

AGENDA ITEM NO:

UNIVERSITY HOSPITALS BIRMINGHAM NHS FOUNDATION TRUST

BOARD OF DIRECTORS

THURSDAY 24 FEBRUARY 2011

Title:	A SUSTAINABILITY AND CARBON REDUCTION STRATEGY FOR UHB
Responsible Director:	Morag Jackson, New Hospitals Project Director
Contact:	David Taylor, Head of Regeneration (Ext 6854)

Purpose:	To provide the Board of Directors with a draft Sustainability and Carbon Reduction Strategy for their consideration and to request a further report back for the April 2011 Board of Directors meeting .
Confidentiality	
Medium Term Plan Ref:	Aim 4: Provide first class facilities by delivering the new hospitals project. Aim 8: Become a community asset for Birmingham and beyond.
Key Issues Summary:	
Recommendations	<ul style="list-style-type: none">• Note the importance of the Sustainability and Carbon Reduction agenda to the NHS and UHB.• Consider the draft Sustainability and Carbon Reduction Strategy in this report.• Request a report back to the Board of Directors April 2011 meeting on a detailed action plan to move forward the Sustainability and Carbon Reduction Strategy.

Signed:	Date: 14 February 2011
----------------	-------------------------------

UNIVERSITY HOSPITALS BIRMINGHAM NHS FOUNDATION TRUST

BOARD OF DIRECTORS THURSDAY 24 FEBRUARY 2011

A SUSTAINABILITY AND CARBON REDUCTION STRATEGY OF FOR UHB

PRESENTED BY THE NEW HOSPITALS PROJECT DIRECTOR

1. Purpose of Report

To provide the Board Directors with a draft Sustainability and Carbon Reduction Strategy for their consideration and to request a further report back for the April 2011 Board of Directors meeting.

2. Sustainable Development

2.1 Sustainable development is an approach to business, whether public or private sector, that ensures minimal impact on the environment, maximum benefit for the health of employees and local communities, and does not compromise the opportunities for future generations.

2.2 In practical terms sustainable development, sometimes called “good corporate citizenship”, means focusing on:

- Ensuring buildings conform to best standards of sustainability and energy efficiency and waste is minimised;
- Reducing the harmful effects of transport;
- Procuring goods and services locally where possible and from organisations that encompass the principles of sustainability;
- A workforce strategy which embeds sustainability through effective policies for a healthy workplace, valuing the workforce, diversity and inclusion, learning and development and broadening access for disadvantaged groups to the jobs healthcare can offer;
- Community engagement and participation.

2.3 This broad definition of sustainability encompasses activities such as the Learning Hub, which has given a national lead in terms of broadening access to healthcare jobs for disadvantaged communities. However, the definition normally used by the NHS Sustainable Development Unit focuses on carbon reduction and it is this which is used in the rest of this report.

3. Carbon Reduction – key national figures

3.1 Carbon reduction crosses each of the above components of sustainable development and is important in its own right because of the threats being posed by climate change.

- 3.2 The NHS provides enormous opportunities for action in sustainable development and reduction of greenhouse gas emissions. Nationally, the NHS has a carbon footprint of 21 million tonnes a year CO2 equivalent gasses. This is larger than some medium sized countries. Work by the NHS Sustainable Development Unit indicates that these emissions are split as follows:
- 24% building energy
 - 17% transport
 - 59% procurement.
- 3.3 Government has set challenging national targets for NHS England to reduce its emissions:
- a 10% reduction by 2015 from 21 million tonnes of CO2 equivalent (21mtCO2e) to 19 million tonnes;
 - an 80% reduction in CO2 equivalent gasses by 2050 which would reduce NHS England emissions to around 4m tonnes a year.

4. **Key Drivers for UHB**

Aside from the moral imperative to reduce CO2 emissions, the key drivers for the UHB to reduce its CO2 emissions are:

4.1 The recommendations of the NHS Sustainable Development Unit

It is argued that taking sustainability and carbon emissions seriously is an integral part of a high quality health service and has put in place a recommended target for CO2 reductions of 10% by 2015.

