Energy and Water Policy

Solent NHS Trust policies can only be considered to be valid and up-to-date if viewed on the intranet. Please visit the intranet for the latest version.

Purpose of Agreement	The purpose of this document is to formalise the Trust's policy on energy and water usage, and to endorse the principle that reducing energy and water intensity of operations is of paramount importance both in terms of reducing operating costs and protecting the global environment.
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2	12/11/2018	5	Introduction & Purpose updated	
3	12/11/2018	6, 7, 8	Scope and Definition updated	
4	12/11/2018	9, 10, 11, 12, 13	Process Requirements updated	
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8	12/11/2018	16	References & Links to Other Documents added & updated	
9	12/11/2018	17	Glossary added	
10	12/11/2018	18	Equality Impact Assessment updated	

Review Log

Include details of when the document was last reviewed:

Version Number	Review Date	Lead Name	Ratification Process	Notes
1				
2	12.11.2018	Chris Box		Document review and revision
3				

SUMMARY OF POLICY

The Trust recognises its responsibilities to contribute to a 'greener' environment and is committed to reducing the usage of energy and water as part of its overall commitment to the environment and sustainability.

The Trust, however, also recognises that some of the existing buildings it occupies provide significant challenges in meeting the proposed energy targets. This policy seeks to set out how reductions in energy and water usage can still be achieved through changes in behaviour, design and building usage.

The aim of the policy is to:
1. Formalise and raise awareness of the Trust's approach and commitment to reducing the use of energy and water;
2. Raise awareness of the alternatives available to the Trust through changes in behaviour, design considerations and building usage;
3. Ensure employees and other users are aware of their responsibilities in respect of this policy;

Table of Contents

1. INTRODUCTION & PURPOSE

1.1   This document is to formalise the Trust's policy on energy and water usage, and to endorse the principle that reducing energy intensity of operations is of paramount importance both in terms of reducing operating costs and protecting the global environment by limiting where possible the rate at which fossil fuel and other natural resources are depleted.

1.2   This policy should be read in conjunction with the Sustainability Policy, as well as the Sustainable Development Action Strategy which summarises the projects and actions required to achieve targets.

1.3   The objective of this policy is to demonstrate the commitment of Solent NHS Trust to providing a healthy safe working environment for all employees, patients and visitors. The Trust will consume energy in its most efficient, economic and environmentally responsible manner possible commensurate with patient care.

1.4   The Trust recognises the benefits to society of energy and water conservation and sound environmental management. Therefore, by adopting the principles of this policy for the management of energy and water use the Trust shall demonstrate their commitment to the conservation of these resources.

1.5 Comply with mandatory legislation and carbon trading schemes such as the Carbon Reduction Commitment (C R C) energy efficiency scheme where applicable.

1.6   This policy i s   for energy and water use within Solent NHS Trust, setting standards of materials, plant and building fabric and target levels of lighting and room temperatures.

2. SCOPE & DEFINITION

2.1   This policy applies to bank, locum, permanent and fixed term contract employees (including apprentices) who hold a contract of employment or engagement with the Trust, and secondees (including students), volunteers (including Associate Hospital Managers), Non-Executive Directors and those undertaking research working within Solent NHS Trust, in line with Solent NHS Trust's Equality, Diversity and Human Rights Policy. It also applies to external contractors, Agency workers, and other workers who are assigned to Solent NHS Trust.

This document is also recommended to Independent Contractors, as good practice it will become embedded in all activities of the organisation.   The use of energy and water is a necessary part of the Trust providing its services and it is therefore prudent to make sure that it is used efficiently.

2.2   This policy is not intended to provide guidance on water management as this is detailed in HS11 Control of Legionella Bacteria in water systems and pseudomonas aeruginosa assurance policy. It is to manage the consumption of water only.

