Energy Policy

Operational Owner:	Head of Sustainability
Executive Owner:	Chief Operating Officer
Effective date:	June 2019
Review date:	January 2025
Related documents:	Sustainable Procurement Policy Water Policy

Approval History

Version	Reviewed by	Reason for review	Approved by	Date
1.2	Thomas Parrott	New Policy	Executive Sustainability Steering Group	17/04/2019
1.2	Thomas Parrott	First approval of new policy	Executive Board Estates Committee	05/06/2019
1.3	Thomas Parrott	First approval of new policy (inclusion of equality statement)	Executive Board	25/06/2019
1.4	Andy Chalklin	Minor amendments to update owners and review date	Andy Chalklin	04/11/2022
1.5	Will Davis	Minor amendments to update owners and review date	Will Davis	31/10/2023

1 Introduction

1.1 Purpose

1.1.1 The purpose of this policy is to set out the objectives that the University needs to meet in order to reduce its energy use and limit its resulting impact on climate change in this key area.

1.2 Scope

1.2.1 The policy applies to all students, staff, consultants and contractors.

1.3 Definitions

1.3.1 BMS – Building Management System. A system which controls the operation of HVAC equipment and major energy using systems across the University.

BREEAM – The Building Research Establishment Environmental Assessment Methodology. A widely used method for assessing the sustainability of new build and refurbishment projects in design and construction.

CO2 emissions – Carbon dioxide (CO2) is a gas formed by combustion of carbon and in the respiration of living organisms and is considered a greenhouse gas. Emissions means the release of greenhouse gases and/or their precursors into the atmosphere over a specified area and period of time.

HVAC – Heating, Ventilation and Air Conditioning equipment. Includes major energy using equipment such as boilers and air handling units.

Power Purchase Agreements – In this context, a long term agreement (20-25 years) between the University and a renewable power supplier, which commits the University's to purchase energy from a renewable source (such as photovoltaic solar panel arrays) installed at no capex cost to the University, on the University's land. After the PPA period expires, the University takes ownership of the capital generation asset.

Whole Life Costing – Often referred to as lifecycle cost analysis. In this context WLC is defined as an assessment of the financial benefit of a particular technology or building component based on its impact on operational costs and not just the up-front capital cost.

2 Policy Vision

2.1.1 Global Context

The University of Surrey has a moral, financial and legislative responsibility to reduce energy use and associated carbon dioxide emissions. By reducing energy use, the University reduces its impact on global climate change. The Energy Policy is therefore linked to the UN's Sustainable Development Goals and give the University's efforts context in the wider global picture.

Climate change is now widely regarded as the greatest risk to humanity. This risk is clearly represented in the Sustainable Development Goals which were adopted in 2015 and set a series of targets for 2030. These targets address global challenges including poverty, inequality, climate, environmental degradation, prosperity and peace and justice. There are two goals which link strongly to this policy.

- Goal 7 – Affordable and Clean Energy – Ensure access to affordable, reliable, sustainable and modern energy.

- Goal 13 – Climate Action – Take urgent action to combat climate change and its impacts.

Making progress towards the objectives set out in the policy statement will contribute towards meeting these sustainable development goals.

2.2 Policy Principles

The principles underpinning the Energy Policy are set out as below. These principles guide the policy statement. The emphasis on these principles will change as the University progresses towards meeting its targets and the policy will be reviewed accordingly to reflect this. New objectives may also be introduced or existing ones replaced at review.

2.2.1 Monitoring and Measuring Energy Use

Understanding how and where the University uses energy in being able to take action to reduce energy use. The University will, via a series of sub-meters, monitor the electricity, gas and heat use across University buildings, quantifying consumption, identifying trends and using this to prioritise projects and interventions. Through the collection of this data, the University report its emissions both internally in line with the governance process set out in section 4 and externally as mandated by the Estates Management Record and relevant legislation.

2.2.2 Establishing a baseline and target

Using the energy and gas data gathered in the processes outlined above. The University will establish a baseline and set a target for CO2 emission reduction. The target will be absolute and will take into account available resources and in the global context, the need to limit global warming to 1.5°C in line with the Paris Agreement. The University will consider a 'Science Based Target' which establishes its share of responsibility in limiting temperature rise to 1.5°C in line with a scientifically recognised procedure.

2.2.3 Conserving Energy

Ensuring that buildings are operating efficiently involves reviewing major energy using equipment and how the buildings are being utilised. The building management system controls the majority of the University's heating, ventilation and air conditioning (HVAC) plant and as such, its importance in energy management cannot be understated. By surveying plant, interrogating the BMS and working with building management and facilities teams, no-cost and low-cost savings can be realised. At the same time, conventional energy efficiency measures such as replacement of lighting with LED and suitable controls and variable speed drives will be used.

