Environmental Policy

EXECUTIVE SUMMARY

At the heart of this statement is the recognition that the activities of the University and all its members has an effect upon the environment and that through the choices that we make we should look to reduce those that are negative and promote the positive. To be truly sustainable Keele will seek to ensure that as it strives to meet the needs of current generations, we do not compromise the ability of future generations to meet their own needs also.

This policy seeks to make public the commitment to become more environmentally responsible and to clearly set out the direction of travel in the following key areas:

**Greening the Curriculum**
Keele will seek to develop graduates and postgraduates who are aware of sustainability issues and will encourage Schools and Faculties to consider embedding environmental content within existing courses and to develop new courses where there is demand for them.

Keele will develop this area further by supporting course development in the areas of environment and sustainability to expand the offering, including making sustainability modules available to all students via electives.

**Promoting Awareness and Public Understanding**
The University will seek to increase awareness and engagement of staff and students to fulfil corporate and individual environmental responsibilities.

1. High profile projects will be selected and promoted effectively to raise awareness.
2. The University will hold a green week each year to highlight ways in which staff and students can change their behaviour to improve sustainability

**Waste Management and Minimisation**
The University will seek to minimise waste and pollution and develop and operate environmentally sound waste management procedures that promote reduction, reuse and recycling.

3. The University will achieve year on year reductions in the volume of waste per person and year on year increases in the percentage of waste that is recycled.
4. A University wide office waste recycling scheme will be implemented and there will be provision of recycling containers within all Halls of Residence.

**Energy Management**
The University will seek to reduce energy consumption and greenhouse gas emissions by 10% in the existing built estate during the period 2005 to 2010 and will develop a strategy to meet the government target to reduce carbon emissions by 60% by 2050.

5. A system will be developed to measure the carbon footprint of the campus, including travel and embedded energy, and targets set to achieve year on year reductions.
6. A strategy to become a carbon neutral campus will be developed.
Water Efficiency

The University will seek to minimise water consumption and increase the use of sustainable drainage systems.

7. Continual monitoring of the underground network to identify and repair leaking pipes, which could potentially reduce water usage across the campus by 15%

Transport

The University will seek to minimise and reduce the number of vehicle trips to the University and to create a safe and pleasant environment on site for pedestrians and cyclists.

8. To use the outcomes of the Public Dialogue exercise to help inform medium to long-term plans for travel.
9. To ring fence the income derived from parking charges to manage parking, to encourage sustainable travel choices and to promote broader environmental initiatives

Procurement and Life Cycle Analysis

The University will seek to develop a procurement policy which prioritises, wherever possible, those products and services which are sustainable.

10. Goods will be purchased, where possible, from sustainable sources
11. To procure paper with a minimum 80% recycled content
12. To develop sustainability accounting practices to reflect this issue within budgets

Sustainable Development

The University will seek to protect and promote a campus environment which embraces sustainability.

13. New buildings will, where possible, meet or exceed BREEAM Excellent standards and building refurbishments will be carried out to at least BREEAM Very Good
14. Projects will be identified on an annual basis to improve the environmental performance of the built estate
15. Staff and student allotments will be supported to promote engagement with local food and the food life cycle

Monitoring of Performance

The University will seek to ensure the publication of objectives, targets and performance information and to develop measurable objectives and targets where they are not yet in place.

16. Strategic Planning Committee to monitor progress against the Environmental Policy annually
17. To appoint an Environmental Officer to help promote and coordinate sustainability issues at Keele.
Environmental Policy

1. **Preamble**

Keele University first developed an environmental policy in 1996, which set out broad goals for environmental engagement and sustainability. As it develops plans to become the Ultimate Campus University for the 21st Century (UCU21C) a review and revision of this policy to reflect the changes that have occurred over the intervening years is now timely. The University considers this policy to be a working document, and acknowledges that the goal of sustainability is one that will continually develop over time. Keele has made more progress in some key areas than others, and commits to more fully developing policies and plans in all areas; this is identified in the targets as appropriate.

2. **Introduction and Purpose**

2.1 This policy outlines Keele University’s commitment to the environment and how its continued growth will embrace the principles of sustainability, whilst recognising the need to ensure that any initiative complies, where applicable, with legislative requirements.