3 PROCESS/REQUIREMENTS
3.1 POLICY STATEMENT

3.1.1 The Trust recognises the environmental impacts that result from its use of energyandwater. The Trust Board is therefore committed to improve the Trust's environmental performance relating to energy and water use and targeting compliance with the relevant environmental legislation as   the minimum acceptable level of performance.

3.1.2 The Trust recognises the embedded carbon footprint element in its energy related activities. It accepts its responsibility to manage energy consumption by taking the energy carbon emissions as the primary driver for performance in alignment with national targets. The Trust will work in reducing its carbon emissions from energy consumption from its 2012/2013 baseline with the following target reductions:

- 10% at or before 2015 - achieved
- 34% at or before 2020 and
- 80% at or before 2050

3.1.3 Energy consumption will be monitored and controlled as near to the users as possible. All staff will be expected to be prudent in their consumption of energy and water and encourage patients, service users and visitors to do the same.

3.1.4 Energy use and efficiency will be assessed for all buildings and plant on a rolling programme. Good practice energy efficiency standards will be met and exceeded where possible.

3.1.5 Energy implications of new services, facilities and equipment will be assessed as part of the option appraisal.

3.1.6 Alternative sources and types of fuel will be reviewed in line with contract periods and environmental concerns will be one of the criteria used in purchasing decisions.

3.1.7 The Trust will look to reduce energy and water wastage and energy inefficiencies by replacing obsolete equipment for more efficient alternatives.

3.1.8 The maintenance contractor will prioritise the prompt repair of fixtures and equipment that could lead to energy or water wastage and impact on patients and infection control.

3.1.9 The Trust will build and refurbish the Trust's Estates to maximise energy performance.

3.1.10 Everyone is encouraged to actively use less carbon intensive sources of energy whenever feasible.

3.1.11 The Asset Management team will monitor and analyse energy consumption in all Trust owned or managed sites and take action to minimise waste.

3.1.12 The Asset Management team with the assistance of site managers and communications team will raise energy conservation awareness among staff.

3.2 ENERGY MANAGEMENT AND MONITORING

3.2.1 The Trust is committed to apply best practice to continuously improve the energy and water efficiency. This includes undertaking building energy audits to identify and quantify potential energy saving measures and developing and implementing an annual energy management programme which will realise energy, carbon and financial savings.

3.2.2 The Trust recognises the importance of monitoring consumption as a factor in energy management. The Trust is committed to ensure that energy demand and related carbon emissions are monitored and managed according to the best practice procedures (currently by reading meters but with the view to where appropriate move to an Advanced

Metering Infrastructure).

3.2.3   The Trust will instruct the maintenance contractor to read all non-smart fiscal and sub meters on a monthly basis to ensure accurate monitoring and early detection of wastage / defects.

3.2.4   The Asset Management Team will ensure all utility invoices are checked for accuracy and coded to the applicable building to which it relates. Any invoices which are not correct will be challenged with the utility company.

3.2.5   The Asset Management Team will set and manage utility budgets in consultation with finance and our utilities provider, and reduce budgets where consumptions or utility prices have reduced. Should utility prices increase the budgets will be review accordingly. If consumption increases due to additional hours or increased patient numbers the budgets will also be reviewed.

3.2.6   The Asset Management team will monitor consumption and benchmark Trust owned / leased buildings against other Trust owned / leased buildings of similar size and use using the Model Hospital report.

3.2.7   The Asset Management Team will regularly inform Premise managers of the performance of their buildings and will put regular items in staff news and on the intranet pages about specific buildings' performance and general utility saving tips.

3.2.8   For sites of 250 m^2 or greater floor area, and where the public regularly visit, they shall have a Display Energy Certificate (DEC) assessment carried out on an annual basis and this will be used to monitor continuous improvement.

3.2.9   All sites that are owned by the Trust where third party tenants are in occupation will have a valid Energy Performance Certificate (EPC).

3.2.10 All sites that are owned by a landlord where Solent is a tenant will be expected to have a valid Energy Performance Certificate (EPC).

