



Sustainable  
Development Commission

# Sustainable Development in Government

2007

## Every tonne of contaminated land

treated by the pilot charcoal project can be brought back into use.

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# **Sustainable Development in Government**

**Annual Report 2007**



**Sustainable**  
Development Commission

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## Abbreviations

<b>AGO</b>	Attorney General's Office	<b>GHG</b>	Greenhouse Gas
<b>BERR</b>	Department for Business, Enterprise and Regulatory Reform	<b>HMCS</b>	Her Majesty's Court Service
<b>BRE</b>	Building Research Establishment	<b>HMCPIS</b>	Her Majesty's Crown Prosecution Service Inspectorate
<b>BREEAM</b>	Building Research Establishment Environmental Assessment Method	<b>HMPS</b>	Her Majesty's Prison Service
<b>CC&amp;E</b>	Climate Change & Energy	<b>HMRC</b>	Her Majesty's Revenue and Customs
<b>CDM</b>	Clean Development Mechanism	<b>HMT</b>	Her Majesty's Treasury
<b>CHP</b>	Combined Heat and Power	<b>HO</b>	Home Office
<b>CLG</b>	Communities and Local Government	<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>CMP</b>	Carbon Management Programme	<b>LOD</b>	Law Officers' Department
<b>CO</b>	Cabinet Office	<b>LSLO</b>	Legal Secretariat to the Law Offices
<b>CO<sub>2</sub></b>	Carbon dioxide	<b>LPG</b>	Liquefied Petroleum Gas
<b>CPD</b>	Collaborative Procurement Directorate	<b>MOD</b>	Ministry of Defence
<b>CPET</b>	Central Point of Expertise on Timber Procurement	<b>Moj</b>	Ministry of Justice
<b>CPS</b>	Crown Prosecution Service	<b>MoU</b>	Memorandum of Understanding
<b>DA</b>	Devolved Administration	<b>N/A</b>	Not Applicable
<b>DCA</b>	Department for Constitutional Affairs	<b>NAO</b>	National Audit Office
<b>DCMS</b>	Department for Culture, Media and Sport	<b>NDPB</b>	Non-Departmental Public Body
<b>DCSF</b>	Department for Children, Schools and Families	<b>NHS</b>	National Health Service
<b>Defra</b>	Department for Environment, Food and Rural Affairs	<b>NHS PASA</b>	NHS Purchasing and Supply Agency
<b>DfES</b>	Department for Education and Skills	<b>NK</b>	Not Known
<b>DFID</b>	Department for International Development	<b>NPS</b>	National Probation Service
<b>Dft</b>	Department for Transport	<b>NRP</b>	Natural Resource Protection
<b>DH</b>	Department of Health	<b>ONS</b>	Office for National Statistics
<b>DIUS</b>	Department for Innovation, Universities and Skills	<b>OGC</b>	Office of Government Commerce
<b>DLO</b>	Defence Logistics Organisation	<b>ODPM</b>	Office of the Deputy Prime Minister
<b>DPA</b>	Defence Procurement Agency	<b>OGCbs</b>	OGC buying solutions
<b>DREAM</b>	Defence Related Environmental Assessment Methodology	<b>OGDs</b>	Other Government Departments
<b>DSTL</b>	Defence Science and Technology Laboratory	<b>PUS</b>	Permanent Under Secretary
<b>DTI</b>	Department of Trade and Industry	<b>PMDU</b>	Prime Minister's Delivery Unit
<b>DWP</b>	Department for Work and Pensions	<b>PFI</b>	Private Finance Incentive
<b>EMAS</b>	Eco-Management and Audit Scheme	<b>RCPO</b>	Revenue and Customs Prosecution Office
<b>EEAS</b>	Energy Efficiency Accreditation Scheme	<b>RDS</b>	Rural Development Service
<b>EEP</b>	Energy Efficiency Programme	<b>SCP</b>	Sustainable Consumption and Production
<b>EMS</b>	Environmental Management System	<b>SD</b>	Sustainable Development
<b>EMSAS</b>	Environmental Management System for Army Sites	<b>SDAP</b>	Sustainable Development Action Plan
<b>EA</b>	Executive Agency	<b>SDC</b>	Sustainable Development Commission
<b>ECGD</b>	Export Credits Guarantee Department	<b>SDiG</b>	Sustainable Development in Government
<b>FSA</b>	Food Standards Agency	<b>SDGE</b>	Framework for Sustainable Development on the Government Estate
<b>FCO</b>	Foreign and Commonwealth Office	<b>SFO</b>	Serious Fraud Office
<b>FLEGT</b>	Forest Law Enforcement, Governance and Trade	<b>SOB</b>	Sustainable Operations Board
<b>FC</b>	Forestry Commission	<b>SOGE</b>	Sustainable Operations on the Government Estate
<b>FTE</b>	Full Time Equivalent	<b>SPAP</b>	Sustainable Procurement Action Plan
<b>GCD</b>	Government Car and Despatch Agency	<b>SPOB</b>	Sustainable Procurement and Operations Board
<b>GCOF</b>	Government Carbon Offsetting Fund	<b>SPTF</b>	Sustainable Procurement Task Force
		<b>SSSI</b>	Site of Special Scientific Interest
		<b>TSOL</b>	The Treasury Solicitors
		<b>VOA</b>	Valuation Office Agency
		<b>WDHS</b>	Whitehall District Heating System

# 1 Executive summary

The 2007 *Sustainable Development in Government Report (SDiG)* assesses the performance of central government operations against the targets of the Framework for Sustainable Operations on the Government Estate (SOGE). It aims to inform and inspire continuous improvements across government. The report is the sixth annual SDiG assessment and is produced by the Sustainable Development Commission (SDC) – government’s independent advisor and watchdog for sustainable development.

This report is based on the analysis of data given to us for the period of 2006/07. Since this time, and prompted in part by the circulation of the raw data sets within Departments, the SDC is very pleased to note that there has been considerable activity and encouraging signs that the Government is preparing to up its game with regard to the performance of its estate.

Serious effort is now being put in to creating an evidence base which is truly fit for purpose – a huge task. For example, whilst much remains to be done on this score we note that over the last six weeks Government has suggested new baselines for those departments with the greatest discrepancies (MOD, DCA/MOJ, CO) to give a more accurate reflection

of their actual performance. The SDC fully supports this exercise, and once the full upgrading of data is complete we believe that it will change the relative position of some departments. However, there is no evidence that the overall performance of the Government estate will have been shown to be any better over the period reported on. We are therefore very pleased to hear that a Delivery Plan is being put in place with a package of measures which, if fully implemented and sustained over time, have the potential to transform the actual performance of Government looking forward, and therefore hugely strengthen its ability to lead by example with respect to the private sector and wider society.

## Headline

Individual departments are still not on track to meet all their SOGE targets – particularly on carbon emissions from offices and road vehicles – although government as a whole is generally performing better this year than last year.

Government must now take radical and urgent steps to drive forward the changes needed to improve departments’ performance and prove beyond any doubt that it leads from the front.

## Key findings

Across government:

- Carbon emissions from offices fell by 4% compared to the 1999/00 baseline year, but nearly two-thirds of departments are not on track to meet their own 12.5% reduction target by 2010/11.
  - The 4% reduction in carbon emissions from offices is largely due to the improved performance of the MOD estate. If we exclude MOD, carbon emissions from the rest of government actually increased by 22%
  - Pan-government performance against this target is distorted by the fact that MOD still include data from a now privatised part of its estate (QinetiQ) in its 1999/00 baseline. As QinetiQ’s carbon emissions

are not included in MOD data for this reporting year, the reductions made against the baseline year appear to be greater. The SDC understands that over a third of MOD’s office carbon reductions can be attributed to the privatisation of QinetiQ<sup>1</sup>. If we exclude QinetiQ from MOD’s baseline data the emissions reductions made by MOD between 1999/00 and 2006/07 are lower than reported, and as a result carbon emissions from offices across the government estate have only reduced by 0.7%.

- Carbon emissions from vehicles increased by 1.5% against the 2005/06 baseline year. This shows no progress towards achieving the

target of a 15% reduction by 2010/11 and is an area of serious concern

- Energy efficiency per square metre improved by 21.7% against the 1999/00 baseline – higher than the target of 15% by 2010. However, without the improvements made by MOD, energy efficiency across the rest of the government estate has worsened by 3.3%
- 28.3% of electricity was obtained from renewable sources – far higher than the target of 10% by 2008
- Without MOD,<sup>2</sup> total waste arisings were reduced by 5.3% against 2004/05 levels – in excess of the target of 5% reduction by 2010
- 38.5% of waste arisings from the government estate were recycled in 2006/07 – almost meeting the 2010 target of 40%
- 82% of government-owned Sites of Special Scientific Interest (SSSIs) were in target condition – on track to meet 95% by 2010
- Some limited progress was made towards the target for reducing water consumption (-0.1%), but not enough to be on track to meet the target of 25% by 2020
- Overall performance on procurement 'Quick Wins' is hugely disappointing given that they

were introduced in 2003. Only 12 of the 21 departments reported that they included clauses on Quick Wins in all relevant contracts

- Just 46 of the 351 new build/refurbishment projects completed in 2006/07 were assessed against the Building Research Establishment Environmental Assessment Methodology (BREEAM). Of these, only 28 projects (i.e. 8% of all completed projects) met the required standard
- Only a quarter of the government estate is currently covered by an Environmental Management System (EMS)
- Only 10 of the 21 departments indicated that their Permanent Secretaries have the SOGE targets incorporated into their performance agreements.
- Major problems persist on data collection and accurate reporting, particularly on travel, waste and water. This undermines the government's ability to assess and manage its own progress accurately
- The performance of the 'big 5' departments (MOD, DWP, HMRC, HO and DCA) heavily influences pan-government performance due to their relative scale (84% of FTEs<sup>3</sup> and 85% of total floor space on the government estate).

## Commentary

The harmful effects of a changing climate can already be seen. We need urgent and bold leadership by government and within government, to ensure that both mitigation against and adaptation to climate change, become a practical as well as a policy reality. The UK will soon become the first country in the world to enshrine its climate change commitments in legislation, through the Climate Change Bill, and the Prime Minister has signalled that he may call for even greater cuts in the UK's carbon emissions. This clear statement of intent must now translate into leadership on the ground – across government and the wider public sector – and must include accountability for sustainable operations from the top of the civil service and the highest level of each department.

Unless government takes serious action to cut its own carbon dioxide emissions, it will lack credibility in its challenge to society to do the same. The reputational risk for government is huge. At a time when prominent businesses, such as Marks and Spencer, are making strategic efforts to achieve challenging environmental goals, government's own record looks particularly weak.

*Securing the Future* clearly set out the government's intention to lead by example in dealing with enormous global challenges, such as those presented by climate change, and to do so in a sustainable manner for the benefit of current and future generations. Such leadership must extend to the way government manages its own estate and other operations. In doing so, government needs to

think beyond its current environmentally focused SOGE targets if it is to play a full role in delivering on its own objectives of creating sustainable communities, a strong and sustainable economy, and living within environmental limits. This must include preparing to respond to the challenges of the future.

Yet the 2006/07 data shows that pan-government performance in areas such as water consumption and carbon dioxide emissions from road vehicles and offices continues to fall short of what is needed to achieve the targets. Drastic improvement is urgently needed to remedy the situation. Indeed, current performance on the reduction of carbon emissions will make government's target to be carbon neutral by 2012 extremely difficult to achieve without resorting to major carbon offsetting. In our view, offsetting should only be implemented once all possible emission reductions have been achieved.

Further, there are several areas where data is either not available or poor. This not only makes it difficult for departments to properly manage their own operational impacts and monitor progress against the targets, it also makes the true performance of departments and the whole government estate difficult to accurately assess. This matter requires urgent attention, and the SDC welcomes that serious steps are now being taken across government to address this situation

Government also needs to make better use of the levers and mechanisms that can help it achieve the results needed – in particular its huge spending

power. Government needs to capitalise on the 'win win' opportunities presented by sustainable procurement, especially on collaborative contracts, supplier engagement and more simple steps like using the mandatory 'Quick Wins' product standards. Only a little over half of all relevant contracts specify these standards, despite the requirement having been in place for over four years.

The SDC is pleased to see that over the last year government has introduced a number of initiatives to help drive forward improvements in operational performance, taking on board some of the recommendations made in SDiG 2006. However, it must now build on these initiatives with greater urgency and resourcefulness if it is to get a real grip on its own sustainable development agenda.

We know from first hand experience with government departments just how passionate and motivated many people are in embracing sustainable development in their own organisations, and we welcome their cooperation in helping to create this report. But this passion must be supported by properly resourced action plans that drive real improvement on the ground, and integrate sustainable development into all core business activities.

The SDC hopes that the following key recommendations, together with those in the main body of the report, will help government make the urgent improvements needed to meet its targets and wider SD commitments. We look forward to seeing the government's full response.

## Key recommendations

### Existing targets

- Departments now need to take radical actions to ensure targets translate into real progress, particularly on carbon emissions. These actions will vary according to individual departments' differing circumstances; some examples of such radical actions include:
  - A high level delivery group with key budget holders responsible for delivering sustainable operations
  - A central invest-to-save fund for each department developed either with Carbon Trust/Salix support, or managed within each department, to finance capital investments
- A progressive reduction of energy and utilities budgets in line with year-on-year carbon, water and waste target expectations
- The Sustainable Procurement and Operations Boards (SPOB) must ensure that each department provides evidence-based trajectories showing exactly how their estate, procurement, travel and other strategies will deliver improvements each year to meet short and longer term SOGE targets and other sustainable development commitments. The overall strategic approach to improving

operational performance should be reflected in Sustainable Development Action Plans.

- SPOB should define carbon neutrality and advise departments on how and when

offsetting can be used to help achieve it. This should indicate how carbon emissions will be avoided and reduced, and ensure that any offsetting is used only as an interim measure.

## New targets and commitments

- Departments should agree on a government-wide sustainable travel policy to encourage travel avoidance through smarter working, and more sustainable travel where there is no practical business alternative to travelling
- SPOB should introduce an air travel target to encourage travel by alternative, more sustainable, modes whenever travel is unavoidable
- SPOB should consider introducing more ambitious future waste minimisation and recycling targets to ensure departments continue to challenge themselves and create opportunities for improvement
- We make a number of recommendations to encourage more sustainable procurement practices to improve operational performance and encourage best practice through supply chains, including:
  - Government needs to set out exactly how the commitments in the *Sustainable Procurement Action Plan*<sup>4</sup> (SPAP) and *Transforming Government Procurement*<sup>5</sup>,

and recommendations of the PMDU report, will be prioritised and taken forward, by whom, and when

- Government needs to develop, implement and monitor a strategic pan-government supplier engagement programme to ensure that the products and services government procures help it meet its sustainable operations targets and encourage sustainable practices down supply chains, as well as helping it meet the UK's wider sustainable development goals.
- Each department must take appropriate steps to ensure that Quick Wins are adopted in all relevant contracts, and that robust systems are in place to monitor compliance
- To ensure accountability and high level leadership, Permanent Secretaries and Senior Civil Servants should have the SOGE framework targets and other key sustainable development commitments explicitly built into their personal objectives at the earliest opportunity, with quarterly monitoring of progress.

## Data, coverage and support

- To improve reporting, SPOB should ensure there is a process in place to enable all departments to account for changes to their estates, and the corresponding impact, by managing a central register to track changes. SPOB and the SDC should then agree which changes are significant enough to warrant a recalculation of baseline data, whether these are positive or negative.
- To ensure that the true footprint of government activity is being examined, managed and reported, government needs to discuss and confirm how the SOGE targets will in future be applied to all operations on and off the government estate, including NDPBs, non-Ministerial departments and major outsourced operations. As a minimum, the SDC encourages these organisations to shadow the process, and set in place management information systems capable of providing the necessary data.

- Departments need to map out the full data requirements for driving forward sustainable operations, including procurement, and ensure they have appropriate management information systems in place capable of providing full and accurate data across all of their operations. They should also ensure the data is robust, through closer scrutiny of information and, where appropriate, external verification of submitted datasets. Where there are major data collection difficulties, departments need to set out how they intend to resolve these. These discussions should be held under the overall auspices of the new SPOB sub-group on performance management.
- SPOB's new Sustainable Practitioners Forum should consider how departmental support, advice and funding available for investment could be better managed, coordinated, publicised and monitored for uptake and effectiveness. The Forum should also create opportunities for departments to share practical experiences with the private sector to benefit from cross-fertilisation of innovations and solutions.



1

# Introduction

**153,000m<sup>3</sup> of water**

saved each year at Regent's Park through the drilling of a borehole.

Edward Strickland, Project Sponsor, at The Royal Parks.

# 1 Introduction

The Sustainable Development Commission (SDC) is the UK government's independent adviser and watchdog<sup>6</sup> on sustainable development. Our work includes assessing the sustainability of what the government does – i.e. its policies and services – and how it goes about this – i.e. its operations. In this report we assess the impact of the government's estate and other operations against its own performance-related targets.

This is the sixth *Sustainable Development in Government Report (SDiG)*, covering the period from April 2006 through to March 2007. It is based on information reported by 21 core departments, along with executive agencies (EAs) and self-selected non-departmental public bodies (NDPBs).

The report highlights good performance, as well as those areas where there is a clear need for improvement, and provides recommendations to support further progress.

## 1.1 Sustainable Development in Government (SDiG)

The UK government has committed itself to lead by example on sustainable development. On the global stage, it has positioned itself at the centre of the policy debate on many elements of the sustainable development agenda, most visibly on climate change. At the national level, the UK Sustainable Development Strategy, *Securing the Future*,<sup>7</sup> sets out a long-term vision for sustainable development, including a package of challenging targets and commitments.

Meeting these goals will require concerted action from government, business and consumers. But government believes that this cannot be achieved for the country as a whole if it is not prepared to lead the way.<sup>8</sup> As such, *Securing the Future* committed government to review its targets for the operational performance of its estate. In its own words,

“a sustainably managed estate” is one that has:

- “modern, resource efficient, low energy usage buildings
- well conserved and managed land
- efficient use of space and ways of working
- the principles of sustainable development embedded into working practices.”<sup>9</sup>

Further, it notes that “sustainable operations are wholly consistent with good value for money and efficiency, and are part of building a modern and resource efficient public sector.”<sup>10</sup>

*Securing the Future* also transferred the responsibility of assessing progress against the targets to the SDC, as part of its strengthened watchdog role.

## 1.2 Sustainable Operations on the Government Estate (SOGE)

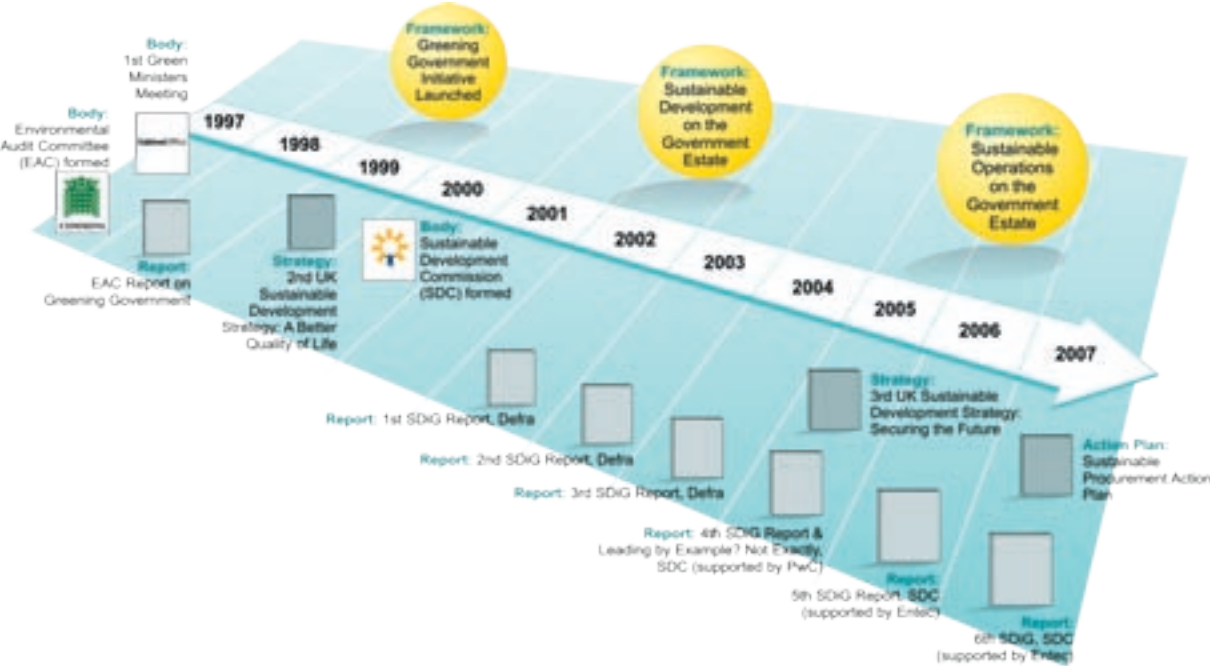
### 1.2.1 A new framework

In 2006, government developed a new framework for assessing the sustainability of its operations – the Sustainable Operations on the Government Estate (SOGE) framework. This replaced the 2002

Framework for Sustainable Development on the Government Estate (SDGE). Figure 1.1 shows the journey through the key sustainability in government initiatives since 1997 to the current time.



**Figure 1.1** Timeline of Sustainable Development in Government since 1997



The new SOGE framework was developed by the Sustainable Operations Board (SOB), whose members were drawn from the key Whitehall departments at senior management level. SOB proposed a more outcome focused approach with fewer targets. This was endorsed by Ministers and was subsequently launched as the SOGE targets by the Prime Minister in June 2006, alongside recommendations from the Sustainable Procurement Task Force<sup>11</sup> for a national action plan on sustainable procurement.

The government later published a response to the Task Force report in its *Sustainable Procurement Action Plan* (SPAP, March 2007).<sup>12</sup> The SPAP added a number of commitments to the SOGE framework, and built on the SDC’s strengthened watchdog role by requiring it to report progressively on procurement in the annual SDiG report, and in its scrutiny of departmental Sustainable Development Action Plans (SDAPs).

This report is the first assessment of government performance against the new SOGE framework.

**1.2.2 The SOGE framework**

The SOGE framework consists of three elements:

- SOGE targets – 14 outcome-orientated performance targets to support delivery of three of the four UK Sustainable Development Strategy’s shared priority areas for immediate action.<sup>13</sup> In addition, two targets have been carried forward from the former SDGE framework, as target dates had not been reached. These targets relate to acquiring electricity from renewable and combined heat and power sources
- Eight ‘Government to Mandate’ requirements. These cover the mechanisms that departments should adopt to help deliver the SOGE targets, improve data collection and reporting, and broaden out the targets. One of the eight requirements was to mandate “accepted elements from the Sustainable Procurement Task Force National Action Plan”, as subsequently published in the SPAP
- Commitments from Annex B of the SPAP, covering leadership and accountability on sustainable procurement; budgeting and accounting practice; building capacity; raising standards; and supplier engagement.

The first two elements applied to the reporting period April 2006 to March 2007; the third became applicable on publication of the SPAP in March 2007.

As the SPAP was published at the end of the 2006/07 period, performance against its commitments has not been fully assessed this year. However, the SDC did ask departments to report some data, to start building a picture of performance in expectation of greater coverage in 2007/08, and to

signal to departments that the SDC will be assessing the sustainability of their procurement practices in line with SPAP commitments. Further, some of the SPAP requirements, for example on 'Quick Wins' product standards and timber procurement, were already mandated before the SPAP.

The complete list of targets and commitments, along with a comparison with the previous SDGE targets, is provided in Annex B.

### 1.2.3 Scope of assessment

As with the previous framework, the new targets apply to the UK-based operations of all central government departments and their executive agencies (EAs). As well as typical administrative functions expected of government departments, the report captures less obvious operations such as prisons, courts, job centres, and the Royal Parks. The full coverage by each department is detailed in Appendix E.

In order to capture the performance of government operations more fully, this year departments were encouraged to include self-selected non-departmental public bodies (NDPBs). The SDC also sought some information on the extent to which "sustainable operations targets have been cascaded to suppliers and embedded into departmental contractual activities", as required by the SPAP. From next year, the SDC will be seeking far more information on the operational activities of government's suppliers to ensure that the total impact of government's operations are understood and reported on comprehensively.

The targets largely exclude:

- the overseas estate (for example FCO posts). However, one exception is the MOD, which has reported data from some of its overseas operations
- the devolved administrations (DAs) for Wales, Scotland<sup>14</sup> and Northern Ireland (although some activities of the central Whitehall departments are located in the DAs, for example MOD bases, DFID's East Kilbride office, or DCA's offices in Scotland and Wales). The exception is the biodiversity target, which does cover all UK Sites of Special Scientific Interest (SSSIs)
- the wider public sector: local government, NHS trusts, police forces and constabularies, and educational establishments.

### 1.2.4 Report structure

This year's SDiG report comprises five key chapters:

#### Chapter 2

Performance assessment and recommendations – summarises departmental and pan-government performance by SOGE target area and the mechanisms in place for delivering sustainable operations; includes a discussion on the changing shape of government, data issues and coverage; and presents all the SDC's recommendations.

#### Chapters 3-5

A more detailed assessment of performance against the three Securing the Future priority areas covered by SOGE<sup>15</sup>:

- Climate change and energy
- Sustainable production and consumption (including procurement)
- Natural resource protection

Each chapter covers:

- Performance against the targets at departmental and pan-government level
- 'Normalised' data showing the data in units (i.e. water usage per person) to allow for greater comparisons between departments which vary in size and scope
- Benchmarking against the private sector where data is available
- A sample of what government is doing to improve performance
- What has helped departments and what has hindered them
- Recommendations.

## **Chapter 6**

Supporting mechanisms and processes

- an assessment of the mechanisms and processes which the UK government has mandated departments to implement to support delivery of the sustainable operations targets, e.g. Building Research Establishment Environmental Assessment Method (BREEAM), Environmental Management Systems (EMS) and Carbon Management Programmes.



