation in this Group to share initiatives across our Universities as well as engage with partner organisation.

We have continued to use the EAUC's Sustainability Leadership Scorecard to monitor and report our performances in integrating the fundamentals of the UN SDGs into all areas of our operations.

Some of the highlights of our collaboration are that our Vice Chair Policy and Strategic Partnerships shared our approach to net zero and possible collaboration with strategic stakeholders across the London Borough of Tower Hamlets. In addition, our Head of Sustainability gave a presentation on our approach on environmental sustainability training

and development for the purpose of empowering staff to make a difference at IEMA inaugural lunch and learn session.

Civic University and UN SDGs: 2021/22 Insight

We aim to:

- Continue to maintain our members of EAUC, IEMA and EcoCampus
- Continue to actively participate in the Russell Group Sustainability Network, COP-26 University Group and London Borough of Tower Hamlets Carbon and Climate Taskforce
- Continue to use the EAUC's Sustainability Leadership Scorecard to assess our performance in integrating the fundamentals of the UN SDGs into all aspects of our operations
- Continue to collaborate with link minded organisations on the sustainable development and climate emergency agenda

Environmental Management System (EMS)

Our commitment to attain ISO 14001:2015 EMS certification by July 2022 is aligned with our commitment to continue to improve our environmental performance and comply with all relevant environmental regulations and standards.

Environmental Management System (EMS): 2020/21 Overview

We attained EcoCampus Gold EMS certification award during the year under review. The Gold EMS award is one step from ISO 14001:2015 EMS certification.

The 13 staff that participated in the IEMA Foundation Certificate in Environmental Management (FCEM) are involved at various levels in our environmental management system. In addition, we have offered relevant staff opportunities to participate in courses for the purpose of enhancing their knowledge of environmental audit, environmental management system and environmental compliance. The courses and the number of participants are:

- Environmental Management Internal Auditing (7)
- Environmental Compliance and Obligation (15)
- Environmental Management System (11)

We have recently recruited Sustainability and Energy Manager and Sustainability and Environment Manager. These two staff will among other responsibilities be actively involved in our journey to attain our ISO 14001:2015 by July 2022.

We currently have a vacant Sustainability Officer position; this role became vacant recently.

Environmental Management System (EMS): 2021/22 Insight

We aim to:

- Close-out the minor non-conformance and three opportunities for improvement from our EcoCampus Gold EMS audit
- Immediately recruit to fill the Sustainability Officer position
- Deliver the five-day IEMA Foundation Certificate in Environmental Management in November 2021
- Offer the environmental auditing, environmental compliance and environmental management system courses to all relevant staff
- Attain ISO 14001:2015 EMS certification by July 2022

Ethical Investment and Fossil Fuel Divestment

Our current Ethical Investment Policy details among other priorities our commitment of no direct investment in tobacco production companies and aim to minimise investment in fossil fuels and armaments.

Ethical Investment and Fossil Fuel Divestment: 2020/21 Overview

Our Chief Finance Officer in conjunction with our Vice Principal Policy and Strategic Partnerships (the Chair of our Sustainability Committee) are currently engaging with all relevant stakeholders to update the current version of our investment policy for the purpose of increasing the environmental sustainability objectives that underpin this policy.

Ethical Investment and Fossil Fuel Divestment: 2021/22 Insight

We aim to:

- Update our current ethical investment policy with enhanced environmental sustainability commitments on fossil fuel and armaments divestment

Recommendations

That the Sustainability Committee should:

- Take assurance of this report
- Consider issues that should be escalated

- Endorse the proposed initiatives developed to support the implementation of our ESAP during the 2021/22 academic year
- Approve the presentation of this report to the Estate Strategy Board (ESB)