3.3   NEW DEVELOPMENT AND MAJOR REFURBISHMENT

3.3.1   The Trust will where appropriate seek to specify the requirement for the best practice methods, energy efficiency standards and where practicable BREEAM standards to be used in the design of all capital projects.

3.3.2   Understanding where and how energy is consumed is vital to the preparation and evaluation of any development or refurbishment. The majority of Trust energy is consumed by processing fossil fuel, i.e. gas through boilers for space heating and domestic hot water. It is essential that the Trust invest in those measures that meet with both its financial requirements and planned improvements. All saving initiatives are therefore assessed against the following criteria: -

- Capital cost
- Payback period
- Revenue cost
- Project life
- Benefit to back log maintenance
- Environmental improvement

Consideration of all the above elements enables measures to be ranked accordingly.

3.3.3   The energy implications of the procurement of new services, facilities and equipment (such as the requirements for thermal, electric or electro-mechanical power) will be assessed by Procurement and/or the Building and Environment Manager, and where feasible, will include full life-cycle analysis as part of the overall procurement, equipment replacement, and capital investment design processes.

3.3.4   New Trust capital developments and refurbishments will be designed to deliver energy consumption between 35 and 55 GJ/100m3 where practicable.

3.3.5   The Trust is committed to ensure that existing Estate achieves compliance with legislation, and operates within an energy performance rating below 55 GJ/100m3 by 2020.

3.4   ENERGY SUPPLIES

3.4.1   The Trust is committed to investing in new, clean and low carbon- emitting energy efficient technologies where they are cost effective. It will source and invest in energy efficient technologies and practices to ensure that it achieves or exceeds the statutory carbon emission reduction targets called for in the appropriate legislation.

3.4.2   All forms of energy and water will be procured, where possible and financially viable, from renewable and sustainable sources, purchased at the most advantageous prices available. Consideration of the security of supply will be paramount in all negotiations. An annual cost report based on the ERIC return will be produced detailing the Trust's energy costs & consumption.

3.5   ENERGY CONSERVATION

3.5.1   The Trust will promote its energy conservation commitment by raising awareness at all levels of the organisation. This will be achieved by making each service line responsible for ensuring their staff are aware of the Trust's Energy and Water Policy, through on-going trust communications e.g. awareness campaigns.

3.5.2   All staff in the Trust are expected to minimise their use of energy in the Trust by following the guidance for the use of Energy and Water on the 'Estates' and 'Asset Management Solnet pages, posters and training materials. See appendix B and C for energy saving advice.

3.5.3   All Managers will be responsible for ensuring energy use is minimised in all areas under their management. This will be achieved by ensuring the Energy and Water policy is implemented fully in the areas under their responsibility, and by reporting to the maintenance contractor the malfunction of energy controls in their areas.

3.6   WATER CONSERVATION

3.6.1   The Trust is committed to developing and maintaining a comprehensive water saving programme. This will increase efficiency, cut costs and enable us to make a positive contribution towards enhancing the environment. Every member of staff shall ensure water is not wasted. Leaks shall be reported as soon as practically possible to the Kier Maintenance Team Helpdesk – **03301 593866**. See appendix B and C for energy saving advice.

3.6.2   All plumbing systems, water fittings and water-using appliances shall comply with Water Supply

(Water Fittings) Regulations 1999 and subsequent amendments (national requirements for the design, installation and maintenance of plumbing systems, water fittings and water-using appliances).

3.6.3 Where water or water-using equipment is used with fluids or materials that could contaminate it, there must be adequate protection to stop backflow of potentially contaminated water into other parts of the system, especially drinking water. The regulations define Fluid Risk Categories by the type of contaminants that are present and specify the appropriate type of prevention device, which must be fitted to guard against backflow.

3.6.4 Low and dual-flush toilets will be considered if replacing existing units. The maximum cistern volume of new toilets is 6 litres, compared with 9 litres for older models. Existing cisterns of 9 litres or greater capacity will on a rolling program be replaced or fitted with cistern dams or blocks to reduce their capacity.

