

# Saving Carbon, Improving Health

A Draft Carbon Reduction Strategy for the NHS in England  
- a consultation document





## Foreword

The nature and the scale of our business in the NHS means we have a responsibility - as well as a unique opportunity - to play a leading role in the climate change agenda for the benefit of patients and the public.

Climate change poses a new challenge to our organisations, big and small. As the health impacts of climate change become increasingly apparent at home and abroad and as energy prices rise, we must ensure that the quality of patient care remains unaffected and continues to improve. We are well placed to do this. We're one of the largest employers in the world with an annual budget of around £100bn and we come into contact with 1 million people every 36 hours. I'm pleased that this strategy is being produced by the NHS, for the NHS. It is up to us to challenge ourselves, so the scale of our ambition to tackle carbon emissions matches the scale of our opportunity.

This consultation is an important next step on that journey. It provides, for the first time an estimate of the total NHS carbon footprint in England - 18 million tonnes of carbon dioxide each year approximately 3% of England's total emissions. This includes energy used for power and heating in buildings, but also takes into account the journeys that the NHS generates and the carbon produced

Climate change is one of the greatest threats to our health and well-being. In addition, action to tackle climate change offers opportunities to improve our health and well-being and save money.

I welcome this ambitious NHS Carbon Reduction Strategy. I welcome the recognition of the urgency of climate change, and the commitment from the NHS to help mitigate its negative impacts by meeting and exceeding the Government's target to cut carbon emissions by 60 per cent by 2050. I support the NHS in taking responsibility for its overall contribution to climate change and in its efforts to become the leading public sector organisation on climate change mitigation.

As part of the Department of Health's commitment to sustainable development, we will work with the NHS to enable organisations to reduce their carbon footprints. The Department of Health recognises the health consequences of climate change, as set out in Health effects of climate

in the production of the products bought and used by the NHS. Understanding where we are starting means we can begin to put the actions in place to reduce our carbon footprint and make the NHS the leading public sector organisation in tackling climate change.

To provide practical support to organisations in doing this, we have established a new NHS Sustainable Development Unit. This will help build on the work we are already doing - over half of all NHS Trusts are now registered on the NHS Good Corporate Citizenship Assessment Model - adding fresh ideas and impetus.

We know what we're capable of when we work together to achieve a goal, we've made enormous progress over recent years, changing the lives of millions of people, but this could be one of our biggest and most important challenges yet. I am confident we can rise to this challenge and I look forward to every leader and member of staff playing their part in another achievement the NHS can be proud of...



*David Nicholson, Chief Executive, NHS*

change in the UK 2008, and is taking action to help people adapt to our changing climate. The Department is also working to mitigate climate change by reducing its own carbon dioxide emissions.

Climate change is happening on our watch - it will be our legacy. I look forward to working together to tackle this global problem.



*Ivan Lewis, Minister for Care Services*

# Contents

1. Executive summary
2. Introduction
  - 2.1 Audience
  - 2.2 Your comments
  - 2.3 The aims of this document
  - 2.4 The context for sustainable development and links to existing policy and legislation
3. The carbon footprint for the NHS in England
  - 3.1 Trends of future emissions
4. Proposed priorities for action
  - 4.1 Building energy use
    - 4.1.1 Current scenario
    - 4.1.2 Business case
    - 4.1.3 Existing measures
    - 4.1.4 New measures
  - 4.2 Travel
    - 4.2.1 Current scenario
    - 4.2.2 Business case
    - 4.2.3 Existing measures
    - 4.2.4 New measures
  - 4.3 Procurement
    - 4.3.1 Current scenario
    - 4.3.2 Business case
    - 4.3.3 Existing measures
    - 4.3.4 New measures
  - 4.4 Waste management
    - 4.4.1 Current scenario
    - 4.4.2 Business case
    - 4.4.3 Existing measures
    - 4.4.4 New measures
5. Monitoring
  - 5.1 Implementation, Performance, and Regulation
6. Responding to the consultation
  - 6.1 Next steps

Appendix A: The NHS Sustainable Development Unit – its role and responsibilities

Appendix B: Key background, guidance and reference documents.

Appendix C: Legislative and policy instruments for carbon reduction in the NHS

Appendix D: Consultation questions

Appendix E: The Consultation Process

# 1. Executive summary

## Introduction

The core job of the NHS could not be clearer to provide healthcare and promote good health to everyone who calls the UK home, free at the point of delivery, based on need not ability to pay. A service for all provided for and paid for by all. An institution that is best about us as a nation and a people. These are the principles that have defined the NHS in all its 60 year history. This is, and will continue to be, the day job.

Now a new challenge faces us as an organisation, a nation, and as a species: climate change. Its impact on our environment, the way we live, and our health and wellbeing cannot be overestimated. It can be stopped or managed, and the NHS must play its part.

We are the biggest employer in Europe. We are responsible for over 18 million tonnes of carbon dioxide per annum. We are the largest public sector contributor to climate change. We interact with one million patients every 36 hours. Our health professionals are amongst the most trusted people in the UK. The impact that climate change will have on the health of the people we serve makes standing and saying we are part of the fight against climate change a key component of the day job.

For all of these reasons this document is our vision for how we can play our part in that battle. It sets out the case for engagement; it sets out what we can and should do; and it asks for your views and ideas on how the NHS should join with others to meet this challenge.

This is not about altruism. This is about the future shape of the NHS and how we provide care for a changing population in a changing world. By reducing carbon dioxide emissions from NHS related energy use, such as the goods and services we procure, travel and waste we can save money. These savings can be ploughed back into patient care and health promotion. We will be helping create a healthier population now and in the future which is vital to the sustainability of the service we all hold dear. We can increase physical activity; promote a better diet; improve mental health; reduce obesity; improve air quality; and help regenerate local communities and economies

through sustainable development, which in turn leads to happier, healthier communities.

This document points our way towards a strategy that delivers these improvements for us and the people we serve. We hope that you engage with it, and respond to it, shape it, and then support us in implementing it.

### ***Our objectives***

This Strategy aims to achieve two core objectives for the NHS in England in fighting climate change:

- Support all our organisations, people, and partners through the creation of a systematic and measurable approach to carbon reduction for the NHS;
- Position NHS organisations as leaders in the public sector, encouraging and challenging others, in a united front against climate change.

### ***Our challenge***

To achieve our objectives, we set the NHS in England a challenge: to meet and exceed the national target to reduce NHS carbon emissions by 60 per cent by 2050.

### ***Actions, not words***

In this Strategy we show where NHS carbon dioxide emissions are coming from and then propose clear actions for reducing that carbon footprint. It is the organisations and people of the NHS who are responsible for the carbon, so it is up to us to reduce it.

This Strategy is the first output of the new NHS Sustainable Development Unit, created to provide the leadership, the support, and the ammunition NHS organisations need to do their bit. This NHS Carbon Reduction Strategy is the first step in taking forward a sustainable development programme in the NHS in England.

### **Ten to win**

The core of this Strategy is action. Here we highlight the ten to win, the top ten actions that we will challenge ourselves to achieve:

1. The use of high quality information to help predict different possible trajectories of NHS carbon emissions (an **NHS carbon model**) to **measure progress towards objectives**, identify milestones, and guide action;
2. A **Board approved Carbon Management Strategy** for all NHS organisations by 2009;
3. A proposed **extension of the Energy Fund** to improve energy efficiency of the existing NHS estate;
4. **All our new buildings to be low carbon by 2015** and meet our ambition of **zero carbon by 2018**;
5. A **Board approved Sustainable Travel Plan** for all NHS bodies by 2010;
6. A target for better **waste management** to be created and met;
7. **Sources of carbon emissions to be cut** by improving procurement of goods, services and equipment;
8. The **pricing of carbon** at an appropriate level within the NHS in England;
9. The development and implementation of **more effective incentives and policies** to support and stimulate real progress on sustainable development;
10. All NHS organisations to **report annually** on a key metric as a part of a simple scorecard of sustainable development indicators, to be considered for performance purposes.

This is our starter for ten our list of immediate actions for positioning the NHS in England as the public sector leader for fighting climate change. It is not an exhaustive list, more will need to be done, and we are sure more is being done across the country. We will continue to learn

and develop our approach whether through the greatest scientific minds of our generation; or through the ideas and actions of NHS staff, together we will make our mark in the fight against climate change.

### **Whose views?**

Everyone, from the Secretary of State for Health and the Chief Executive of the NHS; through senior doctors, nurses and managers; and on to every member of staff; visitor; patient or supplier to the NHS in England. We are all in this together, our actions contribute to climate change, and our actions can tackle it.

We want you all to respond to this consultation. We want your ideas and views. And, we want your guidance on these key issues:

1. Are we being ambitious enough in setting ourselves these challenges?
2. Will the measures we propose sufficiently stimulate action and reduce carbon emissions?
3. What further incentives, barriers, and policies need to be addressed to enable the NHS to achieve these ambitions?

We hope you find the Strategy useful, engaging and inspiring, and we hope you will suggest improvements to help us all achieve real carbon reductions leading to real benefits for our changing climate.

## 2. Introduction

***“Our mission is, in truth, historic and world changing - to build, over the next fifty years and beyond, a global low carbon economy. And it is not overdramatic to say that the character and course of the coming century will be set by how we measure up to this challenge... All of us - government, business, civil society and individuals - have a part to play in this momentous task.” Prime Minister Gordon Brown, 19 November 2007***

Climate change is already putting the health of millions at risk world wide from flooding, droughts, and the spread of disease. Climate change threatens to lead to further destruction, global migration and conflict. In the year 2000, global climate change caused an estimated 150,000 deaths and the loss of 5.5 million disability-adjusted life-years world wide from malaria, malnutrition, diarrhoeal disease, heat-waves and floods. Although the health effects of climate change in the UK are unlikely to be as serious as in other parts of the world, they will still be felt. As greenhouse gas<sup>1</sup> (GHG) emission levels continue to rise we should expect more climate change-related health consequences.

There is also a strong financial incentive to address climate change. The Stern Review concluded that the benefits of strong, early, co-ordinated action against climate change far outweigh the economic costs of doing nothing. It is estimated that the cost of not taking action could be equivalent to losing between five to 20 per cent of annual global GDP, whereas the cost of taking action can be limited to around one per cent of annual global GDP. Stern points out that new investment over the next 10-20 years will have a profound effect on the climate in the second half of this century and the next. Failing to take the right action now and over the coming decades risks major disruption to economic and social activity that would be very difficult to reverse.

This proposed Carbon Reduction Strategy is the response of the NHS in England to this call, and to the mounting scientific evidence of the need for radical action. Carbon dioxide (CO<sub>2</sub>) makes up approximately 85 per cent of UK greenhouse gas emissions (GHG); therefore, this strategy focuses on reducing the amount of CO<sub>2</sub> generated by the NHS.

The NHS in England is responsible for more than 18 million tonnes of carbon dioxide (MtCO<sub>2</sub>) each year from heating and lighting its buildings, powering its equipment, procuring goods and services, sending waste to landfill and as a result of patient, staff and visitor travel. This is 30 per cent of total public sector emissions in England and 3.2 per cent of total carbon dioxide emissions in England (2.7 per cent of UK carbon dioxide emissions). It is the responsibility of everybody in, and involved with the NHS to reduce this level of carbon emissions to help avoid the worst effects of climate change. The NHS above all organisations, should lead the way in tackling climate change, and be the best exemplar of good practice for a major national public sector organisation.

This Carbon Reduction Strategy will set the framework for NHS organisations in England to reduce their carbon emissions and play their part in a more sustainable future. The NHS in England is committed to sustainable development, and will do all it can to maximise its contribution to local communities, economies and the environment. Using the commitment and leadership of health professionals, capitalising on every clinical encounter, will be a powerful driving force influencing wider behaviour change in tackling climate change.

This proposed Strategy is the first in a series of outputs that will help take forward a sustainable development programme in the NHS. The NHS Sustainable Development Unit will work to help all NHS organisations take sustainable development into account in their day-to-day business including:

- Travel
- Procurement
- Existing and new buildings
- Resource management (energy, water and waste)
- Employment and skills
- Community engagement

The actions proposed in this document are set in a developing international and national legislative context such as the introduction of the Climate Change Bill (more details in Section 2.4 and Appendix C).

