

THE SHREWSBURY AND TELFORD HOSPITAL NHS TRUST

NHS CORPORATE CITIZEN AND CARBON MANAGEMENT STRATEGY ANNUAL REPORT

TRUST BOARD – AUGUST 2012

1. INTRODUCTION

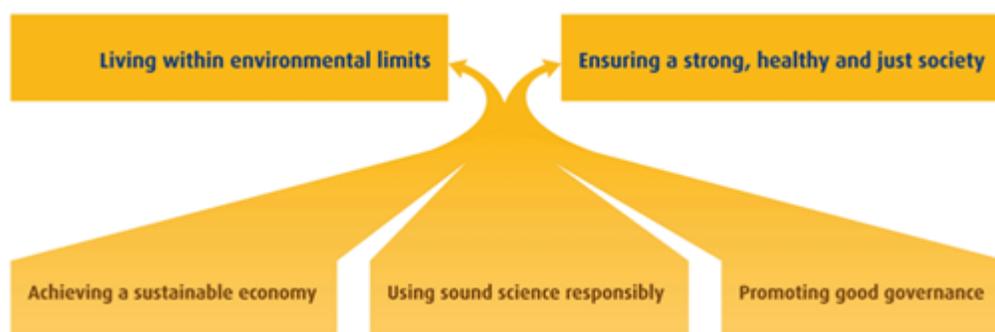
The Shrewsbury and Telford Hospital is one of the largest employers in the county and along with all NHS organisations, it is a large user of resources. This gives us an important role in the community and a responsibility to use our position responsibly. For some time sustainable development has been rising up the government agendas¹ and in the business community there has been longer recognition of 'corporate social responsibility' or 'corporate citizenship' to benefit the social, economic and physical environment. The benefits can also produce revenue reductions through a more effective use of resources.

The Climate Change Act sets national targets for reducing carbon emissions against a baseline of 1990 emissions of, 34% by 2020, 64% by 2035 and 80% by 2050. Additionally, the NHS has set itself a target of a 10% reduction against 2007 emissions by 2015.

The Carbon Reduction Commitment Energy Efficiency Scheme (CRC) is a mandatory scheme to encourage reduction in energy usage and carbon emission by large energy users. The CRC attaches cost to carbon emissions. Carbon allowances for buildings-related emissions are retrospectively purchased in April each year, and commenced in April 2012 (for the 10,127 tonnes of buildings-related carbon emissions in 2011-12), at a cost to the Trust of £117k. It is estimated that this cost would have been in excess of £180k but for some of our carbon emission reduction initiatives in place.

2. NHS CORPORATE CITIZEN - POSITION AT SHREWSBURY & TELFORD HOSPITAL NHS TRUST

Good Corporate Citizenship follows the five principles of the UK Sustainable Development Strategy, [Securing the Future \(2005\)](#):²



¹ Sustainable Development Roundtable 2006 *Shifting opinions and changing behaviours* London SDR

² Securing the Future DEFRA HM Government March 2005

2.1 Background

In the NHS the *NHS Good Corporate Citizenship Assessment Model*³ is central to achieving sustainable development. It is a web-based tool (www.corporatecitizenship.nhs.uk) designed to help NHS organisations assess and improve their contribution to sustainable development. It is based around six areas:

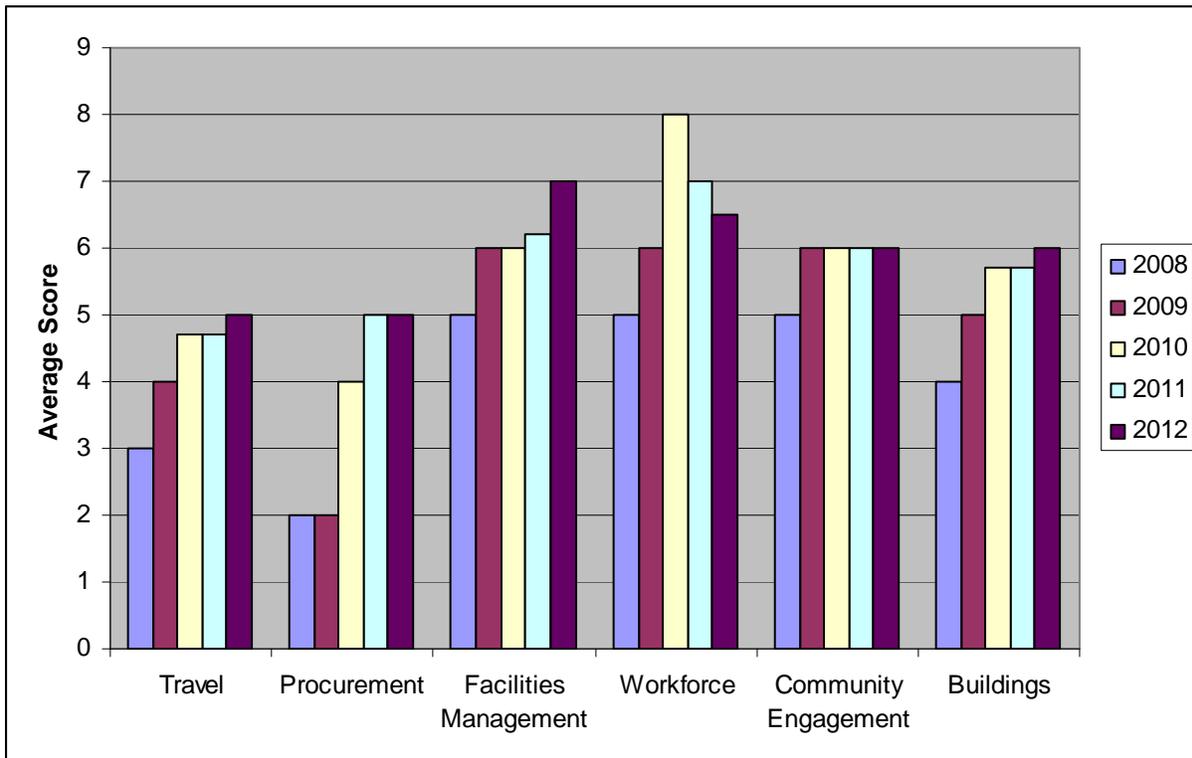
- i. *Transport,*
- ii. *Facilities management,*
- iii. *New buildings,*
- iv. *Procurement,*
- v. *Employment and skills,*
- vi. *Community engagement.*

2.2 NHS Good Corporate Citizen (GCC) model assessment

Using the model, an initial assessment of each of the six elements was undertaken in June 2008 and has been repeated every year since. The scores range from 0-9, divided into:

- 0-3 - basic
- 4-6 - getting there and
- 7-9 - excellent

SaTH's overall position in the GCC Model is shown in Chart 1 below.



1) **Travel** - Few factors connect health and sustainability so obviously as travel, with clear health benefits resulting from active, green travel choices. The NHS is responsible for 5% of all journeys made in this country. Its travel policies can influence the behavior of millions of people every day – not only the 1.4 million people who work for the NHS, but the vast numbers of patients, visitors and suppliers who flow in and out of the system. Sustainable transport and travel in the NHS means:

³ Taking Action on Climate change – Faculty of Public Health, NHS Confederation & NHS Sustainable Development Unit – August 2009

- Encouraging people to make active and sustainable travel choices where possible, such as walking and cycling
- Ensuring that health services can be accessed by good quality foot and cycle paths, and effective public transport systems, and encouraging their use ahead of private vehicles
- Making sure that collisions, noise, pollution, congestion and CO2 emissions are minimised through effective travel planning
- Providing facilities and working arrangements that reduce the need for travel and distances travelled
- Managing travel in ways that benefit communities, support local economies and help protect the environment

At SaTH The priorities last year were agreed as

- active travel (cycling, walking, public transport)
- business travel (alternatives to reduce need for vehicle movements between sites)

There has been progress in terms of travel and transport planning, visitor and staff engagement and consultation as part of the reconfiguration of hospital services and in compliance with the Planning conditions attached to the new Women and Children's building. This includes a feasibility study of inter-site transport and improved parking access for the public at both sites. This includes closer working with both local councils and strong links with Cycle Shrewsbury were established over the past year to increase cycle facilities at RSH. Agreement has also been reached with Arriva to offer discounted travel to hospital staff. The Trust is also using videoconferencing for a number of regular meetings – MDT meetings and weekly Transformation meeting