3.6.5 Tap controls will be used on all new and refurbishment projects. Tap controls will be infrared, battery or mains (via isolating step down transformer) operated, or simple push-top types. Spray taps will **not** be used.

3.6.6 Urinal controls will be used on all new and refurbishment projects, and retrofitted where possible to existing urinals, ensuring that the cistern only flushes during department operating hours, or after use, rather than continuously.

3.7. USE OF ELECTRICAL HEATERS AND OTHER ENERGY USE

3.7.1 Electrical heaters shall not be used within the Trust premises, except as follows:

- Where permanently installed as part of the designed heating system.
- In areas where the Estates Department has agreed that electric heaters are necessary to maintain the recommended environmental air temperature. In such instances the maintenance contractor will provide suitable heaters.
- It shall be the Trust's policy wherever practical, to modify such areas through additional insulation and eliminate the need for temporary electric heaters.
- Electrical safety of apparatus and consideration of system loading shall not be affected by this policy.
- The use of convection temporary heaters goes against Trust Fire Policy so must never be used.

3.7.2 Air conditioning units shall not be used within the Trust premises, except as follows:

- Where permanently installed as part of the designed cooling system.
- In areas where the Building and Environmental Compliance Manager has agreed that air conditioning units are necessary to maintain the recommended environmental air temperature. In such instances the maintenance contractor will provide suitable air conditioning units.
- It shall be the Trust's policy wherever practical, to modify such areas through additional insulation, blinds and mechanical ventilation to eliminate the need for temporary air conditioning units.

- Electrical safety of apparatus and consideration of system loading shall not be affected by this policy.

3.7.3 Photocopiers, computer equipment, catering equipment and other machinery and equipment, including medical diagnostic equipment should not be switched on unnecessarily, and should be switched off at the end of the working day. Every member of staff shall ensure that

lighting is not used unnecessarily. In particular, lights shall be switched off when not required, and on leaving the room/department. See appendix D to reduce unnecessary lighting.

3.8. THE HEATING SEASON

3.8.1 For non-clinical areas the heating season shall be deemed to be between 1st October and 1st April. Weather permitting this may be extended; this is in line with current good practice guidance. Operation of heating equipment and services outside of this period shall be restricted.

3.8.2 The decision as to when heating is to be switched on or off for all sites will finally rest with Building and Environmental Compliance Manager, following consultation with the Head of Asset Management, Site managers / service leads and maintenance contractors.

3.8.3 Staff are reminded to take a practical approach during cold spells in the summer shut down periods and encourage people to wear clothes suitable for the prevailing weather conditions.

3.8.4 The Health and Safety Executive (HSE) guidance on workplace temperature are well exceeded within all our buildings as the reasonable working temperature in workrooms is 16°C within 1 hour of starting work. There is no guidance on maximum working temperature.

3.8.5 Table 1 below provides a guide to what temperatures you can expect in your work areas. The list of typical areas are not exhaustive or definitive, but provides a common sense approach to sensible and comfortable temperatures based on recommendations by the Chartered Institute of Building Services for Healthcare premises.

Table 1

ROOM	RANGE in degrees centigrade
Consulting/Examination	19 – 22/21 – 23
Offices	19 - 21
Wards and rooms for patients	18 – 21
Services for older people	21 – 23
Therapy Rooms	20 - 23
Maternity delivery	21 – 23
Maternity incubator / cot	23 – 25

4   ROLES & RESPONSIBILITIES

4.1   The Chief Executive Officer has overall responsibility for ensuring compliance with relevant statutory requirements relating to energy management. The Chief Executive officer will ensure that sufficient resources are provided to enable the policy to be implemented and to remain effective.

4.2   The Trust Board will ensure that sustainability becomes integrated into all the Trust's business activities and will support and promote the policy throughout the organisation.