## 2.1 Audience

Every individual and organisation has a role to play in combating climate change. The size and remit of the NHS demands that every person who works in, uses, or supplies goods and services to the NHS has a special responsibility to act. This Strategy will guide action by everyone in the NHS in England to ensure a steady reduction in the carbon footprint of the NHS, without compromising quality of care.

## 2.2 Your comments

We need your comments and feedback. This Strategy must be focussed, practical, effective, and embedded in the everyday activities of all NHS organisations and staff. Please respond on the Sustainable Development Unit website.

[www.sdu.nhs.uk](http://www.sdu.nhs.uk).

The questions are also throughout the document, which you can feedback to us at [jayne.howley@sdu.nhs.uk](mailto:jayne.howley@sdu.nhs.uk) by 30th September 2008 or at one of our regional consultation events. See section 6.0 for more details.

## 2.3 The aims of this document

The overall aim of the NHS in England is to contribute to the health and wellbeing of the people of England through direct and exemplar action. Tackling climate change, by reducing greenhouse gas emissions such as carbon dioxide, contributes significantly to this aim. Addressing climate change and its causes now is good business sense and ensures business continuity in adapting to the changing climate. As the risks associated with rising fuel prices and fuel security increase and the predicted pressure on the NHS increases from factors such as rising levels of obesity and environmental migrants the NHS needs to both adapt to and mitigate climate change.

This Strategy will help NHS organisations implement systems to measure, monitor and reduce carbon emissions. The implementation of this strategy will:

- > increase understanding about the NHS contribution to climate change and the immediate and long-term benefits to be gained from actively managing carbon emissions;
- > establish Board level leadership on carbon reduction in the NHS;
- > establish stretching, but achievable, measures for carbon reduction;
- > describe proposed national, regional and local action to support carbon reduction;
- > give practical, evidence based, and systematic advice on the means to improve the sustainability of NHS operations by evaluating and sharing good practice;
- > provide a framework to monitor, evaluate and report progress; and
- > ensure policy promotes a low carbon NHS.

## 2.4 The context for sustainable development and links to existing policy and legislation

It is now widely recognised that climate change is probably the most serious threat to life, to our health, and to our wellbeing. Unless we all take effective action now, millions of people around the world will suffer hunger, water shortages and coastal flooding as the climate changes. As one of the world's largest employers, the NHS has an international as well as a national imperative to act, in order to make a real difference and to set an important example.

In recognition of the urgency of climate change, the UK Government has committed itself to take action now, and is legislating in a Climate Change Bill a new target to cut carbon dioxide emissions by at least 60 per cent by 2050, based on 1990 levels, with a minimum reduction of 26 per cent by 2020. However, there is mounting scientific evidence that carbon dioxide emissions may need to be reduced further, e.g. 80% by 2050, and/or

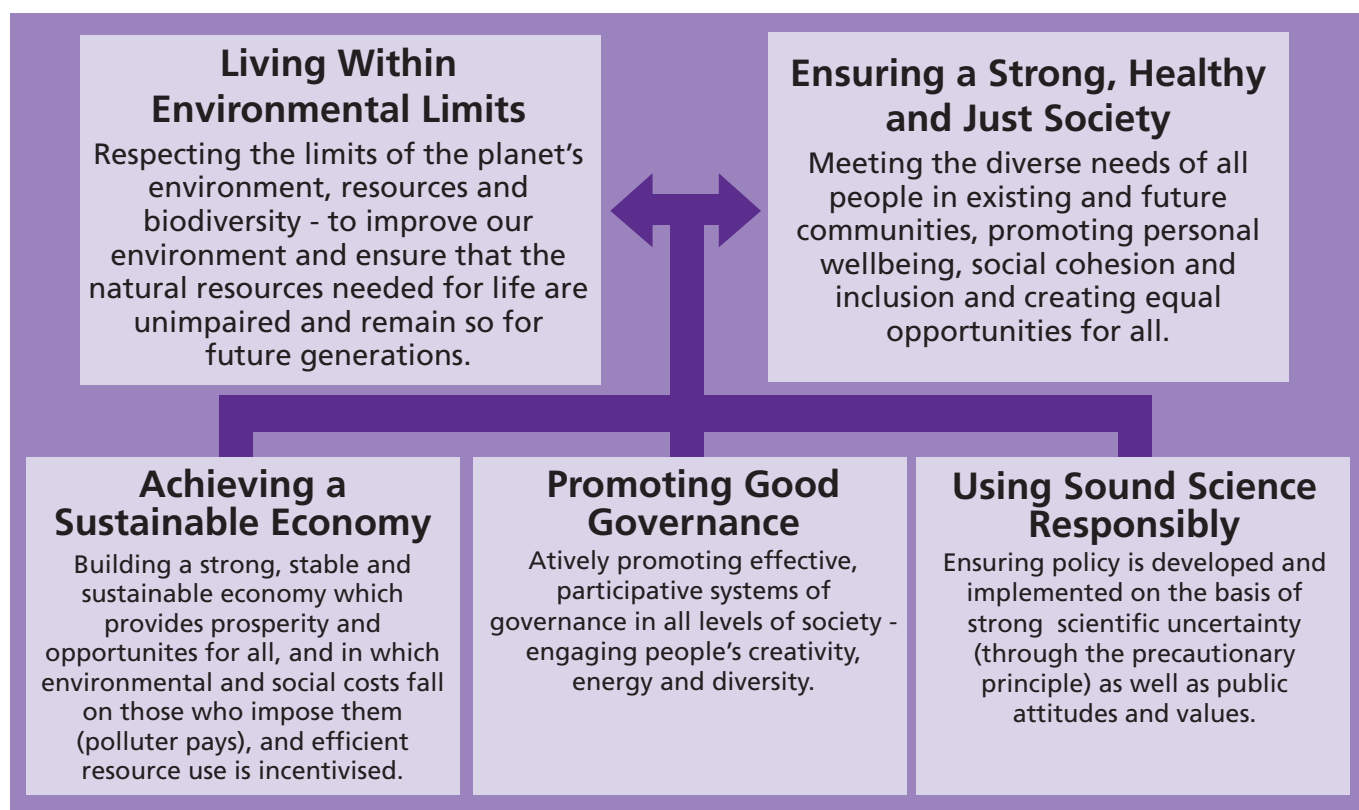
more urgently, e.g. by 60 per cent by 2030. As such, the NHS may want and need to reduce emissions more quickly than the 60 per cent target by 2050. In doing so, the service would be demonstrating real leadership, especially as:

- the NHS is Europe’s largest employer with 1.3 million people; 5 per cent of the UK workforce and is often the largest single employer in each of the regions of England.
- the NHS in England has a 18 MtCO<sub>2</sub> carbon footprint; being responsible for nearly 3 per cent of UK carbon dioxide<sup>2</sup> emissions and 30 per cent of public sector emissions.

Achieving significant carbon dioxide emission reductions in the NHS will have major direct and indirect benefits. If there is a widespread and

systematic culture of carbon awareness and carbon reduction in the workplace, there is the potential that these 1.3 million employees will also reduce their personal carbon emissions when outside the work environment and provide examples and leadership in their local communities. Leadership from managers and clinicians and exemplary behaviour from all of us in the NHS will have an important effect.

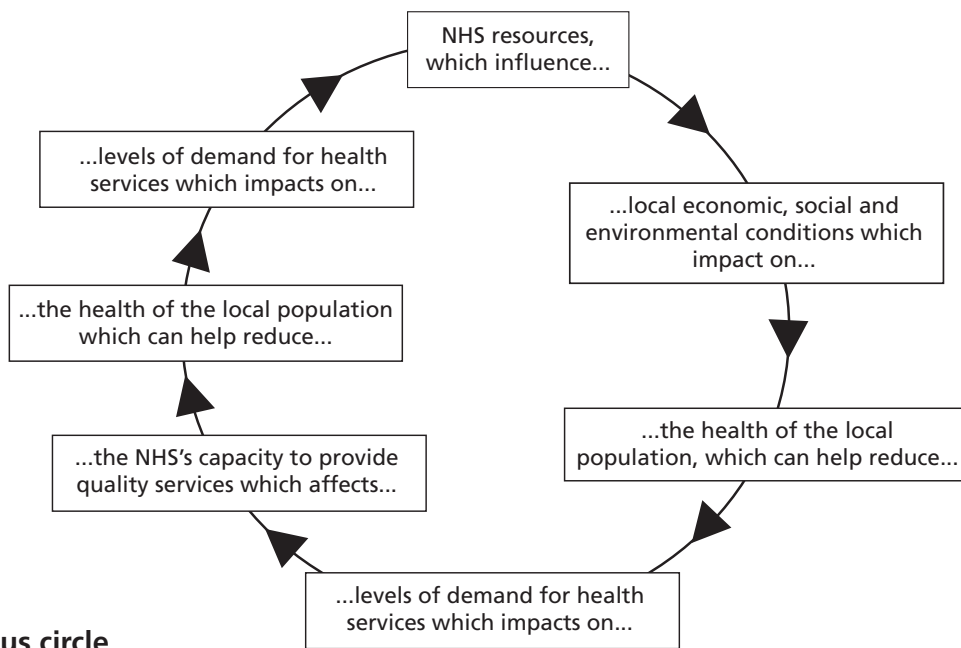
Sustainable development is the framework within which carbon dioxide emissions will be reduced. The goal of sustainable development is to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life, without compromising the quality of life for future generations. To achieve this goal, the following principles should form the basis for all policy:



**Figure 1: Principles of sustainable development**

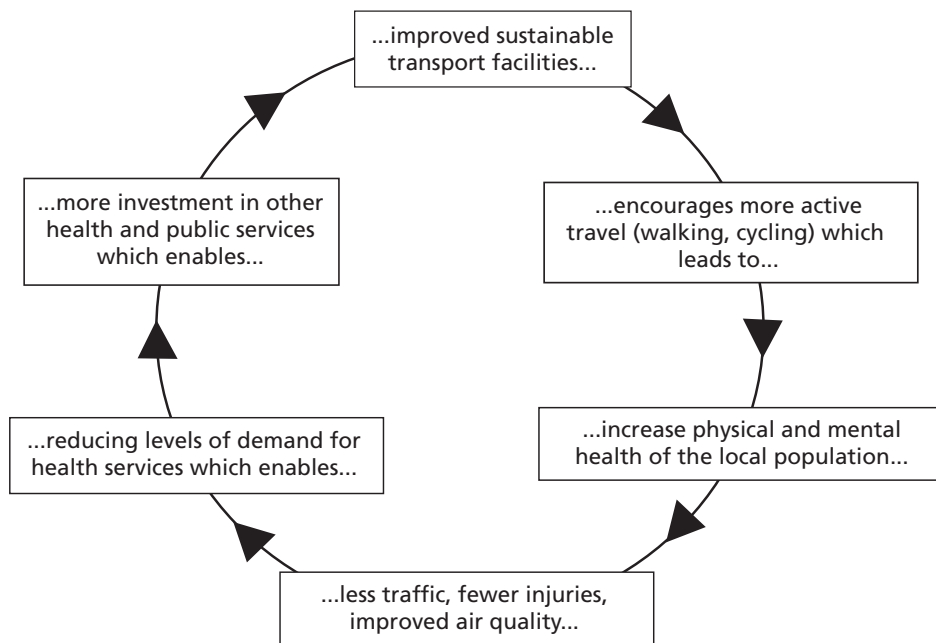
In the NHS, sustainable development is often referred to as good corporate citizenship. This means using NHS organisations’ corporate powers and resources in ways that benefit rather than damage the social, economic, and physical environment in which we all live. How the NHS behaves - as an employer, a purchaser of goods and services, a manager of transport, energy, waste and water, as a provider of services, as

a landholder and commissioner of building work and as an influential neighbour in many communities - can make a big difference to people’s health and to the wellbeing of society, the economy and the environment. Behaving as a good corporate citizen can save money, can benefit population health and can help reduce health inequalities. Many measures that improve health also contribute to sustainable development and vice versa. This is best illustrated as a virtuous circle:



**Figure 2: Virtuous circle**

It can be applied to the specific areas covered within this Strategy, for example NHS travel:



**Figure 3: Virtuous circle for NHS travel**

Choosing Health first recognised the role of the NHS as a good corporate citizen in 2004. In 2005, the Sustainable development: Environmental strategy for the National Health Service was published providing guidance on what the NHS could do to promote a healthy, sustainable environment. In 2006, the NHS Good Corporate Citizenship Assessment Model, a toolkit to help NHS organisations become good corporate citizens, was launched. About half of all NHS organisations are now registered, although there is considerable variation between the regions.