Embedding Good Environmental Practices: Biodiversity Enhancement

| | |
|--|---|
| Outcome requested: | That the Sustainability Committee should: <ul style="list-style-type: none"> • Take assurance of this report • Consider issues that should be escalated |
| Executive Summary: | This paper details activities that have been carried out during the 2020/21 academic year for the purpose of improving biodiversity across our campuses as well as raise awareness of the benefits of biodiversity. |
| Alignment with: <ul style="list-style-type: none"> • QMUL Strategy • Internal Policies/Regulations • External Statutory Requirements | <ul style="list-style-type: none"> • Queen Mary Environmental Sustainability Policy 2020 • Queen Mary Environmental Sustainability Action Plan (ESAP) 2020-2023 |
| Consideration of Strategic Risks: | <ul style="list-style-type: none"> • <i>Regulatory compliance</i> • <i>Reputation</i> |
| Subject to Prior and Onward Approval by: | <i>Not Applicable</i> |
| Confidentiality and Distribution: | <i>Non-restricted</i> |
| Equality Impact Assessment: | <i>Not Applicable</i> |
| Author (s) : | Dimitrisz Sopisz, Grounds and Garden Supervisor Garry Pritchard, Assistant Director Operations, Estates and Facilities |
| Date: | <i>30 July 2021</i> |

Embedding Good Environmental Practices: Biodiversity Enhancement

Overview

This paper details activities that have been carried out during the 2020/21 academic year for the purpose of improving biodiversity across our campuses as well as raise awareness of the benefits of biodiversity.

Landscape Management

We have reduced the frequency of lawn mowing regime as well as the use of chemicals. These approaches have the potential of increasing wildlife and biodiversity across our Mile End campus. We also currently manually remove weeds (unwanted plants). This approach have the potential of improving wildlife and biodiversity.

In the new financial year, we are keen to replace our petrol lawnmowers with battery powered ones if we have available fund to do it. Moreover, we have installed an irrigation system in the herbaceous borders next to the clock tower. The system has helped to cut down on water usage and wastage. The aim is to gradually extend the scheme across the Campus.

Community Orchard

The community orchard being developed progressing well and we will continue to monitor and report the performances of this orchards.

Wildflower Meadow

We have received numerous commendation on the wildflower meadow being created across our Mile End campus.

Community and Green Mary Allotment

Due to the lock-downs and restrictions associated with the COVID-19 pandemic, the Grounds and Gardens Team have been assigned the responsibilities to temporarily take over the management of the GreenMary Allotments. These allotments have been used to grow a wide variety of vegetables.

Hedgehog Friendly Campus

We recently received the Bronze Hedgehog Friendly Campus Award and we are working towards the Silver Award. We are optimistic that we will attain the Silver award by 31 December 2021.

Academic and Student Involvement

During the 2021/22 academic year numerous biodiversity enhancement activities have been implemented by the Grounds and Gardens Team. Some of the activities delivered range from: foraging walk; four gardening workshops; three Seed Giveaway workshops and two garden therapy sessions. Approximately 80 students and 15 member of staff attended these activities. In addition, there are increasing demand from staff and students for 1-2-1 garden volunteering opportunities.

Other Campuses

We have recently implemented a “Seed Giveaway” initiatives at our Charterhouse Square and Whitechapel campuses. We are also developing a roof gardens at the Department W.

Biodiversity Action Plan

We are currently developing our Biodiversity Action Plan (BAP). This plan will set out our long term biodiversity commitment. The draft of the BAP will be presented at the scheduled October 2021 meeting of the Sustainability Committee.

Biodiversity Enhancement Grant

We submitted an application for a NEIRF funding to enhance biodiversity across our Mile End campus. This grant was highly subscribed and our application was not successful. We are currently exploring options to fund the projects included in our NEIRF application. The projects submitted for the NEIRF funding are as follows: creation of wildflower meadows; increasing the numbers of black poplar trees and the creation of living walls.

Campus as Lab Initiative

We are currently exploring opportunities to implement the living lab concept across our Campuses.