4.3   Director of Finance, Performance & Estates is the Trust lead on sustainability, energy and carbon reduction.

4.4   Estates, Facilities and Sustainability Sub Group receive reports and updates from Head of Asset Management and Building and Environmental Compliance Manager.

4.5   Head of Asset Management and Building and Environmental Compliance Manager are responsible for the development, implementation and communication of this policy, particularly energy and carbon reduction initiatives and action plans. Day to day management and monitoring and to produce status reports to the Estates, Facilities and Sustainability Sub Group for performance and delivery. Produce mandatory and statutory returns.

4.6   All Managers shall be responsible for:

- Ensuring that the Energy and water conservation procedures are followed by staff in their areas of responsibility.
- Encouraging staff to share their ideas to improve sustainability in their work areas.
- Seek advice on energy and carbon emissions during the planning of new operations and changes in their services.

4.7   Procurement are responsible to ensure that all purchases of energy consuming equipment have been verified as being the most energy efficient by Building and Environmental Compliance Manager.

4.8   All staff will ensure energy usage is kept to a minimum by employing "good housekeeping" methods and where relevant attend appropriate training on energy and water conservation. Report any identified energy inefficiencies/waste to the Building and Environmental Compliance Manager, report any defective equipment or fixtures to the maintenance contractor.

4.9   ICT will ensure that the equipment and systems they design, specify, oversee and maintain have in-built energy saving systems and that these are activated during normal use.

4.10   Contractors and tenants working on Trust premises must ensure their energy use is kept to a minimum by employing "good housekeeping" methods such as turning off equipment heating and lighting when it is not required. Compliance with this policy will be made at contract level for any new contractors.

4.11   Maintenance contractors in addition to above must also consult with Building and Environmental Compliance Manager for any heating, cooling and water consumption advice and to use Appendix E for guidance on lighting standards and re-lamping.

5   TRAINING

14.1   Solent NHS Trust recognises the importance of appropriate training for staff. Training will be given to and or distributed to all staff who are involved in implementing any aspect of this policy. The Building and Environmental Compliance Manager will discuss with learning and development the ability to include awareness training within trust induction.

6   EQUALITY IMPACT ASSESSMENT AND MENTAL CAPACITY

6.1   This policy has been written in order to manage the energy and water usage on Solent sites to ensure that usage is reduced wherever practicable. As part of the development of this policy an equality impact assessment was undertaken, a copy of which can be seen at Appendix A.

7   SUCCESS CRITERIA AND MONITORING COMPLIANCE

7.1   Building and Environmental Compliance Manager will monitor compliance with this policy as part of their day to day monitoring of Energy and Water consumptions, and will carry out Energy audits on Trust owned or managed sites. This will be reported to Estates, Facilities and Sustainability Sub Group quarterly and submitted when required for mandatory reports such as ERIC and other annual reports. Any non-compliance must be reported.

7.2   Health and Safety Manager will monitor accident/ incident reports, staff complaints and management requests.

7.3   On an Annual basis Learning and Development will be responsible for reporting that staff training requirements are kept up to date.

7.4   Implementation and compliance will be audited prior to the policy being reviewed and updated.

8   REVIEW

This document may be reviewed at any time at the request of either staff side or management, but will automatically be reviewed 3 years from initial approval and thereafter on a triennial basis unless organisational changes, legislation, guidance or non-compliance prompt an earlier review.