An important and urgent part of being a good corporate citizen is to understand what it means to become a low carbon organisation. Our responsibilities towards sustainable development, including climate change, need to be taken as seriously as similar responsibilities towards financial probity and patient safety. We need to promote carbon governance in the same systematic and scrutinised way as we take financial governance and clinical governance.

The existing and forthcoming legislative and policy instruments for carbon reduction in the NHS are detailed in Appendix C. There is a wide range of directives, laws and policies that influence action that can and should be taken to reduce carbon emissions in the NHS. An important role of the NHS Sustainable Development Unit is to raise awareness of the most important regulations that exist and influence the emerging regulatory framework to make carbon reduction as effective and efficient as possible across the service.

NHS organisations have the opportunity to build on their involvement in local and regional partnerships that can provide structures and processes to foster NHS carbon reduction initiatives. The NHS is a key partner in Local Strategic Partnerships (LSPs), which bring together at a local level key components of public, private, community and voluntary sectors, to provide integrated and complementary services that meet local needs. All LSPs are required to jointly assess the strategic needs of the community and develop a Sustainable Community Strategy; addressing climate change issues will form a key part of their work. It is the job of LSPs to focus resources, financial and otherwise, to turn the vision of the national Sustainable Development

Strategy into real changes on the ground. The LSP, led by the Local Authority, develops a Local Area Agreements (LAA) which runs for three years and is based on the local Sustainable Community Strategy.

The new Local Government Performance Framework has two new indicators on mitigating climate change:

- i) to reduce CO<sub>2</sub> from the local authority's own operations; and
- ii) to reduce CO<sub>2</sub> in the whole area of the local authority (which will include emissions from the NHS).

The second of these indicators will need the involvement of the NHS to ensure success. Many Local Area Agreements are setting themselves targets to reduce emissions and all partners, including the NHS, will be contributing to CO<sub>2</sub> reduction to meet the LAA targets set.

The NHS also has a local target on carbon dioxide reduction. The Vital Signs in the Department of Health's Operational Plans 2008/09-2010/11 include an indicator on energy/carbon efficiency which PCTs are encouraged to choose to prioritise locally. The use of systematic and easily understood metrics to aid understanding of aspiration, progress and performance management is the key to progress.

### 3. The carbon footprint for the NHS in England

The Sustainable Development Commission was commissioned to work with the Stockholm Environment Institute to calculate the NHS carbon footprint. We now have a much better understanding of both the direct and indirect emissions associated with the NHS. Direct emissions are here defined as the carbon dioxide emissions that are produced from the burning of fossil fuels for energy use in NHS buildings and vehicles. Indirect emissions are defined as the carbon dioxide emissions that result from the products and services used by the NHS (procurement and waste) and activities related to the NHS, such as staff, visitor and patient travel.

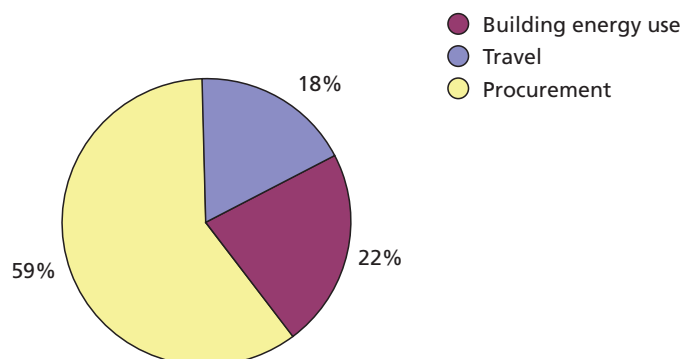
Based on these findings, the Strategy has identified key areas – energy related emissions associated with building use, travel, procurement and waste – where both direct and indirect carbon emissions can be reduced. The measures and incentives set out in section 4.0 are intended to ensure NHS organisations achieve the existing NHS energy efficiency targets by 2010 and go on to achieve the UK Government carbon reduction target by 2050.

Using data from 2004, the carbon footprint of the NHS in England has been estimated to be over 18 million tonnes of carbon dioxide (MtCO<sub>2</sub>). The 3 main sectors which form the total footprint are:

- Building energy use: Heating, hot water and electricity consumption
- Travel: Patient, visitors and staff
- Procurement: supply chain activities of companies producing goods and services procured by NHS England, including waste.

The breakdown of these carbon dioxide emissions by primary sector is shown below in Figure 4. This 18 million tonnes of carbon dioxide (MtCO<sub>2</sub>) each year contributes approximately 3 per cent of total England emissions. The NHS in England is the largest contributor to public sector emissions, being responsible for 30 per cent of the whole of England's public sector emissions.

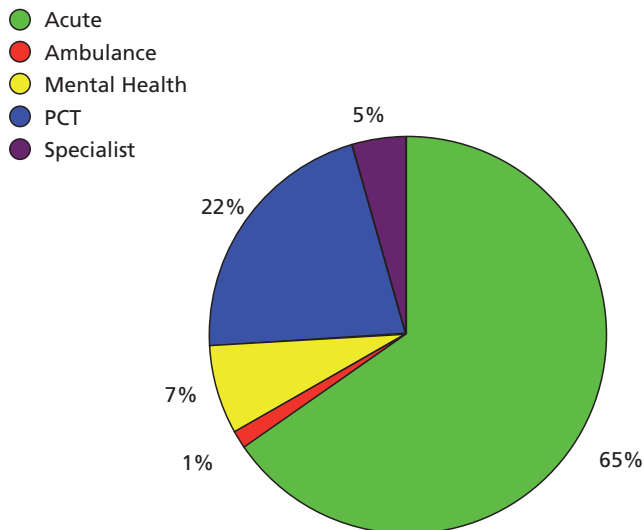
**Figure 4 – NHS carbon dioxide emissions in 2004: Primary sector breakdown**



The technique calculating the NHS carbon footprint uses the known total consumption/expenditure data and converts this into carbon emissions. This carbon footprint was calculated for all NHS related activity taking into account all NHS organisations in England – from Strategic Health Authorities to GP practices, pharmacies to NHS Blood and Transplant (see NHS England carbon emissions: Carbon footprinting study published alongside this Strategy for full details).

This is the first time that the full carbon footprint has been calculated. Historically the focus on measurement has mainly been on carbon dioxide emissions from building energy use, but not from procurement or travel (which, together, far outweigh building energy use alone), which means that the most up-to-date estimate of carbon emissions associated with the NHS is significantly higher<sup>5</sup>. Previously, only the carbon dioxide emissions from building energy use in NHS Trusts have been known. These are collected by the NHS Estates Return Information Collection (ERIC) system, and can be broken down by organisation type as shown in Figure 5 below. It should be noted that this ERIC system only measures carbon dioxide emissions from building energy use, which constitutes less than 22 per cent of total NHS carbon dioxide emissions.

**Figure 5: Carbon dioxide emissions from building energy use from NHS Trusts 2006-07**



In the ten years from 1990 to 2000, the NHS successfully reduced its building energy use by 20 per cent. As part of the Government's Climate Change Programme 1998/99, some early targets on NHS carbon reduction from building energy use were set for NHS Trusts to:

- reduce the level of primary energy consumption<sup>6</sup> by 15 per cent or 0.15 MtC (million tonnes carbon) from March 2000 to March 2010;
- achieve a target of 35-55 GJ/100m<sup>3</sup> energy efficiency performance for the healthcare estate for all new capital developments and major redevelopments or refurbishments; and that all existing facilities should achieve a target of 55-65 GJ/100m<sup>3</sup>.

Trusts are still expected to meet these targets.

These targets pre-date the current major investment programme in NHS infrastructure. The increase in capacity and size of the NHS has resulted in increased energy usage. So while the NHS has become more efficient in the way it uses energy, the overall energy usage of the NHS continues to increase. The improvement in efficiency has been caused by not only ensuring that new healthcare buildings (including the 100 new hospitals currently under construction) are energy efficient, but also by undertaking work on existing buildings to improve their energy performance.

Since 1999-2000, the percentage of Trusts meeting the highest level of energy efficiency ranking has increased from 27 per cent to 53 per cent in 2006-07. However, at the other end of the scale, 27 per cent of Trusts are still rated as unacceptable.

It is increasingly important for the NHS to now recognise and take responsibility for the carbon dioxide emissions associated with all its activities.

### 3.1 Trends of future emissions

This Strategy sets NHS organisations the challenge to reduce their carbon dioxide emissions by 60% by 2050, based on 1990 levels, where the data exists. The NHS Estates Return Information Collection (ERIC) system provides good data for building energy use and associated carbon dioxide emissions from 1990 and this data should be used as a baseline. However, most organisations will need to use more recent data as a baseline for carbon reduction from procurement and travel. The NHS SDU will develop a methodology to help NHS organisations calculate their total carbon footprint (including building energy use, procurement and travel). We welcome the involvement of innovative trusts to help develop the carbon footprinting process. Other good tools to measure sustainable development performance on travel and procurement already exist, such as the NHS Good Corporate Citizenship Assessment Model, and should be used alongside the emerging carbon footprinting methodology.

Although we are beginning to understand better the national carbon footprint of the health service, every PCT, Trust and service provider, such as GPs, will be different. Each organisation should become much more carbon aware, understand their own carbon footprint (to include building energy use, travel and procurement) and develop realistic plans for reducing it by monitoring progress against baselines. The way in which carbon is managed should have the same level of priority as financial management (to which it is closely related) and patient safety: carbon governance, financial governance and clinical governance. It will be difficult to make progress without a widespread carbon culture throughout all levels of all organisations in the NHS.

To ensure that necessary progress is being made towards the 2050 target, we propose setting trajectories and milestones for carbon reduction by, for example, 2010, 2020, 2030 and 2040. The trends below (Table 1), and more, will be explored in detail and will be factored in to the setting of milestones. The NHS Sustainable Development Unit will model carbon dioxide emission scenarios (including 'business as usual' and alternative scenarios) to calculate the measures that will be needed to meet, and where possible exceed, the legislative requirement to reduce carbon dioxide emissions by 60 per cent by 2050. Based on this analysis, existing NHS energy targets can be reviewed and areas of priority for action to reduce carbon emissions identified.

**Table 1: A selection of factors affecting the NHS that may have an impact on carbon dioxide emissions**

Trend	Description	Likely impact on CO <sub>2</sub> emissions
Improved Building Regulations and standards	New build and major refurbishment projects will be built to higher thermal efficiency standards.	Reduce
Increased energy intensity of healthcare delivery	As technology develops, the NHS is likely to increase use of the most modern methods of care e.g. linear accelerators, IT, patient monitoring, many of which are likely to be energy intensive.	Increase
Increased emphasis on community care	Provision of healthcare closer to people's homes may reduce the total mileage travelled by patients, visitors and NHS staff combined.	Reduce
NHS-related travel	The Department for Transport (DfT) has forecast that 'business as usual' transport-related emissions in the UK will rise by 35 per cent by 2030 (over a 1990 baseline). Under this scenario, NHS transport-related emissions would also be predicted to increase.	Increase
Increased floor area	As the NHS building programme progresses, the NHS estate is likely to grow.	Increase
Increased total NHS activity	Total NHS activity is likely to grow due to demographic changes in the England population (especially ageing of the population), and increased availability of energy dependent technology.	Increase

## 4. Proposed priorities for action

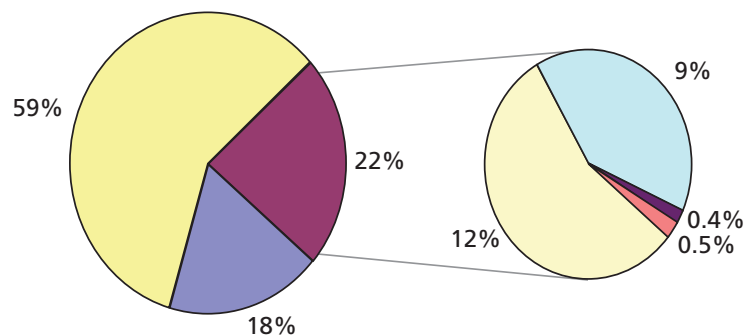
The NHS can and should lead the public sector in addressing the challenge of climate change.