# Performance assessment and recommendations

## **716.57 kWh of electricity**

saved through a trial of LED lighting, run in a section of one office. This amounts to a 25% cut.

Andrew Smith, Environmental Consultant, London, at the Department for Business, Enterprise and Regulatory Reform.



## 2 Performance Assessment and Recommendations

### 2.1 How is government performing overall?

#### 2.1.1 SOGE targets

The pan-government picture shows some progress in most areas, which is encouraging (Table 2.2). However, while performance appears to be on track to meet the targets on energy efficiency, waste reduction, recycling, Sites of Special Scientific Interest (SSSIs) and renewable energy, some areas are clearly not on track. In particular, progress on carbon emissions from offices and road vehicles is insufficient, and likewise for water consumption and combined heat and power (CHP).

It should be stressed that the pan-government position cannot be taken as representing improvement or progress across all parts of the government estate. Performance is variable across departments, and overall findings are skewed by the performance of larger departments which can mask the performance of individual departments when

looking at the pan-government picture (see Section 2.8 – ‘The ‘Big 5’ departments’). The overwhelming impact of the MOD, for example, means that even for target areas which have shown improvements overall, there may be mixed departmental progress. While the SDC has previously recommended that government focuses on those departments with the biggest impacts, the SOGE targets apply to each department, and each must play its part in leading by example on the government’s sustainable development agenda.

Traffic light indicators are used to illustrate performance against each of the SOGE targets. The colours are based on the level of progress made using a RAG+ system (red, amber, green and blue), as set out in Table 2.1.

**Table 2.1** Traffic light indicators for performance against the SOGE targets

	‘Excellent progress warranting recognition’ which could mean a future target performance level has already been achieved.
	‘Good progress’ which is defined as being on track to hit the target.
	‘Some progress’ which recognises that some progress has been made, but is not sufficient to be on track to meet the target.
	‘No progress or poor progress’ where no progress or in our judgement only slight progress has been made. Red is also used where data was ‘not known’.
	Not applicable

Table 2.2 shows pan-government performance against each of the SOGE targets, its traffic light rating and brief context to explain performance.

**Table 2.2 Pan-government performance against SOGE targets**

Target area	Target	Pan-governmental performance against target baseline year	Context
<b>Climate Change and Energy</b>	Reverse the current upward trend in carbon emissions by April 2007.	<b>10 of 21 departments have reported a reduction in carbon emissions compared to 1999/00</b>	This target is measured against the 1999/00 baseline year. Therefore, any reduction in carbon emissions from offices from the baseline would indicate good progress for this target.
	Reduce carbon emissions (from offices) by 12.5% by 2010/11, relative to 1999/00 levels.	<b>4.0% reduction</b>	Overall carbon emissions for the civil estate have increased by 22% when the MOD efficiencies are removed. Inversely, DCA reported poor performance, due to data and reporting problems, which has negatively skewed pan-government performance.
	Reduce carbon emissions (from road vehicles used for government administrative operations) by 15% by 2010/11 relative to 2005/06 levels.	<b>1.5% increase</b>	DCA has reported significantly worsened performance against this target due to lack of data for the baseline year. If DCA was removed, pan-government carbon emissions would have <i>decreased</i> by 0.9%. Conversely, if we removed MOD, pan-government carbon emissions from road vehicles increased by 5,962 tonnes of CO <sub>2</sub> or an <i>increase</i> of 6.4%. This is because MOD, who account for more than a third of pan-government road transport emissions, reported a reduction of 3,839 tonnes CO <sub>2</sub> .
	Departments to increase their energy efficiency per m <sup>2</sup> by 15% by 2010, relative to 1999/00 levels.	<b>21.7% improvement</b>	It should be noted that overall energy efficiency for the civil estate is worsening when the MOD efficiencies are removed: 3.3% worse when MOD excluded.
	Carbon neutral.	<b>Not assessed this year</b>	Departments have not been provided with guidance on how to reach 'neutral', and the debate on offsetting continues. If offsetting is seen as a key mechanism to achieve neutrality, and this can be applied in 2010 to hit this target, government should be focusing on carbon efficiency and not neutrality at the present time.



<b>Sustainable Consumption and Production</b>	Departments to reduce their waste arisings by 5% by 2010, relative to 2004/05 levels.	<b>5.3% reduction</b>	The MOD, which produces 50% of government waste, does not have 2004/05 baseline data, and therefore its 2006/07 data has been discounted for this early pan-government performance indication.
	Departments to increase recycling to 40% of their waste arisings by 2010.	<b>38.5% recycled</b>	Recycling includes reuse.
<b>Natural Resource Protection</b>	Departments to meet or exceed the aim of having 95% of SSSIs in sole ownership in target condition by 2010.	<b>82% SSSIs in target condition</b>	Target condition includes SSSIs in 'favourable' and 'unfavourable recovering' condition.
	Reduce water consumption by 25% on the office and non-office estate by 2020, relative to 2004/05 levels.	<b>0.1% reduction in water use</b>	
	Reduce water consumption to an average of 3m <sup>3</sup> per person/yr for all new office builds or major refurbishment projects.	<b>2.9 m<sup>3</sup>/FTE</b>	Only DfT reported this target as being applicable for 2006/07, and it achieved the target.
<b>Renewable Energy and CHP</b>	Departments to source at least 10% of electricity from renewables (by 31 March 2008).	<b>28.3% of electricity sourced from renewable sources</b>	
	Departments to source at least 15% of electricity from Combined Heat and Power (by 2010).	<b>5.7% of electricity sourced from Combined Heat and Power</b>	

## 2.2 How are departments performing?

### 2.2.1 Performance star ratings

The ‘star rating’ illustrates whether departments are on track to meet the SOGE targets and awards points for performance, including bonuses for exceptional performance, good coverage and data verification. The star rating indicates the progress made by departments against the whole package of SOGE targets and is based on the overall percentage of available points achieved, as detailed in Table 2.3. Target points are awarded for each of the SOGE targets based on the level of progress made, as detailed in Appendix D. The SDC has judged, using straight-line extrapolations in most cases, the level of progress needed for a department to be seen as being on track to meeting future targets. As such, even “5 star” departments are not there yet – they still have much to do, but are broadly on track to meet the targets if they continue to exert a similar effort. In fact it may well become harder to continue making progress on targets such as carbon emissions reduction, as many “low-hanging fruits” will now have been picked. See Appendix D for the full performance assessment methodology.

The overall performance of departments is illustrated by the star ratings in Table 2.4. Departments are ranked, with the highest scorer at the top. However, it should be stressed that a department’s position on the league table only provides a crude indication of relative performance, due to individual context (for example, significant changes in the estate or improved data collection). Star ratings do not capture the comparative size and complexities of departments, let alone their overall impacts.

We have also added a ‘direction of travel’

indicator to show whether a department has scored more, fewer or the same number of stars in comparison to last year’s SDiG assessment. While a baseline analysis is important for gauging improvements against a target, direction of travel analysis helps assess whether or not departments are making year on year improvements. However, comparisons of performance between 2005/06 and 2006/07 are difficult in part because of the transition between the old SDGE framework to the new SOGE framework. The two frameworks are comprised of slightly different targets. For example, the old carbon emissions target covered the whole estate, whereas the SOGE target covers only carbon emissions from offices relative in both cases to the 1999/00 baseline year. Reporting on this target requires a review of performance in the 1999/00 baseline year to determine the contribution from office activities to the total emissions figure. A number of departments have not been able to disaggregate their 1999/00 baseline to identify the energy from offices alone. Others may have deliberately chosen to maintain the inclusion of the non-office estate (to provide a total rather than partial figure).

Another drawback of the direction of travel analysis is that progress against the targets is not always linear and therefore the performance change between any two years does not necessarily indicate the likelihood of a department meeting a target. Likewise, a lack of improvement in the direction of travel between any two years does not mean that a department will not be able to recover and still meet the target.

**Table 2.3 Star rating scoring thresholds**

Performance star rating	Definition	‘Target points’ includes a potential to score bonus points for very good performance over and above meeting the target.
	Less than 25% of target points	
★ ☆ ☆ ☆ ☆	25 – 39% of target points	
★ ★ ☆ ☆ ☆	40 – 54% of target points	
★ ★ ★ ☆ ☆	55 – 69% of target points	
★ ★ ★ ★ ☆	70 – 84% of target points	
★ ★ ★ ★ ★	85% or more of the target points	

**Table 2.4 SOGE performance star rating**

Department	% of points	Star rating	Star rating direction of travel	Departmental scale (staff as FTE)
DH	97.3%	★★★★★	↑	3,977
CLG	89.4%	★★★★★	↑	14,660
DTI	88.2%	★★★★★	↑	16,008
ONS	87.1%	★★★★★	↑	4,983
FSA	86.7%	★★★★★	↑	663
DfT	79.0%	★★★★☆	↑	19,636
DFID	77.3%	★★★★☆	↑	1,735
DWP	74.1%	★★★★☆	↔	120,277
ECGD	74.1%	★★★★☆	↑	294
HMT	74.1%	★★★★☆	↑	6,085
MOD	73.2%	★★★★☆	↑	300,070
Defra	72.9%	★★★★☆	↑	25,215
HMRC	65.3%	★★★☆☆	↔	95,152
HO	60.0%	★★★☆☆	↑	72,360
DfES	57.6%	★★★☆☆	↑	6,055
LOD	49.4%	★★☆☆☆	↑	10,024
FCO	43.5%	★★☆☆☆	↓	3,919
CO	42.4%	★★☆☆☆	↑	2,608
FC	31.8%	★☆☆☆☆	↑	1,331
DCMS	31.8%	★☆☆☆☆	↔	830
DCA*	17.6%			37,947
<b>Pan-government**</b>	<b>65.2%</b>	<b>★★★☆☆</b>	<b>↑</b>	<b>743,829</b>

\* DCA was unable to provide data of sufficient detail and quality to allow adequate comparisons with baseline performance, or to recalculate the baseline data to allow for comparability. Consequently a large increase in the size of its estate (the addition of magistrates' courts in April 2005) has significantly inflated DCA's operational impacts. Please refer to Section 2.7 for further details.

\*\* The pan-government percentage is based on the average number of points scored by departments against each of the SOGE targets. It is not an average of the departmental percentages.

## 2.3 Performance against SOGE targets

Departmental performance against each of the 14 SOGE targets is shown in Table 2.5, using the traffic light ratings detailed in Table 2.1. The pan-government traffic lights are based on the aggregate of actual departmental data, not an

average of departments' traffic light ratings. Where departments did not report data for either the baseline year or the performance year, they were removed from the pan-government totals to ensure consistency.

## 2.4 Key findings on performance

### Highlights

- DH achieved the highest overall score with 97%, and there was only one target (energy efficiency) for which it did not have at least good progress
- The departments with five stars (DH, CLG, DTI, ONS and FSA) are broadly on track to meet their targets, although not necessarily in all areas. A further 12 departments have higher star ratings this year, some having made significant improvements against 2005/06 performance:
  - 4 star increases from last year - ECGD
  - 3 star increases from last year - DfT
  - 2 star increases from last year - CLG, FSA, HMT, MOD, ONS and LOD
  - 1 star increase from last year - CO, Defra, DfES, DFID, DH, DTI, FC and HO.
- 16 of 21 departments have achieved more performance stars this year than last year
- Overall government reported excellent progress against the energy efficiency and waste reduction targets, and good progress against recycling, SSSI condition status, procurement of renewable electricity and reversal of the upward trend in carbon emissions targets
- The recycling target had the highest number of individual departments which reported excellent progress (14 of the 21)
- The renewable energy target is the only target for which all departments have achieved at least some progress. Of the 21 departments, 12 reported excellent progress, eight reported good progress and only one reported some progress
- MOD's performance has been largely positive and, due to its huge impact on government operations, it has positively skewed pan-government performance on most targets. However, on waste, water and CHP sourced-electricity, MOD's performance has a large negative impact.

### Lowlights

- No department has achieved good progress on all targets and progress at the individual department level is in many cases less than required to be on track to meet SOGE targets
- When the MOD is discounted, the civil estate is performing poorly on carbon emissions from offices (increased by 22% when MOD excluded) and energy efficiency (3.3% worse when MOD excluded)



- Over half of departments have reported increased carbon emissions from 1999/00
- 13 of 21 departments are not on track to meet carbon reduction targets
- Carbon emissions from vehicles, a key target for combating climate change, increased by 1.5% against the 2005/06 baseline year. This shows no progress towards achieving the target of a 15% reduction by 2010/11
- CO, DCA, DCMS, FC and FCO have made poor progress in six or more of the 13 target areas
- FCO is the only department with fewer stars this year. This is in part due to a poor score on the climate change and energy targets
- The SDC has not awarded a star rating to DCA this year. DCA's performance was due to its rapid growth and it was unable to provide recalculated baseline data to allow for comparable analysis. In addition, DCA was unable to provide any waste data. As a result the assessment does not capture the department's actual performance in 2006/07. (see section 2.6 for further details)
- Coverage is still poor:
  - Only 85% coverage of Executive Agencies - this is the same as last year, yet coverage of EAs is mandatory
  - Only six of 500 NDPBs have reported separately. Unfortunately, it is unclear how many NDPBs have been covered under core departments' returns.

## 2.5 The QinetiQ effect

Almost three quarters of CO<sub>2</sub> emissions from offices across government are from the MOD estate. As such, any change in performance by the MOD has a significant effect on pan-government performance.

For the 2006/07 reporting year, MOD reported substantial reductions in carbon emissions from offices against the baseline year, and this has had a significant positive skewing effect on pan-government performance. It is therefore important to explore how improvements have been made, calculated and reported, including the contribution of one-off 'windfalls', and those resulting from structural changes and major estate disposals, as opposed to those from performance improvements across the MOD estate<sup>16</sup>.

Based on the 2005/06 reporting year, the National Audit Office (NAO) recently reported that "estate changes – in particular, the privatisation of QinetiQ – account for almost all the reductions in energy and carbon within the MOD."<sup>17</sup> MOD privatised QinetiQ in 2001, and at that time it was agreed between MOD and Defra (which was then responsible for producing the annual SDiG report) that QinetiQ's emissions should be retained in the MOD 1999/00 baseline data, but not included in future reporting. It was considered that this would show the change made to the MOD's estate more clearly, as well as give an indication of the change in government's operational output from year to year.

While this situation was heavily footnoted at the time, this context has been gradually lost. As a result of the removal of QinetiQ data after 2001, it appears that there has been a **21,897** tonne reduction of carbon emissions from MOD offices. If, however, we remove QinetiQ from the 1999/00 baseline, MOD's 2006/07 performance would change from an **11.6%** reduction in carbon emissions to a **7.7%** reduction. Likewise, pan-government performance would change from a **4.0%** reduction in carbon emissions to a much smaller **0.7%** reduction.

However, we have not recalculated the carbon emissions figures in this report to account for this issue, so all figures reported for the MOD include QinetiQ in the baseline unless stated otherwise. The SDC reports the data as provided by departments, and considers cases for recalculating baselines to account for changes to their estates. The way that baselines have been handled whenever there have been structural or other estate changes has been far from satisfactory and led to much confusion and reporting difficulties. We make recommendations in this report to address this important issue.

While the disposal of unused or inefficient portions of the government estate is encouraged, it is important that departments can distinguish performance improvements that result from structural changes from those which are the result of other operational changes. Government should record all changes to its estate centrally,

and departments then have a duty to recalculate baseline data to account for significant changes to their estates, whether additions or subtractions. This is vital if we are to ensure comparability and accurate reporting over time. Otherwise estate changes could result in performance appearing significantly better or worse than is actually the case.

The crux of this issue is the tension between reporting a footprint for government and reporting an assessment of performance. Simply reporting on the absolute outputs of the aggregated government estate would show what is actually being produced or consumed by government each year, and this type of reporting fits more closely with greenhouse gas (GHG) reporting standards. However, the SDC feels

that comparability of performance over years is vital to understanding performance trends, but that this must be done consistently. The rebaselining process coupled with our analysis of the data provided assesses the performance of each department and its pan-governmental contribution, with the aim of encouraging behaviour change and performance improvement.

The energy efficiency target for the MOD has been calculated using 2003/04 as the baseline year not 1999/00, due to the lack of floor area data prior 2003/04. Therefore, MOD's energy efficiency has not been affected by the privatisation of QinetiQ, which occurred in 2001.

## 2.6 DCA's reporting issues

The transfer of the magistrates' courts from local authorities to Her Majesty's Courts Service (an Executive Agency of DCA) in 2005 has been one reason for the data and reporting issues of DCA. In particular, this has caused problems with the quality of the baseline data for evaluating performance against the targets.

DCA does not hold historical data from local authorities. Therefore, it has been difficult for DCA to add baseline information for the magistrates' courts to its existing baseline. This lack of quality data is certainly one contributing factor to the seemingly poor performance reported by DCA, as the baseline year does not include a sizeable portion of the estate reported in 2006/07. In reality, when coupled with other data management issues, this means that data from the baseline year and the performance year are not comparable, and that DCA's comparative performance is not actually known.

However, DCA reporting and data problems extend beyond the issue of the addition of the magistrates' courts. The magistrates' courts were added to HMCS, not to the core department itself. Unfortunately, DCA was unable to supply a split baseline for the core department and its Executive Agencies as the data for these organisations is combined. In some cases, notably waste and recycling, DCA was unable to provide data for the current performance year.

This meant that DCA was unable to present suitable cases for using alternative baseline years for the targets, and that the magistrates' courts, despite the poor quality of data, were also included in their 2006/07 returns. DCA did submit a case to

recalculate baseline data for the carbon emissions from offices and road vehicles targets. However, this case was rejected by the SDC due to a lack of information. The department reported a new water baseline in their submission, which was again reported as a total departmental figure, but this was not done through the formal rebaselining process. This points to a systematic failure across the DCA to collect and record information appropriately, including incorporating new data from estate changes, dating back to the baseline year.

For these reasons, DCA's figures are misleading, and do not represent the true performance of the department in 2006/07.

As one of the 'big 5' departments, it is likely that DCA's results skew pan-government performance. In this situation the skew is negative as DCA's performance appears to have worsened due to lack of comparable data between the baseline year and the current performance year.

A lack of understanding about how a department has performed, resulting from poor data collection and management, represents the worst kind of performance. The SDC feels that it is important to report the data as it has been presented and any reported poor performance due to poor data quality should be viewed as the strongest incentive for the urgent improvement of data collection.

However, it is important to note pan-government performance if DCA's performance were removed. Table 2.6 outlines the effect of DCA's reported performance on the pan-government figures. Although there are impacts on some of the

percentages, the overall findings of this report are largely unchanged. The only exception to this is carbon emissions from road vehicles, which without DCA data would show a 0.6% reduction from the baseline year.

The Ministry of Justice (MoJ), which was created from the former DCA, will have the challenge of re-packaging its performance data next year, and should discuss proposals for future reporting with the SDC as a matter of urgency.

**Table 2.6** The effect of DCA on pan-government performance

Target	Pan-government performance with DCA	Pan-government performance without DCA
<b>Reduce carbon emissions</b> (from offices)	4.0% reduction since baseline levels	5.8% reduction since baseline levels
<b>Increase energy efficiency</b> (kWh/per m <sup>2</sup> )	Energy efficiency has improved by 21.7% since baseline levels	Energy efficiency has improved by 22.6% since baseline levels
<b>Reduce carbon emissions</b> (from road vehicles used for government administrative operations)	Carbon emissions arising from administrative road transport increased by 1.5%	Carbon emissions arising from administrative road transport reduced by 0.9%
<b>Reduce waste arisings</b>	No change – DCA does not have any data regarding these targets	
<b>Increase recycling figures</b>	No change – DCA does not have any data regarding these targets	
<b>Reduce water consumption</b>	Water use reduced by 0.1% since baseline levels	Water use reduced by 0.6% since baseline levels
<b>Biodiversity</b> SSSIs in sole ownership in target condition	No change – this target is not applicable to DCA	

## 2.7 Broader data issues and future work

The issues of QinetiQ for the MOD and the magistrates’ courts for the DCA highlight the larger issue of poor data collection, verification and reporting for all departments. The SDC is particularly concerned about the effect of these issues – and the way in which they are reported – on departmental and pan-governmental performance. As discussed above, estate changes such as QinetiQ and the magistrates’ courts can dramatically skew pan-government performance, and therefore must be accounted for accurately and consistently.

In reporting figures in this report, the SDC has decided not to ‘adjust’ pan-government totals to account for these known data anomalies because there is a major issue of consistency. We cannot apply adjustments uniformly across all the targets

or for all departments. Making such adjustments is highly uncertain, and we could not be confident that all such changes had been accounted for comprehensively. We therefore acknowledge that the overall total figures for government may not fully represent actual pan-government performance against the SOGE targets. The SDC feels that it is the duty of government and individual departments to account for changes to the estate in the rebaselining process, with central guidance and in discussion with the SDC. However, once this process ends, we then have the responsibility to report the information as it is submitted to us.

The fact that these issues exist, and that pan-government totals may not be representative of actual performance, is indicative of the large data



and reporting problems departments are struggling with. Adjusting the pan-government totals would mask these issues by hiding the problems within the text and the footnotes. The pan-government performance that is reported needs to be transparent – reflecting poor data collection as well as actual departmental performance. In too many cases, departments do not actually know how they are performing.

Government must develop a systematic process to account for the changes to its estate and collect and report information accurately. Many departments also have very poor data for baseline years. The SDC expects that in future all departments will fully engage in the process of rebaselining (see section 2.13.3), where it is required, to provide better and more accurate data. Government may need to adjust the targets to use new baseline years in instances where more accurate and complete data exists.

## 2.8 The ‘big 5’ departments

The five largest departments are MOD, DWP, HMRC, HO and DCA. Between them they account for 84% of total employees, visitors and contractors (calculated as full time equivalents) and 85% of total floor space on the government estate. Due to the significant

scale of these ‘big 5’ departments, any changes in their performance can have a significant influence on pan-government performance. A summary of the magnitude of the ‘big 5’ in terms of the key targets is shown in Table 2.7.

**Table 2.7** ‘Big 5’ departments

	Carbon emissions from offices		Total energy use		Carbon emissions from administrative mileage		Total waste arisings		Total water use	
	Tonnes (CO <sub>2</sub> )	as % of total govt	(kWh)	as % of total govt	Tonnes (CO <sub>2</sub> )	as % of total govt	(Tonnes)	as % of total govt	(m <sup>3</sup> )	as % of total govt
<b>MOD</b>	1,656,256	71.6%	5,362,123,910	59.6%	44,363	31.0%	157,229	50.9%	24,000,000	65.7%
<b>DWP</b>	220,234	9.5%	720,001,997	8.0%	21,652	15.1%	22,365	7.2%	1,137,368	3.1%
<b>HMRC</b>	159,095	6.9%	473,688,864	5.3%	17,560	12.3%	68,275	22.1%	683,956	1.9%
<b>HO</b>	38,889	1.7%	1,525,325,482	17.0%	9,632	6.7%	16,985	5.5%	8,305,083	22.7%
<b>DCA</b>	87,555	3.8%	277,487,861	3.1%	4,686	3.3%	NK	NK	645,543	1.8%
<b>‘Big 5’ total</b>	2,162,029	93.5%	8,358,628,114	93.0%	97,893	68.4%	264,854	85.7%	34,771,950	95.2%
<b>OGDs*</b>	152,767	6.5%	637,757,883	7.0%	45,338	31.6%	44,241	14.3%	1,751,542	4.8%
<b>Govt total</b>	2,314,796	100%	8,996,385,997	100%	143,231	100%	309,095	100%	36,523,492	100%

\* OGDs = Other government departments.

MOD has a significant influence over total carbon emissions from offices, with 71.6% of total government emissions. As such, the MOD’s reduction of 11.6% since baseline levels had a significant positive influence upon pan-

governmental performance. In contrast to this, the other four largest departments (which between them emitted 21.9% of total carbon emissions) have all shown fairly significant increases. Without the improvements made by MOD in particular, pan-

government carbon emissions from offices would have increased by 22%.

The impact of the two largest consumers of energy (MOD and HO) on energy efficiency is also considerable. As both departments reported improved energy efficiency from the baseline year, this positively skewed pan-government performance significantly.

In terms of travel, the 'big 5' represented 68.4% of total carbon emissions from vehicles in 2006/07 and their performance was varied, with MOD and HMRC showing significant decreases in road vehicle related carbon emissions, contrasted to some significant increases from HO, DCA and DWP. The MOD had a much less dominant effect on this target than for the other targets as it only accounted for around a third of government carbon emissions from road vehicles. As such, the performance of the 'big 5' departments was slightly worse than the rest of government, but not significantly, and pan-government performance has worsened from the 2005/06 baseline.

Waste and recycling performance is difficult to measure for the largest departments. MOD reported that it does not have a 2004/05 baseline, while DCA was unable to provide any data on its waste performance. Of the remaining three, HO showed a large increase in waste, whilst DWP and HMRC showed better performances. The lack of data

from MOD in particular is a significant issue when considering pan-government performance on total waste arisings. As noted in Table 2.7 the MOD produced 51% of government waste in 2006/07, but given the lack of a 2004/05 baseline, it is impossible to establish whether or not government as a whole had reduced its waste arisings since 2004/05.

MOD is the largest user of water, accounting for about two-thirds of total water use. Its reported water use has remained constant since the baseline year, and it is expecting improvements in data collection for future years. There were large reductions in water use by HMRC and DWP, whilst DCA showed a large increase. These results served to balance each other out and the change in pan-government water use was minimal (-0.1%).

The data problems faced by DCA following the changes in its estate are likely to be further complicated by the transition to the Ministry of Justice (MoJ), the subtle changes of the targets still being addressed, and the changes to the metrics for calculation of carbon emissions (the Greenhouse Gas Reporting Standards). Likewise, the MOD's data collection issues require urgent attention. Improved data quality next year from MoJ and MOD, along with the other three larger departments, is vital for a full and accurate assessment of pan-government performance.

## 2.9 Non-government benchmarks

Government wants to show leadership on sustainability by encouraging all sectors of the UK to respond to sustainability challenges – most notably the challenge of climate change mitigation. To gauge government's performance further we can compare some indicators with the private sector, which will be expecting government to be striving for sustainability in its own operations as well as in its policy development.