9   REFERENCES AND LINKS TO OTHER DOCUMENTS

9.1   Trust reference documents

- ESF001 Sustainability policy
- HS11 Control of Legionella Bacteria in Water policy
- RK08 Fire Safety Policy

9.2   External reference documents

- HTM 07-02: EnCO2de 2015. Part A and Part B
  Available at:
  https://www.gov.uk/government/publications/making-energy-work-in-healthcare-htm-07-02

- Saving Carbon, Improving Health. NHS Sustainable Development Unit, 2009.
  Available at:
  http://www.sdu.nhs.uk/documents/publications/UPDATE_NHS_Carbon_Reduction Strategy (web).pdf

- Sustainable Development Commission, 2009, NHS Good Corporate Citizen.
  Available at:
  http://www.corporatecitizen.nhs.uk/

- Climate Change Act 2008, Available at:
  http://www.legislation.gov.uk/ukpga/2008/27/contents

- Environment Act 1995, Available at:
  http://www.legislation.gov.uk/ukpga/1995/25/contents

- Environmental Protection Act 1990, Available at:
  http://www.legislation.gov.uk/ukpga/1990/43/contents

- Clean Air Act 1993, Available at:
  http://www.legislation.gov.uk/ukpga/1993/11/contents

- Water Industry Act 1991, Available at:
  http://www.legislation.gov.uk/ukpga/1991/56/contents

- Water Resources Act 1991, Available at:
  http://www.legislation.gov.uk/ukpga/1991/57/contents

- The Groundwater Regulations 1998, Available at:
  http://www.legislation.gov.uk/uksi/1998/2746/contents/made

- The Sulphur Content of Liquid Fuels (England and Wales) Regulations 2007, Available at:
  http://www.legislation.gov.uk/uksi/2007/79/contents/made

10   GLOSSARY

BREEAM	Building Research Establishment Environmental Assessment Methodology
CRC	Carbon Reduction Commitment
DEC	Display Energy Certificate
EPC	Energy Performance Certificate
ERIC	Estates Return Information Collection
HSE	Health & Safety Executive

Appendix A:

Equality Impact Assessment

Step 1 – Scoping; identify the policy's aims	Answer
1. What are the main aims and objectives of the document?	Manage monitor and regulate the use of Energy and Water across all Trust sites, and to raise awareness of consumption and opportunities to reduce usage.
2. Who will be affected by it?	Staff, patients and contractors working in sites owned, leased or occupied by the trust.
3. What are the existing performance indicators/measures for this? What are the outcomes you want to achieve?	There are no existing performance indicators / measures in place. To achieve a consistent measure across all trust occupied premises, increase awareness and reduce consumption.
4. What information do you already have on the equality impact of this document?	This policy does not have an impact on equality.
5. Are there demographic changes or trends locally to be considered?	The change of use of buildings needs to be carefully considered to minimise increased consumption.
6. What other information do you need?	

Step 2 - Assessing the Impact; consider the data and research	Yes	No	Answer (Evidence)
1. Could the document be used unlawfully against any group?		X	
2. Can any group benefit or be excluded?		X	
3. Can any group be denied fair & equal access to or treatment as a result of this document?		X	
4. Can this actively promote good relations with and between different groups?	X		The policy provides clear responsibilities on consumption and management of energy and water.
5. Have you carried out any consultation internally/externally with relevant individual groups?	X		Policy has been reviewed by the Sustainability group, as well as being approved by Estates, Facilities and Sustainability Sub Group before final sign off with policy group.
6. Have you used a variety of different methods of consultation/involvement		X	All groups have seen draft versions of policy and added comments which have been included or justified why they have not been included.
Mental Capacity Act implications			
7. Will this document require a decision to be made by or about a service user? (Refer to the Mental Capacity Act document for further information)		X	
External Considerations			
8. What external factors have been considered in the development of this policy?		x	

9. Are there any external implications in relation to this policy?		x	
10. Which external groups may be affected positively or adversely as a consequence of this policy being implemented?		x	

Appendix B

Save Energy Save Money

B1.1 The heat is on; saving energy not only saves money but saves the environment. Saving energy is easier than you think! For example by turning off unnecessary lights, even turning off one light for only a few seconds will save energy, including fluorescent lights. A common misconception is leaving a fluorescent light switched on because it will take more energy to switch it on and off all the time. With today's modern technology in lighting this is simply not true.