In addressing both the direct and indirect carbon emissions from NHS activities, the following criteria have been used to identify actions. Areas of focus for action should be:

- > those with the largest carbon emissions
- > those with the most potential for reducing emissions
- > those that are achievable within the NHS field of influence
- > those that achieve broader aims of good corporate citizenship - improving population health by contributing to local economies, communities, individual health, and the environment.

The measures set out below provide a comprehensive approach to carbon reduction. It is proposed that NHS organisations take action in all these areas. By 2009, all NHS organisations should set out ambitions, milestones and actions for carbon reduction across the areas of building energy use, travel, procurement and waste in a Board approved Carbon Management Strategy. This should include 1990 carbon dioxide emission figures from building energy use and the trend in emissions since then.

- Building energy use
- Travel
- Procurement



## 4.1 Building energy use

### 4.1.1 Current scenario

The NHS currently spends over £429 million/year on energy (electricity and heating). Energy use from buildings – from electricity and fossil fuel use - is responsible for over 4 MtCO<sub>2</sub> each year. This is about 22 per cent of the total NHS England carbon footprint.

Mandatory targets were set in 2001 for the NHS to further reduce its primary energy consumption by 15 per cent, or 0.15 million tonnes carbon, from 2000 to 2010. However, by 2006/07 instead of decreasing, primary energy consumption actually rose in the seven years since 2000 (although energy efficiency [energy used per square metre] of floor area improved over the same time period).

The new Plowright medical Centre, near Swaffham, Norfolk, uses just 15.2 GJ of energy per 100m<sup>3</sup> per year, far exceeding the NHS energy efficiency target. This equates to 31 tonnes of CO<sub>2</sub> per annum. To achieve this, the surgery was built to prioritise natural lighting and ventilation, with features such as overhanging eaves to prevent overheating in summer, full-fill insulation and double glazing

#### 4.1.2 Business case

There are compelling reasons to reduce energy consumption:

- It saves money year on year (which can be reinvested elsewhere);
- It helps insulate the NHS against future energy prices;
- It helps the NHS to comply with legislation;
- It advertises the sustainability credentials of the NHS as a public sector exemplar; and
- It helps mitigate the negative health consequences of climate change.

In summary, for every 1 per cent reduction in energy consumption at current prices, the NHS could save about £4 million per year.

Some measures require little or no investment and can generate immediate savings e.g. encouraging staff to switch off unnecessary lights.

The Rosie Hospital, Cambridge University Hospitals NHS Foundation Trust, energy awareness programme, communicated messages such as “12 lights left on for an hour could power an ultrasound machine for 60 minutes”, and help staff change their behaviour and save £7,000 in energy costs in the first year.

#### 4.1.3 Existing measures to help NHS organisations reduce carbon emissions from building energy use

- The EU Emissions Trading Scheme (EUETS) is a Europe wide emissions trading scheme to help the EU meet its Kyoto Protocol commitment to make an 8 per cent reduction in emissions by 2008-2012 compared to 1990 levels. Under this, the UK committed to reduce its emissions of greenhouse gas production by 12.5 per cent below 1990 levels by 2008-2012. The scheme requires all sites with a thermal output capacity of over 20 megawatts, including approximately 80 NHS sites, to register and report their emissions. Organisations operate on a carbon cap and trade basis – selling surplus allowances or buying additional allowances if they exceed the allocation through a European market trading network.
- In 2007, the Department of Health announced a £100m Energy Fund to help NHS organisation improve their energy efficiency. The Fund is fully committed with a waiting list. Over 200 schemes have been approved and it is estimated that they will save over 137,000 tonnes of CO<sub>2</sub> per annum, with revenue savings of circa £17 million each year, suggesting a return on investment of less than 6 years. Examples from the fund scheme include:

The Pilgrim Hospital in Boston, Lincolnshire, is replacing its heavy fuel oil boilers with a combination of a biomass boiler burning locally grown sustainable willow and 500KWe Combined Heat and Power. These two systems will provide heat and hot water to the hospital and a gas/oil fired stand-by boiler providing support at peak load and resilience in the event of maintenance. The scheme will deliver a revenue saving in excess of £300,000 per annum.

Sherwood Forest Hospital Foundation Trust is installing a reverse cycle heat pump that will use geothermal technology. The adjacent reservoir will be used as a heat sink, rejecting heat into the reservoir during the summer and taking heat from the water in winter. When up to full load the system will deliver savings of 1,700 tonnes CO<sub>2</sub> per annum

- Health Technical Memorandum 07-02: EnCO<sub>2</sub>de - Making energy work in healthcare: environment and sustainability is the primary source of guidance on managing energy use and carbon emissions in the healthcare sector. Encode is not prescriptive. It draws together best practice guidance so that healthcare organisations can determine a way forward that best suits their situation. It provides information on how to write an energy and carbon management policy and strategy and introduces a five-step management technique.
- The Carbon Trust NHS Carbon Management Programme<sup>7</sup> provides tailored support to NHS Trusts to help reduce direct and indirect carbon emissions including travel and waste. To date the Programme has helped 30 Trusts identify reductions in their emissions of 125,000 tonnes of CO<sub>2</sub> per annum, with an associated cost saving of around £14 million. The 18 organisations in Phase 3 are set to reduce their annual carbon footprint by approximately 20 per cent, saving 60,000 tonnes of CO<sub>2</sub>.
- Partnerships for Renewables (PFR) has been established by the Carbon Trust to work in partnership with public sector bodies to develop, construct and operate renewable energy projects on public sector land. PFR finances all the costs of project development and resultant capital expenditure, thereby providing a low-risk opportunity to access the economic and environmental benefits associated with renewable energy.
- The Salix NHS Foundation Trusts programme<sup>8</sup> provides interest free loans to establish revolving loan funds for NHS Foundation Trusts to invest in energy efficiency projects. The pilot phase of the project has been completed successfully.

- The Department for Business, Enterprise & Regulatory Reform's Low Carbon Buildings Programme offers grants up to 30-50 per cent support for microgeneration technologies in public sector buildings. The level of uptake in the NHS in England needs to be carefully monitored.
- All NHS buildings with a total area greater than 10,000m<sup>2</sup>, when constructed, leased, rented or sold, are required to have an Energy Performance Certificate (EPC), which gives a rating of the building's energy performance. From 1st July 2008 this extends to buildings with a floor area greater than 2,500m<sup>2</sup> and from 1st October 2008 all remaining healthcare buildings will require an EPC on sale, rent or under construction.

Hull and East Yorkshire Hospitals NHS Trust currently spends approximately £3.7 million each year on energy. By installing energy efficiency measures such as movement sensitive lighting, Building Management Systems (BMS) to control heating levels and improved roof and pipe insulation, the Trust plans to cut their energy use by 15% by 2010 (based on 2005/06 data), saving nearly 4,000 tonnes of carbon dioxide per annum and over £500,000.

#### 4.1.4 New measures to help NHS organisations reduce carbon emissions from building energy use

- DH is currently considering with Defra, the lead Department, the best way in which the NHS can be part of the Carbon Reduction Commitment (CRC), an emissions trading scheme that offers financial incentives for the type of carbon reduction measures set out in this Strategy. There have been two major consultation exercises during the last two years and a further consultation on draft CRC regulations will take place later this year<sup>9</sup>.
- From 1st October 2008, all healthcare buildings with a total area greater than 1,000m<sup>2</sup> will be required to publicly display the energy usage and energy efficiency of buildings (Display Energy Certificate) along with an Advisory Report listing measures to improve the energy rating of the building. The Display Energy

Certificates are to be updated annually. Advisory Reports need to be updated every seven years. This requirement will be enforced by Trading Standards Officers and will be subject to penalties for non-compliance.

- BREEAM (Building Research Establishment Environmental Assessment Method) is the world's most widely used environmental assessment method for buildings. Launching BREEAM Healthcare in June 2008, together with guidance document HTM 07-07 on Sustainable Health and Social Care Buildings will replace NEAT (the NHS Environmental Assessment Tool) as a more comprehensive and rigorous approach to sustainable healthcare buildings, including carbon reduction. All new healthcare buildings will be required to meet BREEAM Healthcare Excellent standard and all refurbishments will be expected to meet the Very Good standard.
- A proposal to extend the Energy Fund to improve energy efficiency of the existing NHS is suggested. The process for application would be similar to the first round of the Energy Fund.
- Applying the success of the Carbon Trust's NHS Carbon Management Programme<sup>10</sup> across the NHS. This programme provides technical and change management support to ensure the reduction of CO<sub>2</sub> emissions is no longer seen as just as an estates issue but becomes the responsibility of the whole organisation.
- A requirement that all new healthcare

buildings will be low carbon by 2015 and meet our ambition to achieve zero carbon by 2018. The Government has an ambition for all new non-domestic buildings to be zero carbon from 2018. There will be a consultation process during 2008 on the timeline for this ambition and its feasibility, and a review of progress in 2013.

- We will review existing NHS energy efficiency targets and model trajectories of carbon dioxide emissions scenarios in order to meet and exceed the legislative requirement to reduce carbon dioxide emissions by 60 per cent by 2050 (e.g. aiming for a 60 per cent reduction by 2030).

Questions:

1) Will the measures proposed help your NHS organisation reduce carbon emissions from building energy use?

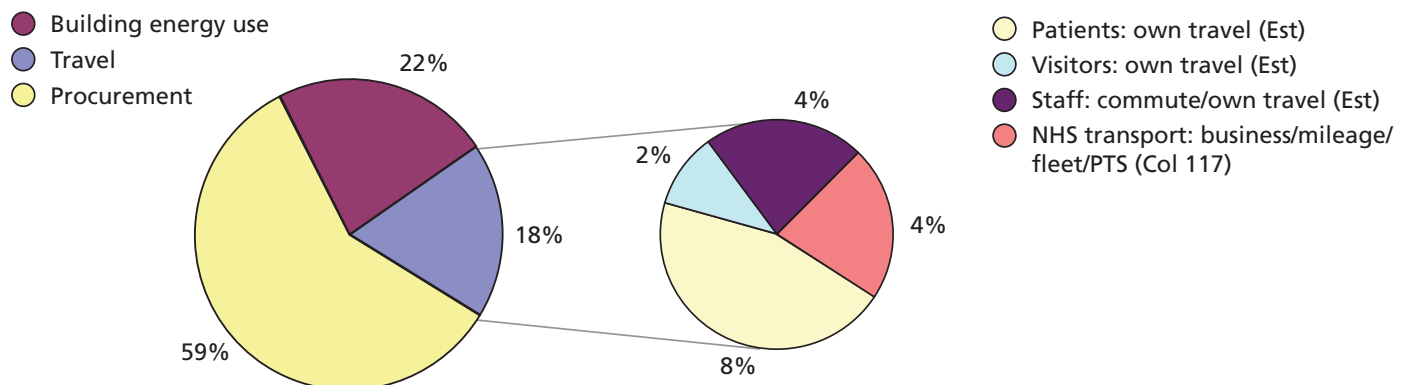
2) What further measures, guidance and/or assistance would you or your organisation find useful to help implement lower carbon building energy use?

## 4.2 Travel

### 4.2.1 Current scenario and future ambitions

NHS patient, staff and visitor travel are responsible for approximately 10.5 billion passenger kilometres per year. The carbon generated from this travel equates to 18 per cent of total NHS carbon emissions.

Figure 7: NHS CO<sub>2</sub> emissions in 2004: 18 per cent travel sub sector breakdown



Carbon emissions from NHS-related transport, i.e. patient, staff and visitor travel and NHS business travel (mileage, fleet and patient transport services), are approximately 3.41 MtCO<sub>2</sub> per annum. The largest single contributor to NHS transport-related emissions is patient travel.

The Department for Transport (DfT) has forecast that 'business as usual' transport-related emissions in the UK will rise by 35 per cent by 2030 (over a 1990 baseline). Under this scenario, NHS transport-related emissions would also be predicted to increase significantly.