2) Procurement – The NHS in England spends £20 billion a year on products and services. Decisions about how this money is spent can have a huge impact on sustainable development. They can influence the way that suppliers think about their environmental impacts, or the fairness of their supply chains. And they can support the local economy, with knock-on benefits for the health and wellbeing of the community. Through the vast scale of its procurement, the NHS can drive innovation and shift markets towards more sustainable modes of operation. This is not simply a desirable characteristic of NHS organisations: it is a critical element of their corporate citizenship, and the country relies upon them to lead by example. Sustainable procurement means:

- Buying what is needed, and seeking innovative, lower impact products and services
- Understanding demand to ensure most efficient delivery of outcomes
- Specifying environmental and social standards through the procurement process to influence supply chains and drive innovation
- Basing procurement decisions on whole life rather than short-term costs and benefits
- Providing business opportunities and supporting skills development amongst supplier communities
- Making sure procurement supports and facilitates a reduction in resource use and waste

At SaTH the priorities last year were agreed as

- Re-write Procurement Strategy to include sustainability (SHPS)
- Promote sustainability to end-users
- Review possibility of making some sustainability criteria compulsory and
- Enhancing supplier engagement

There has been progress in the SHPS Procurement Strategy has been updated. Sustainability criteria are now included in all EU tenders. We have also introduced a sustainable catering strategy, with SHPS holding briefing sessions for catering staff. Eggs, milk, fruit and other products now sourced locally within the legislative framework. Fair Trade products are also used wherever possible. Shropshire Healthcare Procurement Service (SHPS) have a nominated person responsible for developing sustainability/environmental issues for all future projects. Specific environmental standards included in some tender documents when end user agrees, emphasis to be placed on sustainability as part of the weighting process. Whole life costing analysis is included in evaluation of some bids to include sustainable considerations. A GreenInsight procurement tool has been implemented to identify supply chain sustainability performance. The Board will also be asked to approve a Sustainable procurement Strategy and Pre-Qualification Questionnaire.

3) Facilities Management – Facilities management plays a key role in contributing to safe, high quality care delivered by the NHS. Sustainable facilities management ensures that environmental impacts are minimised and local economies and communities are supported in the operation of the NHS estate. This means:

- Complying with environmental and other appropriate legislation
- Making highly efficient use of resources such as energy, water, land and products
- Minimising waste
- Protecting green space and biodiversity
- Supporting local communities and economies wherever possible

At SaTH the priority last year was

- Minimising usage of hazardous substances in Trust activities.

Health & Safety COSHH assessments are now well embedded and risk assessment training provided. In other areas we have introduced a new domestic waste contract continues to reduce our waste disposal to landfill and increase our recycling of paper, plastic and metal (cans). It is now producing a 75% recycling rate. We have investigated anaerobic digestion for food waste and presently awaiting infrastructure modifications to facilitate this at RSH. We have just commenced with a new clinical waste contract which includes the facility to recycle our 'offensive' (personal hygiene) waste. A scheme to include automatic monitoring of water usage due to be implemented and review of water metering is included on capital aspirations list. The Lingen Davies Centre maximises the use of natural ventilation and light.

4) Workforce - The NHS is the biggest employer in the UK, and one of the biggest in the world. In many parts of the country it is the largest local employer. Employment is a key determinant of health and social cohesion. Employers can make a big difference to the wellbeing of the communities they serve through their approach to recruitment, learning and skills development, management, career progression, working conditions and equal opportunities. They can also promote sustainable development through the learning opportunities they provide, and the examples they set. A workforce strategy that supports sustainable development means:

- Understanding and responding to local employment conditions and needs
- Proactively building a skilled local workforce
- Building partnerships with education, training and skills providers, and voluntary organisations that help specific groups of people find employment
- Promoting the health and wellbeing of employees through enlightened HR policies
- Providing opportunities for employees to practice sustainable development.