B1.2 Saving energy makes an immediate difference to the Trust's bottom line. In the private sector this means extra profit. And in the public sector, money saved can be re-invested in patient services, staff, training or improved facilities.

B1.3 Global warming is caused by greenhouse gases such as carbon dioxide, a by-product of all types of energy consumption. By using energy more efficiently we can help to reduce carbon dioxide emissions, reducing the rate of climate change and the damage to the environment. The workplace is a major consumer of energy and has a big role to play in energy efficiency.

B1.4 Getting started doesn't take a long time or even any investment. See **Appendix C** for details on how you can help save money to improve patient services by reducing the energy being used in your workplace.

B1.5 There are many web sites with lots of useful information on saving energy and what the impact of energy saving will have on everyone's future. Beware, in contrast there is also lots of disinformation out there in the World Wide Web, so don't be fooled into spending loads of money on energy surveys. Below are some informative web sites:

http://www.thecarbontrust.co.uk/energy/pages/home.asp

http://www.est.org.uk/

Appendix C

Energy Saving Campaign

Creating a culture within the organisation that changes staff's attitude and behaviour is fundamental to its success. This will be achieved by:

C1.1 Raising staff awareness of the benefits that can be realised, this is one of the most effective ways of saving energy. For example the money saved can be used for improving patient care.

C1.2 A tried and tested method is a poster campaign. For example, posters with punchy statements and comic graphics on notice boards, or more serious examples may include posters next to light switches stating 'please switch me off when leaving the room'.

C1.3 The above examples may well have cost implications, however, the "Carbon Trust" provide free resource packs and downloadable posters that can easily be printed off on a colour printer. The posters can then be placed on notice boards. However, remember notice boards need to be managed, for example change the poster frequently to keep the reader interested with something new and eye catching.

C1.4 The obvious drawback with a poster campaign within a Trust that has a large geographic area with many different sites, is that one person could not possibly manage the process alone. It will take commitment, starting from the top down and will need champions at selected locations to co-ordinate.

C1.5 Regular items in weekly staff news will get to all members of staff even those who are community based who don't regularly come to a base to view notice boards. These groups of staff are often missed but due to their hours of working could have a larger impact on energy consumption that an office based team all working the same core hours.

C1.6 Staff news items to include comparisons between Trust's properties to encourage mini competitions between services and buildings.

C1.7 In addition, specialist promotions such as 'Energy Awareness Days' will be held periodically. An introductory document of these materials will be looked at being included in the staff induction information pack.

C1.8 Increasing staff awareness as to what is being done and what more can be done, why it is beneficial and how each individual can help is the key to improving the Trust's overall energy and environmental performance.

Let's save energy together and do our part in saving the Environment.

Appendix D

Control of Unnecessary Lighting

The Trust Energy & Water Policy requires that each Department shall make practical arrangements to ensure that lighting is not used unnecessarily. There are two main reasons for the unnecessary use of lighting.

Mid-Day - on dusky mornings lights are needed in many areas. As the amount of daylight increases through the day, staff members forget to switch the lights off again.

Mid-day wastefulness is extremely difficulty to overcome. However, an occasional reminder to staff will help, or even better, appoint a willing volunteer as Green Champion and ask him/her to do a daily or weekly tour of the department to remind people.

Automatic lighting systems may also be used where possible and appropriate upon consultation with staff.

Night - although, in general, staff members are conscientious about turning off their office lights at the end of the day, several areas are commonly forgotten (for example, filing rooms, toilets, corridors). This also applies to office machines such as computers and copiers.

To eliminate night time wastefulness, each room that is likely to be forgotten should be made the responsibility of an individual (probably the most senior person of the section who uses the room most, the person who is situated nearest to it or a Green Champion). That person should check each night that all lights and machines are off before going home. (Occasionally, the room will be needed again after the lights have been turned off, but the user should turn them off as he/she leaves). Automatic lighting systems may also be used where appropriate upon consultation with staff.