#### 4.2.2 Business case

Reducing carbon emissions by minimising travel by car and encouraging people to travel by bicycle, on foot or by public transport will not only help mitigate climate change, but can also have positive co-benefits by increasing levels of physical activity, reducing obesity, increasing levels of good mental health, improving air quality, reducing road trauma, and potentially reducing mileage costs to the NHS:

- The cost of physical inactivity in England is estimated at £8.2 billion/year. The health impact of this inactivity in terms of coronary heart disease is comparable to that of smoking.
- In 2006, 258,404 people were killed or injured in road accidents in the UK.
- In 2005, air pollution was estimated to reduce life expectancy by about 7-8 months and cost up to 20.2 billion/annum.

Nottingham University Hospitals NHS Trust has invested in a bus fleet to connect its two hospital sites. The regular 10-minute service has taken 400,000 staff journeys off the road, helping to reduce carbon emissions and congestion, whilst saving the Trust over £180,000 in taxi fares during the project's first year.

#### 4.2.3 Existing measures to help NHS organisations reduce carbon emissions from travel

- All NHS organisations are expected to have a Board approved Travel Plan that aims to reduce congestion and pollution and saves money by managing travel more efficiently. In 2006-07, 54 per cent of NHS Trusts had a Board approved Sustainable Travel Plan. NHS Travel Plans are often drawn up in local partnerships (e.g. via LSPs) to help develop strategic approaches to access and mobility for patients, staff and visitors including availability of public transport and active travel.
- Any employer can sign up to the national Cycle to Work scheme to loan staff tax-free bicycles which the employee can then buy for a nominal fee at the end of the loan period.
- NHS organisations are encouraged to work with local partners, e.g. through the Local Strategic Partnership, to encourage and enable sustainable travel. For example, working with local authorities to provide cycle lanes, better walking routes and public transport provision to NHS sites. This will need a coordinated effort to enable, engage and encourage visitors and patients onto lower carbon (and more active) forms of travel.

Since 2000, Addenbrooke's Hospital's Access to Addenbrookes Strategy has helped to nearly halve the number of staff coming to work by car. A quarter of staff now travel to work by bus and a further quarter cycle, up from 12% and 18% respectively in 2000. The provision of regular buses to the site (at peak times more than 60 buses stop per hour), discounted weekly bus tickets, bicycle parking, interest-free bicycle loans and pool cars has helped staff switch from carbon-intensive car travel to healthier, more sustainable modes of travel.

#### 4.2.4 New measures to help NHS organisations reduce carbon emissions from travel

- From April 2008, as part of Estate Returns Information Collection (ERIC) data, NHS organisations will be asked to report on:
  - > Fleet vehicles that operate on 'green' fuels;
  - > Patient transport mileage;
  - > Visitor transport mileage;
  - > Staff transport mileage.

At present, mileage data is only required for transport services provided by or for the NHS organisation. In order to understand the full carbon footprint of the NHS, and take appropriate action, we will explore the potential for measuring and monitoring all NHS related-transport, including patients and visitors travelling to and from NHS sites and staff commuting.

- All NHS organisations will be expected to produce and publish a Board approved Sustainable Travel Plan by 2010 that includes monitoring on staff, patient and visitor travel mileage. This will allow evaluated best practice in reducing carbon emissions to be identified quickly and implemented widely.
- We will work with the Office of Government Commerce Collaborative Procurement Fleet Strategy team and DH to review the emission requirements for new ambulances and other NHS owned or leased vehicles.
- We propose that all NHS organisations offer, and promote, at least a 20p per mile cycle mileage rate for staff. A 2008 survey of 227 NHS Trusts and authorities in England found that 56 per cent of Trusts pay the 6.2p minimum cycle mileage rate, eight per cent pay less than 6.2p and 15 per cent pay nothing at all. 14 per cent of Trusts pay 20p or more per mile. As current travel allowances offer perverse incentives, disincentivising low carbon active travel, we propose to closely monitor the mileage cost per year for the NHS and its constituent organisations and change them.
- We propose that the full (direct and indirect) carbon footprint of new NHS facilities and services is routinely taken into account

when making planning decisions. The travel consequences (travel modes and travel miles) for patient, visitor and staff should be quantified.

- It is recommended that NHS organisations review the need to travel where alternatives such as tele- or videoconferencing are a viable alternative.
- NHS organisations should set a target for reducing emissions from road vehicles used for NHS business in line with that set for Sustainable Operations on the Government Estate i.e. to reduce carbon emissions from road vehicles used for NHS business by 15 per cent by 2010/11, relative to 2005/2006 levels.

Questions:

3) *Will the measures proposed help your NHS organisation reduce carbon emissions from travel?*

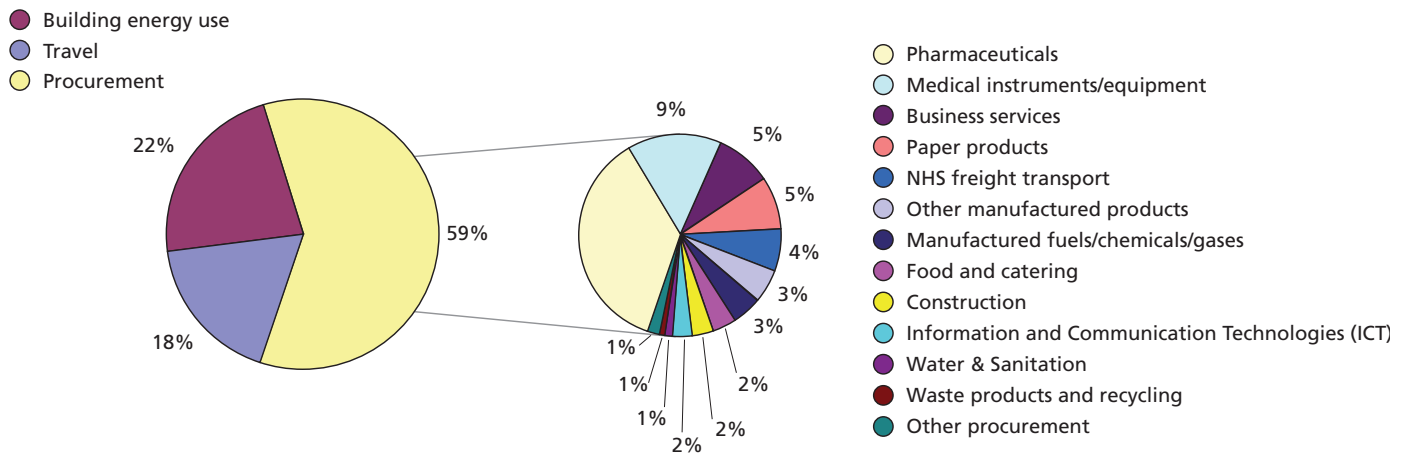
4) *What further measures, guidance and/or assistance would you or your organisation find useful to help implement lower carbon travel?*

## 4.3 Procurement

### 4.3.1 Current scenario and future ambitions

The NHS in England spends £17 billion/year on goods and services. Emissions from the supply chain make up the largest contribution to the NHS carbon footprint, totalling over 11 MtCO<sub>2</sub> per annum; nearly 60 per cent of the total NHS carbon dioxide emissions. This is placed within the context of expenditure, as procurement's proportion to the net NHS expenditure is very similar to the proportion of net NHS carbon footprint.

Within the procurement proportion of the NHS carbon footprint, nearly 6 MtCO<sub>2</sub> can be attributed to the pharmaceuticals and medical instruments/equipment that the NHS procures and uses, more than the emissions from either building energy use or travel. As this is the first time the total carbon footprint of the NHS has been calculated, the contribution of the supply chain to the NHS carbon footprint is only beginning to be understood.



**Figure 8: NHS CO<sub>2</sub> emissions in 2004: 59 per cent procurement sub sector breakdown**

The NHS Purchasing and Supplies Agency has been at the forefront of engaging with the suppliers of NHS goods and services around sustainable development. Procuring for health and sustainability 2012: sustainable procurement action plan outlines a commitment to carry out supply chain mapping to increase the understanding of ethical and environmental impacts within the healthcare supply chain.

The NHS is the largest purchaser of food in the country, spending some £500 million per year. Much of the food served in the NHS is imported from as far a field as Argentina and New Zealand. The associated 'food miles' can be very high. The ingredients for a typical steak and kidney pie served in the NHS travel approximately 31,200 kilometres. Other factors can also influence the carbon footprint of food, for example, buying frozen vegetables is thought to increase the embodied carbon emissions of food, adding an extra 7kg CO<sub>2</sub> per kilogram of food.

The Cornwall Food Programme, working in partnership with the Soil Association, has transformed menus by serving increasing amounts of fresh, locally produced and organic food to patients, visitors and staff. Aims of the programme include:

- Offering more nutritious food that is popular with both patients and staff
- Boosting the local economy by increasing local purchasing
- Cutting pollution and carbon emissions

### 4.3.2 Business case

The way that the NHS approaches procurement and the decisions it makes can have an influence on the carbon footprint of the NHS. Proactively considering carbon at the earliest stages in the procurement process will support:

- Reducing consumption – the first step of all procurements is to question the need. The next step is to ensure that any needs are met as efficiently as possible, reducing the carbon emissions associated with the production, distribution and disposal of excess products and materials. For example, multi-function printing devices that incorporate printing, copying, scanning and fax facilities within one piece of equipment mean that fewer individual items of equipment need to be procured. A national contract exists for photocopiers and multi-function devices and it has been estimated that the NHS as a whole could save over £25 million per annum by migrating just half of its print output away from conventional printers to utilising multi-function devices.
- Procuring energy efficient technologies – helping to save energy during products' 'in use' phase, realising carbon and cost savings.

Merseyside NHS Trusts have introduced new print management software enabling them to actively manage their printing and printer usage, reduce the amount of toner used and setting printers onto double-sided print as default. From an independent test, it has been identified that this has reduced the amount of toner used by about 28 per cent.

Some technologies, such as Information Communications Technology (ICT), present opportunities to radically change how services are provided and in doing so support the reduction of the overall carbon footprint. Examples of technological advances that have reduced material consumption or the demand for travel include changes in primary care provision supported by availability and affordability of ICT devices and point of care testing, the use of videoconferencing and electronic records and results management.

- Whole-life costing - i.e. taking into account the running cost, maintenance, longevity and waste costs of a product when making procurement decisions, helping to reduce materials consumption and waste. NHS PASA, DH and the Department for Business, Enterprise & Regulatory Reform have been working with the lighting industry to accelerate the availability and adoption of ultra low energy lighting technologies such as light emitting diodes (LED). Current LED technology will perform on a par with the best compact fluorescent products - moreover there is good evidence that LED technologies will become much more energy efficient, providing extended lamp life and avoiding the hazardous waste disposal implications of fluorescent lamps.
- A more energy efficient supply chain – helping to improve value for money. If supply chains can become more energy efficient then they will become more competitive, which will help them secure more business, and will also reduce exposure to inconsistent energy supply, volatile energy prices and help manage the increasing amount of international and national regulation and fiscal measures. In turn this reduces the risk to the procurer.
- Reducing the distance goods and services travel - can not only help reduce carbon emissions but can also aid investment in the local community, benefiting local economies and communities.

When planning and constructing a new cardiology and surgical unit at Stepping Hill Hospital, Stockport NHS Foundation Trust spent 63 per cent of their £16.22 million budget in the North West, of which £124k was spent in the immediate postcode area.

### 4.3.2 Existing measures to help NHS organisations reduce carbon emissions from procurement

Procuring for health and sustainability 2012: sustainable procurement action plan is the health and social care sector's response to the Sustainable Procurement Task Force's 2007 report. The action plan sets out how the health and social care sector

in England will use sustainable procurement, not only of equipment and supplies, but also buildings, facilities and services, to achieve improved health and wellbeing for people, the environment and the economy. Key actions proposed include:

- > Committing NHS organisations to purchasing goods and services, as well as construction and retrofit activity, which will reduce the NHS carbon footprint;
- > NHS PASA and NHS Supply Chain to work with Defra to explore Forward Commitment Procurement (FCP) as a means to accelerate the market entry and up-take of ultra energy efficient lighting in the NHS;
- > NHS Supply Chain to work with partners to reduce the carbon emissions associated with logistics and delivery of goods to the NHS;
- > NHS to work with the Waste Resource Action Program (WRAP) in developing and improving standards to increase the percentage of recycled material used during construction and for improved site waste management;
- > NHS PASA will work with partners to develop training for use across NHS organisations to build capability for sustainable procurement, including carbon reduction, in NHS organisations.
- > NHS PASA will support the central government “Centre of Expertise for Sustainable Procurement” by working closely to share good practice guidance, tools and research while continuing to act as the central point for guidance and advice on sustainable procurement for the NHS.
- > NHS Supply Chain, NHS PASA, DH and collaborative procurement hubs will ensure that all centrally let, new and renewed contracts will make available to healthcare users products that meet or exceed approved minimum product standards (also known as the OGC Quick Wins) which include commonly procured types of electrical equipment.