4.2 The Carbon Reduction Commitment Energy Efficiency Scheme (CRC)

The exact form that the implementation of the CRC will take is currently unclear, but it is considered likely that the CRC will put in place a cost of £12 on each tonne of CO2 that UHBFT produces. Based on modelled data for the new and retained estate, this would represent an annual cost of over £300,000.

4.3 Energy Costs and Energy Security

As the UK's reserves of North Sea oil and gas run out, the Government predicts that up to 60% of our gas could be imported by 2020. Therefore, the UK is going to become increasingly reliant on imported fossil fuels, which in turn will increase our exposure to global energy price fluctuations. As many of our power stations are gas powered, this means that electricity will also be subject to these price fluctuations. Many of the measures outlined in the draft UHB Sustainability Strategy (see below) will serve to reduce UHB's susceptibility to this by reducing energy demand and increasing the Trust's ability to generate its own energy.

4.4 Reputational Risk

Sustainability will be an important issue for many of the Trust's partners, stakeholders and the population it serves. The league tables likely to be published as part of the CRC will show UHB's performance in comparison to other NHS bodies. There is a reputational risk if the Trust does not take steps to set targets, proactively manage its environmental impacts and communicate challenges and achievements.

4.5 Monitor Annual Reporting Manual 2009/10

NHS Trusts will be required to include a section in their Annual Report entitled 'Sustainability and Climate Change'.

5. **The AECOM Study**

The Carbon Trust - one of the leading providers of specialist support to help business and the public sector cut carbon emissions - and UHB jointly appointed AECOM to provide appointed to produce an initial sustainability "scoping" study, providing:

- a high level description of the key drivers for proceeding with a Carbon Management study within UHB;
- a broad indication of the benefits of implementing Carbon Management within UHB drawn from previous experience of working with a wide range of companies and public sector organisations;
- a detailed breakdown of how the Carbon Trust's Full Carbon Management Programme would be applied in UHB with recommendations on what the focus should be; and
- an estimate of the resources and costs required to deliver the Programme from the Carbon Trust and UHB.

6. **UHB's Carbon Footprint**

6.1 An initial estimate has been made of direct carbon emissions associated with energy use across UHB. The total annual carbon dioxide emissions for the old estate (based on 2007/08 consumption) are estimated at 28,308 tonnes CO₂. The estimate for the new and retained estate is 25,036 tonnes, i.e. **some 12% less**.

6.2 Further work is underway to provide a complete carbon footprint for the Trust which includes emissions which are a consequence of the Trust's activities but are outside its control, e.g. procurement of goods and services and commuting (by staff, visitors and patients).

7. **A Sustainability and Carbon Reduction Strategy for UHB**

7.1 The AECOM study has been invaluable in helping the Trust move forward with a draft Sustainability and Carbon Reduction Strategy. AECOM's recommendations are now being considered in more detail and will lead to the development of an action plan which will be brought back the April Board of Directors meeting for consideration.

7.2 A draft Strategy is given below.

7.2 Energy and Carbon Management

7.2.1 **Objective One: Regular Board level reviews of performance in carbon reduction**

- The Trust will produce a Board-approved publicly available carbon management strategy including targets
- The Trust will assign responsibility to the appropriate Executive Director.
- Complete the NHS Good Corporate Citizenship Assessment on an annual basis and report the results to the Board of Directors.
- Work with the PFI contractor to collect data which will enable regular reporting on energy consumption, cost and emissions at division level.
- Submit an annual Carbon Reduction Report to the Trust Board for inclusion within UHB's Annual Report – including progress against NHS targets and the Carbon Reduction Commitment.

7.2.2 **Objective Two: The Trust will replace energy measurements by carbon measurements as the target for reduction in the work of the Trust's Energy and Utility Committee.**

- Analyse data from sub-meters already installed or being installed in the new hospital through the installation of automatic meter reading devices to provide more detailed reports on energy consumption.
- Develop regular energy and emissions monitoring programmes across the Trust including consideration of "dashboard" type performance reports.

