RESPONSE TO NATIONAL HEALTH SERVICE
CONSULTATION

SAVING CARBON, IMPROVING HEALTH:
A DRAFT CARBON REDUCTION STRATEGY FOR THE NHS IN ENGLAND

SUMMARY

We welcome this opportunity to comment on the draft National Health Service (NHS) carbon reduction strategy. As the largest public sector contributor to climate change, it is critical that the NHS rapidly establishes a programme of action to reduce its carbon emissions and play its part in meeting Government targets. In particular, we are keen to see the NHS part of the Carbon Reduction Commitment. We want genuine participation, on the same basis as other organisations. The inclusion of schools as part of a Local Authority's portfolio provides a context for public sector leadership on climate change, alongside similar leadership from the NHS.

If the NHS wants to lead the public sector in addressing the challenge of climate change, this Strategy needs to be more focused and challenging. We recommend that:

- The Strategy defines what success looks like, and sets ambitious and unambiguous targets that will lead towards the NHS own target of 60% reduction in carbon emissions by 2030. To demonstrate its commitment and ambition, the NHS should aim to achieve the Government’s target to reduce carbon emissions by 30% by 2015 (rather than 2020).
- There should be a presumption of no net increase in CO₂ emissions, and active commitment to reducing emissions.
- The Strategy focuses on priority areas, initially those which it can more easily influence, that will deliver against these targets such as minimising waste, increasing building efficiency, generating and using renewable energy.
- The NHS reinvests financial savings within NHS bodies, to fund specific carbon reducing initiatives.
- The responsibility for carbon management should lie with the Chief Executive of each NHS body. It should be treated like any other key performance indicator.

1.0 INTRODUCTION

1.1 The Environment Agency is well placed to respond to this consultation. We published an internal 5-year Environment Management Strategy in 2007, and recently reported on the first year’s progress. Our performance on all five measures (energy, water, waste, mileage and
carbon) was better than target. For example, during 2007/08 we
reduced carbon emissions by 3% from 2006/07 levels. We plan to
achieve 15% reduction by 2010/11. We can share best practice with
the NHS, and highlight areas of difficulty.

1.2 There are major challenges ahead in delivering both the European
Union (EU) and UK targets on greenhouse gas (GHG) emissions. The
EU is committed to increase its level of ambition from the current 20%
to 30% cut in GHG emissions from the 1990 level by 2020, if other
developed countries take on a similar level of effort in the context of a
post-2012 international climate change agreement. On the basis of the
European Commission’s proposed effort sharing formula, this would
require the UK to reduce its GHG emissions by about 43% from 1990
levels by 2020. Even achieving the UK proposed share of the EU’s
20% GHG emission reduction will be challenging. This equates to a
32% cut in GHG emissions for the UK, which is approximately
equivalent to the minimum level of effort required in the Climate
Change Bill of a 26% cut in carbon dioxide (CO₂) emissions on the
basis of current policies for non-CO₂ GHGs.

1.3 Given the size of these challenges, it is essential that the NHS, as the
largest public sector contributor to CO₂ dioxide emissions, plays its
part. We are committed to reducing greenhouse gas (GHG) emissions,
not only by reducing our own CO₂ emissions but as a regulator of
business and industry, including our role as the competent authority for
the EU Emissions Trading Scheme (EU ETS) and the UK’s Carbon
Reduction Commitment (CRC). Organisations covered by the EU ETS
and the CRC sectors alone account for 41% of UK GHG emissions.
The NHS already has a number of bodies that fall within the scope of
the EUTS. We are keen to ensure those bodies that sit outside EU
ETS but within the scope of CRC are brought into the scheme as soon
as possible.

1.4 As part of their climate change package, the Commission has also
proposed a renewable energy target for the UK that would require 15%
of all energy consumption for electricity, heat and transport to come
from renewable sources by 2020. To illustrate what this might mean in
practice, meeting this target could mean around 10% renewable
energy in transport (compared with less than 1% today), 14% in heat
(less than 1% today) and 32% in electricity (less than 5% today). In
addition, the UK has a target to achieve 10GWₚ of combined heat and
power (CHP) capacity by 2010. These targets are likely to have
significant implications for the NHS unless it adopts a progressive
carbon reduction strategy now.

2.0 ENVIRONMENT AGENCY RESPONSE TO SPECIFIC ISSUES

2.1 We provide commentary on the specific issues raised in the
consultation document below. Overall, we found that many of the
proposed new measures were rather vague with a lack of targets and
milestones, and were not particularly ambitious. As it stands, we do not consider that the Strategy will place the NHS at the vanguard of tackling climate change issues, despite its expressed desire to become so. It is also unclear just how binding the Strategy will be for NHS bodies, or what the penalties might be for non-compliance.