A number of private sector organisations across a range of sectors have provided us with some useful information which provides a crude comparison. Although it is important to recognise that direct

comparisons between a government department and that of a telecommunications or retail company are difficult, and there are differences in the scope and method of data collection, some observations can be made.

For this year's SDiG report, the only areas for which private sector information was gathered were carbon emissions from road transport, waste and recycling. The figures for each company are given in Table 2.8. Future SDiG reports may include a broader range of data and more detailed benchmarking analysis.

**Table 2.8** Benchmarking data from private sector organisations<sup>18</sup>

	Total energy use (kWh)	Total energy use per FTE (kWh/FTE)	CO <sub>2</sub> from road-based business travel (Tonnes)	CO <sub>2</sub> from road-based business travel per FTE (Tonnes /FTE)	Total waste (Tonnes)	% of waste recycled
<b>Barclays UK</b>	471,726,320	7,544	38,543	0.616	9,393	35%
<b>Boots</b>	-	-	4,260	1.420	340	29%
<b>BT</b>	627,056,264	5,918	38,338	0.361	94,928	42%
<b>ITV</b>	122,099,000	22,199	1,001	0.182	1,776	29%
<b>Marks and Spencer</b>	-	-	-	-	87,000	40%
<b>United Utilities</b>	46,553,717	11,638	2,231	0.560	1,511	55%
<b>Private Sector average</b>	316,858,825	11,825	16,875	0.628	32,491	38.3%
<b>Government</b>	8,996,034,725	12,163	143,231	0.192	309,095	38.5%

Note: Marks and Spencer’s waste data is from all operations, not only offices. CO<sub>2</sub> from road vehicles has been calculated using an ‘average car’ emissions figure of 0.286 kg CO<sub>2</sub> per mile, apart from BT and Barclays which provided data in the form of emissions. ITV energy figures include production energy use such as studios – which are high energy users. Boots’ mileage is for operational and administrative activities. Boots’ recycling data is an estimate as materials are consolidated with other functions. Although efforts have been made to make these figures comparable with each other and with government, they may differ in scope and type from government figures. Figures may also differ from those reported in company environmental reports.

The figures show that, in general, government performance against these three broad indicators is similar to that in the private sector, but a fuller set of benchmarking data would be required to draw more meaningful conclusions. Some comparisons of note include:

- Government’s energy use per FTE is above the private sector average. Only ITV reported a higher figure (although its data covers more than offices)
- The cross-government recycling rate is on par with these private sector organisations
- Government’s CO<sub>2</sub> emissions from road based transport per FTE are below the private sector average. It should be noted that the benchmarking data may be overstated,

as some companies were unable to break down emissions into purely ‘administrative’ mileage.

Comparing government performance with that of the private sector is far from straightforward and any comparisons made are open to a wide range of interpretations. However, government and the private sector could be proactive in learning from each other’s experience, and seek to better understand their different perspectives on sustainable development. Government might wish to benchmark itself by engaging in private sector assessment methodologies, such as *Business in the Community*<sup>19</sup>, or by encouraging comparable private sector organisations to shadow the SDiG process.

## 2.10 Are departments using the tools/mechanisms in place to support improvement?

In addition to the key ‘outcome driven’ SOGE targets, there are a number of mechanisms and processes which government has mandated departments

to implement in order to support delivery of the sustainable operations targets. These key mechanisms are presented in Box 2.1 below.

**Box 2.1** Mechanisms and supporting processes

<b>Mechanisms to deliver performance</b>	<p><b>From ‘Government to Mandate’ section of SOGE targets framework:</b></p> <ul style="list-style-type: none"> <li>• Departments to adopt the Carbon Trust’s Carbon Management Programme and/or Energy Efficiency Accreditation Scheme</li> <li>• Departments to apply BRE’s Environmental Assessment Method (BREEAM) excellent standards or equivalent, to all new builds/major refurbishments</li> <li>• Departments to work towards an accredited certified environmental management system (EMS) i.e. ISO 14001 or EMAS</li> <li>• Departments to engage with the OGC’s Property Benchmarking Scheme – aimed at improving the efficiency and effectiveness of corporate estate management (<b>not scored</b>)</li> <li>• Departments to conduct sustainability appraisals of office relocations.</li> </ul> <p><b>From Sustainable Procurement Action Plan:</b></p> <ul style="list-style-type: none"> <li>• Permanent Secretaries are accountable for their department’s overall progress and for ensuring, from 2007/08 onwards, key staff in their departments have performance objectives and incentives that drive the implementation of this plan, linked to performance objectives for delivering efficiency savings</li> <li>• Departments encouraged to make full use of the Sustainable Procurement Task Force Flexible Framework where it helps improve procurement practice and achieve sustainability targets, while OGC is developing a new detailed procurement framework.</li> </ul> <p><b>Other mechanisms:</b></p> <ul style="list-style-type: none"> <li>• Department’s self-assessment of progress on embedding sustainable development into its operations from the SDAP Progress Reports</li> <li>• Departments to encourage staff to take an active role in volunteering in the community (<b>not scored</b>).</li> </ul>
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The SDC has assessed the extent to which departments are utilising these mechanisms, to gauge compliance with government requirements, but more importantly to establish whether

departments are using the tools they have at their disposal to enable them to achieve future performance improvements.

### 2.10.1 Mechanisms star rating

The overall performance of departments, in terms of the extent to which they are using the mandated mechanisms and achieving any standards required, is illustrated by the mechanisms ratings in Table 2.10. Departments are ranked with the highest scorers at the top.

The ‘mechanisms rating’ is calculated using the scored mechanisms outlined in Box 2.1 above. It is based on the overall percentage of available points achieved, as detailed in Table 2.9. Points are awarded for each of the scored mechanisms based on the level of progress made, as detailed in Table 2.11.

**Table 2.9 Mechanisms rating scoring thresholds**

Performance star rating	Definition
	Less than 25% of target points
★☆☆☆☆	25 – 39% of target points
★★☆☆☆	40 – 54% of target points
★★★☆☆	55 – 69% of target points
★★★★☆	70 – 84% of target points
★★★★★	85% or more of the target points

**Table 2.10 Mechanisms rating**

Department	% of points	Star rating
DFID	100.0%	★★★★★
DTI	100.0%	★★★★★
Defra	91.7%	★★★★★
MoD	83.3%	★★★★☆
DfES	80.0%	★★★★☆
DCMS	80.0%	★★★★☆
FSA	80.0%	★★★★☆
CLG	75.0%	★★★★☆
ECGD	75.0%	★★★★☆
ONS	75.0%	★★★★☆
CO	66.7%	★★★☆☆
DWP	66.7%	★★★☆☆
FCO	66.7%	★★★☆☆
HMT	62.5%	★★★☆☆
HMRC	58.3%	★★★☆☆
LOD	50.0%	★★☆☆☆
DfT	42.9%	★★☆☆☆
DH	40.0%	★★☆☆☆
DCA	35.7%	★☆☆☆☆
HO	28.6%	★☆☆☆☆
FC	16.7%	
<b>Pan-government*</b>	<b>62.6%</b>	★★★☆☆

\*The pan-government percentage is based on the average number of points scored by departments on each of the mechanisms. It is not an average of the departmental percentages.

As with performance against the SOGE targets, traffic light indicators are used to illustrate the performance against each of the scored mechanisms.

The colours are based on the level of progress made using a RAG system (red, amber and green), as set out in Table 2.11.

**Table 2.11** Traffic light indicators for mechanisms

	'Good progress' which is defined as being on track to hit the target.
	'Some progress' which recognises that some progress has been made, but is not sufficient to be on track to meet the target.
	'No progress or poor progress' where no progress or in our judgement only slight progress has been made. Red is also used where data was 'not known'.
	Not applicable

**2.10.2 Key findings on mechanisms**

DTI, ONS, Defra and DFID, which all reported very good progress on the use of mechanisms, also performed well against the SOGE targets. Many of the worst performing departments on the SOGE targets have weaker mechanisms in place. However, there are also some notable exceptions. DH, for example, achieved a 5 star rating in terms of performance with a low (2 stars) for associated mechanisms. Similarly, DfT achieved 4 stars for performance whilst recording only 2 stars for mechanisms.

The correlation between mechanisms and performance is not as strong as one might expect. Two possible explanations for this are:

**1 Timing**

Some of the mechanisms are quite new and it will take time for these to affect performance. For example, achieving a BREEAM 'excellent' rating on a new building completed in 2005/06 will not

deliver performance improvements straight away, but improved performance would be expected in following years when the building is occupied and data reported.

**2 Performance of the mechanism**

While mechanisms may have been designed to support delivery of operational targets, how well they actually do this will depend on how they have been adopted by a department, the level of local leadership and the extent to which they are used to drive forward real improvements. Additionally, the intended effect of a mechanism may not be borne out in practice. It is therefore important that mechanisms are reviewed over time and amended or replaced accordingly, to ensure they remain fit for purpose. The SDC intends to assess these links more fully in future reporting.

**2.10.3 Performance against each mechanism**

Table 2.12 shows performance of each department against each mechanism.

Table 2.12 Traffic light indicators of departmental mechanisms

	Application of BREEAM	EMS	SPTF Flexible Framework	Sustainability appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP.
CLG							
CO							
DCA				NK			
DCMS							
Defra							
DfES							
DFID							
DfT							
DH							
DTI							
DWP							
ECGD							
FC				NK			
FCO							
FSA							
HMRC							
HMT							
HO							
LOD							
MOD							
ONS							
GOVT							

## Highlights

- 14 of 21 departments have engaged with the Carbon Trust on carbon management initiatives. 10 departments show a good level of coverage, and a further three departments show reasonable coverage
- 10 departments have good EMS coverage, seven of which have 100% coverage of sites and/or staff
- 10 of the 21 departments reported that their Permanent Secretaries had the SOGE targets incorporated into their performance agreements
- On the *Sustainable Procurement Action Plan (SPAP) Flexible Framework*, 12 departments reported good progress, being at Level 1 or above on all five themes
- The majority of departments assessed themselves being at Level 6 (out of 10 or 'on course') or above on embedding sustainable development into the organisations' operations. However, it should be noted that these did not always match actual performance against the SOGE targets self-assessments

- Participation in the OGC Property Benchmarking Scheme is good. Only five departments are not yet engaged, and two of these (FCO and HMRC) are planning to participate in future
- 16 departments reported that they make days available for staff volunteering, and the average was 6 days a year per employee.

## Lowlights

- EMS coverage across the government estate is not as widespread as might be expected, with only 23.7% of sites and 26.5% of staff reported to be covered by a certified or non-certified EMS
- Departments are not engaging as they should with the BREEAM assessment for new builds and major refurbishments. This itself does not necessarily mean that the designs are not sustainable; however, there is an increasing risk of sustainability elements, which provide long-term value, being cut to meet short-term budget needs
- Less than one in seven projects (or 13%) had a mandatory assessment, of which 62.2% met the required standard. Therefore only 8% of all projects met BREEAM standards.
- HO and DWP completed a total of 289 building projects (of a pan-governmental total of 351), but only seven were known to have had a BREEAM assessment, and only one met the standard
- Only just over a half of all office relocations had a sustainability appraisal.

## 2.11 Sustainable procurement

The UK government and wider public sector has immense buying power. Government procurement is not just about purchasing the goods and services it currently needs. The way in which this money is spent, by central government and indeed the whole public sector, should support the delivery of government's aims on sustainable development, as well as other policy objectives, including the stimulation of sustainable business and employment opportunities, regional development, innovation, skills development, well being and social inclusion.

The importance of procurement as a lever for change was highlighted in the Sustainable Procurement Task Force (SPTF) report, *Procuring the Future*<sup>20</sup>, which was published alongside the new SOGE framework in June 2006. The SPTF report defined sustainable procurement as "a process whereby organisations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organisation, but also to society and economy, whilst minimising damage to the environment".

Government responded to the Task Force report in March 2007, with the publication of its *Sustainable*

*Procurement Action Plan*<sup>21</sup> (SPAP). This set out a high level goal for the UK to become one of the EU leaders on sustainable procurement by 2009, to achieve a low carbon more resource efficient public sector. It placed a number of requirements on departments to bring about the shift towards sustainable procurement and support delivery of the SOGE operational targets. The SPAP also empowered the SDC to scrutinise government performance against the commitments in the plan.

Given that the SPAP requirements were not published until the end of the 2006/07 reporting year, the SDC did not cover all of them in this year's SDiG assessment, and performance on procurement has not been included in the calculations of the performance 'star rating' for departments. However, for this year's assessment we requested information about selected procurement activities in departments, notably to indicate the level of outsourcing for operational activities, the inclusion of sustainability clauses in top contracts, and the application of the Quick Wins and timber mandatory procurement standards. The intention was to start building a picture of performance in expectation of greater coverage in 2007/08, and to signal to



departments that the SDC will be assessing the sustainability of their procurement practices in line with SPAP commitments. Further, some of the SPAP

requirements, for example on 'Quick Wins' product standards and timber procurement, were already mandated before the SPAP.

## 2.12 Key findings on procurement

### Highlights

- Sustainability clauses are included in 99.9% (by value) of all Facilities Management contracts, and 95.38% (by value) of IT contracts
- Of the 17 departments with systems in place, 10 reported that 100% of their timber contracts complied with the SPAP timber procurement target, and a further three reported compliance at 70% or higher.

### Lowlights

- Of the 123 contracts for which details were reported, only 53.7% included a sustainability clause
- The top ten valued contracts have a combined total value of £19.8 billion. Only six of these are known to include a sustainability clause
- MOD's expenditure is significant. All five of its 'top five contracts' appeared in the list of ten highest value contracts across government, with a combined value of £16.7 billion. Only one was reported to include a sustainability clause
- Only 3.1% of the total spend on catering contracts is covered by sustainability clauses. This is despite sustainable food procurement being a pan-government initiative for a number of years
- Nine of the 21 departments still do not include clauses regarding the mandatory 'Quick Wins' product standards in all of the appropriate contracts; 'Quick Wins' have been mandatory since 2003
- The sum total of 'engagement' activities, as we understand them, does not constitute a pan government strategic approach to supplier engagement.

Overall, despite the high-level attention afforded to sustainable procurement over the last 18 months, performance on the ground signals that there is a lot to do to turn words into action. While there are some pockets of good practice, some of them significant, departments on the whole are not yet making the efforts needed to embed sustainability into procurement decisions. The whole area is littered with examples of missed opportunities, especially on collaborative procurement, supplier engagement and more simple steps like using the mandatory 'Quick Wins' product standards, where compliance levels are poor.

Anecdotal evidence strongly suggests that many sustainable development practitioners still see sustainable procurement as simply purchasing from lists of recommended goods and services. Sustainable

procurement is also about managing demand effectively, and using procurement as a means to achieving the UK's sustainable development goals – all the way down supply chains and across society. The extent to which procurement activities can be regarded as 'sustainable' depend on the role they play within this broader context.

Other barriers to progress include a perceived mismatch between efficiency drives and sustainable procurement; lack of awareness and skills; and lack of effective supplier engagement. Some departments also felt that there is a lack of clear high-level direction and coordination. In particular, OGC does not seem to have fully taken forward its responsibility for ensuring sustainability is embedded in procurement processes.

Government also needs to galvanise the spending power of the wider public sector. In particular local government and the health and education sectors have huge leverage, and are critical to the delivery of sustainability across the UK.

### 2.13 The reporting process

Reporting against the SOGE framework presents a number of issues, including very specific data requirements. These are discussed below to identify some of the problems that departments must overcome to fully report operational performance. In addition, potential solutions to some of these issues are suggested.

#### 2.13.1 Data requirements

The move from activity-based targets in the former SDGE framework to those focused on the achievement of outcomes in SOGE is welcomed.

The targets apply to all departments and Executive Agencies equally, and therefore the assessment methodology has not sought to discriminate or favour any one department due to size, scale or activity.

In order to assess progress against the SOGE targets, departments needed to identify the data required and have systems in place to facilitate collection and reporting. The core data requirements under each SOGE target area are detailed in Table 2.13. In addition to these, departments were encouraged to report contextual information and examples of good practice.

**Table 2.13** Data collection and reporting – core data

<b>General</b> (for scoping and normalising data)	Scope of data return; number of executive agencies/NDPBs/other bodies; details of number of staff, visitors and contractors; number of sites (office and non-office); floor space (m <sup>2</sup> ); area of estate (Ha); details of new builds and major refurbishments.
<b>Climate Change and Energy</b>	Energy use in offices (all forms of energy – electricity, gas, oil etc); mileage on administrative operations; number of vehicles in departmental fleet; details of carbon neutrality and offsetting; carbon emissions from all of the above (if calculated).
<b>Sustainable Consumption and Production</b>	Total waste arisings (tonnes); waste collected to be recycled/composted (tonnes); waste sorted for external re-use (tonnes); waste sorted for energy from waste (EfW, tonnes); waste sent to landfill (tonnes).
<b>Natural Resource Protection</b>	Site of Special Scientific Interest (SSSI) information (e.g. area, number of units); number of these SSSIs in 'target' condition (by number of units and/or area as appropriate); total water consumption from office and non-office locations (m <sup>3</sup> ).
<b>Mechanisms and Supporting Processes</b>	Details about Carbon Management Programmes (CMP); Energy Efficiency Accreditation Scheme (EEAS); BREEAM assessments on new builds and major refurbishments; EMS coverage (number of sites and staff); Progress against the SPAP Flexible Framework; sustainability appraisals of office relocations; volunteering; Permanent Undersecretary performance agreements.

The differences in the targets between the previous SDGE framework and the new SOGE framework, coupled with poor definitions in places, has caused some confusion and has led to reporting difficulties for some departments. For example:

- Coverage and reporting of NDPBs, non-Ministerial departments and other public bodies is ambiguous and should be addressed. Government should be very clear about who is to be included and by when. For example, it is not clear whether bodies such as regulators (e.g. Audit Commission, Healthcare Commission, Ofcom, Ofsted, Ofgem and Ofwat) should be reporting. The SDC guidance for these organisations has been that they should shadow the SDiG process in preparation for potential inclusion or formal reporting in the future. Ofsted has undertaken a shadow SDiG exercise for 2006/07
- Tension exists between the targets for reducing carbon emissions from offices and improving energy efficiencies per m<sup>2</sup>. Both are important targets, but as departments rationalise their estates and dispose of under-used or unused sites, energy demand per m<sup>2</sup> is increased. The focus should be on reducing carbon emissions and lowering demand for energy. This could be done by looking at absolute energy consumption, energy efficiency per person or by using a benchmark standard for best practice in energy use
- The target to “reverse the current upward trend in carbon emissions by April 2007” is unhelpful. No guidance has been provided on what baseline to use or how this trend should be measured
- If the SOGE target on travel is to be truly outcome-focused, the aim should be to reduce carbon emissions from *all* forms for transportation, not just road vehicles. This should include air, rail and taxi travel. Departments themselves would then decide the approach to take in achieving this target
- Some departments are unclear on the status of the ‘Government to Mandate’ commitments and the accepted elements of the *Sustainable Procurement Action Plan* (SPAP) in the SOGE framework. Government should reaffirm that *all* parts of the SOGE framework are mandatory, and apply fully to all departments and Executive Agencies

### 2.13.2 The changing shape of government

The machinery of government is often reconfigured to meet evolving political priorities. This reconfiguration can take the form of departments adding or shedding functions, agencies and teams; departments being disbanded, and new departments being formed. The SOGE targets, however, assume a stable organisational structure and excellent management information systems, and any substantial structural changes make the comparability of performance (either year on year for an individual department or between departments) difficult. With the introduction of the new targets, the SDC encouraged departments to consider the need to re-baseline to reflect any significant organisational changes. Rebaselining is done by recalculating an existing baseline to account for changes to the estate, or by choosing an approved, new baseline year for which there is

full and accurate information. This is discussed in more detail in Section 2.13.3 below. A consequence of where a department has chosen to re-baseline is that the performance information in this report is not directly comparable with that presented for the department in the 2006 SDiG report.

Next year, there will therefore be particular challenges in reporting accurately on these targets in the new Ministry of Justice (Moj), Home Office (HO), Department for Business, Enterprise and Regulatory Reform (BERR), Department for Children, Schools and Families (DCSF), and Department for Innovation, Universities and Skills (DIUS).

The SDC will continue with its efforts to ensure that departmental changes are captured in future reports, allowing departments – old and new – to track historical performance as far as possible.

### 2.13.3 Rebaselining for departmental changes

Rebaselining is the process whereby the baseline year referred to within a target and against which current year performance is judged (e.g. for waste arisings 2004/05) can be reviewed and, potentially, modified. There are a number of drivers for allowing rebaselining, including:

- to aid meaningful comparisons for departmental performance between years (despite changes in a department's size, function and estate composition)
- to maintain an element of comparability of performance between departments
- to encourage, recognise and account for a broader or smaller scope of target application and/or data capture
- to encourage, recognise and account for improved data quality.

The SDC invited all departments to consider rebaselining. For each rebaselining request, a short case was required to justify a change. Such requests, as with all of the data submitted for this assessment, have been trusted as accurate. Cases for rebaselining energy and carbon related reporting were considered by BRE, consistent with

their continued contract with Defra to monitor energy use across government. Any other requests were considered by the SDC, who then had the final decision for all rebaselining.

Decisions to accept the request for rebaselining were informed by the scale of the change, whether the change was from organic growth, and how the department proposed to account for the change both within the baseline and the performance year. Whilst not all departments took this opportunity, 15 departments did seek to modify one or more of their target baselines. Of these seven departments had cases accepted across a number of different targets.

Given the ongoing nature of change in departmental function and composition, the need for rebaselining will continue. The SDC will consider the implications of accepting further modifications to baselines and the potential negative implications for stakeholder perceptions of the value of the targets. Unless the reasoning is made clear and explicit there is a risk that the rebaselining exercise could be seen as a preferred option to reporting poor departmental performance.

### 2.13.4 Changing greenhouse gas reporting standards

New greenhouse gas reporting standards were launched during the period of data collection and submission for this report. Due to timings, and because this report relates to 2006/07 performance, the new standards were not used. However, these standards will be applied next year, requiring the recalculation of relevant target baselines by departments. The targets to which the new standards will apply are:

- Reverse the current upward trend in carbon emissions by April 2007
- Reduce carbon emissions by 12.5% by 2010/11, relative to 1999/00 levels
- Central government's office estate to be carbon neutral by 2012
- Reduce carbon emissions from road vehicles used for government administrative operations by 15% by 2010/11, relative to 2005/06 levels.

### 2.13.5 Data quality

Data quality and management was a major concern in 2006 and remains a serious problem in 2007. The quality of the data received has again been patchy, and in some case unacceptably poor, with many clarifications and queries needed to acquire a quality data set. These clarifications were largely transcription errors (i.e. data input), inconsistencies and varying interpretation of targets or terminology.

No department has reported that the data provided to us has been fully verified by an external

body, despite this being a key recommendation from the SDiG Annual Report 2006. The large number and the types of data anomalies that the SDC has needed to clarify for this reporting process shows that the level of diligence applied in collating and submitting information is varied, with some departments applying considerable effort and thought to their responses, while others have not. This data is accepted on trust and not formally audited or verified by the SDC.

It is in a department's own best interests to collect and monitor good quality data on its operational performance, not just for reporting against the SOGE targets, but for its own estate management. Departments need to explore ways of managing the data better and formalising their approach. It is recognised that this is not always straightforward

for the practitioners, who must respond to evolving and additional targets, and the expanding coverage across the departmental family.

The SDC will continue to work with the departments and SPOB to make this process as efficient and effective as possible.

### 2.13.6 Coverage of Executive Agencies and Non-Departmental Public Bodies

The new SOGE targets cover central government's 21 departments and all executive agencies (EAs). As this continues the requirement from the former SDGE framework, which dates from 2001/02, it is hugely disappointing that nine of the 61 EAs (15%) are still not submitting returns to the SDC for inclusion in this report.

Though not mandatory, departments were also encouraged to include non-departmental public bodies (NDPBs) in this year's SDiG return, on a self-selection basis. Only six of 188 executive NDPBs reported. However, this number may be higher in reality, as many are co-located in departmental buildings and would therefore be covered in the core department's return. Unfortunately coverage of these co-located NDPBs was not always clearly indicated.

If we are to capture the operational impact of the government estate fully, coverage of the SDiG returns needs to be more inclusive. The SDC expects to see complete coverage of EAs in next year's report, and a greater coverage of NDPBs over time. Each department is strongly encouraged to consider what it must now do to extend coverage of its own NDPBs, in discussion with the SDC.

A bonus has been awarded in the performance star rating for full core department coverage including 100% EA coverage, and a smaller bonus for 80% EA coverage, to highlight the importance of coverage of the entire government estate in addition to actual performance against the SOGE targets.

Table 2.14 details each departmental family's coverage of its organisations.

**Table 2.14** Coverage of executive agencies (EAs) and NDPBs by department.

Department	EAs reported against	Total number of EAs	Number of NDPBs reported against	Total number of NDPBs (Executive NDPBs)*
CLG	4	4	3	19 (11)
CO	0	1	0	11 (0)
DCA	4	4	0	237 (2)
DCMS	1	1	0	63 (47)
Defra	9	9	2	91 (32)
DfES	N/A	N/A	0	23 (17)
DFID	N/A	N/A	0	2 (2)
DfT	7	7	0	10 (5)
DH	2	2	0	68 (9)
DTI	4	6	0	68 (34)
DWP	4	5	1	15 (5)
ECGD	N/A	N/A	0	1 (0)
FC	2	4	0	12 (0)
FCO	2	2	0	10 (5)
FSA	0	0	0	5 (0)
HMRC	1	1	0	1 (0)
HMT	6	6	0	3 (0)
HO	2	3	0	179 (13)
LOD	N/A	N/A	0	NK
MOD	4	5	0	32 (6)
ONS	N/A	N/A	N/A	N/A
Total	52	61	6	850 (188)
<b>Pan-government</b>	<b>85%</b>		<b>&lt;1%</b>	

\*Cabinet Office, *Public Bodies 2006*, Table 1

Coverage of outsourced operations also needs to be considered, given the current trend across government to outsource operations and other functions. Otherwise, problems such as energy

usage, carbon emissions and waste production, are simply moved out of central government to other public bodies and to the private sector.