At SaTH - the priorities last year were

- Promote the work of the Good Corporate Citizen
- Develop an awareness-raising/training package regarding environmental and energy issues

Good Corporate Citizen progress is now discussed at regular Workforce team meetings. A health Promotion Group has been established and is taking forward a range of initiatives, including a survey on attitudes to smoking on hospital grounds. We have introduced an E-learning programme for Good Corporate Citizen in progress to be published on Intranet and linked to national Learning Management System. The Workforce Strategy is in the process of revision and will be consulted on with stakeholders. We operate the NHS Staff Survey annually. We work with Remploy and operate the two ticks symbol (re employment of disabled people). We have close links with the local Job Centres, especially facilities, and offer Apprenticeships to employees. We have targets for addressing sickness absence which form part of our performance reports to the Trust Board. Note – our score has been reduced this year to reflect the poor staff survey results

5) Community Engagement – NHS organisations play a central role in any community and can make a significant contribution to health that goes beyond their obvious clinical functions. They can demonstrate leadership through the example they set to others in areas like food, active travel and energy efficiency. By understanding the needs of the local population, NHS organisations can understand how to influence their behaviours in relation to health and sustainable development. This means:

- Understanding the local community and involving its members in decision making and scrutiny
- Involving members of the local community in the planning and delivery of healthcare
- Working positively with key stakeholders to ensure local decisions (e.g. on planning or transport) are good for health and sustainability
- Supporting a strong and sustainable local economy by involving local suppliers in appropriate procurement opportunities
- Promoting healthy, sustainable food and nutrition.

At SaTH We have an active Foundation Trust membership and we communicate to members on a regular basis through the Healthier Future magazine and different Trust engagement activities. A newly formed Corporate Citizen Communication and Engagement group is looking at ways to further engage with our local communities on green issues. A Patient Engagement and Involvement Panel has been convened which provides scrutiny and support for the trust quality, safety and patient experience agenda. The NHS Foundation Trust process has enabled members to let us know if they have an interest in "Environment and Community" issues as well as in "neighbourhood" groups for our two hospitals. All Foundation Trust members have specified areas of personal interest. This information is held on the membership database and will be used to invite members to attend focus groups etc. We provide some facilities beyond health care (including meeting rooms that are used by community groups, support for community groups linked to our services e.g. Hope for Life, Hamar Centre). Gym facilities available for families of staff.

6) Buildings – The NHS has the largest property portfolio in Europe. Decisions about the planning, design and construction of new buildings, and the refurbishment of existing ones, are important opportunities to contribute to health and wellbeing, and to a more sustainable NHS. Since July 2008, there has been a formal requirement to apply the [BREEAM Healthcare](#) environmental and sustainability standard to healthcare building and refurbishment projects above certain capital thresholds. New buildings are expected to achieve an Excellent rating and refurbishments a Very Good rating, within the scheme. Sustainable building and refurbishment means:

- Listening to the views of the local community on their needs from healthcare buildings
- Working with contractors to ensure sustainable development objectives are properly specified, understood and delivered

- Using building projects to trigger improvement in other areas, like promoting active travel, cutting carbon, and expanding green and natural spaces
- Maximising sustainability performance through all phases of a building's lifetime – planning, design, construction and operation
- Supporting a strong and sustainable local economy by involving local suppliers in building projects.

At SaTH All major new building works now achieve excellent BREEAM rating – Lingen Davies Centre and the new W&C Centre at PRH are two examples. This confirms that their environmental impact during construction, occupation and demolition is reduced. All new building designs work with external environment e.g. maximise use of natural light and ventilation – the light well in the Lingen Davies Centre provides natural ventilation and daylight... Aim to have health enhancing design for benefit staff, patients and visitors. Involvement of staff, patients and public in projects e.g. Lingen Davies Centre and W&C Centre. New W&C centre will have mixed-mode ventilation and natural light where possible. Natural habitats are maintained and open green space features in all developments e.g. green quadrangles, play areas and preservation of established trees. Records maintained of Tree Preservation Orders. Discussions underway at present regarding replacement of trees felled outside RSH Outpatient area to be conducive to local habitat and birds. Significant improvements have been made to garden areas at RSH by in-house team this year.

3. GCC PRIORITIES 2012 - 2013

The Strategic Steering Group has overall responsibility for setting targets, providing direction and focus and for monitoring the three 'working' sub-groups. The three sub-groups, which comprise 'grass-roots' staff, are assigned responsibilities around (i) Estates and Transport, (ii) Procurement and (iii) Workforce and Engagement.