Building energy use

Q1. Will the measures proposed help your NHS organisation reduce carbon emissions from building energy use?  
Q2. What further measures, guidance and/or assistance would you or your organisation find useful to help implement lower carbon building energy use?

2.2 Clearly, buildings are a major energy user within the NHS and despite mandatory reduction targets set some seven years ago, consumption is rising. Some 80-odd NHS bodies come under the auspices of the EU ETS.

2.3 We are sympathetic to the view that many NHS bodies would find the EU ETS inappropriate and an excessive administrative burden. However, it is critical that the NHS takes steps to reduce its carbon emissions, and in a strategic manner given the devolved nature of hospital management. We therefore recommend that NHS bodies are brought into the CRC. As a mandatory emissions cap and trade scheme, critically the CRC offers flexibility. For example, NHS bodies will be able to pay for cost-effective reductions elsewhere through the CRC trading element, alongside introducing cost effective energy efficiency improvements within the NHS itself. This should save the NHS money by way of lower energy bills and by minimising the costs of emissions abatement. The CRC provides the appropriate levers to drive substantial emissions reductions. By placing a legal obligation on NHS bodies it should ensure appropriate commitment to energy efficiency by senior managers. We want genuine participation, on the same basis as other organisations. The inclusion of schools as part of a Local Authority's portfolio provides a context for public sector leadership on climate change, alongside similar leadership from the NHS.

2.4 We recognise there are costs associated with improving building energy efficiencies. We would support the proposal to extend the Department of Health (DH) Energy Fund. In the absence of any central fund, the Environment Agency set up its own Carbon Reduction Fund. This has been a great success in delivering small innovative initiatives. Highlights include installing the first biomass boiler, hydropower (waterwheel) and 15kWe wind turbine on our sites; constructing a low carbon building extension using straw bales and recycled car tyres; developing a construction carbon calculator that enables us to design and construct our flood defence structures to a low carbon footprint. Our IT function is delivering a number of initiatives to reduce energy,
such as installing ‘NightWatchman’ software which powers down computers overnight. In our experience, once you start investigating energy efficiency measures, cost savings become apparent very quickly. The NHS should reinvest financial savings it makes back into the organisation, to fund specific carbon reducing initiatives.

2.5 We welcome provision of technical and change management support under the auspices of the Carbon Trust’s NHS Carbon Management Programme. However, our own experience demonstrates that the key to success is to have energy managers on site who understand the detail of the site. This means identifying the right person to be responsible for this work on the ground at each site; making sure they have the time and resources to do this extra work, and making sure they get good baseline and ongoing data so they can keep track of their work and if necessary justify what they are doing. Benefits and savings will accrue far more effectively. We also have a national team conducting a comprehensive review of our property portfolio with the remit to reduce the space we occupy and improve the environmental performance of the property we retain.

2.6 We welcome the commitment that all new healthcare buildings will be required to meet BREEAM Healthcare Excellent standard, but think that all refurbishments should aim to deliver the same standard. We also consider that the NHS should be aiming to deliver zero carbon new builds earlier than the Government target of 2018. We recommend setting of targets for existing buildings to improve their energy efficiencies.

2.7 Disappointingly, the consultation document makes no mention of exploring the potential for generating renewable energy supplies such as using wind turbines, solar panels, biomass boilers or combined heat and power systems. There is plenty of advice and even finance available, for example Partnerships for Renewables has the mandate to work with the public sector to finance and project manage wind power projects on public sector land.

2.8 The NHS should consider its water consumption as part of improving building energy use. We have recently undertaken work\(^1\) which shows that the carbon footprint of water, and in particular hot water, are a major contribution to overall domestic energy use. Whilst we have no data specifically relating to the NHS estate, measures which reduce the amount of water, especially hot water, will deliver overall energy savings, as well as reducing the overall environmental footprint. Given the nature of NHS activities, we recommend it undertakes specific studies to investigate how hot water use can be reduced, without compromising health and wellbeing standards for patients and staff.