The overall policy is underpinned by the following documents:

- The Waste Management Policy
- The Energy Policy
- The Travel Plan
- Sustainable Development Policy

3. **Environmental Statement**

3.1 At the heart of this statement is the recognition that the activities of the University and all its members has an effect upon the environment and that through the choices that we make we should look to reduce those that are negative and promote the positive. To be truly sustainable Keele will seek to ensure that as it strives to meet the needs of current generations, we do not compromise the ability of future generations to meet their own needs also.

3.2 Keele has, for a number of years, been committed to minimising its impact on the environment, particularly in relation to energy use and the harmful emissions associated with this use. As Keele seeks to become the Ultimate Campus University for the 21st Century (UCU21C) then it needs to be increasingly aware of the importance of environmental issues in attaining this. Keele has a desire to integrate environmental considerations into future developments and to promote sustainable development.

3.3 This policy seeks to make public the commitment to become more environmentally responsible and to clearly set out the direction of travel in the following key areas:

- Greening the Curriculum
- Promoting Awareness and Public Understanding
- Waste Management and Minimisation
4. **Greening the Curriculum**

4.1 **Guiding principle**

4.1.1 Keele will seek to develop graduates and postgraduates who are aware of sustainability issues and will encourage Schools and Faculties to consider embedding environmental content within existing courses and to develop new courses where there is demand for them.

4.2 **Existing practice**

4.2.1 The University offers a number of undergraduate and postgraduate programmes that address the sustainability agenda from both a social policy and scientific standpoint and these areas of strength could be used to further develop the curriculum in this area. There is significant research expertise within the Research Institute for Law, Politics and Justice and the Research Institute for the Environment, Physical Sciences and Mathematics which covers the following areas:

- Acid mine water drainage
- Clean catalysis
- Climate change
- CO2 sequestration
- Coal bed methane and underground coal gasification
- Fuels cells and the utilisation of renewable biomass and animal and vegetable waste
- Green chemistry
- Groundwater protection
- Pollution abatement and reducing emissions
- Social justice and environmental citizenship
- Sustainability as a vehicle for competitive advantage
- Sustainable energy and energy security
- Urban regeneration
- Waste management and minimisation
- Wind energy and seismic vibrations

4.3 **Target:**

- To initiate a debate within the academic community on the ways in which the curriculum can incorporate environmental and sustainability awareness.
- To develop this area further by supporting course development in the areas of environment and sustainability to expand the offering, including making sustainability modules available to all students via electives.
- To encourage ‘green delivery’ of courses by promoting the use of WebCT and other methods of delivery that minimise reliance on paper.

5. **Promoting Awareness and Public Understanding**

5.1 **Guiding principle**
5.1.1 The University will seek to increase awareness and engagement of staff and students to fulfil corporate and individual environmental responsibilities.

5.2 Existing practice

5.2.1 Keele has been at the forefront of promoting awareness of the sustainability agenda through well-regarded programmes of teaching, research and knowledge transfer. The University strives to increase internal and external public understanding of sustainability and environmental issues through public awareness programmes such as ‘Greener and Cleaner’, corporate campaigns and promoting links between the University and the wider community.

5.2.2 Teaching and research will inform Keele’s environmental commitment and act as a reference point for the policy and for promoting awareness throughout the University community and a wider public understanding of environmental issues.

5.2.3 The University’s Research Institutes address environmental issues in their work, with pioneering research into solid fuel cell technology, work on the impact of wind farms, and seminars on the impact of sustainability on the higher education sector acting as catalysts for progress in finding innovative solutions to environmental problems.

5.2.4 The Science Park seeks to attract high-calibre business, including companies working in the areas of environment and sustainability, and supports clients in fostering relationships with the University in the areas of teaching, research, and knowledge transfer.

5.3 Target

- Keele will build on its current internal and external awareness initiatives, including the campaign on the Commercial and Facilities Management (CFM) website to promote energy awareness and the knowledge transfer activities of the School of Physical and Geographical Sciences.
- High profile projects will be selected and promoted effectively to raise awareness
- The University will hold a green week each year to highlight ways in which staff and students can change their behaviour to improve sustainability
- Keele will support the work of designated ‘Environmental Champions’ throughout the University, who will take responsibility for promoting awareness in their area of work or study
- Keele will ensure that relevant committee papers are available on the website, and that their location is well signposted
- To incorporate an environmental responsibility statement into all job descriptions, similar to that for Health and Safety
- To work with staff and students to promote individually responsibility and action that will support the aims of the policy.
- The University will seek to further develop links with the local community in such a way that the University promotes and assists in regeneration and the pursuit of sustainable communities