## 2.14 Recommendations

The full list of recommendations is provided below. Our 13 key recommendations (as seen in the SDiG 2007 – Executive Summary) are highlighted in bold.

### 1 Delivering performance improvements

- 1.1 Departments now need to take radical actions to ensure targets translate into real progress, particularly on carbon emissions. These actions will vary according to individual departments' differing circumstances; some examples of such radical actions include:**
  - A high level delivery group with key budget holders responsible for delivering sustainable operations
  - A central invest-to-save fund for each department developed either with Carbon Trust/Salix support, or managed within each department, to finance capital investments
  - A progressive reduction of energy and utilities budgets in line with year-on-year carbon, water and waste target expectations.
- 1.2 To ensure accountability and high level leadership, Permanent Secretaries and Senior Civil Servants should have the SOGE framework targets and other key sustainable development commitments explicitly built into their personal objectives at the earliest opportunity, with quarterly monitoring of progress.**
- 1.3 Whilst working towards achieving SOGE targets, departments should look beyond the targets toward larger sustainable outcomes and goals for operations and procurement.**
- 1.4 The Sustainable Procurement and Operations Board's (SPOB) new Sustainable Practitioners Forum should consider how departmental support, advice and funding available for investment could be better managed, coordinated, publicised and monitored for uptake and effectiveness. The Forum should also create opportunities for departments to share practical experiences with the private sector to benefit from cross-fertilisation of innovations and solutions.**

## 2 Measuring performance

- 2.1 SPOB must ensure that each department provides evidence-based trajectories showing exactly how their estate, procurement, travel and other strategies will deliver improvements each year to meet short and longer term SOGE targets and other sustainable development commitments. The overall strategic approach to improving operational performance should be reflected in Sustainable Development Action Plans.**
- 2.2 SPOB should provide guidance on the full set of SOGE targets, such as how the reversal of carbon emissions' upward trend and water consumption in new builds should be calculated and measured. This guidance should be updated for any new or amended targets.
- 2.3 Departments need to map out the full data requirements for driving forward sustainable operations, including procurement, and ensure they have appropriate management information systems in place capable of providing full and accurate data across all of their operations. They should also ensure the data is robust, through closer scrutiny of information and, where appropriate, external verification of submitted datasets. Where there are major data collection difficulties, departments need to set out how they intend to resolve these. These discussions should be held under the overall auspices of the new SPOB sub-group on performance management.**

## 3 Climate change and energy

- 3.1** The focus must be on continued effort in finding efficiencies through carbon management programmes and behaviour change.
- 3.2 SPOB should define carbon neutrality and advise departments on how and when offsetting can be used to help achieve it. This should indicate how carbon emissions will be avoided and reduced, and ensure that any offsetting is used only as an interim measure.**
- 3.3 Each department should understand and quantify its total carbon footprint, including all buildings and travel. This could be done using the Carbon Trust's Carbon Footprint Calculator or appropriate equivalent.
- 3.4 SPOB should review the SOGE energy efficiency target as it causes a conflict between office rationalisation and the reduction of energy consumption. The possibility of setting a target based on energy use per FTE (rather than per m<sup>2</sup>), or setting targets for absolute reduction of energy use, should be considered.
- 3.5 Government should take a leading position in implementing self-generation renewable energy and departments should explore the potential for Salix finance backing.
- 3.6 Government should consider the introduction of a climate change adaptation mandate for new builds, major refurbishments and relocations.
- 3.7 Departments should agree on a government-wide sustainable travel policy to encourage travel avoidance through smarter working, and more sustainable travel where there is no practical business alternative to travelling.**
- 3.8 If the SOGE target on travel is to be truly outcome-focused, government's aim should be a target to reduce carbon emissions from *all* forms for transportation, not just road vehicles. However, in the short term, **SPOB should introduce an air travel target to encourage travel by alternative, more sustainable, modes whenever travel is unavoidable.**

## 4 Sustainable consumption and production

- 4.1 SPOB should consider introducing more ambitious future waste minimisation and recycling targets to ensure departments continue to challenge themselves and create opportunities for improvement.**
- 4.2** Departments need to ensure they have systems in place capable of providing high quality data on waste arisings and recycling across their full estate. Where there are major data collection difficulties, departments need to set out how they intend to resolve these. These discussions should be held under the overall auspices of the new SPOB sub-group on performance management.
- 4.3 Government needs to set out exactly how the commitments in the *Sustainable Procurement Action Plan and Transforming Government Procurement*, and recommendations of the PMDU report, will be prioritised and taken forward, by whom, and when.**
- 4.4 Government needs to develop, implement and monitor a strategic pan-government supplier engagement programme to ensure that the products and services government procures help it meet its sustainable operations targets and encourage sustainable practices down supply chains, as well as helping it meet the UK's wider sustainable development goals.**
- 4.5** The operational impacts of suppliers and service providers, both on and off the government estate, should be monitored and reported on, with a view to tasking them to be more sustainable, learning from their innovative practices, and enabling government's full impacts to be better understood.
- 4.6** OGC should ensure that sustainable development is fully embedded in the procurement capability review process.
- 4.7** All departments should engage fully with the Sustainable Procurement Flexible Framework, and ensure that well evidenced progress is made against the levels in it. Government needs to send a clear signal to departments about where it expects them to be on the framework, and by when. The levels chosen need to be realistic but challenging.
- 4.8** Departments' sustainable procurement policies (as required at Level 1 of the Flexible Framework) should explicitly include demand management, so that justifying the need for goods or services is the first step in the procurement process.
- 4.9 Each department must take appropriate steps to ensure that Quick Wins are adopted in all relevant contracts, and that robust systems are in place to monitor compliance.** OGC should routinely review compliance levels across departments, and reinforce to procurers that they should be used.
- 4.10** All major contracts should include relevant sustainability clauses that ensure alignment between contractor activities and the SOGE requirements. These clauses should include requirements for the contractor to provide the client with regular and accurate sustainability performance information against the requirements of the contract, and plans for the ongoing development of sustainable goods, services and operational activities. Departments need to actively manage contracts, including monitoring compliance with sustainability requirements.
- 4.11** Defra and OGC should provide guidance to departments on the practical ways that sustainability can be embedded into supplier contracts, including examples of sustainability clauses and best practice case studies.
- 4.12** Departments should continue to work with OGC, OGCbuying.solutions and other government departments to construct contracts that support sustainability and efficiency objectives. This includes the development of pan-government collaborative contracts and sharing experience on contract development, supplier engagement and contract management.



## 5 Natural resource protection

- 5.1** In addition to improving the condition of SSSIs on the government estate, government should require departments to conserve and enhance the condition of their entire estates.
- 5.2** Departments should continue to reduce their water use through behaviour change, improved estates management, and leak detection and resolution. Departments should also consider the potential for building design and water management techniques, such as rainwater harvesting and the use of grey water systems<sup>22</sup>, to help deliver reductions in water use.
- 5.3** SPOB should consider a water use target for existing buildings.

## 6 Mechanisms and supporting processes

- 6.1** Departments need to make use of the mechanisms and supporting processes in place to deliver future operational performance improvements. Existing tools and mechanisms need to be reviewed and refreshed to ensure they effectively support delivery of the SOGE targets. As a priority:
- a) Those departments with incomplete EMS coverage need to step up their efforts and develop the required systems for effectively managing the performance of their estates
  - b) The mandate to apply BREEAM to all new buildings and major refurbishments, and for these projects to meet the government standards, needs to be strongly reinforced
  - c) SPOB should explore why uptake of BREEAM is so poor, and why many of the projects that are assessed failed to meet the required standard. Lessons need to be incorporated into future design and planning specifications
  - d) Government should consider whether it needs to provide guidance on sustainability appraisals for office relocations to support those departments who do not have such an approach currently. At the same time flexibility needs to be maintained for those departments that have developed their own approaches
  - e) Where the existing Carbon Trust carbon management schemes are not suitable, government should require departments to identify alternative measures that will deliver the same benefits.

## 7 Coverage

- 7.1** To improve reporting, SPOB should ensure there is a process in place to enable all departments to account for changes to their estates, and the corresponding impact, by managing a central register to track changes. SPOB and the SDC should then agree which changes are significant enough to warrant a recalculation of baseline data. whether these are positive or negative.
- 7.2** To ensure that the true footprint of government activity is being examined, managed and reported, government needs to discuss and confirm how the SOGE targets will in future be applied to all operations on and off the government estate, including NDPBs, non-Ministerial departments and major outsourced operations. As a minimum, the SDC encourages these organisations to shadow the process, and set in place management information systems capable of providing the necessary data.

- 7.3** Departments should ensure that the requirement for full coverage of executive agencies is met.
- 7.4** Government should reaffirm that all parts of the SOGE framework, including the 'Government to Mandate' commitments and accepted elements of the SPAP, are mandatory, and apply fully to all departments.

# Climate change and energy



**96,000kg of CO<sub>2</sub>**

saved through the installation of voltage optimisation technology in one building.

Mark Hault, Carbon Programme and Energy Efficiency Manager, York, at the Department for Environment, Food and Rural Affairs.

## 3 Climate Change and Energy

“The effects of a changing climate can already be seen. Temperatures and sea levels are rising, ice and snow cover are declining. The consequences could be catastrophic for the natural world and society. The scientific consensus is that most warming observed over the last fifty years is attributable to human activity, through emissions of greenhouse gases – such as carbon dioxide and methane – into the atmosphere. We need to make a profound change in our use of energy and other activities that release these gases. And we need to prepare for the changes in climate that are now already unavoidable.”

*Securing the Future, 2005*

### 3.1 Why is climate change important for government operations?

Climate change has been described as one of the greatest challenges facing humanity in the 21st Century. The debate as to whether climate change is caused by human activity is effectively over and a broad scientific consensus has emerged. The Intergovernmental Panel on Climate Change (IPCC) recently reported that “warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level.”<sup>23</sup> Concerted national and international action is now required.

Some degree of climate change is now inevitable, and we must respond to the changes in our environment by adapting, however the magnitude of the changes and their impacts is still something we can influence. Therefore, the UK government needs to lead by example, both nationally and globally, in both climate change mitigation and adaptation. This must be done by:

- engaging with nations, sectors, organisations and individuals to reduce greenhouse gas (GHG) emissions
- clearly communicating and advocating mitigation strategies
- developing policies to encourage lower energy demand and the uptake of low carbon and energy efficient technologies
- exemplifying what can be achieved on its own estate, and reducing its own carbon emissions.

For government to lead the fight against climate change effectively, it must be seen to practice what it preaches.

The UK will soon become the first country in the world to enshrine its commitments on climate change in legislation through the forthcoming Climate Change Bill. Currently, the long term goal is to reduce UK-wide carbon dioxide emissions by 60% by 2050 with real progress by 2020 (compared with 1990 levels). It is government’s obligation to address climate change through a combination of setting policy, exploring solutions through sound science and by encouraging and exemplifying good performance. This must be supported by a range of policies on the ground, including effective management of its own estate, procurement, travel activities and good governance.

While mitigating against climate change is vital now, plans for climate change adaptation are equally important. As with all employers, government needs to maintain comfortable working conditions for employees. Therefore, as the climate changes the demands on the estate infrastructure, particularly its capability to respond to higher temperatures, needs to be considered. Likewise the effectiveness of the estate at times of flood is of great importance, and has been brought sharply into focus following the flooding across the Midlands during the summer of 2007. As selected government activities continue to move out of London and the south east in response to the *Lyons Review*,<sup>24</sup> site selection and building

resilience to climate change will be an important factor.

This chapter covers government performance against the SOGE targets on climate change and energy (CC&E). GHG emissions from energy use are measured in tonnes of carbon dioxide equivalent (CO<sub>2</sub>e). Carbon dioxide (CO<sub>2</sub>) is the principal gas

responsible for climate change, and can either be measured in tonnes of CO<sub>2</sub> or in tonnes of carbon (C). The SOGE targets ask for information in carbon; however, the conventional approach in reporting GHGs is to use CO<sub>2</sub>. Therefore our figures have been converted to CO<sub>2</sub>.

### 3.2 How is government performing against its SOGE targets?

The SOGE targets under the priority area of CC&E cover carbon emissions from offices and road vehicles, carbon neutrality (see Section 3.5 for more detail on carbon neutrality) and energy efficiency. In addition, two targets have been carried forward from the previous SDGE framework, as the target dates have not yet been reached. These targets relate to electricity from renewable sources and combined heat and power (CHP).

The carbon neutrality target has not been assessed this year. The issue of carbon neutrality is clouded by carbon offsetting. Guidance on whether or not to offset, and on how to offset, should be provided for departments. However, the focus should first be on carbon reduction with offsetting as an interim solution.

All relevant targets are shown in Box 3.1.

**Box 3.1**

**SOGE Targets – Climate Change and Energy**

**Government Estate**

**Carbon emissions from offices**

Reverse the current upward trend in carbon emissions by April 2007.  
Reduce carbon emissions by 12.5% by 2010/11, relative to 1999/00 levels.  
Reduce carbon emissions by 30% by 2020, relative to 1999/00 levels.

**Carbon neutral**

Central government’s office estate to be carbon neutral by 2012.

**Energy efficiency**

Departments to increase their energy efficiency per m<sup>2</sup> by 15% by 2010, relative to 1999/00 levels.

Departments to increase their energy efficiency per m<sup>2</sup> by 30% by 2020, relative to 1999/00 levels.

**Existing sustainable operations commitments from previous framework to continue into SOGE**

Departments to source at least 10% of electricity from renewables (31 March 2008).  
Departments to source at least 15% of electricity from Combined Heat and Power (2010).

**Travel**

**Carbon emissions from road vehicles**

Reduce carbon emissions from road vehicles used for government administrative operations by 15% by 2010/11, relative to 2005/06 levels.

### 3.3 Government estate

Energy is required to light, cool and heat office buildings and power IT systems across the government estate.

Government’s energy use in offices represented 0.36%<sup>25</sup> of the UK’s total CO<sub>2</sub> emissions from energy for 2006/07. This figure may have been greater had

there been full coverage of the entire UK government estate. When compared to the national CO<sub>2</sub> budget, any improvements will still make only a small direct difference to the required reductions for the country (currently 60% CO<sub>2</sub> emissions reduction by 2050). However, the overall positive change resulting

from effectively demonstrating these performance improvements, and the mechanisms to achieve them, to the wider public sector, the private sector, the 'household sector' and internationally, could have a significant multiplying effect. It is essential that government delivers, and is seen to deliver, against the pledges it has made on reducing carbon emissions and improving energy efficiency if we are to be successful in tackling climate change.

Furthermore, improving energy efficiency should result in financial savings for departments and hence

taxpayers. The National Audit Office (NAO) has reported that the drive for improved use of space in buildings can have a significant contribution to the sustainability of the government estate while reducing costs.<sup>26</sup> Inefficient use of property costs carbon and money, and should be a focus for all of government. Case study 3.1 highlights an example of how one department, Defra, has worked to reduce energy consumption, carbon emissions, and energy costs.

### Case Study 3.1

#### Defra – Voltage optimisation project ('powerPerfactor')

##### Description of the project

"As part of its Carbon Management Programme, the Built Environment Sustainability Team (BEST) – Defra Estates, researched innovative technologies which had the potential to improve energy efficiency and reduce carbon emissions within the Defra Network. Using contacts within other government departments, expertise from partner contractors, external organisations and industry experts along with contacts made through workshops and conferences, they identified Voltage Optimisation as a technology that could help deliver the required improvements. powerPerfactor (a product with a proven track record in industry, the private and public sector and endorsed by the Carbon Trust) seemed to offer a creative solution.

powerPerfactor has the ability to lower the voltage for a whole site, doing so more efficiently than any other technology currently available.

This reduces energy bills and improves the efficiency and operation of electrical equipment, which also increases the lifespan of a site's electrical equipment.

Using energy, emissions and cost data for the estate, BEST identified the top five sites that had the potential to deliver the largest energy efficiencies and emissions reductions that could be considered for a pilot installation programme.

They met representatives from powerPerfactor and arranged site surveys and projected saving data reports for the pilot sites. Once that data report was received, the team developed detailed pilot proposals and prepared a report showing pilot sites in terms of cost/benefit analysis and savings

potential in terms of outlay versus energy saving and carbon emissions reduction. The report sought funding of £528K for five sites (10 powerPerfactor units) with a payback period of 28 months and energy efficiencies of between 8% and 11%. This was then presented to the Management Board for financial approval, which was granted early in 2007.



##### The barriers

There have been some concerns raised regarding powerPerfactor being compatible with certain site specific operations and specialist equipment. These have been addressed on a site by site basis and any issues have been discussed and resolved with all stakeholders and representatives of powerPerfactor before installation plans have been implemented.

##### The outcomes and benefits

To date, six installations have been completed and savings are on target to be above those initially predicted, i.e. between 8% and 11%. Current estimates are that we will achieve savings of at least £500K per year in electricity costs and 475 tonnes of carbon per year, with some sites having the potential of up to 15% savings.

This project is delivering tangible results which will help Defra meet its SOGE targets. Our data and case studies will be made available to all other government departments through the Energy Stakeholder Forum, the Defra as a Sustainability Leader (DaSL) Programme and through our website, in order to share good practice and any lessons learned. It has been such a successful pilot that BEST have gone back to Management Board and sought (and received) approval of a further £1.8M for roll out across the Estate."

Defra, 2007.

### 3.3.1 Carbon emissions from offices – performance

Departmental emissions of CO<sub>2</sub> from offices are shown in Table 3.1. The previous carbon emission target covered the whole estate and related to a baseline year of 1999/00, whereas the new SOGE target covers only carbon emissions from offices relative to the 1999/00 baseline year. Assessing performance against this target therefore required a review of performance in the baseline year to extract the office activities from the entire estate.

However, some departments have not been able to disaggregate their baseline data retrospectively to identify the share of emissions from the offices alone. Others have not acknowledged this change, and therefore inadvertently reported the entire estate. A few departments have purposefully chosen to include the non-office estate data in their performance (to provide a total rather than partial figure).

**Table 3.1 Emissions of carbon dioxide from the office estate**

Department	Carbon dioxide emissions (1999/00) (Tonnes of CO <sub>2</sub> )*	Carbon dioxide emissions (2006/07) (Tonnes of CO <sub>2</sub> )*	% change in CO <sub>2</sub> emissions between 1999/00 and 2006/07	Reversing upwards trend in carbon emissions	Carbon emissions from offices
CLG	21,732 **	23,283	7.1%		
CO	3,799	7,523	98.0%		
DCA	48,204	87,555	81.6%		
DCMS	4,087	4,615	12.9%		
Defra	16,150	14,770	-8.5%		
DfES	10,690	10,321	-3.5%		
DFID	2,186	4,082	86.7%		
DFID 2 ***	3,741	4,082	9.1%		
DfT	21,597 †	24,326	12.6%		
DH	8,285	6,753	-18.5%		
DTI	17,856	15,293	-14.4%		
DWP	190,838	220,234	15.4%		
ECGD	593	468	-21.2%		
FC	452	1,143	152.9%		
FCO	11,698	12,642	8.1%		
FSA	2,131	1,775	-16.7%		
HMRC	133,811 ††	159,095	18.9%		
HMT	7,917 ‡	6,439	-18.7%		
HO	16,707 ‡‡	38,889	132.8%		
LOD	11,035 #	11,740	6.4%		
MOD	1,874,392	1,656,256	-11.6%		
ONS	7,783	7,595	-2.4%		
<b>Pan-government</b>	<b>2,411,945</b>	<b>2,314,797</b>	<b>-4.0%</b>		

\* All data has been weather corrected. Please see Appendix I for more context.

\*\* Baseline for core CLG = 2002/03; Ordnance Survey and QEII Conference Centre = 1999/00.

\*\*\* DFID 2 – this represents DFID’s performance against the proposed 2003/04 baseline.

† Based on different years, using the most credible and accurate data available.

The weather correction factor for 2002/03 has been used, as most data was from that year.

†† Energy baseline year for core HMRC = 2000/01, and for VOA (Executive Agency) = 2002/03.

‡ Baseline year for core HMT = 1999/00; baseline year for OGC = 2005/06.

‡‡ Baseline year for core HO = 1999/00; baseline year for executive agencies = 1999/00, with the exception of Crown House (occupied by HMPS staff, but a HO building) = 2001/02, and Newport offices (under HMPS) = 2006/07.

# Baseline years: AGO, CPS, and TSol = 2000/01; SFO and HMCPSP = 2001/02.

Excellent progress

Good progress

Some progress

No or poor progress/  
Not Known

Not applicable

DFID's responsibilities have grown substantially since its formation in 1997, and its size now reflects these changes as well as the growing importance of international development to the policy agenda. While these changes have taken place over a number of years, they represent a large increase in operational output to meet the increased policy demands, notably the added responsibility for the co-ordination and delivery of the UN Millennium Goals in 2003. Its estate has expanded considerably with new offices being occupied in 2003/04. Therefore, using 2003/04 as a baseline year, DFID reported a 9% increase in emissions (rather than 87% against the 1999/00 baseline). Re-baseline requests from

DFID were rejected as the data presented was not sufficient to assess whether organisational changes constituted discrete, one-off growth or organic growth. Similarly, the increase in carbon emissions from offices reported by the DCA is due in part to the migration of the magistrates' courts onto the estate of Her Majesty's Court Services (HMCS), an executive agency of DCA. This led to a significant growth in size and carbon emissions. However, DCA was unable to provide recalculated baseline data to allow for comparable analysis between the baseline year and the performance year. For further details please refer to Section 2.7.

### 3.3.2 Carbon emissions from offices – analysis

- In 2005/06 the government estate emitted 806,000 tonnes of carbon (the equivalent of 3 million tonnes CO<sub>2</sub>) and reduced carbon emissions by 0.5% against 1999/00. This year government reported emissions of 631,000 tonnes of absolute carbon (the equivalent of 2.3 million tonnes CO<sub>2</sub>) from the office-based estate, reflecting a 4% reduction in emissions since 1999/00. While this compares different indicators (carbon from the entire estate and carbon from offices), it remains encouraging that the reduction shown is greater than last year. However, using a straight line trajectory, an 8% reduction in carbon emissions across government (compared to 1999/00) would have been required to demonstrate it is on track to meet the 12.5% reduction by 2010/11. Therefore the rate of reduction needs to be accelerated to meet the SOGE target.
- The MOD accounted for almost 72% of total CO<sub>2</sub> emissions from the government estate. As such its reductions positively skewed overall government performance. If MOD efficiencies were removed, overall carbon emissions for the civil estate would have increased by 22%.
- Furthermore, the privatisation of QinetiQ accounts for over one-third of the carbon emission reductions reported by the MOD. If QinetiQ is removed, the MOD's 2006/07 performance would fall from an 11.6% reduction in carbon emissions to a 7.7% reduction, and the pan-government performance would fall from a 4.0%

reduction in carbon emissions to just a 0.7% reduction. This would mean that the MOD's performance would drop from 'good progress' (green) to 'some progress' (amber); while pan-government performance would remain at 'some progress' (amber). However, for the purposes of this report the SDC reports data as submitted.

If any further 'QinetiQs' were found on the government estate, this could mean that carbon emissions actually increased. Departments should recalculate baseline data to account for significant changes to their estates, whether these be additions or subtractions, to ensure comparability and accurate reporting over time. Otherwise their performance might appear significantly better or worse than is actually the case.

- Carbon emissions from offices fell by 4% compared to the 1999/00 baseline year, but nearly two-thirds of departments are not on track to meet their own 12.5% reduction target by 2010/11.
- Fewer than half (nine departments) had reversed the upward trend of carbon emissions. However, due to lack of data for the office estate from interim years (2000 – 2006), it was difficult to assess whether or not this represents a real downward trend.
- Performance varied substantially between departments, from a 98% increase in emissions by CO to a 21.2% reduction by ECGD
  - Substantial increases in CO<sub>2</sub> from the office estate compared to 1999/00 were reported by CO (98.0%), DCA (81.6%),



DFID (86.7%), FC (152.9%), and HO (132.8%). Significant changes to DCA, DFID and HO estates will have contributed to an increase in emissions from these departments

- The greatest carbon reductions were reported by ECGD (-21.2%), HMT (-18.7%), DH (-18.5%), FSA (-16.7%), DTI (-14.4%), MOD (-11.6%) and Defra (-8.5%).

Further reductions in carbon emissions from offices may become increasingly difficult and require more innovative behavioural or technological solutions. Despite a poor performance against the target this year, Case study 3.2 discusses how the CO aims to minimise future energy usage through good management of its information technology systems.

### Case study 3.2

#### Cabinet Office – “PCs off” project

“Cabinet Office recognised that there were considerable savings to be made, both financially and in terms of carbon, through better management of its ICT systems. Therefore, in partnership with Fujitsu Services, the Department’s IT service provider, we developed a “PCs Off” project to better manage the usage of desktop PCs on our core central London estate, in line with the Cabinet Office’s wider environmental objective of reducing overall energy consumption and carbon emissions.

The main objective of the project was to set up a system whereby it was possible to run IT system updates on PCs during the night and then switch them off again. We also wanted to be able to automatically switch off PCs which had been left on unnecessarily i.e. at night and during weekends and holidays. The project’s timeframe was very brief since it only required an alteration in the scripts which run the IT systems.

For this reason, the project was also very light on resource requirements and therefore very cost-effective.

Our new system now means that all of the PCs on the estate are ‘woken up’ at 6pm every work day when essential virus and software scans are run. The computers are then all turned off again at 9pm and remain switched off until a user turns them on. The shut-down uses an intelligent script which recognises whether or not the computer is in use and thereby prevents the possibility of any data loss.

It is estimated that the project will save approximately 550 tonnes of carbon and £65,000 per annum. Overall, the project has been very successful and the system is running as intended. We are looking forward to seeing some real carbon savings as a result of this endeavour.”

Cabinet Office, 2007.