- > The Centre for Evidence Based Purchasing (CEP) have commissioned a project in collaboration with the Defra Market Transformation Programme to develop guidance and tools to assist procurers in making comparisons of energy performance, and related costs, of medical equipment in procurement processes.

At present 9.4 per cent of electricity used by the NHS comes from renewable sources. The current national contract for electricity supply secures 10 per cent from climate change levy (CCL) exempt renewable sources and a further 15 per cent from CCL exempt good quality combined heat and power at no additional cost to the NHS.

#### **4.3.3 New measures to help NHS organisations reduce carbon emissions from procurement**

- The NHS Sustainable Development Unit will examine further the breakdown of carbon emissions in pharmaceuticals and medical instruments/equipment so we know more about where improvements might be made practicable.
- Based on this analysis, NHS PASA and colleagues will work with procurement partners (including pharmaceutical, business, and food suppliers) to understand and reduce the carbon footprint of products purchased by the NHS.
- The NHS Sustainable Development Unit will engage with the Defra ‘product roadmap’ programme to help inform action to address the carbon footprint of products procured by NHS organisations.
- The NHS in England will work with partners, including Regional Development Agencies, to explore ways of using the procurement power of the NHS to stimulate low carbon solutions. An obvious example is the potential co-investment in the fast developing renewables industry, which might radically stimulate the market and develop regional economies.

Questions:

5) *Will the measures proposed help your NHS organisation reduce carbon emissions from procurement?*

6) *What further measures, guidance and/or assistance would you or your organisation find useful to help implement lower carbon procurement?*

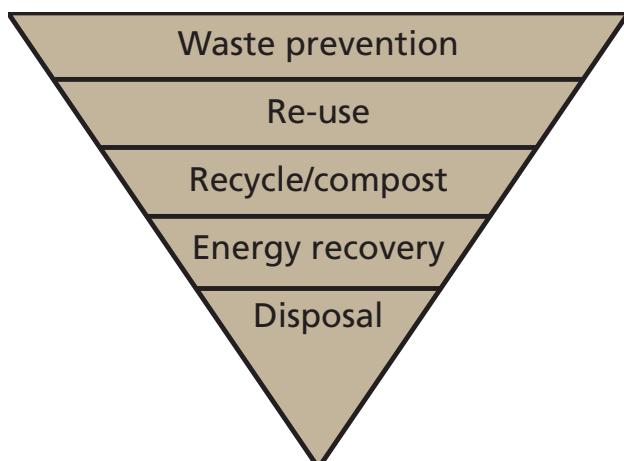
## 4.4 Waste management

### 4.4.1 Current scenario and future ambitions

The NHS produces an average of 250,000 tonnes of waste a year at a cost of over £40 million. Waste created by the NHS continues to rise, both by tonnage and disposal cost. In 2005-2006, over 13 million patient meals were wasted (untouched or unserved) in the NHS – an average of over 9 meals wasted per patient.

Although NHS waste is responsible for only one per cent (0.1 Mt CO<sub>2</sub>) of total NHS CO<sub>2</sub> emissions, when all greenhouse gases are taken into account, waste is responsible for up to three per cent of total greenhouse gas emissions. Much of the waste produced by health facilities is classed as domestic waste and there are great opportunities to reuse and recycle these materials.

Waste also has an important relationship with procurement. Although the disposal of a product may be responsible for only a small amount of greenhouse gas emissions, the energy and carbon involved in the production and transportation of that product may be much higher. To reduce the total carbon impact from that product, it is better to use it efficiently so that less is needed in the first place and less is disposed of as waste. The Waste Strategy for England (2007) sets out how waste should be disposed of in line with the waste hierarchy.



### w4.4.2 Business case

As the cost of waste disposal rises, there is a financial imperative to reduce waste to landfill by applying the waste hierarchy (see Figure 9). From 2008, landfill tax will increase by £8 per year until at least 2010/11 (i.e. from £24 in 2007 to £48 in 2010). The implications for potential savings to the NHS (by a more appropriate way of managing waste) need to be quantified.

Waste management costs the NHS money that could otherwise be spent on direct patient care. It has been estimated that for many businesses the true cost of waste management is in the range of 4-10 per cent of turnover: waste is costly in terms of wasted products/natural resources and in terms of space and staff time. Research by WRAP suggests that 20 per cent recycled construction products is achievable now; Trusts should be aiming for 20 per cent recycled product content in construction by 2020.

Total waste management for three London PCTs London Remade worked with Lambeth, Lewisham and Southwark PCTs to reduce their environmental impact through better waste management. In 2004, analysis of the amount and type of waste materials was undertaken, which resulted in action to improve waste segregation and recycling. A new contract was developed which created a partnership between a recycling company and a clinical waste company, where the recycling company was the lead contractor. London Remade and the contractors ran an awareness campaign for the staff, cleaners and visitors to ensure that only the correct materials were placed in each of the waste streams.

The result was a significant reduction of non clinical materials in the yellow bag waste stream and an increase in recycling from 2.3% to 26% in the first year. The overall effect was to reduce the PCTs' waste management bill significantly and improve their environmental footprint.

Nottingham University Hospitals NHS Trust is working with Medical Waste Solutions to turn clinical waste into building materials. From April 2008, they anticipate that recycling up to 90 per cent of their clinical waste in this way will reduce road miles by approximately 50,000 miles per year, significantly reducing transportation costs and carbon emissions from incineration.

#### **4.4.3 Existing measures to help NHS organisations reduce carbon emissions from waste**

- Health care waste minimization: A compendium of good practice (2000) is an inspiring selection of case studies from NHS organisations who have managed to reduce their waste and save money.

#### **4.4.4 New measures to help NHS organisations reduce carbon emissions from waste**

- NHS organisations should set, and meet, targets for waste reduction in line with those set for Sustainable Operations on the Government Estate to:
  - Reduce waste arisings by 5 per cent by 2010, relative to 2004/2005 levels.
  - Reduce waste arisings by 25 per cent by 2020, relative to 2004/2005 levels.
  - Increase recycling figures to 40 per cent of their waste arisings by 2010.
  - Increase recycling figures to 75 per cent of their waste arisings by 2020.
- It is recommended that every Trust has a competent waste manager to help drive efficiency, e.g. reduce inappropriate procurement, purchasing and packaging, and apply the waste hierarchy.

Questions:

7) *Will the measures proposed help your NHS organisation reduce carbon emissions from waste?*

8) *What further measures, guidance and/or assistance would you or your organisation find useful to help implement lower carbon waste management?*

## 5. Monitoring

To date only data on building energy use has been collected. To measure and monitor progress on carbon reduction, data collection on direct and indirect carbon dioxide emissions needs to be enhanced. The Estates Return Information Collection (ERIC) system already collates:

- compulsory data from Trusts on electricity, gas, oil, coal, combined heat and power (CHP) and hot water use and cost along with compulsory data on renewable energy use and voluntary data on renewable energy cost.
- From April 2008 voluntary data on travel – patient, visitor and staff mileage and fleet vehicles that run on green fuels – will also be collected. At present mileage data is only required for transport services provided by or for the NHS organisation.
- compulsory data from Trusts (excluding Foundation Trusts) on waste disposal, costs and recycling/recovery and data on food waste.
- compulsory data on water use and cost.

We will build on this to establish appropriate data collection measures of direct and indirect carbon dioxide emissions from all NHS organisations, including those from energy use, travel, procurement and waste. We will ensure systems are developed for data collection on property used by Independent Sector Treatment Centres (ISTC) and independent contractors, such as General Practitioners, to ensure that a picture of carbon dioxide emissions from across the NHS activities is available to measure and monitor.

Question:

9) *At present the data captured by ERIC are from building energy use in NHS Trusts only. What data do we need to collect, and how, to monitor the carbon emissions of the whole NHS – including both the direct and indirect emissions of all NHS organisations?*

We will develop metrics to monitor progress on carbon reduction in the NHS. These will inform an early NHS Scorecard of sustainable development indicators, which will be developed over the coming year by the NHS Sustainable Development Unit to encompass all areas of NHS activity including, and developing, those in the NHS Good Corporate Citizenship Assessment Model.

Trust scorecards will be published publicly and used to benchmark against peers.

As part of the Audit Commission's revised Use of Resources judgement, which is currently out for consultation, PCTs are likely to be assessed on 'managing other resources', monitoring how organisations are using their natural, physical and human resources to support delivery of their priorities and to achieve value for money in a sustainable way, including tackling climate change. Carbon dioxide emissions are anticipated to be part of this assessment.

The "Vital Signs" in the Department of Health's Operational Plans 2008/09 - 2010/11 includes an indicator on NHS estates energy/carbon efficiency, which form part of the National Indicator Set from which Local Area Agreement (LAA) priorities will be drawn. This has been in Tier 3 and therefore PCTs can choose to prioritise locally. Local authorities are currently negotiating their LAAs and many are setting a target to reduce carbon dioxide emissions.

Department of Health Annual Report guidance states that:

*"In order to comply with the provisions of SI 2005 No. 1011, the Operating and Financial Review (OFR) shall include information about:*

- *environmental matters, including the impact of the business of the entity on the environment*
- *the entity's employees*
- *social and community issues*
- *persons with whom the entity has contractual or other arrangements which are essential to the business of the entity*
- *"all other relevant matters", eg market and competitive environment, regulatory environment, and technological change.*

*In respect of the first three bullet points above, the OFR shall include the policies adopted and the extent to which they have been successfully implemented."*

As the NHS Finance Manual does not apply to Foundation Trusts, they have their own finance guidance which states:

*"The directors' report should also include a business review which should contain:*

- *information about environmental matters, the NHS Foundation Trust's employees, social and community issues, as well as information about persons with whom the NHS Foundation Trust has contractual or other arrangements which are essential to its business."*

NHS organisations are therefore expected to report annually on sustainable development, reflecting their reporting of sustainable development in the Operating and Financial Review. These will include measures and performance on carbon dioxide reduction in the Annual Report, and annual reporting mechanisms such as the formal annual Board reports.

We will celebrate and reward success to highlight the achievements of NHS organisations who take a whole organisation approach to sustainable development, including carbon reduction. In addition we will extend the national annual awards to highlight innovation and commitment in the NHS to sustainable development.

The NHS Sustainable Development Unit will ensure that a monitoring process for carbon reduction across the NHS is put in place as a routine part of NHS performance assessment and/or the regulatory framework. This will ensure that the NHS is on the right track to meet and exceed the national target to reduce NHS carbon emissions by 60 per cent by 2050. This will include ensuring that all NHS organisations have a Board approved Carbon Management Strategy with data collection measures, ambitions for carbon reduction and reporting mechanisms for direct and indirect carbon dioxide emissions (including those from energy use, travel, procurement and waste) and that includes/makes reference to a Sustainable Travel Plan.

Question:

*10) How should NHS leaders in carbon reduction report their progress and how should laggards be shown up?*

## **5.1 Implementation, Performance, and Regulation**

It is important that the actions to address the most important medium and long term threat to our health in the 21st century are firmly rooted in the performance and regulatory framework.

We propose to explore every way of making the changes we have proposed as easy as possible to implement such that each change will improve long term health without prejudicing the quality of health care we provide today. To do this we will test each of the interventions suggested in a way which measures their likely impact on the carbon footprint of the NHS. The NHS SDU will work with the Department of Health to look at policy levers that could be used to drive forward carbon reduction and sustainable development more broadly, including, for example, the performance assessment framework and the NHS Operating Framework.

In addition, it is important that the public, as well as staff, are fully aware of the consequences of NHS actions today on the consequences for tomorrow. Specific measures in the regulatory framework, such as the government's intention for the Care Quality Commission (CQC) to publish information about NHS organisations' contribution to sustainable development, will allow the public and NHS staff to understand:

- the carbon emissions of each aspect of local NHS activity
- the potential for reducing this carbon footprint
  - > without adversely affecting patient care
  - > whilst improving local health e.g. through increased walking and cycling, better hospital nutrition and improved air quality.