2.2.4 Efficient Use of Space

The rational use of space is crucial to the ability of the University in conserving energy use. Plant and equipment can be as efficient as possible, but if it is conditioning a space where no-one is present or space that is underutilised, this creates waste. Likewise, not considering the environmental suitability of a space can lead to costly additions at a later stage, increasing energy use and cost. The University will therefore consider the suitability of space from an energy efficiency perspective whilst seeking to maximise utilisation of space and prevent heating and cooling of un-occupied spaces.

2.2.5 **Compliance**

The University will ensure that its operations meet and where practicable, exceed the growing legislative requirements relating to energy efficiency and carbon dioxide emissions reporting.

2.2.6 **Building and Maintenance Standards**

The University's development plans mean the construction and refurbishment of buildings across the estate. In the construction of new buildings, it is essential that the best standards of energy efficiency are pursued to minimise the operational emissions over the lifecycle of the building. This process begins at the design stages in the assessment of proposed technologies and fabric and material efficiency on a whole life costing basis instead of basing decisions solely on capital costs whilst at the same time recognising that there is a finite budget.

Good standards of maintenance are fundamental to reducing energy use on site. The decisions taken by maintenance operatives and engineers on a day-to-day basis have a direct impact on energy use. Leaving equipment in 'manual' mode for example is sometimes necessary for testing purposes but if left in this condition, can lead to waste. As such, training, guidance and integrating best practice maintenance standards will result in reduced energy use.

2.2.7 **Procurement**

In its assessment of which suppliers, designers or construction companies are used, the University will assess understanding of energy efficiency at the tender stage as part of a wider sustainability assessment. In the procurement of equipment, the University will work with departments to establish minimum standards.

The University will also consider how best to procure its energy, striking a balance between cost and proportion of renewables. As part of this, the University will consider the use of power purchase agreements to accelerate the generation of on-site low to zero carbon electricity.

2.2.8 **Engagement and Collaboration**

Key to success in reducing energy use is the engagement with both staff and students across the University. On a day-to-day basis, staff and students influence energy use. The University will establish behavioural change campaigns for staff and students to educate and empower them to take action in reducing energy use. Collaboration will also follow in the form of supporting student and academic projects by providing energy data and where required expertise whilst facilitating the implementation of onsite-demonstrator projects. This will enhance the University's research bids by providing on-site projects whilst contributing to an increased chance of research success.

3 Policy Statement

3.1 University of Surrey recognises that its operations consume energy and that the emission of carbon dioxide and other greenhouse gases through the consumption of fossil fuels have a negative impact on the environment.

The objectives below are set to ensure that the University reduces its energy consumption and therefore, its carbon dioxide emissions. All staff, students, consultants and contractors are expected to collaborate to help deliver energy reductions and efficiencies.

University of Surrey is committed to providing adequate resources to meet the following objectives:

1. Monitor and measure energy use across the University, quantify consumption and report performance internally and externally.
2. Model a baseline and establish a target for CO2 emissions reduction within a year of this policy date.
3. Meet, and where possible exceed, all relevant legal requirements.
4. Implement effective building management controls for HVAC and lighting systems, optimising energy performance.
5. Ensure the efficient operation of existing plant through best practice maintenance standards.
6. Seek to procure energy from low or zero carbon sources whilst ensuring value for money.
7. Investigate and develop opportunities for on-site renewable energy generation.
8. Ensure spaces and facilities are used efficiently and reduce energy use in under-utilised spaces.
9. Achieve the highest practicable energy efficiency standards in the development of the Estate, with a BREEAM rating of 'Very Good' as a minimum with an aspiration of 'Excellent' for new build projects.
10. Integrate a whole-life costings approach in assessing the value for money of building and construction specifications against operational energy savings.
11. Introduce standards for low energy consumption equipment as part of all procurement processes.
12. Engage with students and staff and inspire them to take actions to reduce energy use through a series of behavioural change campaigns.
13. Collaborate with and support academics and students on sustainable energy research, projects and on-site demonstrators.

4 Governance Requirements

4.1 Implementation / Communication Plan

The draft was circulated at the Executive Sustainability Steering Group as well as Head of Departments whose activities will be directly affected by the policy objectives. The Executive Sustainability Steering Group includes members from both academic and professional services at head of department and director level as well as student representation from The Union and People and Planet society.

The policy will be communicated both internally and externally. The policy will be communicated on the University's external facing website as part of the existing policy library.