### 3.3.3 The “Department of Averages” and normalised data

Analysing the data in ways other than simply looking at progress against the SOGE targets can provide further, valuable insight into performance. One such method is to “normalise” the data using comparable units such as floor area (m<sup>2</sup>) or staff numbers.

Table 3.2 shows normalised carbon dioxide from office emissions per full time equivalent (FTE) staff member. The average departmental performance (the ‘Department of Averages’) is included to show those departments which performed above and below this level. Departments are also compared against the overall CO<sub>2</sub>/FTE figure for government, including and excluding data from MOD. This is because, as the largest department (representing 40% of all FTEs and 72% of carbon emissions from offices), MOD’s performance skews the pan-

government figure considerably. In the case of carbon dioxide emissions per FTE, MOD had one of the highest levels of all departments, and therefore reduced pan-government performance from 1.498 tCO<sub>2</sub>/FTE (excluding MOD data), to 3.130 tCO<sub>2</sub>/FTE (including MOD data). However, it should be noted that the data reported by MOD includes emissions from office and non-office sites.

The difference in the performance of departments shows that a different analysis can, in some ways, be more meaningful than target performance. This is particularly apparent when considering HO, whose performance compared to other departments appeared much better when looking at the normalised data, than against the SOGE target.

**Table 3.2** Departments ranked by carbon dioxide emissions from offices per FTE, including the 'Department of Averages'

Department	2006/07 Carbon dioxide emissions from offices per FTE (Tonnes CO <sub>2</sub> /FTE)*
HO	0.537
Defra	0.586
FC	0.859
DTI	0.955
LOD	1.171
DfT	1.239
<b>Pan-government (exc. MOD)**</b>	<b>1.498</b>
ONS	1.524
CLG	1.588
ECGD	1.591
HMRC	1.672
DH	1.698
DfES	1.705
DWP	1.831
<b>Dept. of Averages**</b>	<b>2.139</b>
DCA	2.307
DFID	2.353
FSA	2.677
CO	2.885
FCO	3.226
<b>Pan-government (inc. MOD)**</b>	<b>3.130</b>
HMT	3.440
MOD	5.520
DCMS	5.560

\* All data has been weather corrected. Please see Appendix I for more detail.

\*\* Average of CO<sub>2</sub> emissions from offices per FTE. The 'Department of Averages' does include the MOD to get a full picture of the entire government estate.

\*\*\* Total CO<sub>2</sub> emissions/total number of FTEs.

### 3.3.4 Energy efficiency

Using energy more efficiently supports the carbon reduction targets as energy production is predominantly driven by non-renewable fossil fuels. Many of the most cost-effective carbon savings we can make as a country are through energy efficiency, and as the competition for resources increases, energy in particular will be becoming an increasingly valuable commodity. Government must not only find alternative sources to carbon-based energy, but

all departments must also become more efficient in the way they use energy if they are to work towards sustainability as well as the cost savings of resource efficiency.

Energy efficiency normalised by floor area in m<sup>2</sup> is a challenging performance indicator for many departments in instances where they have optimised use of their floor space since the baseline year, i.e. putting more people in one place and

using space more wisely, thus increasing the energy demand per m<sup>2</sup>. The target for energy efficiency is shown in Box 3.2.

### Box 3.2 SOGE Targets – Energy efficiency

#### Energy efficiency

Departments to increase their energy efficiency per m<sup>2</sup> by 15% by 2010, relative to 1999/00 levels.

Departments to increase their energy efficiency per m<sup>2</sup> by 30% by 2020, relative to 1999/00 levels.

Departmental energy efficiency is shown in Table 3.3.

**Table 3.3** Energy efficiency on the government estate

Department	Energy per m <sup>2</sup> (1999/00) (kWh/m <sup>2</sup> )*	Energy per m <sup>2</sup> (2006/07) (kWh/m <sup>2</sup> )*	% change in energy use per m <sup>2</sup> between 1999/00 and 2006/07	Change in floor space (m <sup>2</sup> )	Performance
CLG	468 **	414	-11.6%	11%	Excellent progress
CO	282	289	2.6%	84%	No or poor progress/ Not Known
DCA	226	269	18.9%	40%	No or poor progress/ Not Known
DCMS	379	401	5.9%	5%	No or poor progress/ Not Known
Defra	372	492	32.1%	-11%	No or poor progress/ Not Known
DfES	321	345	7.7%	-14%	No or poor progress/ Not Known
DFID	342	463	35.2%	23%	No or poor progress/ Not Known
DH	366	400	9.3%	-30%	No or poor progress/ Not Known
DfT	277 †	293	5.7%	7%	No or poor progress/ Not Known
DTI	229	320	39.6%	-46%	No or poor progress/ Not Known
DWP	306	322	5.1%	-1%	No or poor progress/ Not Known
ECGD	150	163	8.1%	-18%	No or poor progress/ Not Known
FC	97	162	67.5%	51%	No or poor progress/ Not Known
FCO	407	419	3.0%	-2%	No or poor progress/ Not Known
FSA	532	427	-19.8%	0%	Good progress
HMRC	226 ††	306	35.2%	-17%	No or poor progress/ Not Known
HMT	362 ‡	436	20.4%	-39%	No or poor progress/ Not Known
HO	458 ††	400	-12.9%	19%	Good progress
LOD	285 #	268	-6.0%	8%	Some progress
MOD	87 ##	62	-28.6%	25%	Some progress
ONS	394	358	-9.2%	6%	Some progress
Pan-government	119	93	-21.7%	23%	Excellent progress

\* All data has been weather corrected. Please see Appendix I for more context.

\*\* Baseline for core CLG = 2002/03; Ordnance Survey and QEII Conference Centre = 1999/00.

† Based on different years, using the most credible and accurate data available.  
The weather correction factor for 2002/03 has been used, as most data was from that year.

†† Energy baseline year for core HMRC = 2000/01, and for VOA (Executive Agency) = 2002/03.  
Total floor area baseline year = 2000/01. This could not be split.

‡ Baseline year for core HMT = 1999/00; baseline year for OGC = 2005/06.

†† Baseline year for core HO = 1999/00; baseline year for Executive Agencies = 1999/00, with the exception of Crown House (occupied by HMPS staff, but a HO building) = 2001/02, and Newport offices (under HMPS) = 2006/07.

# Baseline years: AGO, CPS, and TSOL = 2000/01; SFO = 2001/02; HMCPSP = 2001/02.

## Baseline year = 2003/04. The baseline floor area includes PJHQ but the kWh does not include PJHQ. The area of PJHQ is not known.

Excellent progress
Good progress
Some progress
No or poor progress/ Not Known
Not applicable

### 3.3.5 Energy efficiency – analysis

- Overall, government reported a 21.7% improvement in energy efficiency per m<sup>2</sup> compared to 1999/00
- If MOD data is excluded, there was a 3.3% worsening in energy efficiency per m<sup>2</sup> across government
- 15 of 21 departments reported “poor progress or no progress” towards meeting their energy efficiency target
- Only four of 21 departments were on target to meet or exceed the energy efficiency target
- Good progress was reported by MOD (-28.6%), FSA (-19.8%), HO (-12.9%), and CLG (-11.6%). LOD (-6.0%) and ONS (-9.2%) also made some progress
- DCA (18.9%), DFID (35.2%) Defra (32.1%), DTI (39.6%), FC (67.5%) HMT (20.4%) and HMRC’s (35.2%) energy efficiency had worsened against the baseline.

#### Case study 3.3 CPS - Lamp replacement strategy

“A carefully planned and implemented group lamp replacement strategy carried out on behalf of the Crown Prosecution Service (CPS) by Cofathec is now delivering significant savings in both energy and maintenance costs. A key feature of the project was the CPS’s commitment to focusing on whole life costs, rather than initial costs, to achieve lower cost of operation.

Following a detailed survey of the entire CPS estate by Cofathec all of the lamp types in use were identified. Of the 84 different lamps types used across the estate, the most prevalent were 2ft, 4ft and 5ft linear fluorescent, compact fluorescent, 2D fluorescent and low voltage dichroic light sources. The whole life costs for each type of lamp were then calculated, comparing existing lamps with longer life, higher efficiency versions that could be retrofitted directly.

In all cases, the initial cost of the lamps was higher but the savings on maintenance by extending re-lamping cycles, combined with energy savings, provided a significantly lower life cost and a quick payback. A further benefit is that the light output of the new triphosphor lamps only depreciates by 10% during their life, compared to 50-60% with the previous lamps. As a result, a high quality lit environment is maintained for longer without re-lamping. Additional savings will be achieved through reduced disposal costs as most of the lamps will only need to be replaced every 4-5 years, compared to the previous every two years.

In all, a total of 131,000 lamps were replaced on the CPS estate within a period of just two months. The CPS is now benefiting from ongoing savings in energy and maintenance while ensuring a comfortably lit environment for staff.

CPS had never carried out a full scale relamping exercise before, any replacements had previously been carried out adhoc. Therefore most lamps would have not been replaced before their end of life. Going forward, the next relamping will be carried out at the end of the new lamp useful life. There is technical data on lamp lifespan which relates to type of lamp, hours of usage, etc. Therefore again lamps will only be replaced and disposed at the end of their useful life.

Retaining lamps beyond their useful life can be false economy as their efficiency and effectiveness drops off. As technology advances, more efficient lamps become available and therefore running costs are reduced and lifespan is now longer than previously. There is established evidence that operating costs of M&E services far exceed initial capital costs, therefore any measures to reduce these operating costs are good wins.

It is worth noting that the previous lamps had a number of substances embedded which are no longer acceptable within a working environment. The exercise has now eliminated these. The new lamps still require specialised disposal, but most authorities are now able to deal with these in a cost effective manner.

The exercise will minimise the level of maintenance now needed for future lighting issues, this is already evident from the maintenance reports. This results in lower maintenance costs, call out charges, etc and less disruption to the CPS business. It should be noted that the CPS premises now do have better lighting quality in terms of uniformity, lighting levels, etc.”

CPS, 2007.

### 3.3.6 The “Department of Averages” and normalised data

Analysing the data in ways other than simply looking at progress against the SOGE targets can provide further, valuable insight into performance. One such method is to “normalise” the data using comparable units such as floor area (m<sup>2</sup>) or staff numbers.

In the case of energy efficiency, the data has already been presented as consumption per m<sup>2</sup> (Table 3.3). As such, Table 3.4 simply presents the departments in ranked order (using the 2006/07 data) and against the fictional ‘Department of Averages’. This is included to show those departments performing above and below the average. Data from the 1999/2000 baseline year is also presented in order to illustrate change over time.

The MOD had the highest level of energy efficiency

of all departments (i.e. the lowest energy use per m<sup>2</sup>), and it also has the largest estate. The influence of the MOD positively skews pan-government performance figures considerably, from 351 kWh/m<sup>2</sup> excluding the MOD, to 93 kWh/m<sup>2</sup> including the MOD. As such, while the ‘Department of Averages’ includes the MOD, pan-government performance is presented as two scenarios: including and excluding the MOD.

Table 3.4 shows that more than half of the departments have performed worse than the average. When MOD is excluded, the pan-government performance is also below average, and energy use per m<sup>2</sup> has increased in comparison to 1999/2000. The ‘Department of Averages’ energy use per m<sup>2</sup> also increased over this time period.

**Table 3.4** Departments ranked by energy efficiency per m<sup>2</sup> including the ‘Department of Averages’

Department	Energy per m <sup>2</sup> (1999/00) (kWh/m <sup>2</sup> )**	Energy per m <sup>2</sup> (2006/07) (kWh/m <sup>2</sup> )**
MOD	87	62
<b>Pan-government (inc MOD)</b>	<b>119</b>	<b>93</b>
FC	97	162
ECGD	150	163
LOD	285	268
DCA	226	269
CO	282	289
DfT	277	293
HMRC	226	306
DTI	229	320
DWP	306	322
<b>Dept of Averages*</b>	<b>313</b>	<b>334</b>
DfES	321	345
<b>Pan-government (exc MOD)</b>	<b>340</b>	<b>351</b>
ONS	394	358
DH	366	400
HO	458	400
DCMS	379	401
CLG	468	414
FCO	407	419
FSA	532	427
HMT	362	436
DFID	342	463
Defra	372	492

\* Average of the all departmental energy efficiency rates.

\*\* Total energy usage/total floor space (m<sup>2</sup>).

Another useful analysis of energy efficiency is energy use per FTE (Table 3.5). This shows that some departments which performed well against the energy usage per m<sup>2</sup> target, have inefficient use of energy per staff member, and vice versa. HO, for example, showed good progress against the SOGE target, yet it reported the highest energy consumption per person, using 21,080 kWh/FTE. This was more than ten times that of FC which used 1,951 kWh/FTE, and performed poorly against the target.

Looking at kWh/FTE figures alone does not therefore demonstrate what progress has been made. Taking the FC example further, despite having the lowest energy use per person of all the departments, it increased its total energy

consumption by 152.9% between 2002/03 and 2006/07, and doubled its floor area. This resulted in a 67.5% worsening of energy efficiency over that period due to the proportional greater change in energy use compared to the change in floor space.

This approach does not account for differences in the remits of departments, and the fact that some activities are by their very nature more energy intensive per FTE than traditional office-based activities (e.g. laboratories and military functions). Nonetheless, departments should also consider this metric as a useful indicator of performance on energy consumption and efficiency, in particular in instances where functions and data capture are more directly comparable.

**Table 3.5** Departments ranked by energy efficiency per FTE including the 'Department of Averages'

Department	Total employees, visitors and contractors (FTE) covered by energy data	Total energy use 2006/07 (kWh)	Energy use per FTE (kWh/FTE)
FC	1,331	2,597,343	1,951
DTI	16,008	44,004,664	2,749
LOD	10,024	32,985,356	3,291
DH	3,977	18,404,426	4,628
HMRC	95,152	473,688,864	4,978
ECGD	294	1,481,550	5,039
DfT	19,636	100,104,264	5,098
DfES	6,055	31,406,710	5,187
ONS	4,983	26,715,827	5,361
DWP	120,277	720,001,997	5,986
Defra	25,215	170,322,321	6,755
CLG	14,660	101,681,794	6,936
DFID	1,735	12,267,482	7,071
DCA	37,947	277,487,861	7,313
FSA	663	5,066,961	7,642
<b>Dept of Averages</b>	<b>35,220</b>	<b>428,382,606</b>	<b>7,750</b>
CO	2,608	21,815,717	8,365
FCO	3,919	36,795,934	9,389
HMT	1,872	18,191,851	9,718
<b>Pan-government (inc MOD)</b>	<b>739,616</b>	<b>8,996,034,725</b>	<b>12,163</b>
DCMS	830	13,564,411	16,343
MOD	300,070	5,362,123,910	17,870
HO	72,360	1,525,325,482	21,080

Table 3.6 summarises the key energy use and energy efficiency data for departments, along with figures for pan-government and the 'Department of Averages'. It also shows how much each department has increased or decreased its overall floor space. Looking at this data together highlights the significant influence that changes in floor space have on performance against the energy efficiency target:

- Some departments have increased their energy use per m<sup>2</sup> in part due to optimisation of floor space. Having greater productivity per m<sup>2</sup> in a modern office will mean more work stations and equipment, and therefore more use of energy per unit area. HMT, DTI and DH all reduced their total energy use by over 20% compared to the baseline but, due to significant reductions in their floor space (between 30.3% – 46.1%), their energy efficiency actually worsened. The same applied, but on a smaller scale, to DfES and ECGD.
- Conversely, HO and LOD have increased their absolute energy use (by 3.7% and 1.1% respectively) but, due to an increase in their floor areas, have actually shown an improvement in energy efficiency. A proportionally greater increase in floor space than a change in energy use (positive or negative) will result in an improved energy efficiency rating against the target.
- No department which showed progress against this target actually reduced its floor space; indeed all but one increased it. Therefore, aside from the one, the progress of these departments against the energy efficiency target may result simply from an increase in floor space rather than an actual reduction in energy used per m<sup>2</sup>. Only the FSA reported a reduction in energy usage that was proportionally greater than the increase in floor space.
- Some departments have not reduced their floor space and have just increased their energy use per m<sup>2</sup> due to using more IT equipment or using energy less effectively. Departments such as CO, DCMS, FC and DfT have increased energy use, increased floor space and worsened energy efficiency. Energy efficiency in DCA and DFID also appears to have worsened, although this is predominantly due to issues with baseline data.
- The overall increase in floor space (23%) was proportionally greater than the decrease in energy use (-3.9%). As a result of the way that this target is measured, i.e. energy use per m<sup>2</sup>, pan-government energy efficiency may therefore appear to be better than is actually the case. Similarly, some departments (DfES, DH, DTI, ECGD, HMT) have performed poorly against the target even though they have actually reduced energy consumption and floor space, both of which are positive trends.

**Table 3.6 Summary of energy use and energy efficiency data for departments**

Department	Total energy use (thousand kWh, weather corrected)		% change in energy use	Energy use per FTE (kWh/FTE)	% change in floor space	% change in energy efficiency/m <sup>2</sup> since baseline
	1999/00	2006/07				
CLG	103,716 *	101,682	-2.0%	6,936	10.9%	-11.6%
CO	11,551	21,816	88.9%	8,365	84.1%	2.6%
DCA	167,080	277,488	66.1%	7,313	39.6%	18.9%
DCMS	12,164	13,564	11.5%	16,343	5.3%	5.9%
Defra	144,323	170,322	18.0%	6,755	-10.6%	32.1%
DfES	33,946	31,407	-7.5%	5,187	-14.1%	7.7%
DFID	7,394	12,267	65.9%	7,071	22.7%	35.2%
DfT	88,637 †	100,104	12.9%	5,098	6.8%	5.7%
DH	24,158	18,404	-23.8%	4,628	-30.3%	9.3%
DTI	58,453	44,005	-24.7%	2,749	-46.1%	39.6%
DWP	694,395	720,002	3.7%	5,986	-1.3%	5.1%
ECGD	1,668	1,482	-11.2%	5,039	-17.8%	8.1%
FC	1,027	2,597	152.9%	1,951	50.9%	67.5%
FCO	36,485	36,796	0.9%	9,389	-2.1%	3.0%
FSA	6,316	5,067	-19.8%	7,642	0.0%	-19.8%
HMRC	421,984 ††	473,689	12.3%	4,978	-17.0%	35.2%
HMT	24,872 ‡	18,192	-26.9%	9,718	-39.3%	20.4%
HO	1,470,507 †††	1,525,325	3.7%	21,080	19.0%	-12.9%
LOD	32,614 #	32,985	1.1%	3,291	7.6%	-6.0%
MOD	5,989,905 ##	5,362,124	-10.5%	17,870	25.4%	-28.6%
ONS	27,694	26,716	-3.5%	5,361	6.2%	-9.2%
Dept. of Averages	-	-	14.7%	7,750	4.8%	9.9%
Pan-govt exc. MOD	3,368,986	3,633,911	7.9%	8,267	4.4%	3.3%
Pan-govt	9,358,891	8,996,035	-3.9%	12,163	22.7%	-21.7%

\* Baseline for core CLG = 2002/03; Ordnance Survey and QEII Conference Centre = 1999/00.

† Based on different years, using the most credible and accurate data available.

The weather correction factor for 2002/03 has been used, as most data was from that year.

†† Energy baseline year for core HMRC = 2000/01, and for VOA (Executive Agency) = 2002/03.  
Total floor area baseline year = 2000/01. This could not be split.

‡ Baseline year for core HMT = 1999/00; baseline year for OGC = 2005/06.

††† Baseline year for core HO = 1999/00; baseline year for Executive Agencies = 1999/00, with the exception of Crown House (occupied by HMPS staff, but a HO building) = 2001/02, and Newport offices (under HMPS) = 2006/07.

# Baseline years: AGO, CPS, and TSOL = 2000/01; SFO = 2001/02; HMCPSI = 2001/02.

## Baseline year = 2003/04. The baseline floor area includes PJHQ but the kWh does not include PJHQ.  
The area of PJHQ is not known.



While energy efficiency is an important part of sustainable operations on the government estate, departments must recognise the tension between the energy efficiency (energy use **per m<sup>2</sup>**) and carbon emissions targets. Working towards energy efficiency is a complementary aim to reducing carbon emissions, but as the above points illustrate, the energy efficiency target can cause conflicting results. Therefore, departments should focus on reducing emissions first with improved energy efficiency an

important, but secondary, goal.

The SDC recommends that SPOB reconsiders the appropriateness of the SOGE energy efficiency target. It may be more appropriate to set a target percentage reduction for total energy use, or energy use per FTE. Alternatively, it may be more appropriate for the target to be to reduce energy use per FTE to a specified level or a benchmark standard rather than change from a baseline.

**3.3.7 Non-government benchmarks**

For this year’s report, data from a small number of private sector organisations has been included in our assessment, to provide an indicative comparison. Table 3.7 provides some non-governmental benchmark data on energy use.

The normalised total energy per person data can only be used as a crude indicator of comparative performance. At first sight, government’s performance appears to be worse than the benchmark organisations available, except ITV, and considerably worse than British Telecom, which reports fewer than half of the emissions per person than government does. However, this is a just a snapshot, and there are a number of underlying data issues (comparability of scope etc). Future SDiG reports may include a more detailed comparison between government

**Table 3.7 Non- government benchmarks for energy use<sup>27</sup>**

	Total energy use (kWh) 2006/07	Total energy use per FTE (kWh/FTE)
<b>BT</b>	627,056,264	5,918
<b>United Utilities</b>	46,553,717	11,638
<b>ITV</b>	122,099,000	22,199
<b>Barclays UK</b>	471,726,320	7,544
<b>Government</b>	8,996,034,725	12,163

and private sector performance. Government should also explore lessons to be learned from the private sector through future benchmarking, and through examples of best practice.

**3.3.8 Renewable energy and CHP**

Government must get its energy from sources that are consistent with its climate change objectives. Commitments to obtain electricity from renewable sources<sup>28</sup> or from combined heat and power (CHP) plants<sup>29</sup> have been carried forward from the previous SDGE framework, and are included in the new SOGE performance targets. Departmental performance against these targets is shown in Table 3.8.

Self-generation of energy, such as by wind turbines, biomass and photovoltaics, is considered zero carbon and therefore contributes to both the renewables target and the carbon reduction targets. Buying renewable electricity from the grid (sometimes called ‘green electricity’) is not considered carbon free as this would double-count carbon savings already being made by the energy sector under UK-wide

energy policy, and claimed by the UK government under its Climate Change Programme.

Nevertheless, buying renewables from the grid by procuring a ‘green electricity tariff’ sends a positive signal to the energy market that consumers want more renewable energy, and may help to boost investment. As a result, current guidance to departments is that they should actively procure renewable grid electricity where possible, but only when it can be obtained at no additional cost. The OGC’s electricity framework allows departments to meet a proportion of their electricity needs from renewable sources in line with the guidance (see Box 4.4. in Chapter 4 – “Sustainable Consumption and Production” – for more detail). The targets for renewables and CHP are shown in Box 3.3.

### Box 3.3 SOGE Targets – Renewables and CHP

#### Existing sustainable operations commitments from previous framework to continue into SOGE.

Departments to source at least 10% of electricity from renewables (31 March 2008).

Departments to source at least 15% of electricity from Combined Heat and Power (2010).

**Table 3.8** Renewable energy and CHP

Department	Total percentage of electricity derived from renewable sources	Rating	Total percentage of electricity derived by Combined Heat and Power**	Rating
CLG	72.7%		9.8%	
CO	55.5%		0.0%	
DCA	21.5%		0.8%	
DCMS	100.0%		N/A	
Defra	43.6%		10.8%	
DfES	8.9%		0.0%	
DFID	96.7%		N/A	
DH	99.9%		N/A	
DfT	62.5%		10.1%	
DTI	20.1%		24.4%	
DWP	53.5%		9.4%	
ECGD	7.2%		0.0%	
FC	100.0%		N/A	
FCO	32.7%		0.0%	
FSA	100.0%		N/A	
HMRC	100.0%		N/A	
HMT	77.4%		0.0%	
HO	29.6%		13.1%	
LOD	65.2%		9.4%	
MOD	8.8%*		4.3%	
ONS	24.4%		0.0%	
<b>Pan-government</b>	<b>28.3%</b>		<b>5.8%</b>	

\* As part of SDGE framework, it was agreed that the MOD target is for 2010. Therefore MOD is linearly on track to meet this target.

\*\* Departments which source more than 85% of electricity from renewables are exempt from the CHP target.

Excellent progress
Good progress
Some progress
No or poor progress/ Not Known
Not applicable

### 3.3.9 Renewables – analysis

- Overall, government reported that 28.3% of electricity was sourced from renewable sources, and 5.8% from CHP
- All but one department (ECGD) were on track to source 10% of their electricity from renewable sources by 2008
- The top performers were DCMS, FC, FSA and HMRC, who had 100% renewable electricity. A further two departments – DH (99.9%) and DFID (96.7%) – obtained more than 85% of their electricity from renewable sources. These six departments were therefore exempt from the CHP target
- All departments, except ECGD and MOD, have already exceeded the 2008 renewables target. However, MOD was on track to achieve this target by 2010, which is its agreed target date
- While core HMT had 100% of its electricity from renewable sources, its executive agencies did not source electricity from renewable sources, so overall HMT performance was 77.4%.

### 3.3.10 CHP – analysis

- Overall, government reported that 5.8% of electricity was sourced from combined heat and power
- Noteworthy performances against the CHP target include:
  - DTI (24.4%) already exceeds the target
  - HO (13.1%), Defra (10.8%), DfT (10.1%), CLG (9.8%), DWP (9.4%) and LOD (9.4%) are all on track to meet the target
- Eight of the 15 departments (for whom this target is applicable) reported ‘poor progress’ or ‘no progress’ on the CHP target. However, some departments, such as ECGD, reported that they had difficulties in achieving this target, including tenancy in shared office buildings. The SDC recommends that these departments consider sourcing 100% of electricity from renewables, if CHP and other micro-generations are not feasible
- DfES fell below target requirements for CHP. However, it plans to source 15% electricity from an off-site CHP facility in the future, and review the feasibility of producing electricity from on-site CHP within any new building projects.