- Improve relationships with key suppliers so as to establish their carbon dioxide emissions and understand the actions taken for reduction.
- Develop targets for carbon reduction performance across the Trust.

7.2.3 Objective Three: The Trust will create a strategic plan to develop resilient and more renewable energy sources to ensure a guaranteed energy supply, whilst managing its overall carbon footprint.

- Develop a strategy encompassing the latest low carbon energy generation options and energy efficiency tools and techniques – building on the high energy efficiency performance of the new Queen Elizabeth Hospital Birmingham.
- Develop a Board approved energy/carbon management plan for 2011 - 2015. The plan will address the NHS carbon reduction targets and Carbon reduction Commitment legislation.

7.2.4 Objective Four: The Trust will continue to develop its approach to assessing capital developments on a whole life cost basis and include where appropriate low carbon options such as more renewable energy, passive cooling, efficient lighting, sustainable transport and natural environment.

- Engage with the PFI provider jointly address sustainability, energy and carbon management issues. Carbon reduction will be a permanent agenda item on the existing Energy and Utility Committee.
- Working with the PFI provider establish processes to review the specification of new plant, equipment and building works (new build and refurbishment) and evaluate whole life costs.
- In developing its residual estate the Trust will ensure every new capital project has carbon reduction built into the business plan with energy and emissions risks being assessed alongside risk and financial resources.
- Explore the use of renewable energy sources and suppliers when new building work and/or equipment is being procured.

- Work with the PFI contractor to ensure that all Trust properties have a regular energy efficiency walk round and that an action plan is produced to prioritise projects to reduce consumption in line with Trust targets.
- Work with the PFI contractor to consider if the Building Management System for the new hospital can be rolled out to all Trust buildings.
- Develop a programme of good housekeeping opportunities for energy savings for implementation across the new site and the remaining site – for example, plant & equipment control; escalators; lighting; a/c; windows, doors and heating; reduction in printing and photocopying; introduction of electronic systems, i.e. tablet pc's.
- Assess the opportunities for reducing IT energy consumption.

7.2.5 Objective Five: Every UHB staff member should be able and encouraged to take responsibility for energy consumption and carbon reduction.

- Create a programme to deliver ongoing reductions in day-to-day energy consumption through staff behavioural change.
- Develop carbon reduction and awareness campaigns and training – building on the Trust's values.

7.3 Procurement and food

7.3.1 Objective Six: The Trust will take every opportunity to manage its operations and procurement efficiently so as to minimise wastage and carbon from the outset.

- Develop pre-qualification of supplies processes, including embedding standard sustainability criteria in ITT, PQQ tenders.
- Work with the PFI contractor to review framework agreements and day-to-day work arrangements to ensure sustainability is embedded into the process.
- Complete a review of sustainable procurement tools and select the best option for UHB.

- Explore opportunities to introduce sustainability and carbon reduction into food procurement.
- Develop guidance to help source energy efficient and sustainable plant and equipment for new build, refurbishment and maintenance projects.
- Work with the PFI provider to develop joint procurement programmes as part of a planned maintenance works.
- Similarly, review minor and major works budgets to encourage energy efficient grouped purchase of equipment and building works. Ensure that new works projects link to energy/carbon management plan.
- Continue to develop collaborations with suppliers to reduce the amount of deliveries to the main QE site, especially through the new warehouse constructed away from the hospital as a supply consolidation point.

7.3.2 Objective Seven: UHB will work in partnership with suppliers to improve sustainable and low carbon procurement using the “roadmap” produced by the NHS Sustainable Development Unit.

- Continue to develop existing supply chain and stakeholder networks to improve sustainable and low carbon procurement.

7.3.3 Objective Eight: UHB will consider local procurement, whole lifecycle costs and the environmental impact of financial decisions in preparation for the use of carbon as a currency as part of the development of Carbon Reduction Commitment and “carbon trading”.

- Develop further and embed whole lifecycle costs into the procurement and evaluation process ensuring, wherever possible, that it includes purchasing cost, running cost, repairs and maintenance and disposal.
- Assess the costs and benefits of developing a scoring system for suppliers as regards sustainability.