6. Waste Management and Minimisation

6.1 Guiding principle
6.1.1 The University will seek to minimise waste and pollution and develop and operate environmentally sound waste management procedures that promote reduction, reuse and recycling

6.2 Existing practice

6.2.1 The management of waste encompasses the whole life cycle of every product we utilise at Keele; the “Waste Management Policy” focuses on operating environmentally sound waste management procedures when a product reaches the end of its usable life. Alternatives for waste disposal include recycling, reuse and methods of waste treatment and disposal to minimise waste and pollution.

6.2.2 Recycling

The University provides multi-product recycling facilities by the Students’ Union and at the Hawthorns and will roll out further facilities across the campus as outlined below.

Recognising Keele’s contribution to the local community, many of the recycling initiatives are undertaken in partnership with Newcastle Borough Council. Keele will also explore partnerships with other providers in order to meet its environmental targets.

Kerbside recycling is provided to all staff housing. All suitable green waste arising from the grounds activities at Keele are composted and reused again on the estate. Cardboard from the campus store is recycled. Mini recycling centres have been installed at Barnes and Lindsay Halls of Residence as a trial and the success of these is being monitored. The University’s redundant lamps, fluorescent tubes, and waste electrical goods are donated to the Stoke-on-Trent Groundwork Trust for reuse, and decommissioned fridges, freezers, and centrifuges are de-gassed for safe disposal through an agreement with Newcastle Borough Council. By utilising a number of schemes for recycling and reusing waste, Keele is ensuring the sustainability of any waste management initiatives and will continue to explore ways to implement an office recycling scheme, subject to affordability.

6.3 Target

6.3.1 The University will achieve year on year reductions in the volume of waste per person and year on year increases in the percentage of waste that is recycled. This will be achieved by continually developing ways to improve the management of waste:

- A University wide office waste recycling scheme will be developed
- Provision of recycling containers within all Halls of Residence
- Provision to be made for dedicated containers for the collection of waste dry cell batteries
- Provision to be made for the expansion of dedicated waste containers for the recycling of cardboard
- Provision to be made for expanding the provision of dedicated containers for recycling plastics
- Provision is to be made for the collection of scrap metals, by a local contractor, for recycling
- Grounds Waste:
Leaves are to be composted on site in woodland and shrubberies
Grass cuttings to be managed on site and any excess or areas treated with herbicides, pesticides and fungicides are to be provided to a specialist "green waste" recycling company.

- Hazardous waste will be reduced to a minimum and will only be disposed of by a licensed operator
- Staff will be encouraged to maximise the use of electronic communication and to minimise the use of paper, including papers for meetings
- Printing, where unavoidable, should be double sided and minimum readable font
- Internal mail will be via reused envelopes
- Life cycle analysis will seek to reduce year on year end of life disposal volumes

7. Energy Policy

7.1 Guiding principle

7.1.1 The University will seek to reduce energy consumption and greenhouse gas emissions by 10% in the existing built estate during the period 2005 to 2010 and will develop a strategy to meet the government target to reduce carbon emissions by 60% by 2050.

7.2 Existing practice

7.2.1 Historically Keele has made significant progress in reducing energy utilisation for which it has received a number of awards. Again the University recognises that it needs to continue developing energy awareness throughout the campus to build on the successful Earthcare and Energy campaign launched by the Vice-Chancellor in 1998/1999. The Energy Policy dated March 2006 embraces the University’s commitment to reduced energy consumption and more importantly reduced pollution, championed by our Energy Manager, who has been in post since 2002. The University will continually reduce its energy consumption per m² of built development and per capita. This will also include reductions in its carbon footprint and greenhouse gas emissions, which in the past year (2006) have been reduced by up to 3.5% and 30% respectively. Recent initiatives have included the installation of approximately 6500kw condensing boiler capacity which has resulted in a reduction of up to 30% in energy requirements of affected buildings.