Recommendations

That the Sustainability Committee should:

- Take assurance of this report
- Consider issues that should be escalated



Building Energy Performance: Update

| | |
|--|---|
| Outcome requested: | That the Sustainability Committee should: <ul style="list-style-type: none"> • Take assurance of this report • Consider issues that should be escalated |
| Executive Summary: | <p>The energy used across our estates contributes 61.8% of our carbon baseline. Therefore, we have continued to proactively monitor, manage and report the energy used across our campuses as well as explore opportunities to reduce energy wastage and deliver energy efficiency.</p> <p>This report summarises our projected year-end energy consumption in comparison to our baseline (2018/19) and 2020/21 energy budget.</p> <p>Based on the energy we used between August 2020 and June 2021, we are in line to:</p> <ul style="list-style-type: none"> • Achieve a 10.3% (3,544 MWh) reduction in electricity used compared to budget, with associated £593,483 budget underspend. This underspend are from the lower than budgeted electricity used and savings from our current energy contract • End the year at a 16.9% (4,984 MWh) higher than budget gas; however with a £91,455 underspend due to the savings from our current energy contract |
| Alignment with: <ul style="list-style-type: none"> • QMUL Strategy • Internal Policies/Regulations • External Statutory Requirements | <ul style="list-style-type: none"> • Queen Mary Environmental Sustainability Policy 2020 • Queen Mary Environmental Sustainability Action Plan (ESAP) 2020-2023 |
| Consideration of Strategic Risks: | <ul style="list-style-type: none"> • <i>Regulatory compliance</i> • <i>Reputation</i> |
| Subject to Prior and Onward Approval by: | <i>Not Applicable</i> |

| | |
|--|--|
| Confidentiality and Distribution: | <i>Non-restricted</i> |
| Equality Impact Assessment: | <i>Not Applicable</i> |
| Author(s) : | Philip Tamuno, Head of Sustainability Garry Pritchard, Assistant Director Operations Estates and Facilities |
| Date: | <i>30 July 2021</i> |

Building Energy Performance: Update

Overview

The energy used across our estates contributes 61.8% of our carbon baseline. Therefore, we have continued to proactively monitor, manage and report the energy used across our campuses as well as explore opportunities to reduce energy wastage and deliver energy efficiency.

This report summarises our projected year-end energy consumption in comparison to our baseline (2018/19) and 2020/21 energy budget.

Based on the energy we used between August 2020 and June 2021, we are in line to:

- Achieve a 10.3% (3,544 MWh) reduction in electricity used compared to budget, with associated £593,483 budget underspend. This underspend are from the lower than budgeted electricity used and savings from our current energy contract
- End the year at with a 16.9% (4,984 MWh) higher than budget gas; however with a £91,455 underspend due to the savings from our current energy contract

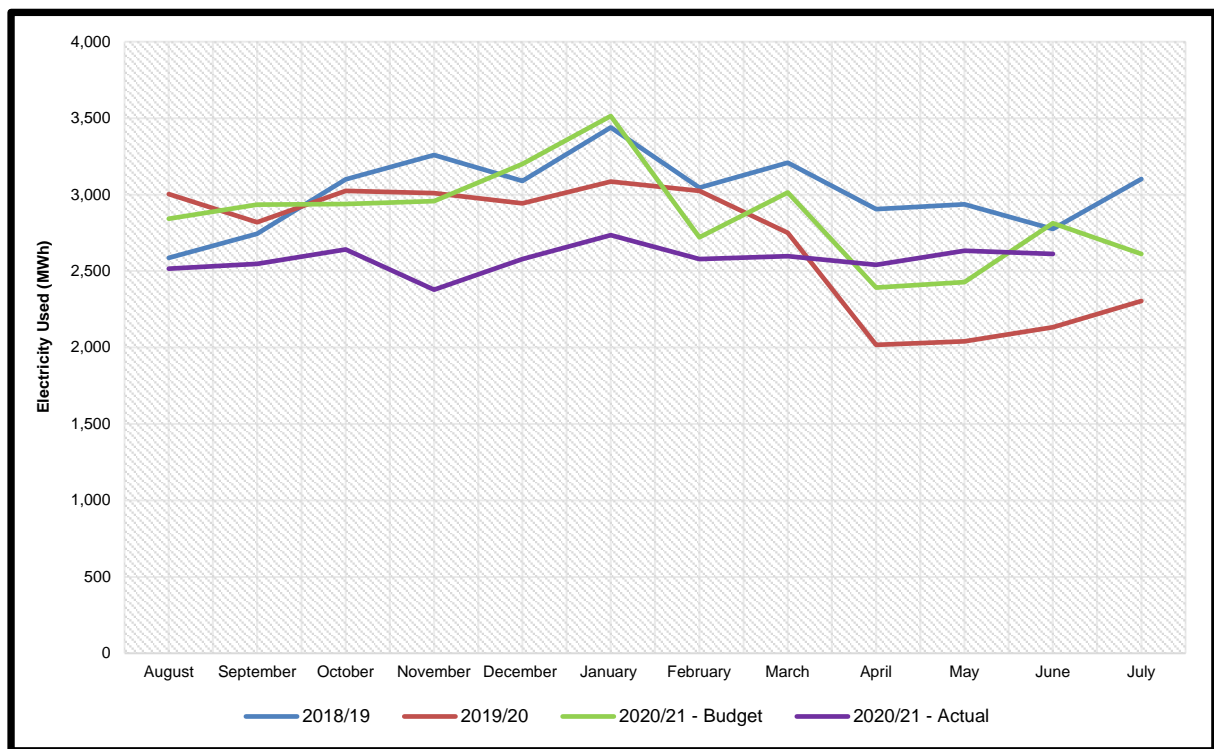
Projected Year-End: Electricity Performance