### 3.3.11 How is government seeking to improve performance?

The draft Climate Change Bill was published on 13 March 2007, and was introduced into the House of Lords on November 14, 2007. The aim is to receive Royal Assent by spring or early summer 2008. The Bill would provide the overall approach for tackling climate change, and make the UK the first country in the world to have a legally-binding long-term framework to cut carbon emissions. Government is considering broadening the Bill to include other greenhouse gases, and emissions from international aviation and shipping.

There has also been a broad range of activities by government and departments on carbon management and energy efficiency. These apply

at all levels of the energy system including energy generation, energy procurement, site-based energy infrastructure, energy user behaviour and energy and carbon monitoring. Examples include:

- The OGC has an energy team advising on metering, procurement issues and awareness raising. This includes an energy framework which allows departments to meet a proportion of their electricity needs from renewable sources
- All but five departments were engaging in the OGC’s Property Benchmarking Scheme

which aims to improve the efficiency and effectiveness of corporate estate management (see Chapter 6 – “Mechanisms and Supporting Processes” – for further details)

- 14 of the 21 departments were engaging with the Carbon Trust to establish opportunities for carbon reduction and measurement, through the Carbon Management Programme and/or the Energy Efficiency Programme (see Chapter 6 – “Mechanisms and Supporting Processes” – for further details)
- A number of departments were working with their facilities management contractors to identify energy efficiencies such as boiler and infrastructure upgrades and lighting systems upgrades
- Some departments are applying BRE’s Environmental Assessment Method (BREEAM) excellent standards or equivalent at the design stage of new builds and major refurbishments. One objective of BREEAM is to improve energy efficiency and lower carbon emissions of buildings. However, 2006/07 performance on applying BREEAM was poor, even though it is mandated (see Chapter 6 – “Mechanisms and Supporting Processes” – for further details)
- MOD had efficiency savings embedded into energy budgets across the department, as part of its strategy to deliver a 15% reduction in CO<sub>2</sub> levels by 2010/11 from the top 220 energy consuming sites (see Case study 3.4 for further details)
- The 2007 *Energy White Paper*<sup>30</sup> proposed the Carbon Reduction Commitment (CRC) – a mandatory emissions trading scheme expected to begin in January 2010 – and the Climate Change Bill will allow government to make the CRC mandatory. If adopted, all departments with electricity consumption over 6,000 MWh/year will be required to participate. The 6,000 MWh/year threshold means that 16 of the 21 departments would be included in the CRC. The SDC welcomes this initiative
- Salix Finance is a government vehicle for accelerating public sector capital investment in climate change mitigation. The £20 million fund<sup>31</sup> will invest in the demonstration and deployment of low carbon energy and energy efficiency technologies across the UK, which will provide efficiencies to pay back the original investment
- Implementation of the EU Energy Performance of Buildings Directive, which introduces energy saving measures in three key areas: air conditioning systems, boilers and certificates.

## Case study 3.4

### MOD – Approach to Energy Management

#### Overview

“MOD is focused on the continual improvement of estate energy management to reduce consumption, minimise environmental impact, increase efficiency and to enhance security of supply.

#### Structure

To drive and coordinate activities to improve energy and water management across a diverse operational estate, MOD has formed the Estate Utilities Board (EUB), which is chaired at Director

Level by Defence Estates (DE) and made up of Top Level Budget Holder (TLB) representatives and utility specialists. The EUB also has responsibility for improving data collection and reliability and ensuring that the lessons learned from each annual reporting exercise are fed into future data management plans.

#### Challenges and Barriers

MOD’s UK estate is about 1.5 times the size of London. With locations throughout England, Scotland, Wales and Northern Ireland it comprises

around 4,000 sites, 50,000 houses across 240,000 hectares and we have rights to train over an additional 125,000 hectares.

It is evident that with such a diverse and large estate, energy management remains a key challenge in competition with other pressing needs on the defence budget.

## Outcomes

### Energy strategy

The MOD approach to energy management and reduction is geared around the trinity of Technology, Behaviour, and Measurement and is reflected in the updated MOD Non-operational Energy Strategy. The strategy focuses resources on the top 220 energy consuming sites which account for approximately 76% of the non operational energy consumption across the defence estate (UK and Overseas). The strategy supports the MOD Sustainable Development (SD) programme and Government SD targets. It embeds an internal 15% energy efficiency target, intended to reduce carbon emissions by 60,000 tonnes per annum by 2010/11 and deliver an annual saving of £31M from 2010/11. This efficiency target has been incorporated into Service Delivery Agreements (SDA) between MOD Permanent Under Secretary and each departmental management area and is discussed later. To assist with the investment necessary to deliver this saving, the MOD has established a centrally administered fund of £5M for 2007/08 against which MOD TLBs are able to draw capital on the back of robust business cases. A similar arrangement for 2008/09 is being considered.

### Current Initiatives and Priorities:

- Undertaking energy audits across the top 220 sites, using a common MOD audit methodology and developing site level energy plans that embed site specific energy reduction and efficiency actions/measures.
- Validating MOD TLB energy management structures through the Carbon Trust Energy efficiency Accreditation Scheme.
- Prioritising, programming and funding, subject to affordability, the spend to save measures identified by the energy audits. To date some £3.8M has been allocated from the £5M centrally administered fund to support the delivery of measures such as biomass boilers and Building Energy Management Systems (BEMs).
- Funding the installation of automated

meters on the top 220 sites using the IMServ smart metering contract. Further detail is provided below.

- Buying an increasing proportion of electricity from renewable sources and good quality combined heat and power (CHP) sources through centrally let contracts and support the development of on-site sources such as at Osnabrück Garrison where the CHP plant is powered by landfill gas.
- Reduction of energy use through effective energy management systems (e.g., computerised real time monitoring of energy consumption, enabling prioritised energy saving measures to be identified).
- Implementation of Low cost/No cost measures such as staff awareness campaigns and ensuring equipment is powered down and turned off when not in use.
- Reduce energy use through a higher standard of building design, improved insulation, more efficient heating systems and improved orientation of buildings.
- Build in integrated renewable energy systems and/or renewable energy systems in close proximity to the building where it is technically and economically feasible to do so. For instance a ground source heat pump (GSHP) has been integrated into the Megiddo West HQ building at Catterick.
- Support the use of sites for renewable energy systems, such as wind power, solar energy and biomass fuels. Biomass boilers are currently being installed at RM Poole and HMNB Clyde.
- Raising awareness: in addition to successive campaigns as part of the annual energy savings week, publicising via intranets and using local displays etc. to raise awareness, local campaigns continue and we have circulated an 'Energy Saving Tips for Establishments and Individuals' leaflet. As part of this effort all PC monitors in DE HQ for example sport "switch it off" stickers and we have worked with the Carbon Trust to develop a case study and awareness-raising poster based on work at RAF Kinloss.
- Innovation and partnership with industry: in the South West MOD has initiated an innovative collaboration between the Navy and Marines, the prime contractor for the region and Defence Estates with the aim of delivering a 10% saving through providing

specialist support. This uses information collected centrally to identify priority areas for attention, whether through replacement or adjustment of technology or building management systems or seeking to investigate unusual consumption patterns at site level.

- Trialling the Carbon Trust Carbon Management Programme on the MOD Office Estate with a view to rolling it out pan MOD and developing the carbon neutrality strategy necessary to achieve carbon neutrality of the MOD Office Estate and TLB HQs by 2012.

#### **Future Initiatives and Priorities:**

- Continue to invest in pilot projects and roll out the lessons learned pan MOD. This will include the Carbon Trust Carbon Management Programme and South West energy initiatives.
- MOD is looking at the partnering options for developing renewable sources of energy, in particular wind energy, across the defence estate to reduce carbon emissions and enhance security of supply.
- For the future, MOD is examining how their estate/facility management contracts (currently five regionally based prime contracts for works and maintenance) can be let such that sustainability factors are a key component, and that incentivisation to increase performance against sustainability targets is a matter of course.

#### **MOD Service Delivery Agreements/funding**

Pro-rata reduction targets have been included in Service Delivery Agreements (SDA) between MOD Permanent Under Secretary and each departmental management area as part of the strategy to deliver the 15% reduction in carbon levels by 2010/11 from the top 220 energy consuming sites. Achievement of these targets has been linked to budgets, with the budget being reduced annually to incentivise a TLB to meet its efficiency targets. The expectation is that much of the investment will have a very quick payback, so much so that it will be self-financing within a financial year. However, as previously mentioned, capital funding of £5m has been made available this financial year to allow investment in measures necessary to deliver the targets.

#### **Smart Metering**

The IMServ smart metering contract provides an effective vehicle to improve data collection efficiency relatively easily and automated metering is being progressively rolled out across supplies to the top 220 energy consuming sites.

In November 2006, the MOD placed a five-year contract with IMServ Europe Ltd for electricity meter operation, data collection and data aggregation for all MOD sites with a capacity greater than 100kW. Now, for the first time, MOD has consumption reporting for all mainstream MOD establishments available on a common platform.

The new web-based service is called Energy Data Vision (EDV). The service gives users within the MOD better visibility of where energy is being used and how money is being spent. Revenue meters are then used to calculate consumption for billing purposes. The contract offers the opportunity to install additional electricity sub-meters and automated meter reading for primary gas meters. Where sub-meters are already installed they can also be connected to the EDV system to produce consumption data. Sub-metering provides energy managers with the right level of information to understand their energy use and, therefore, reduce consumption effectively.

MOD energy managers and site contractors, such as the Regional Prime Contractors, are being encouraged to use the service and to consider where additional or automated metering would be most beneficial.

A recent Carbon Trust study into the use of smart metering in the public sector concluded that the MOD approach, using EDV, delivers the best value for money when compared to other options. The contract has been set up to allow other government departments and public sector organisations to draw off this service. This gives them a means of achieving their aims of obtaining consumption data for energy management, which meets their technical requirements and does not involve investing capital funds. This contract is recognised as offering the best value for money across government and is included in the Office of Government Commerce online catalogue."

MOD, 2007.

### 3.3.12 Helps and hinders

Departments were asked to provide details of anything that had helped or hindered the delivery of their office-based SOGE carbon emissions and energy use targets (Box 3.4).

#### Box 3.4: Helps and hinders

##### Helps

- **CO** – “All of Cabinet Office’s existing tungsten filament bulbs are being replaced on a rolling basis with compact fluorescent bulbs”
- **CO** – “The Cabinet Office has signed up to the Carbon Trust’s Carbon Management Programme and is currently implementing projects that have been suggested. We are confident that these projects will deliver savings and thus meet the target(s). We have found participating in the Carbon Trust’s Carbon Management Programme to be very beneficial to our efforts to reduce our carbon emissions and associated costs”
- **CLG** – “Environmental Champions network has been established comprising staff volunteers who spread the SD agenda, conduct office equipment energy surveys and develop local targets within Directorates to reduce energy consumption”
- **Defra** – “Carbon Management Workshops – Using the Carbon Trust as facilitators, Defra has run a series of workshops for facilities managers and senior facilities managers, to inform them of our current position and required improvement on carbon management”
- **DTI** – “Introduction of LED lighting (Trial) which has so far shown encouraging results”
- **LOD (CPS)** – “The re-lamping exercise last year has led to reduced emissions (better lighting being used), costs, travel, and time for both the department and contractor this year”
- **MOD** – “Lydd Training Camp in SE Kent: renewable energy system has replaced an old diesel generator.”

##### Hinders

None reported.

### 3.3.13 Offices – overview

Significant work needs to be done in the future for individual departments and government as a whole to meet SOGE Climate Change and Energy (CC&E) targets. The majority of departments (13 of 21) are not on track to meet the carbon emissions from offices target. While energy efficiency per m<sup>2</sup> is an important target, reducing carbon emissions must be departments’ priority. Offices need to be operated more efficiently to ensure that energy performance is improved and carbon emissions are reduced.

These findings also reflect the NAO report on energy consumption and carbon emissions in government departments, which was based on 2005/06 performance data.<sup>32</sup> Specifically, departments can and should be doing much more to improve the performance of their office estates against the SOGE CC&E targets, which would result

in more sustainable practices and significant cost savings.

The stakes relating to climate change are high, and if serious impacts are to be averted government must show leadership by providing good examples of successful carbon management in practice.

The IPCC reported that the evidence on climate change is now “unequivocal”. Government must therefore act to mitigate against climate change, whilst also putting in place policies to adapt to the likely impacts. For government’s own estate and operations, this means investing now to ensure that buildings and services will be fit for purpose in a low carbon, climate-changed world.

While individual departments must continue to address problems and exert themselves towards achieving the targets, serious leadership from the heart of government, especially the very top levels,

is urgently needed to achieve all the operational goals. This will involve undertaking major step-change initiatives and investment, in addition to the current practice of incrementalism. Radical solutions

are required if government is serious about leading the fight against climate change through its own estate and operations.

### 3.4 Travel

Government should seek to make all travel more sustainable through smarter working practices, reducing the need to travel and making better travel choices. Government business entails travel within the UK and overseas, and the nature of this travel has varying degrees of impact depending on the type of transportation. Petrol, diesel and gases (such as LPG) are used to fuel vehicles for government travel, thereby emitting carbon dioxide

and contributing to climate change. Therefore the way in which government officials choose to travel can help reduce carbon emissions or increase them.

Government must seek to travel efficiently with a view to reducing the carbon emissions while still delivering required services. Inefficient travel costs carbon, time and money and should be a focus for all departments.

#### 3.4.1 Road vehicles

Table 3.9 shows the emissions of CO<sub>2</sub> from road vehicles used for administrative operations in 2006/07, compared with the baseline year of 2005/06. This target is different from the previous framework in that it stipulates vehicle travel used for 'administrative operations'<sup>33</sup> only and now

applies a 2005/06 baseline (see Appendix J). Many departments had difficulty changing their data monitoring approach to differentiate between operational and administrative operations travel. The target for travel is show in Box 3.5.

**Box 3.5 SOGE Targets – Road Vehicles**

**Travel**

**Carbon emissions from road vehicles**

Reduce carbon emissions from road vehicles used for government administrative operations by 15% by 2010/11, relative to 2005/06 levels.

Government reported that it undertook 792.5 million km of road travel in 2006/07 – more than five times the distance between the Earth and the Sun. DfT estimated that total UK-wide road travel in 2006 was 506 billion km;<sup>34</sup> government road travel therefore makes up approximately 0.02% of UK-wide road travel. While this may seem insignificant,

this results in emissions of 143,229 tonnes of CO<sub>2</sub>. Furthermore, the way government travels impacts on the private sector, both through government's procurement of transport and as a leader in sustainable operations. There are also broader impacts from travel for government to consider such as congestion and air quality.



**Table 3.9 Emissions of carbon dioxide from road-based transport for administrative operations**

CO <sub>2</sub> emissions arising from road-based transport for administrative operations (Tonnes CO <sub>2</sub> )				
Department	2005/06	2006/07	% change in emissions since 2005/06	Performance
CLG	3,491	3,146	-9.9%	Good progress
CO	NK	NK	NK	No or poor progress/ Not Known
DCA	1,313	4,686	257.0%	No or poor progress/ Not Known
DCMS*	NK	345	NK	No or poor progress/ Not Known
Defra	23,826	22,700	-4.7%	Good progress
DfES	917	935	2.0%	No or poor progress/ Not Known
DFID	55	26	-53.3%	Excellent progress
DfT	10,780	9,640	-10.6%	Good progress
DH	638	568	-10.9%	Good progress
DTI	572	594	3.8%	No or poor progress/ Not Known
DWP	17,827	21,652	21.5%	No or poor progress/ Not Known
ECGD	22	7	-66.7%	Excellent progress
FC	2,508	2,548	1.6%	No or poor progress/ Not Known
FCO	145	259	78.5%	No or poor progress/ Not Known
FSA	121	128	6.1%	No or poor progress/ Not Known
HMRC	19,925	17,560	-11.9%	Good progress
HMT	535	268	-50.0%	Excellent progress
HO	5,342	9,632	80.3%	No or poor progress/ Not Known
LOD	2,050	1,885	-8.1%	Good progress
MOD	48,202	44,363	-8.0%	Good progress
ONS	2,493	2,288	-8.2%	Good progress
<b>Pan-government *</b>	140,762	142,885	1.5%	No or poor progress/ Not Known

\* Excludes DCMS for which there was no baseline data.

Excellent progress
Good progress
Some progress
No or poor progress/ Not Known
Not applicable

### 3.4.2 Road vehicles – analysis

- Departmental performance on emissions from road vehicles was mixed. Overall, government reported a 1.5% increase in CO<sub>2</sub> from road vehicle emissions since 2005/06, and performance against this target has actually worsened
- Due to the addition of the magistrates' courts to its estate, DCA was unable to provide a complete and accurate baseline. As a result, DCA reported an increase in road travel of over 250% between 2005/06 and 2006/07. If pan-government performance is adjusted by removing DCA's data, overall CO<sub>2</sub> emissions from road travel show a reduction

of 0.9% since 2005/06. So while this is 'some progress' against the target, government as a whole would still not be on track to meet it

- Eight of 21 departments reported "poor progress or no progress" towards meeting the carbon emissions from road vehicles target, and two further departments reported that progress was 'Not Known' (CO and DCMS)
- 11 of 21 departments are on target to meet or exceed the carbon emissions from road vehicles target
- The reduction of CO<sub>2</sub> emissions from road-based travel by EGCD (66.7%), DFID (53.3%) and HMT (50.0%) is worthy of note. Reasons for these reductions included the use of 'cleaner' fleet vehicles, increased use of alternative methods of transportation, and better contractual arrangements with travel providers
- More than a third of all the pan-government CO<sub>2</sub> emitted from road transport was reported to be from MOD. The reduction of road-based travel CO<sub>2</sub> emissions by MOD was 3,839 tonnes. Without the MOD, pan-government carbon emissions from road vehicles increased by 5,962 tonnes of CO<sub>2</sub> or an increase of 6.4%
- Poor performance against the road-based travel CO<sub>2</sub> emissions target included:
  - HO reported an 80% increase, but stated that this increase was due to a data problem during the baseline year
  - DWP's emissions increased by 21.5% or 3,824 tonnes.

### 3.4.3 The "Department of Averages" and normalised data

Analysing the data in ways other than simply looking at progress against the SOGE targets can provide further, valuable insight into performance. One such method is to "normalise" the data using comparable units such as floor area (m<sup>2</sup>) or staff numbers.

Table 3.10 shows normalised carbon dioxide from road vehicles per full time equivalent (FTE) staff member. The average departmental performance (the 'Department of Averages') is included to show those departments which performed above and below this level. Departments are also compared against the overall CO<sub>2</sub>/FTE figure for government. The data shows that:

- Performance ranges vastly, from 0.01 tCO<sub>2</sub>/FTE (DFID) to 1.91 tCO<sub>2</sub>/FTE (FC)
- Pan-government performance is lower than the average department's performance. This can be partially explained by outliers that pull the average up, particularly Defra and FC.
- 15 of the 21 departments are performing better than the average.

It should be noted, however, that presenting the data in this way is only illustrative, and can be a useful means of comparison between departments whose geographical distribution and functions are similar. It does not account for the fact that some departments have dispersed sites, or differences in remits between the departments. Both of these factors influence the need for travel.

**Table 3.10** Departments ranked by carbon dioxide emissions from road vehicles per FTE including the 'Department of Averages'

Department	2006/07 Carbon dioxide emissions from road vehicles per FTE (Tonnes CO <sub>2</sub> /FTE)*
DFID	0.01
ECGD	0.02
DTI	0.04
HMT	0.04
FCO	0.07
DCA	0.12
HO	0.13
DH	0.14
MOD	0.15
DfES	0.15
DWP	0.18
HMRC	0.18
LOD	0.19
<b>Pan-government*</b>	<b>0.19</b>
FSA	0.19
CLG	0.21
<b>Dept. of Averages*</b>	<b>0.30</b>
DCMS	0.42
ONS	0.46
DfT	0.49
Defra	0.90
FC	1.91
CO	NK

\* Includes DCMS as only performance year (2006/07) is used for this analysis.

### 3.4.4 Non-government benchmarks

For this year's report, data from a small number of private sector organisations has been included in our assessment, to provide an indicative comparison. Table 3.11 shows performance data benchmarks for road travel from a number of private sector

organisations, normalised by full-time equivalent employees (FTEs). It is expected that future SDiG reports may be able to report a broader range of benchmarking data.

**Table 3.11** Indicative benchmarking data from private sector organisations<sup>35</sup>

	CO <sub>2</sub> from road-based business/administrative travel (Tonnes)	CO <sub>2</sub> from road-based business/administrative travel per FTE (Tonnes/FTE)
Boots	4,260	1.42
BT	38,338	0.36
United Utilities	223	0.56
ITV	1,001	0.18
Barclays UK	38,543	0.62
Government	143,231	0.19

CO<sub>2</sub> from road vehicles has been calculated for this benchmarking analysis using an 'average car' emissions figure of 0.286 kg CO<sub>2</sub>e (CO<sub>2</sub> equivalent) per mile, apart from BT which provided data in the form of emissions. As such, these figures are purely for comparative purposes and may differ from those reported in company environmental reports.

The normalised CO<sub>2</sub> emissions from road travel per FTE illustrates that government travels less per person than the companies listed, excluding

ITV. This may be in part due to the London focus of much, though a decreasing proportion, of central government's activities. This provides a useful indicator for future benchmarking, and while government has performed well against the private sector in the analysis, it should continue to look to the private sector for innovations and best practice. In particular, the next generation of video-conferencing may provide further opportunities to reduce the need for travel.

### 3.4.5 Other modes of travel

It is important to recognise that the overarching commitment should be for departments to reduce their *overall* need to travel by considering whether travel is necessary. If a meeting is deemed necessary, travel can still be avoided by making use of smarter working practices, such as alternative technologies (e.g. video conferencing and telephone conferencing). When travel is necessary, departments should look to make use of the most

environmentally appropriate mode of transport. As such, the use of trains and coaches is (in general) preferable to use of cars or planes, in much the same way that cycling is encouraged over the use of trains and buses for a number of reasons. Clearly whole journey time, cost and connection complexity must also be factors in the decision-making process. Case study 3.5 shows how ONS has encouraged cycling as a form of transportation.

#### Case study 3.5 ONS 'On your bike' project

"Each year ONS sets aside funds to promote environmental awareness. Some of this funding is regularly used to support cyclists and encourage more staff to leave their cars at home and get on their bikes. In 2007 we completed a range of facilities to make cycling as practicable as possible. We have installed showers, lockers and drying facilities at all sites at little extra cost within our ongoing programme of building refurbishment and modernisation across the ONS estate. We erected modern, award-winning cycle pods which each store and protect eight cycles in a two metre diameter space. Each pod is made of 90% recyclable aluminium which has already been recycled from over 12,500 cans, and has solar powered security lighting. We have made a point of placing our cycle shelters very close to our building entrances in order to make cycling to work as convenient and pleasurable as possible.

The idea was to support the government's Green transport scheme, to promote alternative methods of travel, the health and well being of staff and to reduce carbon emissions. Much of our success stems from the strong lead from senior management in the Office as each site has a 'green champion' at director level. Our Permanent

Secretary is an enthusiastic cyclist who regularly cycles to and from work when working at our London office. A number of our divisional directors also set fine examples by riding to work.

We used Bike to Work Week (18-22 June) to launch a number of incentives. This year, representatives from local cycle shops visited our sites to answer cyclists' queries and to display the latest range of models of this form of transport. The opportunity was also taken to promote the government "Cycle to Work" scheme to enable our staff to acquire cycles at a reduced cost. The scheme provides the opportunity for staff to pay for the hire of a bicycle through salary sacrifice and enjoy tax savings. The scheme includes bike paraphernalia, such as maintenance equipment, lighting, reflective clothing and the all important safety helmet. Our Census Geography Unit produced maps displaying local cycle routes. Various raffles and competitions were organized with the opportunity for a member of staff on each site to win a new cycle. Staff who cycled to work that week were provided with breakfast vouchers and free T-shirts.

Regular feedback about the benefits of these measures and any obstacles faced by cyclists are aired at Bike User Group meetings. Take up of bicycle storage facilities is monitored by Facilities Managers, and the administrators of the Cycle to Work Scheme report back on level of take up.

### The barriers

The bicycle hire scheme has certain restrictions and conditions which need to be explained in detail. Information about the scheme was initially advertised internally with links provided to relevant websites. ONS worked with Healthcare Communications Ltd. who we chose to administer our scheme. During the Bike to Work Week a representative from the On Your Bike Company toured all ONS sites to promote the initiative. He gave presentations to staff and explained in detail how the scheme worked.

At our Hampshire site, some potential cyclists were very reluctant to cycle to work because of the difficulties in negotiating an extremely busy and fast moving dual carriageway. After several years of pressuring by ONS, the local authority has introduced a speed limit and a pelican crossing.

### The outcomes and benefits

Early indications are that the number of cyclists has increased by over 40%. This is small beginnings; we have taken cars off the roads, we have saved some carbon and hopefully have healthier staff. Importantly, we have raised awareness about alternative and greener forms of travel. We are not letting the grass grow under our wheels, we intend to hold another cycle promotion event in December.

Our efforts at our Southport office have been rewarded with a grant from the local authority of 50% of the costs of the new cycle shelters which we have installed this year. The local authority has also provided four bicycles on a free loan basis so that staff can try before they buy.

The project has taught us that, in order to measure our progress against the government's National Cycling Strategy aims, we need better information about how our staff travel to work and particularly about the obstacles facing those who wish to cycle to work. In addition to planning our own travel surveys, we have recently joined forces with a local business forum. The forum is conducting surveys among members in order to explore the opportunities for joint projects to increase our employees' travel to work options."

ONS, 2007.

Departments should recognise the sustainable development impacts of travel beyond road vehicles, as well as the public resonance of its actions. Although not part of the current SOGE commitments, the SDC encouraged departments to provide information regarding other modes of transport as well as road-based transport.