7.2.2. As a trial, a solar domestic hot water heating system has been installed at Horwood Hall.

7.3 Target

- Maintaining a minimum of 65% renewable electricity procurement (100% for the non residential estate)
- Reduce consumption and carbon emissions by 10% of the 2005 figures by 2010
- To develop a strategy to become a carbon neutral campus
- To develop annual year on year targets for reducing energy consumption per person
- To explore the potential to become self sufficient in power generation
• Agreed temperature settings for differing types of accommodation
• Maintaining Energy Champions representing users of buildings and the estate
• Recording energy consumption each month for all sites, to enable a comparison with energy reduction targets
• An annual Energy and Water Consumption Report will be published detailing achievements to date, and plans for the following year
• To develop a system to measure the carbon footprint of the campus, including travel and embedded energy, and to set targets to achieve year on year reductions

7.3.1 Building on these principles, the University will continue to explore renewable energy solutions, combining quality research experience at Keele with future design guides and looking at both building and site wide solutions. Wise energy use will continue to be promoted through the CFM publication ‘Energy Matters’, which is available from the CFM website.

8. Water Efficiency

8.1 Guiding principle

8.1.1 The University will seek to minimise water consumption and increase the use of sustainable drainage systems.

8.2 Existing practice

8.2.1 The University has demonstrated best practice for water leakage control and two articles citing Keele’s practices have been published by Severn Trent Water.

8.2.2 In terms of the Environmental Policy, water is considered a form of energy and its management is contained within the Energy Policy document dated March 2006.

8.2.3 Water consumption throughout the campus needs to be driven by its occupants, where each individual takes responsibility for reducing use.

8.3 Target

• Continual monitoring of the underground network to identify and repair leaking pipes, which could potentially reduce water usage across the campus by 15%
• Introduction of efficient fittings to reduce waste and usage

9.0 Transport

9.1 Guiding principle

9.1.1 The University will seek to minimise and reduce the number of vehicle trips to the University and to create a safe and pleasant environment on site for pedestrians and cyclists.

9.2 Existing practice

9.2.1 Located in a semi-rural hilltop environment, Keele faces some key challenges in the promotion of sustainable and environmentally friendly transport, chiefly dependence on car transport to get to and around the campus.
9.2.2 A public dialogue exercise is currently being undertaken to formulate clear medium and long term objectives relating to travel onto and around the whole campus. This is being undertaken over an extended period so that all staff, students, residents and other interested parties have the opportunity to comment on travel at Keele and inform the future policy direction in this area.

9.3 Target

- To use the outcomes of the Public Dialogue exercise to help inform medium to long-term plans for travel.
- To ring fence the income derived from parking charges to manage parking, to encourage sustainable travel choices and to promote broader environmental initiatives
- To consider the appointment of a Travel Plan Coordinator to oversee the development of the plan and encourage sustainable transport choices
- The University will continue to work with its strategic partners, including Newcastle Borough Council, Staffordshire County Council, and local bus providers to find innovative solutions to transport problems and will strongly encourage sustainable modes of transport

10. Procurement and Life Cycle Analysis

10.1 Guiding principle

10.1.1 The University will seek to develop a procurement policy which prioritises, wherever possible, those products and services which are sustainable. The University will consider as part of the procurement evaluation process: cost of embedded energy, energy in use, raw materials for its manufacture, life cycle, and environmental issues of disposal.

10.2 Existing practice

10.2.2 Keele works closely with suppliers to ensure that products purchased are environmentally sound and requires that, wherever possible, the life cycle costs of a product are considered when making a purchasing decision.

10.2.3 The University has been awarded Fairtrade University status

10.3 Proposed policy

10.3.1 As a large consumer of goods and services, the University has a key role to play in protecting the environment. Procurement decisions have enormous potential to promote environmental protection.

10.3.2 Therefore the Procurement Office will seek to work with colleagues in order to:

- Meet, and, where appropriate, exceed the requirements of all relevant legislation—where no regulation exists, the University will set its own standards informed by relevant codes of practice and guidelines
- Seek to reduce consumption of materials, re-use where possible and promote recycling and the use of recycled materials
- Seek to dispose of materials in an environmentally sensitive manner
• Promote and manage energy efficiency in operations and incorporate effective energy measures wherever possible
• Influence major suppliers to minimise the negative impact of their operations on the environment
• Consider goods and services which can be manufactured, used and disposed of in an environmentally aware way
• Give preference, where items are of a similar standard and cost to those that are manufactured, with a high recycled content
• Wherever possible, specify items that can be recycled or reused
• Consider energy/cost of operating equipment prior to purchase
• Favour suppliers that are committed to environmental improvement
• Consider whole life costs of impacts when assessing equipment for purchase
• Ensure, wherever possible, that suppliers hold or are actively working towards certification for its environmental management system, e.g. ISO 14001