Below are highlights of our current (August 2020 to June 2021) electricity consumption performances, we are in line to:

- Achieve a 14.8% (5,370 MWh) electricity reduction compared to our 2018/19 baseline
- Achieve a 10.3% (3,543,698 kWh) electricity reduction compared to our 2020/21 budgeted consumption.

The impact of this performance is that we are in line to achieve a £593,483 budget underspend due to the lower than budgeted electricity used across our campuses (partly due to restrictions associated with the COVID-19 pandemic) as well as the savings from our current energy contract. Figure 1 show the trend of our electricity consumption.

Figure 1: Trend in Electricity Consumption



Projected Year-End: Gas Performance

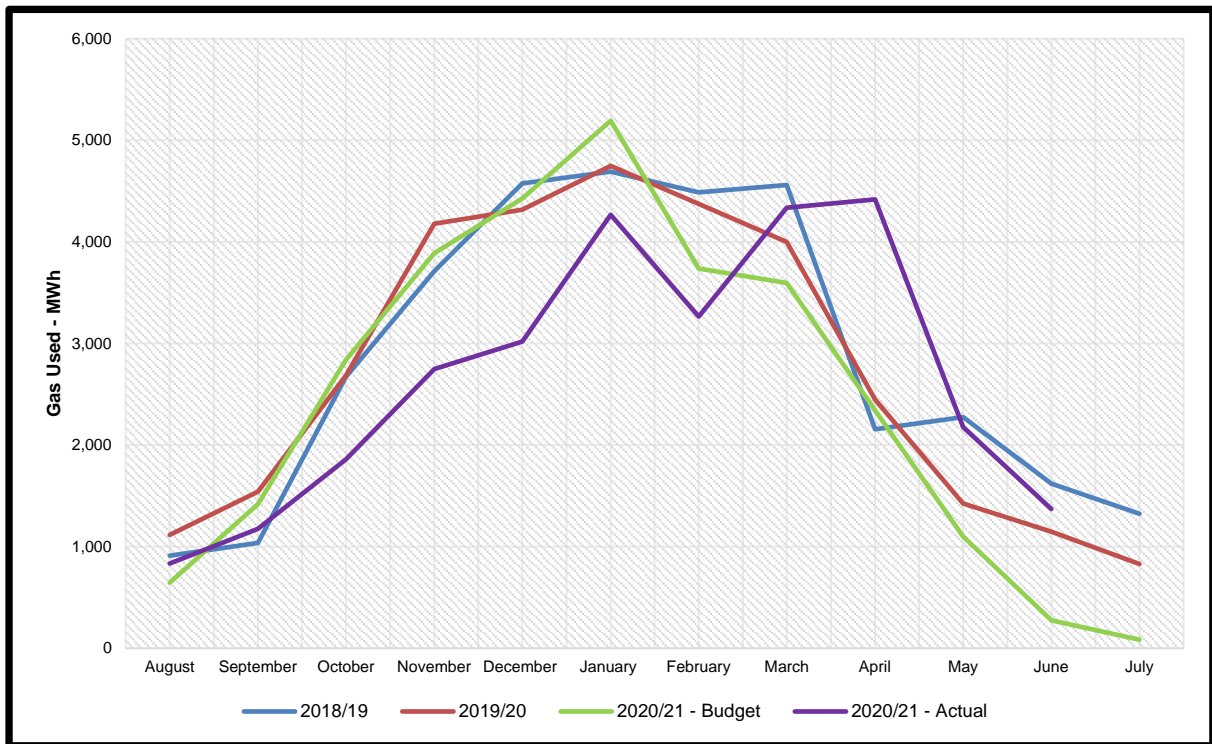
Below are highlights of our current (August 2020 to June 2021) gas consumption performances, we are in line to:

- Record a 1.5% (507,366 kWh) increase in our gas consumption compared to our 2018/189 baseline
- Record a 16.9% (4,984 MWh) increase in the gas use compared to our 2020/21 budgeted gas consumption

The significant variance between our budgeted gas and actual gas consumption is due to the fact that most of the Salix Tranche 3 projects (£2.46 Million) are yet to be completed (these projects were scheduled to be completed by December 2020 and the savings applied from February 2021).

However, despite our higher than budgeted gas consumption, we are in line to achieve a £91,455 budget underspend as a result of the savings from our current energy contract. Figure 2 shows the trend of our gas consumption.

Figure 2: Trend in Gas Consumption



Recommendations

That the Sustainability Committee should:

- Take assurance of this report
- Consider issues that should be escalated



Energy Procurement Strategy (2021-23): Outcome

| | |
|---------------------------|---|
| Outcome requested: | <p>That the Sustainability Committee should:</p> <ul style="list-style-type: none"> • Take assurance of this report • Consider issues that should be escalated |
| Executive Summary: | <p>This report summarises the outcome of our recent energy procurement competition. The procurement competition was initiated to select the most economically advantageous 24-months fixed energy contracts, because our current 12-month fixed energy contract expires on 30 September 2021.</p> <p>This energy procurement competition that was approved by our Senior Executive Team (SET) on the premise that we can accept the lowest quotes if these are not higher than our 2019/20 levels.</p> <p>However energy wholesale energy price and associated market indices such as Oil, Coal and Carbon have significant risen since October 2020. For example average wholesale power (electricity) and gas prices increased from approximately £40/MWh to £70/MWh and 36p/therm to 65p/therm respectively (between October 2020 and July 2021).</p> <p>In addition, the price increases that have been recorded between October 2020 and July 2021 on oil, coal and carbon are as shown below:</p> <ul style="list-style-type: none"> • Oil: From \$43/bbl to \$76/bbl • Coal: From \$58.6/tonne to \$88.2/tonne • Carbon: From €24.9/CO₂ to €57.5/CO₂ <p>Based on the above premises and the significant short-fall in gas storage as a result of the unusually cold Spring (2021) implied that the lowest unit gas and electricity unit prices we received from our recent energy procurement exercise were significantly higher than our 2019/20 levels. Therefore, we were unable to accept any of the quotes that we received between 5 and 7 July 2021.</p> |
| Alignment with: | <ul style="list-style-type: none"> • <i>Queen Mary's cost efficiency and environmental sustainability priorities</i> |

| | |
|---|---|
| Consideration of Strategic Risks: | To secure energy (gas and electricity) supply services for all Queen Mary's UK premises between 1 October 2021 and 30 September 2023. |
| Subject to Prior and Onward Approval by: | <ul style="list-style-type: none"> • Not Applicable |
| Confidentiality and Distribution: | <i>Non-restricted</i> |
| Equality Impact Assessment: | <i>Not Applicable</i> |
| Author(s) : | Philip Tamuno, Head of Sustainability |
| Date: | <i>30 July 2021</i> |

Energy Procurement Strategy (2021-23): Outcome

Overview

This report summarises the outcome of our recent energy procurement competition. The procurement competition was initiated to select the most economically advantageous 24-months fixed energy contracts, because our current 12-month fixed energy contract expires on 30 September 2021.