As part of this year's data return, departments were asked to provide information on administrative mileage, and the associated carbon dioxide emissions, from air, rail and taxi<sup>36</sup> transport. Further air travel information was provided by the Government Carbon Offsetting Fund (GCOF), and was used to fill data gaps. The summary of this information is provided in Table 3.12. The table does

not present data in taxis. This was limited as it had not been routinely collected by most departments. The SDC would like to see improved collection of data on all forms of transportation in future reporting.

Departments were encouraged to use Defra's 2005 *Guidelines for Company Reporting on Greenhouse Gas Emissions* to calculate their emissions. However, it should be noted that air travel calculations did not include any adjustments for radiative forcing (see Box 3.6). The approach for calculating emissions from air travel makes only a basic distinction between long haul and short haul flights. It does not consider domestic flights differently from short haul flights, nor does it consider the relative emissions between turbo propeller (prop) and jet engines.

### Box 3.6 Greenhouse gas calculations and radiative forcing

There is a consensus that carbon dioxide emissions released at high altitude will have a greater impact on global warming than an equivalent amount of carbon dioxide released from ground based transport. The term '*radiative force*' is used to describe this effect. The magnitude of this effect is much debated and depends upon a number of factors including the altitude of emission and whether contrails (or vapour trails) are produced to reduce these effects.

For the purposes of this report we have chosen to report data that is based purely upon the carbon dioxide emitted and not the relative impact. The reason for this is that there is some uncertainty at present as to the actual magnitude of the difference and how it applies to different types of air travel.

As such, the climate change impact associated with air travel may be understated in these figures.

**Table 3.12 Emissions of carbon dioxide from flights and rail**

Department *	Total carbon dioxide emissions arising from all flights 2006/07 (tonnes of CO <sub>2</sub> )	Tonnes of carbon dioxide emissions from flights per FTE	Total carbon emissions arising from rail based transport 2006/07 (tonnes of CO <sub>2</sub> )	Tonnes carbon dioxide emissions from rail journeys per FTE
<b>CLG</b>	169	0.012	40	0.003
<b>CO</b>	814	0.312	81	0.031
<b>DCA</b>	312	0.008	51	0.001
<b>DCMS**</b>	172	0.207	26	0.031
<b>Defra</b>	1,811	0.072	972	0.039
<b>DfES</b>	467	0.077	NK	NK
<b>DFID</b>	5,045	2.908	18	0.011
<b>DH</b>	799	0.201	NK	NK
<b>DfT</b>	1,184	0.060	279	0.014
<b>DTI</b>	2,446	0.153	26	0.002
<b>DWP</b>	1,910	0.016	3,029	0.025
<b>ECGD</b>	95	0.324	4	0.012
<b>FC</b>	381	0.287	51	0.039
<b>FCO</b>	16,361	4.175	NK	NK
<b>FSA</b>	238	0.359	NK	NK
<b>HMRC</b>	3,639	0.038	NK	NK
<b>HMT</b>	895	0.147	125	0.020
<b>HO</b>	1,800	0.025	704	0.010
<b>LOD***</b>	308	0.031	7	NK
<b>MOD</b>	9,137	0.030	NK	NK
<b>ONS</b>	216	0.043	352	0.071
<b>Pan-government</b>	48,201	0.064	5,764	0.008

\* The DfES and HMRC figures are based upon their Defra Carbon Offsetting fund figures. All other departments' figures are based upon SOGE data returns.

\*\* Core department only.

\*\*\* LOD rail data only from SFO and HMCPSI; FTE figures for these agencies not known.

### 3.4.6 Other modes of travel – analysis

Departments will have different travel needs depending on their role and the geographical challenges of UK-based responsibilities. For example DFID and FCO, who both have international remits, would be expected to have higher level of air travel than HO and DH. Indeed, DFID and FCO reported much higher emissions per FTE from air travel than other departments, as did MOD. Therefore, when looking at future performance against travel

targets, it will be more interesting to look at trends within each department, rather than comparing the performance of different departments. Trend analysis over time is not possible at present, due to data not being collected in previous years.

Table 3.13 provides an overview of the proportions of emissions according to the mode of transport, for departments (where relevant data has been provided).

**Table 3.13** Proportion of travel CO<sub>2</sub> from different modes of transport

Department	Percentage of reported CO <sub>2</sub> emissions arising from road-based travel	Percentage of reported CO <sub>2</sub> emissions arising from air travel	Percentage of reported CO <sub>2</sub> emissions arising from rail travel
CLG	93.8%	5.0%	1.2%
CO	-	-	-
DCA	92.8%	6.2%	1.0%
DCMS	63.5%	31.8%	4.7%
Defra	89.1%	7.1%	3.8%
DfES	-	-	-
DFID	0.5%	99.1%	0.4%
DH	-	-	-
DfT	86.8%	10.7%	2.5%
DTI	19.4%	79.8%	0.8%
DWP	81.4%	7.2%	11.4%
ECGD	6.9%	89.7%	3.4%
FC	85.5%	12.8%	1.7%
FCO	-	-	-
FSA	-	-	-
HMRC	-	-	-
HMT	20.8%	69.5%	9.7%
HO	79.4%	14.8%	5.8%
LOD	85.7%	14.0%	0.3%
MOD	-	-	-
ONS	80.1%	7.6%	12.3%

The information clearly shows that different departments rely to differing degrees on the modes of transport presented.

- DFID, DTI, ECGD and HMT were the most air-intensive departments with regards to the proportion of CO<sub>2</sub> emissions from travel
- DWP and ONS had the largest proportion of emissions arising from rail travel
- DCA and CLG had the highest proportion of emissions from road-based transport.

Travel information is currently patchy across government. However, each department should

still aim to reduce emissions from travel by seeking to travel in the lowest-impact way possible. For example, rail travel should be prioritised above air travel for UK journeys.

The SDC would like to see better data regarding the emissions of CO<sub>2</sub> from all forms of transport used by government in future years. It would also like to see a great proportion of journeys undertaken through lower carbon forms of transportation, and a reduction of overall CO<sub>2</sub> emissions for **all** travel. Case study 3.6 shows how HMRC's travel intranet site provides guidance for employees on how to make sustainable travel choices.

### Case study 3.6 HMRC – travel intranet site

“We have developed a travel intranet site, which provides guidance on sustainable travel. It includes information on car sharing, encourages video/telephone conferencing and illustrates the CO<sub>2</sub> emissions for journeys made by rail and air to the same destination.

In support of the Sustainable Operations target to reduce our road vehicle carbon emissions by 15% by 2010/11, and with the overarching aim of being sustainable in everything we do, we have developed guidance on sustainable travel for inclusion on our travel intranet site. This guidance is aimed at all staff and is about encouraging a change in behaviour.

We challenge current behaviour at the outset by encouraging staff to think about the need to travel in the first place and to consider alternatives to travel such as telephone or video conferencing. Where travel is necessary we actively discourage travelling by car and promote public transport as the first option to be

considered by all travellers. We also discourage air travel and use the intranet site to provide comparisons on CO<sub>2</sub> emissions for journeys made by rail and air to the same destination, enabling the traveller to make an informed choice on how to travel.

We have made good progress in reducing emissions from road travel – our carbon emissions from road vehicles reduced by 12% between 2005/06 and 2006/07. We have reduced the number of vehicles in our fleet considerably and have replaced the high emitting vehicles in our pool fleet with those with average CO<sub>2</sub> emissions of 119g/km. When purchasing new pool vehicles we will ensure they are fitted with integral satellite navigation systems to help reduce fuel usage and carbon output. The vehicles available on our private user scheme have a maximum of 170g/km CO<sub>2</sub>. This will reduce over the next few years.”

HMRC, 2007.

### 3.4.7 How is government seeking to improve performance?

- In its May 2007 Energy White Paper the government set a new target of achieving carbon emissions of 130gCO<sub>2</sub>/km or lower for new cars by 2010/11. The target applies to all new passenger cars procured for administrative purposes and is to be taken as an average across the government fleet
- The Government Car Dispatch Agency offers a London-based green taxi service for government business called ‘Green Cars’. They only use hybrid electric/petrol cars, or cars that run on Liquefied Petroleum Gas (LPG) or 5% bio-diesel blend
- Departments are procuring vehicles with better environmental credentials such as hybrid cars or low emission vehicles. However, whole life cost must be taken into account when procuring new vehicles, including the disposal of old vehicles
- Staff are being encouraged to use videoconferencing to replace travel where appropriate. In particular, DFID and DCA have shown significant cost and carbon savings through the use of videoconferencing (see DCA’s Case study 3.7 for further details).

### Case study 3.7 MoJ (DCA) – Videoconferencing

“As part of the Defra led ‘Act on CO<sub>2</sub>’ campaign, the Ministry of Justice identified increased usage of video conferencing as a measure which can positively influence individual behaviour, save staff time and cut travel budgets, and reduce carbon emissions. Video conferencing also forms part of the department’s strategy to meet government targets to reduce carbon emissions

and internal targets as defined within the Ministry’s Sustainable Development Action Plan.

The initiative was launched in July 2007, the internal audit will commence in November 2007 and the project is expected to be complete by April 2008. The project is a joint effort by the Ministry of Justice’s HQ, executive agencies and NDPBs.

During the audit exercise members of staff



will be asked to advise on available video conferencing facilities within their delivery body. This exercise will re-enforce the need for each business area to identify its on site video conferencing facilities and report on methods in place to monitor usage. Once the audit is complete, an analysis of the available equipment and monitoring systems will be undertaken.

With the assistance of the Communications team staff will be made aware of their nearest video conferencing facilities. The next stage will be to monitor usage of video conferencing equipment, measure CO<sub>2</sub> reductions and identify savings made on reduced travel time and costs."

MoJ, 2007.

### 3.4.8 Helps and hinders

Departments were asked to provide details of anything that had helped or hindered the delivery of their SOGE travel target (Box 3.7).

#### Box 3.7 Helps and Hinders

##### Helps

- **ONS** – "We have a car sharing database. We have a taxi sharing policy."

##### Hinders

- **Defra** – "Pan-government agreements/ contracts on rail and air transport should report CO<sub>2</sub> but do not"
- **DfES** – "All aspects of travel are not under one responsibility and DfES does not currently have an agreed person to do this"
- **ECGD** – "ECGD is required to travel abroad in support of its operations"
- **Several departments** reported that collection of travel data is difficult.

### 3.4.9 Travel – overview

As with offices, much work remains to be done by individual departments and the government centrally to meet SOGE travel targets and to make travel more sustainable generally. Carbon emissions from road vehicles have risen by 1.5%, meaning that government has shown no progress at all towards achieving its target to reduce carbon emissions from road vehicles used for government administrative operations by 15% by 2010/11 (relative to 2005/06 levels). There now needs to be a concerted effort by all departments to show improvements in future reporting years.

Furthermore, if the SOGE target on travel is to be truly outcome-focused, the aim should be to reduce carbon emissions from all forms of transportation, not just road vehicles. This should include air, rail

and taxi travel. Departments themselves could then decide the approach to take in achieving this target. This would also encourage departments to consider the cost benefits in developing sustainable travel plans. This is an area where clear choices can be made in the short-term to reduce carbon emissions and help mitigate climate change.

Departments must also consider whether travel is necessary at all, before deciding how to travel. To facilitate this, smarter working practices should be employed to reduce the need to travel in the first place. There are further social benefits to consider from smarter working practices such as flexible working patterns and healthier, more motivated staff.

## 3.5 Carbon neutrality and offsetting

### 3.5.1 Carbon neutrality

The concept of 'carbon neutrality' is becoming an increasingly popular way for organisations and individuals to compensate for their carbon impact and demonstrate their concern over climate change. The SDC defines carbon neutrality as any product, activity or organisation that causes no net increase in CO<sub>2</sub> emissions to the atmosphere under 'business-as-usual' conditions. Hence, while being truly zero carbon would require no carbon to be emitted, carbon neutrality allows emissions to be offset elsewhere, a process which is usually called 'carbon offsetting'.

Government has made a commitment that its office estate will be carbon neutral by 2012. Fulfilment of this target by departments cannot be properly assessed until the target year is reached. The process of "neutralising" carbon emissions has been a matter of great debate over the past 18 months with the issue of offsetting polarising

alternative positions. The government should supply definitive guidance regarding carbon neutrality for departments.

Carbon neutrality should be seen as a part of the process that aims to progressively reduce emissions, rather than just a route to carbon offsetting. The Carbon Trust has stated "...that an organisation must make systematic reductions in emissions before any carbon offsetting should be considered."<sup>37</sup> For government departments, it should therefore lead to the adoption of a comprehensive carbon management strategy, which attempts to quantify and reduce the lifecycle carbon emissions of the operation, service or facility in question. The remaining carbon emissions can then potentially be offset; however, offsetting should be seen as an interim measure toward carbon neutrality, not a measure of last resort.

### 3.5.2 Carbon offsetting

Carbon offsets have been defined by the Carbon Trust<sup>38</sup> as follows:

**"Carbon offsets are generated from projects that avoid or absorb/sequester carbon dioxide, or any of the other main greenhouse gases. These projects can take various forms, including renewable power, energy efficiency, fuel switching (e.g. from oil to natural gas), reforestation, or destruction of greenhouse gases (e.g. methane, HFC 23)."**

Carbon offsets (sometimes called 'carbon credits') are available from quite separate sources: the compliance market, which is a product of the legal instruments created to support the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol; and the voluntary market, which has developed in response to consumer and business demand for carbon offsetting services.

Currently, the only formal mechanism available to departments is the Government Carbon Offsetting Fund (GCOF – see Case study 3.8 for further details). However, GCOF is principally for offsetting air travel and a more comprehensive, pan-government offsetting scheme should be considered.

It is not possible for carbon offsetting projects to be delivered in the UK, as this would lead to the

double-counting of any reduction in emissions (as all reductions are already claimed by government in helping to meet our international obligations).

The SDC believes that in the absence of a viable international carbon capping framework covering all countries or sectors, there is a potential role for carbon offsetting in helping to stimulate additional low carbon investment in developing countries, whilst providing low cost emissions reductions for the offset purchaser. As stated above, carbon offsetting should be done as part of a comprehensive carbon management strategy.

There are a number of sustainable development benefits that offsetting can deliver to less developed countries; for example funds for projects such as new sources of low-carbon energy, and a reduction of local air pollution. This was the logic behind the establishment of the Clean Development Mechanism (CDM) as part of the Kyoto Protocol. Furthermore, carbon offsetting may raise carbon awareness among individuals and businesses, helping to put a cost (albeit a small one) on carbon-emitting activities.

It is also important that carbon offsets deliver verifiable reductions in greenhouse gas emissions in a way that is consistent with the principles of sustainable development. For government, this

can be achieved by purchasing high quality carbon offsets through the compliance market, as done by the GCOF.

### Case study 3.8 The Government Carbon Offsetting Fund (GCOF)

© EFA Fund Management Ltd



Solid filter prior to entering pig waste water lagoon.

“Some businesses and individuals already take measures to ‘offset’ the carbon impacts of their air travel. The UK made a commitment to offset emissions arising from official and ministerial air travel from April 2006. This commitment was made by the Prime Minister as part of the wider UK Sustainable Development Strategy, which was launched in March 2005.

To deliver this commitment, the UK has developed a Government Carbon Offsetting Fund (GCOF). Whilst recognising offsetting is no substitute for reducing emissions at source, this carbon offsetting initiative should be viewed as a complementary measure for mitigating unavoidable climate change emissions from aviation on a voluntary basis. It also works to raise awareness of the climate change impacts of activities both within government and also with the general public.

The Government Carbon Offsetting Fund is the first of its kind in the world. The Fund involves 37 participants across central government and the wider public sector and associated bodies, including the Royal Household and Transport for London. Though designed to cover air travel emissions it is flexible enough to include other transport, events and one-off requirements.

A two-year project, the GCOF has been developed through an Inter-Departmental Working Group and is available for all central government departments to offset emissions from official and ministerial air travel. This joint approach began with a self-assessment of air travel emissions, aided by advice from the Civil Service Travel Group and subsequently embedded in Pan-Government Travel Contracts,

where Defra led on sustainability and carbon management contractual issues.

The fund developed a coordinated approach to investing in high standard robust offsetting projects that create emissions reductions of an equivalent amount of greenhouse gases at an alternate location. It had to ensure that departments could offset in a simple and cost effective manner that will also ensure high environmental integrity. Major barriers included maintaining a high standard for the credits purchased whilst still being able to meet the large quantity of credits the fund requires.

The GCOF consists of a flexible portfolio of projects, where it will purchase and cancel Certified Emission Reductions (CERs) from small-scale energy efficiency and renewable energy CDM projects with strong sustainable development benefits.

Using rice husks to generate heat and electricity in the Philippines, turning human sewage in Manila into clean electricity and creating power from pig waste are amongst the ways the government will offset emissions. The projects are located across the Philippines, Thailand, Vietnam, India, China and Brazil. They will help to cut emissions on site and ensure developing countries are not impoverished by carbon-cutting measures.

Operating from 2006 to 2009, the GCOF will offset around 305ktCO<sub>2</sub>e. It will cost around £3m; when put in comparison to £120m annual spend on air travel, it demonstrates good value for money for the tax payer, as well as Whitehall taking responsibility for its impact on the environment.

Looking to the future, the government has committed to a carbon neutral government office estate by 2012. Offsetting will play an integral part of this over the next few years and will provide an effective way for government to mitigate the effects of the remaining emissions from essential business practices. Furthermore, it aims to drive the procurement of sustainable services, products and buildings and show how the government can lead by example.”

GCOF, 2007.

For further information please see the GCOF webpage, [www.defra.gov.uk/environment/climatechange/uk/carbonoffset/government.htm](http://www.defra.gov.uk/environment/climatechange/uk/carbonoffset/government.htm)

### 3.5.3 Carbon neutrality and offsetting – overview

While the focus for government must be on reduction of carbon emissions, it should also provide departments with guidance on when and how to

offset. This guidance should be in line with its own sustainable development principles and priorities.

## 3.6 Recommendations

The SDC makes the following recommendations on Climate Change and Energy. The key recommendations are highlighted in bold:

- The focus must be on continued effort in finding efficiencies through carbon management programmes and behaviour change.
- **SPOB should define carbon neutrality and advise departments on how and when offsetting can be used to help achieve it. This should indicate how carbon emissions will be avoided and reduced, and ensure that any offsetting is used only as an interim measure.**
- Each department should understand and quantify its total carbon footprint, including all buildings and travel. This could be done using the Carbon Trust's Carbon Footprint Calculator or appropriate equivalent.
- SPOB should review the SOGE energy efficiency target as it causes a conflict between office rationalisation and the reduction of energy consumption. The possibility of setting a target based on energy use per FTE (rather than per m<sup>2</sup>), or setting targets for absolute reduction of energy use, should be considered.
- Government should take a leading position in implementing self-generation renewable energy and departments should explore the potential for Salix finance backing.
- Government should consider the introduction of a climate change adaptation mandate for new builds, major refurbishments and relocations.
- **Departments should agree on a government-wide sustainable travel policy to encourage travel avoidance through smarter working, and more sustainable travel where there is no practical business alternative to travelling.**
- If the SOGE target on travel is to be truly outcome-focused, government's aim should be a target to reduce carbon emissions from *all* forms for transportation, not just road vehicles. However, in the short term, **SPOB should introduce an air travel target to encourage travel by alternative, more sustainable, modes whenever travel is unavoidable.**



## 34 tonnes of waste

recycled from one building in 14 months, through the use of a food composting project.

Carl Von Reibnitz, Sustainable Operations Manager, at the Department for Communities and Local Government.

# Sustainable consumption and production

## 4 Sustainable Consumption and Production

“Increasing prosperity, in the UK and across the world, has allowed many people to enjoy the benefits of goods and services which were once available to just a few. Nevertheless, the environmental impacts from our consumption and production patterns remain severe, and inefficient use of resources is a drag on the UK's economy and business. We need a major shift to deliver new products and services with lower environmental impacts across their life cycle, while at the same time boosting competitiveness. And we need to build on people's growing awareness of social and environmental concerns, and the importance of their roles as citizens and consumers.”

*Securing the Future, 2005.*

### 4.1 Why is sustainable consumption and production important for government operations?

We must all live within the means we have available on our one planet. But current patterns of consumption and production in the UK and elsewhere indicate that we will not be able to do so if our current behaviour continues.

In *Securing the Future*, the government set out a number of measures to help deliver the global commitments made at the World Summit on Sustainable Development (2002), to accelerate the shift towards more sustainable patterns of consumption and production. These included the need for better products and services, which reduce the environmental impacts from the use of energy, resources or hazardous substances; shifts in consumption towards these better goods and services; and more efficient production processes.

The government clearly has a strong role to play in helping deliver the changes needed, through both its regulatory role and the way it uses its considerable budget to buy, use and manage waste from its products and services.

This chapter covers government performance against the only specific SOGE targets on sustainable consumption and consumption (SCP): waste arisings and recycling. Given the huge role that government consumption has in not only supporting its own operational performance targets, but moreover supporting broader national and global SCP and sustainable development goals, the SDC is also reporting on selected procurement-related performance.

### 4.2 How is government performing against its SOGE targets?

The SOGE targets under the priority area of SCP relate to waste arisings and waste recycling (see Box 4.1). This chapter looks at progress towards the 2010 targets.

#### **Box 4.1**

#### **SOGE targets – Sustainable consumption and production**

##### **Waste arisings**

Departments to reduce their waste arisings by 5% by 2010, relative to 2004/05 levels.

Departments to reduce their waste arisings by 25% by 2020, relative to 2004/05 levels.

##### **Recycling**

Departments to increase their recycling figures to 40% of their waste arisings by 2010.

Departments to increase their recycling figures to 75% of their waste arisings by 2020.

### **4.3 Waste arisings – performance**

Departments' performance against the SOGE waste arisings target for 2010 is shown in Table 4.1.

Total waste arisings in England are around 272 million tonnes per annum.<sup>39</sup> Based on the figures reported, the government estate covered by the scope of this report contributes around 0.1% of total waste arisings in England. However, this figure would be higher if the full government estate was covered by the data, let alone if the coverage was extended to the wider public sector. Irrespective of the actual percentage of waste arisings produced by the government estate, government needs to be playing its part in reducing waste, and leading by example.

At present, not all of the government estate is covered in the data returns, with particular gaps on executive agencies and NDPBs (see Appendix E), and the coverage of waste data (arisings and recycling) is smaller than that for other target areas. This is due to data being unavailable or considered not to be of a good enough quality to include in returns. Six departments (CLG, DCMS, FSA, HMT, HO and the MOD) reported that the scope of their waste data was smaller than the scope for other questions.

In addition, DCA, FC and LOD did not report any data on waste arisings.

This group of nine includes three of the 'big 5' departments (MOD, DCA and HO), whose performance could have a significant effect on the pan-government picture. In particular MOD, who account for over a half of total government waste arisings, do not have data for the 2004/05 baseline year, due, in part, to long term legacy waste contracts not providing data. As such, it is not possible to calculate MOD's performance over time, or to accurately judge pan-government performance. Contextual information received indicates a lot of work has been undertaken throughout the estate to reduce waste arisings over this reporting period and to improve data coverage. DCA reported that complete data does not exist for the baseline or current reporting year, as there is no coherent reporting system in place across its estate. It is currently piloting a waste strategy, and expects to have a baseline and a reporting system in place by March 2008. Departments must continue to work on capturing complete and reliable data.

**Table 4.1** Departmental performance against the SOGE 2010 waste target

Department	Total waste arisings in 2004/05 (Tonnes)	Total waste arisings in 2006/07 (Tonnes)	% change in waste arisings since 2004/05	Performance
CLG	3,561	2,773	-22.1%	
CO	1,441	1,050	-27.1%	
DCA	NK	NK	NK	
DCMS	2,035	2,070	1.7%	
Defra	22,933	23,927	4.3%	
DfES	2,207	1,918	-13.1%	
DFID	364	329	-9.6%	
DH	1,153	574	-50.2%	
DfT	4,480	3,878	-13.4%	
DTI	1,757	1,218	-30.7%	
DWP	30,411	22,365	-26.5%	
ECGD	58	72	24.1%	
FC	NK	NK	NK	
FCO	1,857	1,797	-3.2%	
FSA	145	133	-8.3%	
HMRC	70,315	68,275	-2.9%	
HMT	6,026	3,703	-38.5%	
HO	10,534	16,985	61.2%	
LOD	NK	NK	NK	
MOD	NK	157,229	NK	
ONS	1,071	799	-25.4%	
<b>Pan-government*</b>	<b>160,348</b>	<b>151,866</b>	<b>-5.3%</b>	

\* The MOD, which currently produces about 50% of government waste, does not have a 2004/05 baseline and therefore their 2006/07 data has been removed from pan-government performance. If the MOD data was to be included without baseline information it would misrepresent government waste arisings as having increased by 92.8% to 309,095 tonnes.

Excellent progress
Good progress
Some progress
No or poor progress/ Not Known
Not applicable



### 4.3.1 Waste arisings – analysis

- With the MOD data removed, the other departments together show a 5.3% reduction in waste arisings. This indicates that government as a whole has achieved the 5% reduction target well ahead of 2010. If this really is the case (once the MOD is taken into account, and given that three departments did not provide data, and others did not cover all of their estate), then this is excellent news and the SDC both congratulates government and challenges it to raise ambition levels and consider new, higher aspirations, in particular for 2020
- The MOD produces 50.9% of the government estate’s total waste arisings. Therefore, if we include data from the MOD, the tonnage of waste created by the whole government estate doubles. However, this does not mean that since 2004/05 waste arisings from the government estate have actually doubled. As the MOD did not have waste data for the baseline year (2004/05), it is not possible to conclusively say whether the overall waste arisings are increasing or decreasing. What it does tell us is that the performance by this one department alone will greatly affect overall pan-government performance in future. The performance of HMRC, which contributes 22.1% of total waste arisings, is also important
- Of the 21 departments:
  - 11 reported excellent progress, having reduced waste arisings by 5% or more compared to 2004/05 levels. Of these, eight are very close to, or are already exceeding, the 2020 target of reducing waste arisings by 25% compared to 2004/05 levels
  - A further two departments reported good progress and are on track to meet the target
  - Four departments reported poor or no progress, with waste arisings higher than their 2004/05 levels
  - Four departments did not have the appropriate data in place to be able to see whether they were on track to meet the target or not<sup>40</sup>
- DH (50.2%) and HMT (38.5%) achieved the greatest reductions in waste arisings
- Significant increases in waste arisings were reported by the HO (61.2%), which may in part be attributed to the inclusion of the National Probation Service (NPS) in its estate; and ECGD (24.1%), which was reported as being partly due to a departmental restructure, resulting in a ‘spike’ of waste as those who left disposed of personal papers. Both these departments are expecting to report improved performance in future years
- Only four departments felt it was unlikely that they would meet the 2010 SOGE target: DCMS; FC; LOD and HMT. It is surprising that HMT consider they will not meet the target, given the significant improvements made in 2006/07 and the implementation of a new Waste Management Programme in 2007. The target was reported to be a challenge as a result of increased staff and visitor numbers, and the fact that they have a number of tenants.