The GCC priorities for the coming 12 months (to increase the GCC Self Assessment scores) are:

1. Estates and Transport sub-group–
 - a. To assist with promotion and implementation of the Travel and Transport Plan resulting from the recent visitor consultation and staff engagement. This will include promotion of cycling, walking, public transport and car sharing etc., (GCC1.1)
 - b. To promote alternatives to the car for business travel, particularly between the two hospital sites (e.g. tele / video conferencing, intersite bus) (GCC1.1),
 - c. To promote the value of waste recycling (GCC 1. 3)
 - d. To continue to push for incorporation of sustainability measures in the new W&C Centre (GCC 1.6).
2. Procurement sub-group –
 - a. To source more products locally within the existing legislative framework (GCC 2.2)
 - b. Issue sustainability questionnaire to top 20 suppliers annually and monitor any improvements (GCC 2.4)
 - c. To trial the sustainability criteria on contracts >£20,000 (GCC2.1).
3. Workforce and Engagement sub-group –
 - a. Introduce Evergreen scheme to convert FT members from postal to email contacts (GCC 5.3)
 - b. Extend annual Staff Survey to all staff (GCC 4.3)
 - c. Implement Cultural Assessment survey (GCC 4.3)
 - d. Implement Health & Wellbeing programme (GCC 4.4)

The full action plan will continue to be monitored through the Corporate Citizen Steering Group which meets quarterly and is available through the Director of Compliance & Risk Management or on the Trust intranet

4. SUSTAINABILITY AND CARBON MANAGEMENT STRATEGY

4.1 *Background*

The NHS emits around 18 million tonnes of CO₂ every year. Increases in chronic conditions such as obesity, diabetes, asthma, hypertension and heart disease are in part caused by adverse environmental factors such as poor air quality, poor quality food, over-reliance on cars, and badly-designed environments limiting opportunities for physical activity. Mental health and health inequalities are also linked to these factors.

The UK Government's strategy for sustainable development 'Securing the Future' and the Department of Health's strategy 'Taking the Long Term View' are both major public health policies which provide a mandate for the NHS to engage in sustainable development and provide the framework for SATH NHS Trust's Sustainability and Carbon Management Strategy which was approved by the Board in October 2010. The full Sustainability and Carbon Management Strategy and the Action Plan are available from the Director of Compliance & Risk Management. Good progress is being made against the actions in the Plan, with further actions now showing a green RAG status.

4.2 *Climate Change Act*

The Climate Change Act CO₂ targets are for a 34% reduction against 1990 emissions by 2020, 64% by 2035 and 80% by 2050. In 1990 national emissions were just under 21Mt⁴ CO₂ and, in 2010 they were just over this, with projected emissions for 2010 of approximately 24 Mt. CO₂. The Climate Change Act aims to reduce this to 14 Mt CO₂ by 2020. Additionally, the NHS has set itself a target of a 10% reduction against 2007 emissions by 2015.

4.3 *SaTH emissions*

There are no figures available for the Trust of levels in 1990. The Trust has very accurate figures for the carbon emissions resulting from building and process energy usage (heating, lighting and ventilating of buildings and equipment sterilisation using electricity, gas and oil) for the period 2007 onwards. Typically across the NHS, buildings-related CO₂ emissions account for 22% of total emissions, the remainder arising from procurement (59%) and transport (18%), plus some miscellaneous. SaTH has already undertaken significant work to reduce the energy demand and carbon footprint of its buildings – heating, ventilation and cooling controls have been upgraded, and new lighting and less carbon-intensive cooling systems have been installed. Combined heat and power (CHP) plants have been installed at both sites, which use gas to generate electricity and then utilise the 'waste' heat to provide heating and - through an absorption process - cooling for the buildings. The work at RSH site was completed in 2006 so this had already reduced our carbon footprint by the time of the NHS-baseline year of 2007. The improvements at PRH, which were carried-out in 2009, are also reducing our footprint. The two systems during 2011/12 reduced our buildings-related carbon footprint by 6,130 tonnes per year saving £73,560 on the Carbon Reduction Commitment (CRC)