Contract and in house cleaners have the biggest responsibility for night time lighting in areas, which they clean at night. Their staff should be regularly reminded of the need to avoid wastage and to check all lights are off when they leave an area recognising the operational security needs for staff.

Appendix E

Lighting installation Standards & Re-Lamping Guide

1. All lamps, when defective, must be replaced with a lower energy consuming replacement as shown below:

- T12 / T8 with T5 or LED equivalent
- T5 with LED equivalent
- Incandescent lamps with compact fluorescents or LED equivalent
- SON with LED equivalent
- Halogen floodlights with LED equivalent
- Halogen spotlights with LED equivalent

2.   Fluorescent Luminaires

Where it is not possible to replace fluorescent luminaires the following must be used as guidance:

- All luminaires must have high frequency electronic control gear.

- The use of 6 ft. and 8 ft. luminaires should be avoided and replaced when they become defective with T5 or LED equivalent fittings.

3.   Illumination Levels

All new installations shall be designed to achieve the required design luminance (usually 500 lux). In the past, designers have specified excessive lighting to ensure that the luminance is above the recommended level. In future, their brief will specify the acceptable minimum and maximum levels, and the levels should be checked on handover/commissioning.

Appendix F

Definitions

- Carbon footprint:

    Carbon footprint is a measure of the impact an organisation's activities have on the environment, and in particular the potential effects on man-made climate change. The carbon footprint relates to the amount of greenhouse gases produced in a period of time through burning fossil fuels for electricity, heating and transportation, and from other energies needed to provide the service.

- Carbon footprint scopes:

    Carbon footprint scopes are the classification of the different carbon emissions emitted by an organisation according to their source.
    Scope 1 emissions are the emissions from the direct combustion of fuels on the organisation's premises.
    Scope 2 emissions are emissions from electricity generation activities to supply the organisation's needs.
    Scope 3 emissions are other indirect emissions from the production of materials and transportation.

- Advance Metering Infrastructure:

    This term relates to system that assesses, collects and analyses energy usage by interaction with advanced measurement devices such as electricity meters, gas meters, heat meters, water meters and similar, through communication media either on demand or to pre-defined schedules.

- Watt (W):

    International Standard unit of Power in an electrical circuit.

- Kilowatt Hour (KWh):

    Kilowatt Hour is a unit of energy equal to 1,000 watt hours or 3.6 mega joules (MJ). E.g. 10 x 100W lights on for 1 hour = 1,000W

- Mega joule (MJ):

    Mega joule is a unit of energy equal to 277 watt hours
    e.g. 5 x 60W lights on for 1 hour = 300W

- Gigajoule (GJ):

    Gigajoule is a unit of energy equal to 1,000 mega joules

- Meter cubed (M^3):

    Unit of measure of gas or water through the supplier's meter.

- Green Champion:

    Staff volunteers who lead by example and support training and raising awareness to staff in their team/department.

- Estates Return Information Collection (ERIC):

    A compulsory annual return to the department of health stating the condition, running cost and quantities of estates services and buildings.

- Display Energy Certificate (DEC):

Each building owned and managed by the Trust, frequently visited by the public over 250m^2 must display in a prominent position a display energy certificate. The DEC assessment is a reflection of the actual consumption of the building's energy over the previous year and must be produced by an accredited energy assessor. It compares your building against other similar buildings based on type of use and hours of operation. DEC's are valid for 1 year from the date of assessment.

- Energy Performance Certificates (EPC):
  Any building owned and managed by the Trust regardless of size, if it is leased or rented to another company / organisation or individual must have a valid EPC. Unlike a DEC an EPC looks at the fabric of the building and the plant / fixtures in use within the building and assesses the potential efficiency of the building. EPC's are valid for 10 years from the date of assessment.

- Building Research Establishment Environmental Assessment Methodology (BREEAM):
  BREEAM sets the standard for best practice in sustainable building design, construction and operation and has become one of the most comprehensive and widely recognised measures of a building's environmental performance.