We propose to work closely with the Healthcare Commission and the Care Quality Commission to embed sustainable development into their work where appropriate. This will include working with partners, including the Department of Health, to develop indicators relating to sustainable development that the Care Quality Commission might use when publishing information about the performance of NHS organisations on sustainable development, including carbon reduction. It will be important to ensure that any proposals for the Care Quality Commission place consistent incentives on NHS organisations.

The NHS Sustainable Development Unit will catalyse and support the existing regional and local NHS sustainable development delivery networks.

## 6. Responding to the consultation

This NHS Carbon Reduction Strategy is a draft for consultation. The consultation will run for 17 weeks from 29th May to 30th September 2008.

This Strategy is designed to ensure all NHS organisations do more to reduce their carbon footprint and mitigate climate change. We would like to use this seventeen-week consultation period to find out if this Strategy works for you.

Questions:

11) a) *How useful have the existing nationally mandated energy targets been in driving carbon reduction in your organisation?*

b) *Should new national targets be set beyond 2010 or how could they be set locally?*

12) *Are the proposed commitments, incentives and measures the right ones to ensure your organisation reduces its carbon dioxide emissions?*

13) *What further support/incentives does your organisation need to implement change to reduce carbon dioxide emissions?*

14) *What are the barriers that stop us in the NHS achieving more carbon reduction sooner?*

15) *What else could the NHS be doing to reduce its carbon dioxide emissions?*

16) *What else do we need to measure to stimulate and demonstrate improvement?*

17) *Are there areas where you feel the NHS can and should be more ambitious?*

18) *How do we balance the needs of patients today with the needs of the environment tomorrow?*

19) *What roles can NHS partners play at local and regional levels to help support NHS carbon reduction?*

We welcome your comments and feedback. Please respond on the Sustainable Development Unit website. [www.sdu.nhs.uk](http://www.sdu.nhs.uk)

You can also respond by email to [jayne.howley@sdu.nhs.uk](mailto:jayne.howley@sdu.nhs.uk) by 30th September 2008, using the questions posed throughout the document (summarised in Appendix D) as a guide, and/or by attending one of the regional consultation events.

During the consultation period the NHS SDU and partners will test the commitments, measures and incentives contained within this document with NHS organisations and partners across the country in a series of interactive events. We aim to run events within most of the Strategic Health Authority areas of England. Below is a list of the regional contacts that will be able to tell you about the events that are planned in your area:

### Strategic Health Authority Region

### Contact

North West

[ruth.passman@dh.gsi.gov.uk](mailto:ruth.passman@dh.gsi.gov.uk)

North East

[denise.orange@dh.gsi.gov.uk](mailto:denise.orange@dh.gsi.gov.uk)

Yorkshire and Humber

[roger.french@yorksandhumber.nhs.uk](mailto:roger.french@yorksandhumber.nhs.uk)

East of England

[hermione.lovel@dh.gsi.gov.uk](mailto:hermione.lovel@dh.gsi.gov.uk)

London

[jackie.spiby@london.nhs.uk](mailto:jackie.spiby@london.nhs.uk)

South East

[jackie.spiby@london.nhs.uk](mailto:jackie.spiby@london.nhs.uk)

South Central

[jackie.spiby@london.nhs.uk](mailto:jackie.spiby@london.nhs.uk)

South West

[kate.burton@southwest.nhs.uk](mailto:kate.burton@southwest.nhs.uk)

West Midlands

[sarah.davis@dh.gsi.gov.uk](mailto:sarah.davis@dh.gsi.gov.uk)

East Midlands

[jonathan.harris@dh.gsi.gov.uk](mailto:jonathan.harris@dh.gsi.gov.uk)

## 6.1 Next steps

The consultation period will end on 30th September 2008. Following this, we will publish a feedback document summarising the responses received to the questions asked, and the information gathered at the regional consultation events. All responses will be confidential and any references to responses will be quoted as anonymous.

The comments and feedback received will help inform the final NHS Carbon Reduction Strategy. We anticipate publishing the final Strategy for implementation by the end of the year.

This NHS Carbon Reduction Strategy is the next step towards a more sustainable NHS. The newly established NHS Sustainable Development Unit (Appendix A) will lead on the coordination of its implementation as part of a broader sustainable development programme for the NHS. Implementation will build on the existing regional networks of sustainable development champions to ensure a co-ordinated and systematic national approach to action. This NHS Carbon Reduction Strategy will feed into the national programme on sustainable development that will help all NHS organisations take sustainable development into account in their day-to-day business.

The sustainable development programme for the NHS will build on existing guidance and evaluated good practice. The success of the NHS Good Corporate Citizenship Assessment Model is a testament to the pioneering nature of NHS organisations that have recognised their role as providing a health, as opposed to sickness, service. At present half of all Foundation and Acute Trusts are registered on the Model, indicating the nationwide commitment to sustainable development in the NHS. Recognising this, we will ensure a detailed monitoring by organisation of the uptake of the NHS Good Corporate Citizenship Assessment Model throughout the service.

This Strategy provides the impetus and framework for NHS organisations to work towards reducing their carbon footprint. The commitments contained within will help provide more information on where and how the NHS is best placed to reduce its carbon emissions. By

using this information, action plans may result as different sectors of the NHS respond to the call to tackle climate change. We anticipate updating the NHS Carbon Reduction Strategy after three years, including a repeat analysis of the NHS carbon footprint, to measure whether the NHS is on track to meet the 60 per cent by 2050 carbon reduction target.

## Appendix A:

### The NHS Sustainable Development Unit – its role and responsibilities

[www.sdu.nhs.uk](http://www.sdu.nhs.uk)

The NHS Sustainable Development Unit was established on April 1st 2008 by the Office of the SHAs in England. The roles of the unit are to:

- to be a source of leadership, expertise and guidance concerning sustainable development to all NHS organisations in England.
- raise awareness across the NHS as to the important responsibilities of, and actions for, the NHS regarding sustainable development and climate change. This includes promoting a culture of measurement and management which underpins carbon governance.
- help shape NHS policy, locally, nationally and internationally that makes promoting sustainable development and adapting to and mitigating climate change as easy as possible for every NHS organisation.
- ensure the very best practice and innovations on sustainability in the NHS and elsewhere are evaluated and costed and the mechanisms for implementation are made fully available to other NHS organisations.
- work in partnership with the NHS, government, industry and the third sector to achieve the above.

The unit is run under the auspices of the Office of the SHAs (OSHA) on behalf of the SHA Chief Executives. It is hosted by the Strategic Health Authority in the East of England in Fulbourn, Cambridge. The Accountability of the Unit is through the CEO, Neil McKay and to the CEO of the NHS, David Nicholson.

## Appendix B:

### Key background, guidance and reference documents

Budget statement 12th March 2008, para 6.59

Cabinet Office / HM Treasury (2007) *The Economics of Climate Change. The Stern Review*. Cambridge: Cambridge University Press

Department for Environment, Food and Rural Affairs (2007) *The Air Quality Strategy for England, Scotland, Wales and Northern Ireland: Volume 1*.

Department for Environment, Food and Rural Affairs (2007) *Sustainable development indicators in your pocket 2007*

Department for Environment, Food and Rural Affairs (2007) *The Waste Strategy for England 2007*

Department for Transport (2005) *Visioning and Backcasting for UK Transport Policy*

Department of Health and Health Protection Agency (2008) *Health Effects of Climate Change in the UK 2008. An Update of the Department of Health Report 2001/02*

Department of Health (2004) *Choosing Health: Making healthy choices easier*

Department of Health guidance documents:

- Total waste management – best practice advice
- Carbon/energy management in healthcare – best practice advice
- HTM 07-01 Safe management of healthcare waste
- HTM 07-02 EnCO<sub>2</sub>de – making energy work in healthcare
- HTM 07-03 Transport management and car parking
- HTM 07-04 Water management and water efficiency (due summer 2008)
- HTM 07-05 Waste Electrical and Electronic Equipment
- HTM 07-06 Community pharmacy waste guide
- HTM 07-07 Constructing Sustainable Healthcare Buildings (due summer 2008)

Department for Trade and Industry (2007) *Meeting the Energy Challenge. A White Paper on Energy*

Faculty of Public Health (2008) *Sustaining a Healthy Future: Taking action on Climate Change*

HM Government. *Securing the Future: delivering the UK sustainable development strategy*.

HM Government (2006) *Climate Change. The UK Programme 2006. Tomorrow's Climate. Today's Challenge*

Intergovernmental Panel on Climate Change (2007) *IPCC Climate Change Fourth Assessment Report: Climate Change 2007*

Killoran A, Doyle N, Waller S, Wohlgemuth C and Crombie H (2006) *Transport interventions promoting safe cycling and walking: Evidence briefing*. National Institute for Health and Clinical Excellence: London

King's Fund (2002) *Claiming the Health Dividend: unlocking the benefits of NHS spending*

Kings Fund (2005) *Sustainable Food and the NHS*

NHS Confederation (2007) *Taking the Temperature. Towards an NHS Response to Global Warming*

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NHS Estates (2005) Sustainable development: Environmental strategy for the National Health Service

PQ 8 October 2007 <http://www.publications.parliament.uk/pa/cm200607/cmhansrd/cm071008/text/71008w0058.htm>

Spokes (2008) A Free Ride? Results and Recommendations from the 2008 Spokes NHS Bicycle Mileage Survey

Sustainable Development Commission/Department of Health (2006) NHS Good Corporate Citizenship Assessment Model

Sustainable Development Commission/NHS Confederation/Department of Health (2007) Healthy and Sustainable; the NHS as a good corporate citizen. Briefing Issue 146, NHS Confederation.

Sustainable Development Commission (2008) Healthy Futures #7: The NHS and Climate Change

Sustainable Development Commission Progress in Practice case study collection <http://www.sd-commission.org.uk/pages/progressinpractice.html>

Sustainable Development Commission – Stockholm Environment Institute (2008) NHS England carbon emissions: carbon footprinting study. Sustainable Development Commission, London

World Health Organisation (2003), *Climate Change and Human Health – Risks and Responses*

## Appendix C:

### Legislative and policy instruments for carbon reduction in the NHS

**Table 2: Existing legislative and policy instruments for carbon reduction in the NHS**

Existing legislative (L) or policy (P) instrument	Impact on emissions
Department of Health Energy Efficiency Targets for the NHS in England, 2001. (P)	<p>Targets set to:</p> <ul style="list-style-type: none"> <li>• reduce the level of primary energy consumption by 15 per cent or 0.15 MtC (million tonnes carbon) from March 2000 to March 2010;</li> <li>• achieve a target of 35-55 GJ/100m<sup>3</sup> energy efficiency performance for the healthcare estate for all new capital developments and major redevelopments or refurbishments; and that all existing facilities should achieve a target of 55-65 GJ/100m<sup>3</sup>.</li> </ul>
NHS Environmental Assessment Tool (NEAT) April 2002. (P)	NEAT requires all new-builds to score 'Excellent' and all refurbishments a score of 'Very good'. This includes an assessment of carbon emissions. [N.B. NEAT will be replaced by BREEAM Healthcare in Summer 2008 – see below]
EU Directive on the Energy Performance of Buildings <i>EU Official Journal - 4 January 2003 (L)</i>	Aims to improve the energy performance of buildings. Communities and Local Government (CLG) is leading on its implementation, mainly through Building Regulations – Energy Performance Certificates (see below) and Display Energy Certificates (see below).
The EU Directive on the Energy Performance of Buildings - <i>Energy Performance Certificates (L)</i>	All healthcare buildings with a total area greater than 10,000 m <sup>2</sup> will be required to publicly display the energy usage and energy efficiency of buildings constructed, leased, rented or sold in an Energy Performance Certificate, with an accompanying recommendations report listing measures to improve the energy rating of the building.
Carbon Trading: EU Emissions Trading Scheme (EU ETS) 2005 (L)	A Europe wide emissions trading scheme to help the EU meets its Kyoto Protocol commitment to make an 8 per cent reduction in emissions by 2008-2012 compared to 1990 levels. Under this, the UK committed to reduce its emissions of greenhouse gas emissions by 12.5 per cent below 1990 levels by 2008-2012. The scheme requires all sites with a thermal output capacity of over 20 megawatts to register and report their emissions. Defra sets an emissions cap and allocates the registered sites an allocation of carbon emissions. Organisations operate on a carbon cap and trade basis – selling surplus allowances or buying additional allowances if exceed the allocation through a European market trading network. Approximately 80 NHS sites are registered.
UK Government's Sustainable Development Strategy - <i>Securing the Future, March 2005 (P)</i>	<p>Action on climate change is one of the four priority areas for action across the UK.</p> <p>One of the Department of Health's five high-level commitments in this Strategy is promoting the role of the NHS as a corporate citizen, of which carbon reduction is a part.</p>
Office of Government Commerce (OGC) Common Minimum Standards (CMS) <a href="http://www.ogc.gov.uk">www.ogc.gov.uk</a> Jan 2006 (P)	Where a business case for a new programme or project includes a construction element it should be undertaken with full reference to the CMS including a standard that states: Any new procurement project (whether new build, refurbishment, purchased, leased or the procurement of a service - e.g. managed workspace) must fall into the upper quartile of energy performance for the building type, except where specific operational requirements prevent this.