Table 2 shows the buildings-related energy usage and emissions of CO₂ – both *actual* and; in green, *Degree-Day corrected* (which takes account of the relative coldness of a year and enables a like-for-like comparison). In 2009 / 10, the CHP at PRH was commissioned and this brought about a reduction in overall energy usage and CO₂ emissions. The operation of both the CHP plants (i.e. RSH and PRH) has also reduced the need to import carbon-intensive electricity from the grid by using gas as the prime energy source instead. This is less carbon-intensive than grid electricity. The opening of the off-site CSSD facility at Queensway in 2010, reversed the downward trend in energy usage but it has created the opportunity to consider more efficient boiler plant at PRH. As a result of opening Queensway, the requirement for steam at PRH is now minimal so we have the opportunity to convert the boiler system from inefficient (and high maintenance) steam to a water-based system (akin to a domestic system). This is more energy efficient and has less maintenance requirements. The opportunity presented by the new W&C Centre – which will be a water-based heating system with its own boilers – may also be able to back-feed into the West (ward) end of the existing PRH and thereby disconnect this end of the site from the old steam boilers. There will be a capital cost (being obtained at present) but there will be long-term savings in energy (c £200k / yr – at present rates), CRC costs (c £15k / yr – at present tonnage cost), maintenance etc. This is option being explored.

⁴ Mt – Million tonnes

Table 2: SaTH Buildings Energy Usage and CO₂ Emissions 2007 - 2012:

| Year | Actual Energy usage kWh | DD-corrected energy kWh (to 2007/08) ⁵ | Actual CO ₂ emissions Tonnes | DD-corrected CO ₂ emissions (tonnes) (to 2007/08) (See Note 1) |
|----------------------|-------------------------|---|---|---|
| 2007/08 | 65,145,514 | 65,145,514 | 15,775 | 15,775 |
| 2008/09 | 69,847,083 | 66,195,659 | 15,999 | 15,452 |
| 2009/10 | 68,732,006 | 65,035,344 | 15,514 | 14,958 |
| 2010/11 ⁶ | 74,572,546 | 69,911,276 | 16,273 | 15,417 |
| 2011/12 | 71,950,581 | 72,341,714 | 16,039 | 16,111 |

Overall energy usage is now increasing and this is to be expected given that our estate is increasing in size, WTE staff numbers have increased and we are becoming increasingly sophisticated in terms of use of technology. Table 3 below however, gives us reassurance that the usage and emissions per standardisation unit of WTE, are decreasing. When standardised against floor area, the figures are not so encouraging, but this reflects that the new CSSD unit is a highly energy-intensive process per given unit of floor area.

Nevertheless, we have managed to reduce our overall *electricity* usage by moving from inefficient electric chillers to centralised plant and improving the efficiency of lighting systems. New state-of-the-art LED lighting has been installed on Ward 4 and discussions are underway about a further upgrade to general lighting efficiency across RSH.

Table 3: SaTH Energy usage and CO₂ emissions (both DD-corrected to 2007/08) per unit floor area of estate and per WTE 2007 – 2012.

| Year | DD-corrected energy kWh | | DD-corrected CO ₂ emissions (tonnes) | |
|---------|-------------------------------|---------|---|---------|
| | per m ² floor area | per WTE | per m ² floor area | per WTE |
| 2007/08 | 618 | 17,184 | 0.15 | 4.16 |
| 2008/09 | 628 | 16,956 | 0.15 | 3.96 |
| 2009/10 | 617 | 15,477 | 0.14 | 3.56 |
| 2010/11 | 634 | 17,043 | 0.14 | 3.76 |
| 2011/12 | 656 | 16,001 | 0.15 | 3.56 |

5. CARBON REDUCTION COMMITMENT (CRC) SCHEME

The CRC has now been operating for two years (papers have previously been presented to the Board on this subject). The Trust has reported its emissions for both years in accordance with the scheme's requirements. The accounting period 2011/12 was the first for which 'carbon allowances' needed to be purchased – at a cost of approximately £117,000. This has been successfully completed and monitoring is now underway for the period 2012/13.

The mechanism for sale of carbon allowances for 2012/13 is yet to be finalised but could take the form of an auction whereby market forces will dictate the cost. The Trust's work to manage its emissions whilst still continuing to grow and develop will help to reduce the final costs.

4. RECOMMENDATIONS

The Board is asked to :

- (i) **APPROVE** identified priority areas for each element during 2012/13
- (ii) **NOTE** the continued progress made against the Good Corporate Citizen agenda and carbon reduction and the Carbon Management Plan

⁵ DD-correction only applied to boiler gas (i.e. not applied to electric import, oil, CHP gas or Queensway gas, as these are all weather-independent).

⁶ New Queensway CSSD plant opened