10.3.4 Target

• Keele will continue to ask questions about environmental credentials in vendor appraisal
• Goods will be purchased, where possible, from sustainable sources
• Wherever possible Procurement Link Officers will work with budget holders to raise awareness of environmental impact and whole life costing when making purchasing decisions
• To procure copier and printer paper with a minimum 80% recycled content
• To develop sustainability accounting practices to reflect this issue within budgets

11. Sustainability (Campus environment)

11.1 Guiding principle

11.1.1 The University will seek to protect and promote a campus environment which embraces sustainability.

11.2 Existing practice

11.2.1 Sustainability is seen as a key component of Keele’s contribution to environmental issues and will therefore underpin the environmental policy. Its context will span all the other elements of the Environmental Policy, looking at:

• Economic Value
• Social Value
• Environmental Value

Economic Value: is underpinned by a rigorous business planning process, ensuring the future schemes and plan are affordable for the future.

Social Value: builds on Keele’s philosophy of an open community, working through wide consultation and understanding Keele’s impact on the local community and its environment.

Environmental Value: is the foundation of this policy and will need to be flexible to respond to improving information about the environment, changing local and national policy and the needs of the University. Building on the “design guide”
submitted within the planning application for the new development site, the University is drafting a design framework which will set the standards for all future developments and refurbishment programmes. This will be continually reviewed to capture ever changing technology and research. As a result, it cannot feature within this policy but again will form a supplementary document linked to the Estates Strategy.

11.3 Target

- Further develop the Estates Strategy that will incorporate the above principles
- New buildings will, where possible, meet or exceed BREEAM Excellent standards and building refurbishments will be carried out to at least BREEAM Very Good
- Projects will be identified on an annual basis to improve the environmental performance of the built estate
- Continue to manage the University’s grounds in an environmentally sensitive way, responding to new technologies as they arise
- Support the Heritage Lakes and Valleys project to protect our flora and fauna
- Continue to develop the Keele Arboretum
- Maximise recycled elements in new built projects
- Support the development of staff and student allotments to promote engagement with local food and the food life cycle
- Consider and minimise embedded energy use within the building structure

12. Monitoring of Performance

12.1 Guiding principle

12.1.1 The University will seek to ensure the publication of objectives, targets and performance information in relation to the above and to develop measurable objectives and targets where they are not yet in place.

12.2 Existing practice

12.2.1 The management of the Environmental Policy must embrace the spirit of consultation and engagement. Within the University, there are three formal groups looking at environmental issues and planning:

- The Environmental Working Group
- The Recycling Working Group
- Energy Awareness Working Groups

12.2.2 A member of the Senior Management Team (Pro Vice-Chancellor (Staff, Students and the University Community)) has been appointed to oversee the environmental policy and strategy and act as a University Environmental Champion.

12.2.3 The University also recognises the importance of engaging with organisations wider than the formal University meetings structure and through CFM meets with the Students’ Union, staff representatives and with KEEN.

12.2.4 In the majority of cases, the practical implementation of environmental Initiatives will be driven and managed through Commercial and Facilities
Management, while always recognising the need for dialogue and consultation with other key stakeholders.

12.2.5 Figure 1 below summarises the information flows.

12.2.6 Other than capturing initiatives and ideas, the core purpose of communication is to increase awareness of environmental responsibilities amongst University staff, students, residents and the local community. This needs to take three forms:

1. Communication of ideas and plans – this will be undertaken through the development of an annual implementation plan and communicated through the University website and also through the recognised communication structure.
2. Environmental Awareness – improved communication and enhanced teaching/curriculum development and research.
3. Engagement – through open initiatives such as the development of energy champions.

12.3 Target

- Strategic Planning Committee to monitor progress against the Environmental Policy annually
- To appoint an Environmental Officer to help promote and coordinate sustainability issues at Keele.
- To seek ISO14001 (Environmental Management Standard) accreditation
Figure 1

Environmental Policy

- Senior Management Team
- Estates and IT Committee
- Environmental Working Group
- Teaching and Research
- Recycling Working Group
- KUSBPL
- UCU21C
- CFM
- Strategic Planning Committee
- KUSU and KPA
- KEEN