This energy procurement competition that was approved by our Senior Executive Team (SET) on the premise that we can accept the lowest quotes if these are not higher than our 2019/20 levels.

However energy wholesale energy price and associated market indices such as Oil, Coal and Carbon have significant risen since October 2020. For example average wholesale power (electricity) and gas prices increased from approximately £40/MWh to £70/MWh and 36p/therm to 65p/therm respectively (between October 2020 and July 2021).

In addition, the price increases that have been recorded between October 2020 and July 2021 on oil, coal and carbon are as shown below:

- Oil: From \$43/bbl to \$76/bbl
- Coal: From \$58.6/tonne to \$88.2/tonne
- Carbon: From €24.9/CO₂ to €57.5/CO₂

Based on the above premises and the significant short-fall in gas storage as a result of the unusually cold Spring (2021) implied that the lowest unit gas and electricity unit prices we received from our recent energy procurement exercise were significantly higher than our 2019/20 levels. Therefore, we were unable to accept any of the quotes that we received between 5 and 7 July 2021.

Non Half Hour (NHH) Electricity Supply Service Quotes

We received six 24-months fixed NHH green electricity tariff supply service quotes. The lowest of these quotes was 21.9% (from 15.59p/kWh to 19.00p/kWh) higher than our 2019/20 levels and

29.1% (14.72p/kWh to 19.00p/kWh) higher than the current unit price we pay for NHH electricity supply services.

As seen in Appendix 1, there is a 4.4% (£9,916.08) difference between the highest and lowest quotes we received on 5 July 2021.

Half Hour (HH) Electricity Supply Service Quotes

We received seven 24-months fixed HH green and brown electricity tariff supply service quotes. The lowest of these quotes was 10.5% (from 13.86p/kWh to 17.23p/kWh) higher than our 2019/20 levels and 24.3% (15.59p/kWh to 17.23p/kWh) higher than the current unit price we pay for NHH electricity supply services. The lowest quotes we received was for green electricity tariff. This implies that green electricity tariffs are as competitive as comparable brown tariffs.

As seen in Appendix 2, there is a 9.1% (£503,495.03) difference between the highest and lowest quotes we received on 6 July 2021.

Gas Supply Service Quotes

We received nine 24-months fixed gas supply service quotes. The lowest of these quotes was 35.9% (from 2.89p/kWh to 3.93p/kWh) higher than our 2019/20 levels and 99.4% (1.97p/kWh to 3.93p/kWh) higher than the current unit price we pay for gas supply services.

As seen in Appendix 3, there is a 26.7% (£370,901.52) difference between the highest and lowest quotes we received on 7 July 2021.

2021/22: Budgetary Implications

The financial implication of the outcome of these energy procurement exercise is that there is a potential risks of a minimum of £1.17 Million pressure on our 2021/22 energy budget.

Since after the completion of our energy procurement competition, wholesale energy prices have continued to rise. See Tables 1 and 2 for the breakdown of these costs.