Staff will be made aware of the policy in the University's induction programme as part of a new sustainability module.

The launch of the policies will be communicated on the My Surrey and Surreynet platforms.

4.2 Exceptions to this Policy

4.2.1 There are no exceptions to this policy.

4.3 Review and Change Requests

4.3.1 This policy will normally be reviewed on a 2 yearly basis. But due to the need for the University to establish a target for carbon dioxide reduction, the initial review period has been set as a year, in line with policy statement objective 2. This would therefore set the first review for June 2020 with a bi-annual review thereafter. The policy will be re-submitted to the Executive Sustainability Steering Group and the Executive Board Estate Committee in order for the proposed target to be agreed.

Minor interim changes such as changes to rhetoric or minor amendments to objectives will be managed by the Operational Owner with the approval of the ESSG.

Major changes to the policy including the meaning, nature or substantial changes to the statement objectives will be managed by the Operational Owner, with agreement from the Executive Owner, approval of the ESSG, EBEC and the Executive Board.

5 Legislative context

5.1 Objective 3 states that the University will meet and where possible, exceed all relevant legal requirements. Examples of the energy related legislation that the University must comply with are set out below. This list is not exhaustive, and a full register is held in the Estates, Facilities and Commercial Services department.

Carbon Reduction Commitment Energy Efficiency Scheme 2013
The Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2019 (Streamlined Energy and Carbon Reporting)
Energy Performance in Buildings (Amendment) Regulations 2018
The Energy Efficiency (Private Rented Property) Regulations 2015
The Heat Network (Metering and Billing) (Amendment) Regulations 2015
The Energy Savings Opportunities Scheme Regulations 2014

6 Stakeholder Statement & Consultation

6.1 Mandatory

6.1.1 Health & Safety

The Director of Health & Safety has reviewed this document and is satisfied with the content.

6.1.2 **Equality**

The University is strongly committed to equality of opportunity and the promotion of diversity for the benefit of all members of the University community. The University's approach is to promote equality across the full range of its activities, in employment, teaching and learning and as a partner working with and within local, national and international communities. Equality Analysis is a process which examines how the impact of the policy has been considered on the diverse characteristics and needs of everyone it affects. This policy has been reviewed and no negative impact on equality has been identified.

In the communication of the policy, a full range of media and techniques will be used to promote inclusion. This is essential so as not to discriminate against any particular member of the University community who may not be able to access or use media in a particular format.

6.2 **Other Relevant Consultation**

The policy was approved by the members of the Executive Sustainability Steering Group on the 17th April 2019. The group comprises senior academic and professional service staff from across the University.

A formal stakeholder consultation has been undertaken with key parties likely to be affected by the recommendations of this policy. This consultation captured Directors and Heads of department that sit outside of the ESSG group. This included the Director of Estates, Director of Procurement, Deputy Director of Capital Projects, Head of Facilities and Maintenance and others.

Appendix I – Policy Statement

UNIVERSITY OF SURREY ENERGY POLICY

The objectives below are set to ensure that the University reduces its energy consumption and therefore, its carbon dioxide emissions. All staff, students, consultants and contractors are expected to collaborate to help deliver energy reductions and efficiencies.

The objectives support the United Nations Sustainable Development Goals:

- Goal 7 – Affordable and Clean Energy – Ensure access to affordable, reliable, sustainable and modern energy.

- Goal 13 – Climate Action – Take urgent action to combat climate change and its impacts.

University of Surrey is committed to providing adequate resources to meet the following objectives:

1. Monitor and measure energy use across the University, quantify consumption and report performance internally and externally.
2. Model a baseline and establish a target for carbon dioxide reduction within a year of this policy date.
3. Meet, and where possible exceed, all relevant legal requirements.
4. Implement effective building management controls for HVAC and lighting systems.
5. Ensure the efficient operation of existing plant through best practice maintenance standards.
6. Seek to procure energy from low or zero carbon sources whilst ensuring value for money.
7. Investigate and develop opportunities for on-site renewable energy generation.
8. Ensure spaces and facilities are used efficiently and reduce energy use in under-utilised spaces.
9. Achieve the highest practicable energy efficiency standards in the development of the Estate, with a BREEAM rating of 'Very Good' as a minimum with an aspiration of 'Excellent' for new build projects.
10. Integrate a whole-life costings approach in assessing the value for money of building and construction specifications against operational energy savings.
11. Introduce standards for low energy consumption equipment as part of all procurement processes.
12. Engage with students and staff and inspire them to take actions to reduce energy use through a series of behavioural change campaigns.
13. Collaborate with and support academics and students on sustainable energy research, projects and on-site demonstrators.