2.9 If the NHS wants to lead the public sector in addressing the challenge of climate change, the strategy needs to be more focused and challenging. It needs to define what success looks like, and set ambitious and unambiguous targets that will lead towards the NHS own target of 60% reduction in carbon emissions by 2030. To demonstrate its commitment and ambition, the NHS should aim to achieve the Government’s target to reduce carbon emissions by 30% by 2015 (rather than 2020). The Strategy needs to focus on priority areas, initially those which it can more easily influence, that will deliver against these targets such as minimising waste, increasing building efficiency, increased generation and use of renewable energy. It should reinvest financial savings back into the organisation, to fund specific carbon reducing initiatives. Finally, the responsibility for carbon management should lie with the Chief Executive of each NHS body, and should be treated like any other key performance indicator.

Travel

Q3. Will the measures proposed help your NHS organisation reduce carbon emissions from travel?
Q4. What further measures, guidance and/or assistance would you or your organisation find useful to help implement lower carbon travel?

2.10 NHS patient, staff and visitor travel is clearly another major carbon contributor; and emissions are predicted to increase significantly. However, managing carbon emissions for NHS business travel is a significant challenge in itself; managing emissions from indirect travel (i.e. visitors and patients) could prove extremely difficult. We therefore recommend the NHS initially focuses on business travel.

2.11 Over half of NHS Trusts have Sustainable Travel Plans (STPs). Whilst we support this requirement, the devil will be in the detail of each plan. Ideally, they should include a ‘travel hierarchy’ (much as waste management follows a well-established and understood hierarchy). Our travel hierarchy is as follows:

- Only travel when essential.
- When travel is unavoidable, the first option will be public transport.
- To fulfil our duties we need to drive ‘essential miles’. To minimise the impact of these miles, we select the lowest CO₂ vehicles available. This forms a key part of our procurement strategy, and we continually review the market.
- We trial and adopt new low CO₂ technologies and vehicles. Currently we are trailing sustainable biodiesel\(^2\) in over 70 vehicles, 4 electric vehicles, and are looking to trial 50 hybrid units.

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\(^2\) The biodiesel is made from 100% recycled waste vegetable oil from the UK market.
2.12 As part of their STPs, NHS bodies should examine travel patterns and modes, and consider what type of vehicles are used. The NHS fleet procurement process wields considerable influence. It should be used to procure low carbon vehicles. For example, the Environment Agency uses the Ford Focus Econetic as a standard vehicle. Its emissions are so low it is exempt from the London Congestion Charge.

2.13 Asking NHS bodies to report on fleet vehicles that operate on ‘green fuel’ will reveal little information of value, not least because there is continuing debate over what constitutes ‘green fuel’. A better approach would be to report on low carbon vehicles. This could by calculating the current NHS fleet CO₂ average, then setting targets. An alternative approach could be to establish CO₂ brackets, e.g. 100-120 g/km, 121-145 g/km, etc. and identify what percentage of the fleet falls within each category. The intention should then be to aim to move more fleet vehicles into lower brackets. It is also something of an omission not to ask NHS bodies to report CO₂ associated with mileage. There needs to be targets set against it.

Procurement

Q5. Will the measures proposed help your NHS organisation reduce carbon emissions from procurement?

Q6. What further measures, guidance and/or assistance would you or your organisation find useful to help implement lower carbon procurement?

2.14 This is clearly a complicated area, with many players involved and variable lengths of supply chain. However, given the NHS spends £17 billion/year on goods and services, this allows significant opportunities to reduce the sustainability impacts of its suppliers. Regrettfully, there are few actions and a notable lack of timelines outlined in the consultation document. For example, the carbon footprint of the pharmaceuticals and medical instruments/equipment bought by the NHS is greater than the emissions from either building energy use or travel; rightly, so it is a priority issue. However, the proposed actions to deal with this sector are ambiguous and there are no progress deadlines.

2.15 The Defra ‘product roadmap’ exercise developed an approach to identify major impacts in the lifecycle energy use of a product which will then help target interventions. It would be useful to apply the approach to products procured by the NHS. The Environment Agency’s procurement strategy takes a risk based approach, focussing on ‘biggest impact’ (whether due to activity or size of spend) suppliers first; this could provide a useful model for the NHS. One area where the NHS could achieve some quick wins, and where there are various ongoing initiatives and success stories to inform thinking, is in the procurement of food and drink. What appears a piecemeal approach by
various NHS bodies to procuring fresh, locally produced and organic food could become a national initiative, and form a useful case study.