<p>Energy White Paper: (DTI. 2007. <i>Meeting the Energy Challenge. A White Paper on Energy</i>. London: TSO.) (P)</p>	<p>Sets out measures to help the UK cut carbon dioxide emissions by 60 per cent by 2050, with a 26-32 per cent reduction by 2020, against a 1990 baseline. Includes specific commitments for the public sector including:</p> <ul style="list-style-type: none"> <li>• A carbon neutral central Government office estate by 2012;</li> <li>• Energy efficient procurement of new public sector cars and energy using products (see below);</li> <li>• Participation of large public sector organisations in the Carbon Reduction Commitment scheme (see below);</li> <li>• Display Energy Certificates (see below)</li> <li>• Target for 10 per cent of electricity to be from renewable energy sources by 2010, with an ambition for 20 per cent by 2020.</li> <li>• Target for at least 10,000 MW of installed Good Quality CHP capacity by 2010.</li> </ul>
<p>Public Service Agreement target on climate change (<i>UK Comprehensive Spending Review 2007</i>) (P)</p>	<p>Public Service Agreement 27: Lead the global effort to avoid dangerous climate change, which sets out the UK's ambitions to secure robust global commitments for the period after 2012, adopt and promote cost-effective policies which reduce UK net greenhouse gas emissions, and adapt to unavoidable climate change.</p>
<p>Procuring For Health And Sustainability 2012: <i>Department of Health Sustainable Procurement Action Plan, March 2007</i> (P)</p>	<p>Sets out how, in the next five years, the health and social care sector in England will use sustainable procurement, not only of equipment and supplies, but also buildings, facilities and services, to achieve improved health and well-being for the people, the environment and the economy. This includes commitments on carbon reduction.</p>
<p>The "Vital Signs": the Department of Health's Operational Plans 2008/09 - 2010/11. Jan 2008</p>	<p>NHS estates energy/carbon efficiency is included in the Operating Framework's Vital Signs (currently Tier 3), which PCTs can choose to prioritise locally.</p>
<p>Directive 2005/32/EC on the eco-design of Energy-using Products (EuP)</p>	<p>Provides EU-wide rules for eco-design of products such as electrical and electronic devices or heating equipment.</p>

<p>EC Directive on Energy End-Use Efficiency and Energy Services (DIRECTIVE 2006/32/EC) April 2006. (L)</p>	<p>Intended to enhance the cost effective improvement of energy end use efficiency in Member States. Article 5 requires the public sector to lead by example, looking at the procurement of energy services, energy using products and buildings. It sets a target to achieve 9% energy saving from 2008 to 2017 i.e. 1% per annum. [Announcement on Article 5 requirements relating to procurement expected in May 2008].</p>
<p>Draft Climate Change Bill, March 2007, Cmd 7040 (L)</p>	<p>Outlines the target for net UK carbon emissions to be at least 60% lower than the 1990 baseline by 2050, with reductions of at least 26% by 2020. [Currently going through Parliament].</p>
<p>The EU Directive on the Energy Performance of Buildings - Energy Performance Certificates (L)</p>	<p>From 1st July 2008 this extends to buildings with a total floor area greater than 2,500 m<sup>2</sup>, from 1st October 2008 all remaining buildings will require an EPC on sale, rent or upon construction. The certificates are valid for ten years or until a newer EPC is required.</p>
<p>Display Energy Certificates (L)</p>	<p>From 1st October 2008 all public buildings over 1,000m<sup>2</sup> to have a DEC.</p>
<p>Carbon Reduction Commitment (formerly the Energy Performance Commitment) (L) Action in the UK - Carbon Reduction Commitment <i>Announced in the UK Energy White Paper 2007</i></p>	<p>As set out in the Energy White Paper 2007, this carbon trading scheme will apply to all organisations whose annual mandatory half hour metered use is above 6,000MWh- approximately 75 per cent of NHS acute Trusts. The scheme will operate on a cap and trade basis – with participants first buying allowances equivalent to their anticipated emissions and then trading surplus or buying additional allowances through a market trading network. Defra plans to implement from 2010. DH is currently negotiating with Defra the best way in which the NHS can be part of the CRC.</p>
<p>Use of Resources Judgement. <i>Audit Commission, 2009 (P)</i></p>	<p>The Audit Commission's Use of Resources judgement, on which they assess PCTs, will include a 'managing other resources' theme, assessing how organisations are using their natural, physical and human resources to support delivery of their priorities and to achieve value for money in a sustainable way, including tackling climate change. [Currently out for consultation].</p>
<p>HMT Budget Statement 2008 (P) <i>"Stability and opportunity: building a strong, sustainable future"</i> 12th March 2008.</p>	<p>There is an ambition for all new non-domestic buildings to be zero carbon from 2019. There will be a consultation process during 2008 on the timeline for this ambition and its feasibility, and a review of progress in 2013. This is in addition to the ambition for all new homes to be zero carbon from 2016.</p>
<p>BREEAM Healthcare – successor to NEAT(P) 2008</p>	<p>From summer 2008, all new healthcare buildings will be required to meet BREEAM Healthcare Excellent standard and all refurbishments will be expected to meet the Very Good standard.</p>

## Appendix D:

### *Consultation questions*

- I. Do you think the NHS should be a public sector leader as a sustainable and low carbon organisation?
- II. How important is it that performance against reducing carbon is measured and managed effectively as part of core business?

### *Building energy use*

- 1) Will the measures proposed help your NHS organisation reduce carbon emissions from building energy use?
- 2) What further measures, guidance and/or assistance would you or your organisation find useful to help implement lower carbon building energy use?

### *Travel*

- 3) Will the measures proposed help your NHS organisation reduce carbon emissions from travel?
- 4) What further measures, guidance and/or assistance would you or your organisation find useful to help implement lower carbon travel?

### *Procurement*

- 5) Will the measures proposed help your NHS organisation reduce carbon emissions from procurement?
- 6) What further measures, guidance and/or assistance would you or your organisation find useful to help implement lower carbon procurement?

### *Waste*

- 7) Will the measures proposed help your NHS organisation reduce carbon emissions from waste?
- 8) What further measures, guidance and/or assistance would you or your organisation find useful to help implement lower carbon waste management?

### *Other*

- 9) At present the data captured by ERIC are from building energy use in NHS Trusts only. What data do we need to collect, and how, to monitor the carbon emissions of the whole NHS – including both the direct and indirect emissions of all NHS organisations?
- 10) How should NHS leaders in carbon reduction report their progress and how should laggards be shown up?
- 11) a) How useful have the existing nationally mandated energy targets been in driving carbon reduction in your organisation?  
b) Should new national targets be set beyond 2010 or how could they be set locally?
- 12) Are the proposed commitments, incentives and measures the right ones to ensure your organisation reduces its carbon dioxide emissions?
- 13) What further support/incentives does your organisation need to implement change to reduce carbon dioxide emissions?
- 14) What are the barriers that stop us in the NHS achieving more carbon reduction sooner?
- 15) What else could the NHS be doing to reduce its carbon dioxide emissions?
- 16) What else do we need to measure to stimulate and demonstrate improvement?
- 17) Are there areas where you feel the NHS can and should be more ambitious?
- 18) How do we balance the needs of patients today with the needs of the environment tomorrow?
- 19) What roles can NHS partners play at local and regional levels to help support NHS carbon reduction?

## Appendix E:

### *The Consultation Process*

#### Criteria for consultation

This consultation follows the 'Cabinet Office Code of Practice', in particular, we aim to:

- consult widely throughout the process, allowing a minimum of 12 weeks for written consultation at least once during the development of the policy;
- be clear about what our proposals are, who may be affected, what questions we want to ask and the timescale for responses;
- ensure that our consultation is clear, concise and widely accessible;
- ensure that we provide feedback regarding the responses received and how the consultation process influenced the development of the policy;
- monitor our effectiveness at consultation including through the use of a designated consultation co-ordinator; and
- ensure our consultation follows better regulation best practice, including carrying out a Regulatory Impact Assessment if appropriate.

The full text of the code of practice is on the Cabinet Office website at:

<http://bre.berr.gov.uk/regulation/consultation/code/index.asp>

If you have concerns or comments which you would like to make relating specifically to the **consultation process itself please contact:**

**Consultations Coordinator**

**Department of Health**

**2N16, Quarry House**

**Leeds**

**LS2 7UE**

**e-mail: [Mb-dh-consultations-coordinator@dh.gsi.gov.uk](mailto:Mb-dh-consultations-coordinator@dh.gsi.gov.uk)**

Please do not send consultation responses to this address.

#### **Confidentiality of information**

Information provided in response to this consultation, including personal information, may be published or disclosed in accordance with the access to information regimes (these are primarily the Freedom of Information Act 2000 (FOIA), the Data Protection Act 1998 (DPA) and the Environmental Information Regulations 2004).

If you want the information that you provide to be treated as confidential, please be aware that, under the FOIA, there is a statutory Code of Practice with which public authorities must comply and which deals, amongst other things, with obligations of confidence. In view of this, it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.

The Department will process your personal data in accordance with the DPA and in most circumstances this will mean that your personal data will not be disclosed to third parties.

## References

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- 1 Greenhouse gases (ghg) include carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride. They trap heat in the troposphere, such that a rise in levels of ghg increases temperature – the so-called greenhouse effect.
- 2 Carbon dioxide is the largest of the 6 GHG (Greenhouse Gas) emissions in the Kyoto protocol - the others include methane and nitrous oxide. In the UK, since carbon dioxide emissions account for about 85% of the Kyoto GHG emissions, domestic targets generally focus on curbing carbon dioxide emissions.
- 3 Claiming the Health Dividend: Unlocking the benefits of NHS spending, King's Fund, 2002
- 4 SDC-SEI (2008) NHS England carbon emissions: carbon footprinting study Sustainable Development Commission, London
- 5 In 2006, the NHS was responsible for 1 million tonnes of direct carbon emissions per year (approximately 3.7 million tonnes of carbon dioxide) from building energy use only. We now know that modern estimates [that also include indirect carbon emissions such as procurement and transport] are likely to be closer to 18 million tonnes CO<sub>2</sub>.
- 6 Primary energy consumption refers to the direct use at the source, or supply to users without transformation, of crude energy, that is, energy that has not been subjected to any conversion or transformation process. (OECD Glossary of Technical Terms)
- 7 [www.carbontrust.co.uk](http://www.carbontrust.co.uk) or 0800 085 2005
- 8 Salix is an independent, not-for-profit company set up by the Carbon Trust. With Government funding of £30 million over the next three years, they work with local government, the NHS, universities and central government to help reduce carbon emissions. Salix provides interest-free, matched funding, structured so that the energy savings pay the total fund back over time.
- 9 <http://www.defra.gov.uk/environment/climatechange/uk/business/crc/index.htm>
- 10 <http://www.carbonTrust.co.uk/carbon/publicsector/nhs>
- 11 Food miles are the distance food travels from the farm to consumer
- 12 From Department for Environment, Food and Rural Affairs (2007) The Waste Strategy for England 2007





[www.sdu.nhs.uk](http://www.sdu.nhs.uk)



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