Table 1: Electricity Budgetary Pressure (2021/22 Academic Year)

| | AQ (kWh) | Gross (£) | Unit Rates (p/kWh) |
|---|-------------------|----------------------|---------------------------|
| Lowest Quotes (20220/21) | 33,189,193 | £5,738,411.53 | 17.29 |
| Average Current Contract | 34,366,434 | £4,763,187.81 | 13.86 |
| 2020/21 Budget | 34,366,434 | £4,828,375.08 | 14.05 |
| 2020/21 Actual | 30,595,262 | £4,197,440.89 | 13.72 |
| 2021/22 Budget | 34,366,434 | £5,065,611.00 | 14.74 |
| 2021/22 Projection (Based on Quotes) | 33,189,193 | £5,738,411.53 | 17.29 |
| 2021/22 Projection (August - Sept) | 5,777,539 | £800,766.89 | 13.86 |
| 2021/22 Projection (October - July) | 27,411,654 | £4,739,475.06 | 17.29 |
| 2021/22 Projection Adjusted | 33,189,193 | £5,540,241.95 | 16.69 |
| 2021/22 Adjusted Budget Pressure | | +£474,630.95 | 9% |

Table 2: Gas Budget Pressure (2021/22 Academic Year)

| Supplier | AQ (kWh) | Gross (£) | Unit Rates (p/kWh) |
|---|-------------------|----------------------|---------------------------|
| Lowest Quote (20220/21) | 29,545,163 | £1,161,124.91 | 3.93 |
| Average Current Contract | 29,545,163 | £582,039.71 | 1.97 |
| 2020/21 Budget | 29,545,163 | £764,046.21 | 2.59 |
| 2020/21 Actual | 33,791,433 | £649,413.59 | 1.92 |
| 2021/22 Budget | 29,545,163 | £653,974.00 | 2.21 |
| 2021/22 Projection (Based on Quotes) | 35,327,669 | £1,388,377.39 | 3.93 |
| 2021/22 Projection (August - Sept) | 2,065,012 | £40,680.73 | 1.97 |
| 2021/22 Projection (October - July) | 33,262,657 | £1,307,222.42 | 3.93 |
| 2021/22 Projection Adjusted | 35,327,669 | £1,347,903.15 | 3.82 |
| 2021/22 Adjusted Budget Pressure | | +£693,929.15 | 106% |

Recommendations

That the Sustainability Committee should:

- Take assurance of this report
- Consider issues that should be escalated

Appendix 1: NHH Electricity Quotes Received on 5 July 2021 (Green Electricity Tariff)

| Quote Source | AQ (kWh) | Gross (£) | Unit Rates (p/kWh) | Variance (£)² | Variance (%)³ |
|---------------------------------|------------------|--------------------|---------------------------|---------------------------------|---------------------------------|
| Source 1 – Quote 1 | 1,176,106 | £228,044.64 | 19.39 | £44,689.71 | 24.4% |
| Source 1 – Quote 2 | 1,176,106 | £231,021.96 | 19.64 | £47,667.04 | 26.0% |
| Source 1 – Quote 3 | 1,176,106 | £230,499.84 | 19.60 | £47,144.92 | 25.7% |
| Source 2 – Quote 1 | 1,176,106 | £223,514.21 | 19.00 | £40,159.29 | 21.9% |
| Source 3 – Quote 1 | 1,176,106 | £230,870.57 | 19.63 | £47,515.64 | 25.9% |
| Source 3 – Quote 2 | 1,176,106 | £233,430.30 | 19.85 | £50,075.37 | 27.3% |
| Average Current Contract | 1,176,106 | £173,122.80 | 14.72 | | |
| Projected Annual Increase (£) | | £50,391.41 | | | |
| Percentage Annual Increase (%) | | | 29.1% | | |
| 2019/20 Brown Tariff | 1,176,106 | £183,354.93 | 15.59 | | |
| 2019/20 Annual Increase (£) | | £40,159.29 | | | |

² Cost compared to 2019/20 (August 2019 to July 2020)

³ Percentage compared to 2019/20 (August 2019 to July 2020)

| Quote Source | AQ (kWh) | Gross (£) | Unit Rates (p/kWh) | Variance (£) ² | Variance (%) ³ |
|-----------------------------|----------|-----------|--------------------|---------------------------|---------------------------|
| 2019/20 Annual Increase (%) | | | 21.9% | | |