Waste management

Q7. **Will the measures proposed help your NHS organisation reduce carbon emissions from waste?**

Q8. **What further measures, guidance and/or assistance would you or your organisation find useful to help implement lower carbon waste management?**

2.16 This is one area of the consultation document that has clearly defined targets and timescales. We welcome the proposal for every Trust to have a Waste Manager to help drive efficiency; our experience is that having a dedicated manager who knows the details of the site is the most effective way of delivering outcomes. Overall, however, we are disappointed with the scale of ambition in the targets, given the scale and cost of waste management for the NHS. It would be worth considering setting targets for the different waste streams, i.e. non-clinical waste and clinical waste (appreciating there are necessary differences in the way each are treated). For example, given the scale of food waste it could become a requirement for food and organic waste to be composted or converted into energy via anaerobic digesters. Waste is simply a resource in the wrong place.

Other

Q9. **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?**

2.17 It is hard to comment on what data should be collected without knowing exactly what is included within the scope of 'The NHS'. However, NHS bodies do need to capture business travel emissions as well as building emissions. There is no mention of measuring other elements of travel, in particular air and rail travel. Data collection has to be mandatory (and ideally should be embedded within performance management processes and scorecards).

Q10. **How should NHS leaders in carbon reduction report their progress and how should laggards be shown up?**

2.18 The reporting/responsibility for carbon management should lie with the Chief Executive of each NHS Trust or business unit. It should be treated like any other key performance indicator.
Q11a. How useful have the existing nationally mandated energy targets been in driving carbon reduction in your organisation?
Q11b. Should new national targets be set beyond 2010 or how could they be set locally?

2.19 We have used various government targets as a guide such as the one for all new vehicles to be below 130g/km CO$_2$ by 2010. We have achieved this already.

Q12. Are the proposed commitments, incentives and measures the right ones to ensure your organisation reduces its carbon dioxide emissions?
Q13. What further support/incentives does your organisation need to implement change to reduce carbon dioxide emissions?
Q14. What are the barriers that stop us in the NHS achieving more carbon reduction sooner?

2.20 We have no comments to make on Q12-14.

Q15. What else could the NHS be doing to reduce its carbon dioxide emissions?

2.21 The draft Strategy does not mention sustainable construction other than a recommendation that new healthcare buildings be required to meet BREEAM Healthcare Excellent standard. For example, do NHS bodies have a good understanding of the rate at which different types of operational assets deteriorate, in order to be able to plan and forecast refurbishment and replacement more accurately? Is there an emphasis on re-using rather than disposing of materials during construction? Our operational team is developing a ‘carbon calculator’. This will become embedded within project management procedures and used to inform options appraisal, minimise the climate change impact of the preferred option and record the actual impact on completion. We would be happy to share our experience in this field.

2.22 Another key area is responsible pension fund investment. The investment of the Environment Agency’s £1.5 billion pension fund in equities, bonds, property and private equity is one of its largest external environmental impacts. We have an investment strategy that incorporates an environmental overlay strategy, which requires our external fund managers to take account of financially material environmental risks and opportunities (such as climate change) in their investment process. We also have a target to be recognised as a leader in responsible investment. As Europe’s largest employer with 1.3 million staff (5% of the UK workforce), we would recommend the NHS considers how to ensure its pension fund delivers for the environment.
Q16. **What else do we need to measure to stimulate and demonstrate improvement?**

2.23 High level commitment and engaging staff is key. Measuring and reporting on the performance of senior and executive managers is one way of doing this. Measuring the renewable energy generated at a site and displaying it in the reception, along with staff communications is another way.

Q17. **Are there areas where you feel the NHS can and should be more ambitious?**

Q18. **How do we balance the needs of patients today with the needs of the environment tomorrow?**

2.24 We have no comment to make on Q17 and 18.

Q19. **What roles can NHS partners play at local and regional levels to help support NHS carbon reduction?**

2.25 Hospitals could be effective places to target energy efficiency messages (and available support mechanisms) for particularly vulnerable groups. There is scope for partnerships with the Energy Savings Trust, local authorities and others on initiatives like handing out free/reduced cost low energy bulbs.

3.0 **CONCLUSIONS**

3.1 It is encouraging to see the NHS attempting to quantify its carbon footprint, and identifying measures to reduce emissions. The draft Strategy sets out a laudable aim of wanting to meet, and exceed, the national target to reduce carbon emissions by 60% by 2050. The NHS also wants to be the best exemplar of good practice for a major national public sector organisation. As it stands, the draft Strategy will not deliver these outcomes. It needs considerable refinement; critically it needs specific targets and timescales for delivery. We have attempted to provide constructive commentary, illustrated with our own practical experiences. We would be delighted to discuss issues further.

**FURTHER INFORMATION**

Further information and background to this response can be obtained from Tony Grayling, Head of Environmental Policy, either by telephone on 020 7863 4028 or by e-mail at tony.grayling@environment-agency.co.uk

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