7.3.4 Objective Nine: The Trust will work with the NHS Sustainable Development Unit to better understand the carbon footprint of pharmaceuticals.

- Have discussions with suppliers to establish opportunities to reduce the carbon footprint of pharmaceutical procurement
- Discuss with suppliers the viability of establishing opportunities to reduce the carbon emissions associated with the use of medical equipment.

7.3.5 Objective Ten: The Trust will promote sustainable food and nutrition.

- Explore opportunities to reduce the carbon footprint of catering services.
- Work with the PFI provider to review the potential for the provision of locally sourced and organic food in Trust restaurants.

7.4 Low carbon travel, transport and access

7.4.1 Objective Eleven: UHB will ensure its Travel Plan is regularly updated and reported to the Board of Directors.

- Update the existing Travel Plan in 2011 and set new targets - to replace the existing 10% reduction in single use car journeys by 2010, which has been achieved.
- Develop a Low Carbon Business Travel and Car Parking Policy, including indicators, performance monitoring and Board reporting.
- Develop incentives for staff to minimise car use and increase the use of public transport, cycling or walking .
- Continue to review ways of improving facilities for cyclists.
- Work with the University of Birmingham to ensure an integrated Travel Plan for both UHB and the University.

7.4.2 Objective Twelve: UHB will, despite having a small transport fleet, aim to give a lead in terms of innovative carbon reduction.

- UHB will consider the introduction of electric or other low carbon vehicles to replace its existing fleet.

- UHB will work with Central Technology Belt and the PFI provider to assess the opportunities for pilot procurement and installation of electric vehicle charging points within the Trust's estate.

7.4.3 Objective Thirteen: UHB will improve information on travel and transport so as to better inform the choices of staff, patients and visitors

- Work with CENTRO, Network Rail and West Midlands Travel to promote more widely the use of different mediums and public transport links including costs and timetabling. This will include the provision of "real time" information at bus stops and at prominent parts of the Trust's estate.
- The Trust will undertake an annual review of "green" transportation policies in conjunction with regular updating of its Travel Plan.

7.4.4 Objective Fourteen: the Trust will work wherever possible with partners in the NHS, public, private, voluntary and community sectors to move healthcare delivery closer to home and so reduce patient / visitor miles and emissions.

7.5. Waste Management and reduction

7.5.1 Objective Fifteen: UHB will reduce the impact on the environment of waste arising as a result of its activities.

- The Trust will maximise opportunities for waste recycling; ensure suitable measures are in place for segregation of waste; and minimise waste sent for landfill.
- The Trust will develop training and awareness programmes to ensure staff have a clear understanding of their individual and collective contribution to waste management and reduction.

7.6. Helping develop a sustainable local economy

7.6.1 Objective Sixteen: UHB aims to deliver the best in healthcare but in a way which helps to develop a sustainable local economy

- The Trust will continue to work with partners and stakeholders to broaden access to jobs and training in healthcare for disadvantaged people and communities – building on the success of its Learning Hub.

- The Trust will also continue to develop learning opportunities for staff including a specific focus on sustainable development; and demonstrate the value of learning opportunities in producing an increasingly skilled and motivated workforce.
- The Trust will generate prosperity in Birmingham and the broader West Midlands through helping create the conditions for job growth and investment in medical technology, especially translational research and clinical trialling.
- The Trust will continue to develop a healthy workplace through reducing average sickness rates, providing healthy eating options, promoting work / life balance and providing a safe, secure and green environment for staff, visitors and patients.

8. Recommendations

The Board of Directors is requested to:

- 8.1 Note the importance of the Sustainability and Carbon Reduction agenda to the NHS and UHB.
- 8.2 Consider the draft Sustainability and Carbon Reduction Strategy in this report.
- 8.3 Request a report back to the Board of Directors April 2011 meeting on a detailed action plan to move forward the Sustainability and Carbon Reduction Strategy.

Morag Jackson
New Hospital Projects Director
14 February 2011