Appendix 2: HH Electricity Quotes Received on 6 July 2021

| Quote Source | EAC (kWh) | Gross (£) | Unit Rates (p/kWh) | Variance (£) ⁵ | % Variance ⁶ |
|---------------------------------------|-------------------|----------------------|--------------------|---------------------------|-------------------------|
| Source 1 – Quote 1 | 32,013,087 | £5,784,546.63 | 18.07 | 793,706.31 | 15.9% |
| Source 1 – Quote 2 | 32,013,087 | £5,754,556.86 | 17.98 | 763,716.54 | 15.3% |
| Source 1 – Quote 3 | 32,013,087 | £5,923,746.62 | 18.50 | 932,906.30 | 18.7% |
| Source 2 – Quote 1⁴ | 32,013,087 | £5,515,534.73 | 17.23 | 524,694.41 | 10.5% |
| Source 3 – Quote 1 | 32,013,087 | £5,939,860.89 | 18.55 | 949,020.57 | 19.0% |
| Source 3 – Quote 2 | 32,013,087 | £6,019,029.76 | 18.80 | 1,028,189.44 | 20.6% |
| Source 3 – Quote 3 | 32,013,087 | £5,869,237.12 | 18.33 | 878,396.80 | 17.6% |
| Average Current Contract | 32,013,087 | £4,437,013.91 | 13.86 | | |
| Projected Annual Increase (£) | | £1,078,520.82 | | | |

⁴ Green Electricity Tariff

| Quote Source | EAC (kWh) | Gross (£) | Unit Rates (p/kWh) | Variance (£) ⁵ | % Variance ⁶ |
|--------------------------------|-------------------|----------------------|--------------------|---------------------------|-------------------------|
| Percentage Annual Increase (%) | | | 24.3% | | |
| 2019/20 Tariff | 32,013,087 | £4,990,840.32 | 15.59 | | |
| 2019/20 Annual Increase (£) | | £524,694.41 | | | |
| 2019/20 Annual Increase (%) | | | 10.5% | | |

Appendix 3: Gas Quotes Received on 7 July 2021

| Quote Source | AQ (kWh) | Gross (£) | Unit Rates (p/kWh) | Variance (£)⁵ | Variance (%)⁶ |
|---------------------------------|-------------------|----------------------|---------------------------|---------------------------------|---------------------------------|
| Source 4 – Quote 1 | 35,327,669 | £1,451,887.82 | 4.11 | £430,918.19 | 42.2% |
| Source 4 – Quote 2 | 35,327,669 | £1,758,637.23 | 4.98 | £737,667.59 | 72.3% |
| Source 2 – Quote 1 | 35,327,669 | £1,445,303.03 | 4.09 | £424,333.40 | 41.6% |
| Source 3 – Quote 1 | 35,327,669 | £1,456,935.60 | 4.12 | £435,965.97 | 42.7% |
| Source 3 – Quote 2 | 35,327,669 | £1,455,016.03 | 4.12 | £434,046.40 | 42.5% |
| Source 3 – Quote 3 | 35,327,669 | £1,387,735.71 | 3.93 | £366,766.07 | 35.9% |
| Source 3 – Quote 4 | 35,327,669 | £1,593,655.21 | 4.51 | £572,685.57 | 56.1% |
| Source 3 – Quote 5 | 35,327,669 | £1,447,354.99 | 4.10 | £426,385.36 | 41.8% |
| Source 3 – Quote 6 | 35,327,669 | £1,448,720.40 | 4.10 | £427,750.77 | 41.9% |
| Average Current Contract | 35,327,669 | £695,955.08 | 1.97 | | |
| Projected Annual Increase (£) | | £691,780.63 | | | |
| Percentage Annual Increase (%) | | | 99.4% | | |
| 2019/20 | 35,327,669 | £1,020,969.63 | 2.89 | | |

| Quote Source | AQ (kWh) | Gross (£) | Unit Rates (p/kWh) | Variance (£) ⁵ | Variance (%) ⁶ |
|-----------------------------|----------|-------------|--------------------|---------------------------|---------------------------|
| 2019/20 Annual Increase (£) | | £435,965.97 | | | |
| 2019/20 Annual Increase (%) | | | 35.9% | | |