### 4.3.2 The “Department of Averages” and normalised data

Comparing raw data from departments can be misleading, as it does not account for the significant differences in size. More meaningful comparisons can be made by looking at ‘normalised’ data, using comparable units such as floor area (m<sup>2</sup>) or staff numbers.

Table 4.2 shows the average waste generated by each person in the department. The overall average government performance is included as a

benchmark to show those departments performing above and below the average. It should be noted, however, that presenting the data in this way is only illustrative. It does not account for the variations between departments, such as the nature of their activities and waste streams. MOD’s waste stream, for example, is very different to those departments whose functions are predominantly administrative, and includes redundant airframes, naval vessels, life

expired ammunition and radioactive equipment. However, presenting the data in this way can be a useful means of comparison between departments whose functions are similar.

The figures show that:

- Pan-government performance is slightly above average

- 13 of the 21 departments are performing at or above average
- Five of the 21 departments are performing below average
- There is a significant range in waste arisings per FTE, from 0.08t/FTE in DTI to 2.49t/FTE in DCMS. This may be partly due to the varying quality of data, as well as the different approaches taken by departments.

**Table 4.2** Departmental performance for waste per FTE including the 'Department of Averages'

Department	Total employees, visitors and contractors (FTE)	Total waste arisings (tonnes)	Total waste arisings per FTE (tonnes/FTE)
DTI	16,008	1,218	0.08
DH	3,977	574	0.14
ONS	4,983	799	0.16
DWP	120,277	22,365	0.19
CLG	14,660	2,773	0.19
DFID	1,735	329	0.19
DfT	19,636	3,878	0.20
FSA	663	133	0.20
HO	72,360	16,985	0.23
ECGD	294	72	0.24
DfES	6,055	1,918	0.32
CO	2,608	1,050	0.40
<b>Pan-government*</b>			<b>0.45</b>
<b>Dept of Averages**</b>			<b>0.46</b>
FCO	3,919	1,797	0.46
MOD	300,070	157,229	0.52
HMT	6,085	3,703	0.61
HMRC	95,152	68,275	0.72
Defra	25,215	23,927	0.95
DCMS	830	2,070	2.49
LOD	10,024	NK	NK
FC	1,331	NK	NK
DCA	37,947	NK	NK

\* Total waste arisings/total number of FTEs.

\*\* Average waste arisings per FTE.

## 4.4 Recycling performance

Departments' performance against the SOGE recycling targets is detailed in Table 4.3. Data from 2005/06 is also provided to show the level of change over the reporting year.

**Table 4.3** Departmental performance against SOGE recycling targets

Department	% of waste recycled 2005/06	Total waste arisings 2006/07 (Tonnes)	Total recycling* 2006/07 (Tonnes)	% of waste recycled 2006/07	Performance
CLG	54.4%	2,773	1,440	51.9%	
CO	59.6%	1,050	712	67.8%	
DCA	NK	NK	NK	NK	
DCMS	NK	2,070	NK	NK	
Defra	26.9%	23,927	17,847	74.6%	
DfES	43.3%	1,918	1,071	55.8%	
DFID	78.5%	329	266	80.9%	
DH	70.1%	574	525	91.5%	
DfT	85.4%	3,878	2,215	57.1%	
DTI	51.2%	1,218	680	55.8%	
DWP	52.6%	22,365	14,881	66.5%	
ECGD	NK	72	33	45.8%	
FC	NK	NK	NK	NK	
FCO	32.7%	1,797	740	41.2%	
FSA	43.3%	133	67	50.4%	
HMRC	13.4%	68,275	9,119	13.4%	
HMT	46.0%	3703	643	17.4%	
HO	35.5%	16,985	7,605	44.8%	
LOD	NK	NK	1,657	NK	
MOD	38.5%	157,229	58,827	37.4%	
ONS	70.6%	799	595	74.5%	
Pan-government	35.9%	309,095	118,923	38.5%	

\* Total recycling is the sum of waste sorted for recycling/composting and external re-use.

Excellent progress
Good progress
Some progress
No or poor progress/ Not Known
Not applicable

#### 4.4.1 Recycling - analysis

- 38.5% of waste arisings from the government estate was recycled in 2006/07 (excluding DCA, DCMS, FC and LOD who did not know their recycling rates)
- Of the 21 departments:
  - 14 reported excellent progress, with recycling rates already above 40% – ahead of the 2010 target date. Four of these are also very close to or are exceeding the 75% recycling target for 2020. One further department reported good progress, so in all 15 departments are on track to meet the target or have already exceed it
  - Two are not on target to meet the target: HMRC (13.4%) and HMT (17.4%). Both of these introduced a new Waste Management Programme in January 2007 (see Case study 4.1), and are confident of achieving the 2010 recycling target
  - Insufficient data was provided to assess performance of DCA, DCMS, FC and LOD. These departments are strongly encouraged to provide data for the 2007/08 reporting year
- DH (91.5%), DFID (80.9%), Defra (74.6%) and ONS (74.5%) reported the highest recycling rates
- DfT and HMT reported notable reductions in the proportion of waste recycled versus 2005/06. While this may be partly due to better data management, it is suggested that DfT reviews these changes to ensure it remains on target and improves performance over time, and that HMT specifically addresses this in its Waste Management Programme
- CLG and the MOD both reported slight reductions in recycling rates compared to 2005/06. Again, this may be partly due to better data management, but both should review the situation to ensure recycling performance continues to improve
- Only two departments feel they are unlikely to meet the SOGE target: FC and LOD.

#### 4.4.2 The “Department of Averages”

Table 4.4 shows the recycling rates provided by departments in ranked order in order to compare individual performance against the ‘Department of Averages’ and overall pan-government performance. These figures are only illustrative, however, and should be considered in the context of the differences between departments outlined in section 4.3.2.

- Performance ranges vastly, from 13.4% (HMRC) to 91.5% (DH)
- Pan-government performance is lower than the average department’s performance. This can be partially explained by the lower recycling rates of departments with higher waste arisings, in particular MOD and HMRC
- Nine of the 21 departments are performing above average.

**Table 4.4** Recycling rates – ‘Department of Averages’

Department	% of waste recycled
DH	91.5%
DFID	80.9%
Defra	74.6%
ONS	74.5%
CO	67.8%
DWP	66.5%
DfT	57.1%
DfES	55.8%
DTI	55.8%
<b>Dept of Averages*</b>	<b>54.5%</b>
CLG	51.9%
FSA	50.4%
ECGD	45.8%
HO	44.8%
FCO	41.2%
<b>Pan-government**</b>	<b>38.5%</b>

Table 4.4 (continued) Recycling Rates – ‘Department of Averages’

Department	% of waste recycled
MOD	37.4%
HMT	17.4%
HMRC	13.4%
DCA	NK
DCMS	NK
FC	NK
LOD	NK

\* average of the recycling rates  
 \*\* total tonnage/total recycling

### 4.4.3 Non-government benchmarks for waste and recycling

For this year’s report, data from a small number of private sector organisations has been included in our assessment, to provide an indicative comparison. The private sector performance for waste and

recycling is included in Table 4.5. It is expected that future SDiG reports may be able to report a broader range of benchmarking data.

Table 4.5 Waste and recycling benchmarking data from private sector organisations (2006/07)<sup>41</sup>

	Total waste (tonnes)	% of waste recycled
Barclays UK	9,393	35%
Boots	340	29%
BT	94,928	42%
ITV	1,776	29%
Marks and Spencer*	87,000	40%
United Utilities	1511	55%
Governmental average	309,095	38.5%

Note: These figures are purely for comparative purposes and may differ from those reported in company environmental reports.

\* Marks and Spencer’s waste data is from all its operations, not only offices.

This simple analysis indicates that average government performance is on a par with that of selected private sector organisations. Improvements on the government estate will need to gather pace if government is to lead by example. In particular,

there are a number of departments which do not currently match private sector performance, or do not have data, and these need to take steps to quickly raise their game.

### 4.4.4 How is government seeking to improve performance?

The government’s response to the Sustainable Procurement Task Force report,<sup>42</sup> which identified waste as one of the ten public sector priority spend areas (predominantly in the local authority sector), included a commitment to improve public sector

procurement performance by considering how it can help address waste prevention and waste impacts on its central government estate in the first instance, with commitments to consider the wider public sector.

The *Waste Strategy for England* (2007)<sup>43</sup> subsequently emphasised the important role that reducing waste has in achieving SCP goals, and committed government to show leadership through reducing its own waste, and using government procurement to accelerate the development of products which use fewer natural resources and have a lower impact at end of life. A newly established Sustainable Products and Materials Unit has the remit of identifying the impacts of products, and working with the supply chain to improve environmental performance over the whole lifecycle; and the government's own 'Quick Wins' product standards are to be further developed to include waste prevention criteria as well as recycled content.

The *Waste Strategy* also made links between waste reduction and climate change, given that methane from biodegradable waste in landfill currently accounts for around 3% of the UK's greenhouse gas (GHG) emissions (methane is 23 times as damaging a GHG as carbon dioxide), and the savings in fossil fuels that can be achieved through recovery of virgin materials and energy.

At the departmental level, there are a number of examples of good practice given below, which accompany improvements in performance:

- Core HMT implemented a major new waste initiative which reduced the number of waste bins in office areas, and provided additional facilities for separating types of waste
- DTI made use of service provider specifications to engage contractors to provide waste minimisation and awareness schemes, including requirements for minimal packaging with deliveries and strict auditing of service provider activity
- The MOD has significantly improved its data capture for waste management across its enormously complex estate. However, it still has a great deal of work to do before its performance can be properly assessed.

## Case study 4.1

### Waste management strategy – HMT/HMRC at Treasury building

"HM Treasury and HM Revenue and Customs offices provide open plan working and team space, and a range of shared facilities. Johnson Facilities Management have been providing a Soft FM Service to 1 Horse Guards Road for the Treasury since July 2002, and 100 Parliament Street for Revenue and Customs since November 2004. Johnson FM developed a service to improve how we manage the waste arising in the most environmentally sound and cost effective manner.

The building already had recycling facilities located in tea points and copy areas throughout, but this was insufficient for the volume of waste generated and did not encourage recycling. We re-established our waste streams to coincide with the type of waste generated in the office in order to reduce the amount that went to landfill sites.

January 2007 marked the start of the new Waste Management Programme and the introduction of the bin-less office. When

introducing the new waste management system we needed to make sure everyone understood exactly what they were required to do. This applied not only to the building users but to the cleaning operatives managing the process. Staff often fail to sort out their rubbish properly because they don't know what goes in which bin or because it all seems like hard work! Our waste management strategy was clear, simple and easy to adopt. Clearly labelled and colour coded bins together with associated posters explaining the new system was part of the awareness campaign.

The building as a whole is currently recycling above 50%\*, against a government target of 40%. We believe our Waste Management Programme will deliver greater results in the future as we engage with various government departments and partner organisations in order to reduce the amount of waste we produce through effective procurement."

HMT/HMRC, 2007

\* It should be noted that HMT reported a recycling rate of only 17.4% for 2006/07 ("poor progress"). The SDC welcomes that HMT has a new programme in place that should improve recycling performance in the next reporting year.

## Case study 4.2

### Food waste composting at Communities and Local Government (CLG) and Government Office for London

#### “Description of the project

A food waste composting scheme was launched at Communities and Local Government’s two main London buildings – Ashdown House and Eland House, as well as at Government Office for London’s Riverwalk House, in January 2006.

The project was initiated following a physical waste audit, which found the general waste stream contained a high proportion of organic waste. The project’s key aim was to divert organic waste from the general waste stream (for incineration) to compost, to help the Department reduce its negative environmental impact and to help meet its SOGE waste and recycling targets.

MITIE, the Department’s facilities management company, identified an appropriate partner in East London Community Recycling Partnership (ELCRP) with whom to set up a three month pilot scheme. Food waste was separated in the kitchens and restaurants of all three buildings and collected weekly for off-site composting by ELCRP.

All food waste could be composted including cooked and uncooked fish and meat as well as other organic waste. The compostable material was treated by catering staff, by regularly spraying the waste in the restaurant food bins with Natural Pathogen and Odour Control (NPOC) liquid to begin a fermenting process, rather than the waste putrescing and attracting vermin. The waste was transferred daily from the kitchens and stored in the basement in clear plastic sacks inside kerb side bins with clip down lids. The project was monitored during the initial pilot project by weighing the separated organic waste each week.

#### The barriers

Catering staff buy-in was the greatest challenge. In many instances, there was a language barrier to overcome as many of the staff did not have English as their first language. Also many of the staff are temporary and only employed for short periods thus requiring regular training. Changing mindset to ensure separation and spraying of food waste in a high pressure kitchen environment that has not previously composted was difficult. Senior kitchen staff support was

crucial to ensure the procedures were complied with and to ensure the training of new staff.

To ensure the scheme was successful, separation was made as convenient as possible for staff by placing numerous food waste bins throughout the kitchens. By providing regular training and guidance, and conducting regular bin audits, eventually catering staff were carefully separating the food waste. In one kitchen, greater resistance was encountered. This required a slightly different approach by assigning a bin to each kitchen staff member, and labelling it with their name. They then took ownership of each bin, thus ensuring that their own bin was not contaminated with non-compostables.

#### The outcomes and benefits

The three month pilot was so successful that the scheme has become a permanent waste disposal method within our Headquarter buildings, with 34 tonnes composted during a 15 month period between January 2006 and March 2007. The scheme has enabled the reduction of general waste collections, thereby not only more than offsetting the costs of the initiative, but also the carbon emissions associated with the additional food waste collections. The composting scheme has now also been extended to tea points to enable staff to compost any food waste generated at desk areas or in tea points.

A number of shops who dispose of waste in the waste stream of one building have also successfully joined the composting scheme, effectively separating their food waste. The compost has been used to enrich the green spaces around Hackney, as well as to fertilise plants within the Department’s buildings. Compost has also been provided to some staff and used to help enrich some traditional English varieties of apple which have been planted outside Government Office for London’s building. The initiative has also helped secure jobs at ELCRP.

This food waste composting scheme has been a great success providing a lasting sustainable solution to the Department’s organic waste arisings.”

CLG/GO London, 2007

## 4.4.5 Helps and hinders

Departments were asked to provide details of anything that had helped or hindered the delivery of their SOGE waste and recycling targets (Box 4.2).

### Box 4.2

#### Helps and hinders

##### Helps

- **DFID** – “A new IT based document database has greatly reduced paper waste”
- **DH** – “Our waste contractor separates waste through a Material Recycling Facility”
- **ECGD** – “We have engaged a new contractor for paper recycling that takes all paper together rather than separating different types. This has made it easier for the user and should increase conformity with the recycling system.”
- **ONS** – “We use colour coded bins for recycling in the office”

##### Hinders

- **Many departments** reported that they are finding data collection difficult
- **FCO** – “We have difficulty with securing space for recycling infrastructure at London offices”.

## 4.4.6 Waste and recycling – summary

Pan-government performance on reducing waste arisings and increasing recycling appears to be on target to meet the 2010 SOGE targets, with performance reported at 5.3% and 38.5% respectively. However, performance is variable across departments: some have reported excellent progress, whereas others are clearly not on track, and several are still not able to provide complete data for their whole estate.

In particular, MOD (which accounts for around half of waste from the government estate) does not have baseline data for 2004/05, so it is impossible to see the complete picture on pan-government performance on the waste arisings target; and two other ‘big 5’ departments reported incomplete coverage of their waste and recycling data. These factors could have a significant impact on overall performance. Where there are major data collection difficulties, such as in MOD, departments need to set out how they intend to resolve this. These discussions should be held under the overall auspices of the

government’s new Sustainable Procurement and Operations Board (SPOB) sub-group on performance management.<sup>44</sup>

However, the excellent progress made by many departments should be recognised. 13 are already exceeding or are on track to meet the waste reduction target, and 15 are exceeding or are on track to meet the recycling target. Indeed, eight departments are very close to or are already achieving the 2020 targets for reducing waste arisings by 25%, and four are at or near the 75% recycling target.

Departments have shown that the targets in place, on the whole, are highly achievable. Government should consider revising the targets, in particular those for 2020, so that they remain challenging and deliver greater benefits over time. At the same time, those departments who are at a lower starting point need to learn from the good experience elsewhere, and government should create opportunities for them to do so.



## 4.5 The role of sustainable procurement in delivering SCP goals

The UK government and wider public sector has immense buying power<sup>45</sup>:

- A combined spend of around £150bn per year on goods and services; £60 billion of which is from central government alone
- The public sector commissions around 40% of construction work in the UK each year
- One of the largest UK procurement budgets is Defence, at around £17 billion each year. Defence requirements range from clothing and catering through to aircraft carriers
- Across the entire public sector, spending on IT is now around £14 billion each year, or 1.2% of GDP
- It is estimated that the public sector outsourcing market will be worth £67 billion by 2007, with the fastest growth coming from local government, the NHS and Defence.

Government procurement is not just about purchasing the goods and services it currently needs. The way in which this money is spent, by central government and indeed the whole public sector, should support the delivery of government's aims on sustainable development, as well as other policy objectives, including the stimulation of sustainable business and employment opportunities, regional development, innovation, skills development, well being and social inclusion.

The importance of procurement as a lever for change was highlighted in the Sustainable Procurement Task Force (SPTF) report, *Procuring the Future*,<sup>46</sup> which was published alongside the new SOGE framework in June 2006. The SPTF report defined sustainable procurement as "a process whereby organisations meet their needs for goods,

services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organisation, but also to society and economy, whilst minimising damage to the environment."

Government responded to the Task Force report in March 2007, with the publication of its *Sustainable Procurement Action Plan*<sup>47</sup> (SPAP). This set out a high level goal for the UK to become one of the EU leaders on sustainable procurement by 2009, to achieve a low carbon, more resource efficient public sector. It placed a number of requirements on departments to bring about the shift towards sustainable procurement and support delivery of the SOGE operational targets.

The SPAP also empowered the SDC to scrutinise government performance in the following key areas:

- Compliance (including justification for non compliance) with the mandatory procurement policies and supporting guidance set out in the action plan
- how the use of appropriate performance objectives has helped to deliver progress
- how the sustainable operations targets have been cascaded to suppliers and embedded into departmental contractual activities
- departmental Sustainable Development Action Plans (SDAPs)
- periodic analysis of activities in priority categories of procurement spend in terms of delivering sustainable outcomes.

Further details on the SPAP and other actions taken by government to improve performance on sustainable procurement are provided in Section 4.6.2.

### 4.5.1 SPAP commitments

The list of SPAP commitments to be embedded in the SOGE framework is reproduced below in Box 4.3. During 2007 the SDC recommended that the SOGE targets be formally updated to include specific targets on procurement. At present, there is still some confusion in departments over the status of the 'Government to Mandate' targets listed in the SOGE framework. At the very least, therefore it must be re-stated that these targets are also mandatory, not just desirable.

Commitments on sustainable procurement are not new to the SPAP, however. A number were included in the former SDGE framework, covering: the development of a sustainable procurement strategy; integrating environmental clauses into contracts for Quick Wins goods and services; and delivering training to raise awareness and competency around sustainable procurements issues for procurement practitioners.

## Box 4.3

### Sustainable Procurement Action Plan commitments

#### Leadership and accountability

Permanent Secretaries are accountable for their department's overall progress and for ensuring, from 2007/08 onwards, key staff in their departments have performance objectives and incentives that drive the implementation of this plan, linked to performance objectives for delivering efficiency savings.

#### Budgeting and accounting practice

Where responsibility for capital and revenue budgets is divided between different organisations, sponsoring departments will review budgeting arrangements and performance frameworks to ensure any barriers to choosing sustainable solutions are resolved. In addition, where departments believe an upfront cost constraint prevents them from choosing the most sustainable option, they may raise this with the Treasury.

#### Building capacity

Departments to set out the actions they are taking to ensure procurement practice helps to achieve their sustainable operations targets in their departmental Sustainable Development Action Plans

Government encourages organisations to make full use of the Task Force Flexible Framework where it helps improve procurement practice and achieve sustainability targets while OGC are developing a new detailed procurement framework.

#### Raising standards

Departments/OGC to take action in respect of central government contracts to meet updated and extended mandatory standards.

Existing contracts will be updated as soon as is practical.

New contracts will be required to meet these standards.

Steps will be taken to remove offers that fall below these standards from framework agreements within 12 months (where permissible under existing contract terms).

Departments will make use of pan-government collaborative contracts in key areas to achieve compliance.

New government contracts, where relevant, will include appropriate requirements for suppliers and sub-contractors to provide products and services that comply with agreed mandatory standards and assist in the delivery of departmental sustainable operations targets.

From 1 April 2009, only timber and timber products originating either from independently verified legal and sustainable sources or from a licensed FLEGT partner will be demanded for use on the government estate - appropriate documentation will be required to prove it. From 1 April 2015, only legal and sustainable timber would be demanded.

OGC will help departments achieve their sustainable operations targets through supporting the development of pan-government procurement of goods and services, required to meet the sustainable operations targets.

#### Market engagement and capturing innovation

OGC and government departments will work together to strengthen their strategic engagement with key sectors to ensure key suppliers have plans in place to lower their carbon footprint and that of their supply-chains.

Note: The Office of Government Commerce (OGC) is an office of HM Treasury, responsible for improving value for money by driving up standards and capability in procurement. Its Executive Agency, OGCbuying.solutions, provides easy access to more than 500,000 products and services, through a range of frameworks as well as a number of managed services.

## 4.5.2 Progress on sustainable procurement

Given that the SPAP requirements were not published until the end of the 2006/07 reporting year, the SDC did not cover all of them in this year's SDiG assessment, and performance on procurement has not been included in the calculations of the performance 'star rating' for departments.

For this year's assessment we requested information about selected procurement activities in departments, notably to indicate the level of outsourcing for operational activities, the inclusion of sustainability clauses in top contracts, and the application of the Quick Wins and timber mandatory procurement standards.

Two further SPAP requirements were selected by the SDC as key mechanisms for delivering sustainable operations targets in future, and are reported in Chapter 6:

- Permanent Secretaries to be accountable for departmental progress by ensuring that key staff have performance related sustainability objectives;
- Departments should be encouraged to engage with the SPTF Flexible Framework.

## 4.5.3 Embedding sustainability in outsourced operations

Operational outsourcing is an important part of the total operations of a government department and can include activities ranging from those expected across an office based estate such as facilities management, security and IT, through to those more unique activities such as leasing aircraft for cabinet ministers, producing coinage, harvesting wood, climate change prediction, defence engineering, and running prisons. Beyond the large outsourced contracts there is also significant dispersed procurement activity including office and technical consumables, postal and travel services and one-off products and services.

Outsourcing presents the risk of placing sustainability issues 'out of mind' depending on the nature of the contract. At the moment, unless activities are carried out on a departments' site, they are not likely to be captured in its reported

operational performance. Therefore government needs to ensure that the outsourced functions it is purchasing are delivered in such a way that the sustainable development impacts are fully considered, managed, minimised and reported on. If not, government can not claim to understand, let alone reduce, its operational impacts. As outsourcing of key activities increases, great care needs to be taken to ensure that government is not merely shifting the burden of its operational impacts.

Government should also take the opportunity to learn from its contractors, where there are market leaders who can contribute innovative and more sustainable services. Two way communication between departments and their key suppliers is essential if the full benefits of outsourcing are to be realised.

## 4.5.4 Outsourced operations – performance

Each department was asked to provide basic information on its outsourced operational contracts relating to the top five in value, facilities management, catering services and IT, and whether or not these contracts included sustainability clauses (see Tables 4.6 and 4.7).

The inclusion of a clause in a contract is not in itself sufficient to ensure that outsourced operations support sustainability objectives. It simply gives some indication of whether sustainability has

been considered in the way in which the products and services will be delivered. The extent to which outsourcing can strategically drive forward sustainable development, all the way through the supply chain, will depend on the content of these clauses and whether they are actively managed and developed over the contract period. Anecdotal evidence suggests that this is rarely the case in practice.

**Table 4.6 Sustainability in the top 10 valued contracts**

Company	Service	Sustainability clause included?	Client department
Aspire Defence	Facilities Management	Yes	MOD
Marshall C'brdg Aero	Engineering	Not reported	MOD
Eastbury Park Ltd	Construction	Not reported	MOD
EDS	IS/IT	Yes	DWP
BAE Systems	Engineering	Not reported	MOD
Westland Helicopters	Engineering	Not reported	MOD
LandSecurityTrillium	Estate and facilities	Yes	DWP
Capgemini UK Ltd	IT Services	Yes	HMRC
BT	IS/IT	Yes	DWP
Mapeley Estates Ltd	Facilities Management	Yes	HMRC

Individual contract values are confidential and therefore have not been displayed.  
Total value £19.8 billion

**Table 4.7 Sustainability in outsourced IT, facilities management and catering contracts**

Outsourced activity	Number of contracts reported	Combined value of contracts*	Number of contracts containing a sustainability clause	Value not covered by sustainability clause**	% Value not covered by sustainability clause
IT	18	2.3bn	11	97m	4.2%
Facilities Management	19	13.3bn	16	13.3m	0.1%
Catering	20***	374.6m	12	362.9m	96.9%

\* Some departments did not report the value of their catering contract.

\*\* Total value of the contracts where a sustainability clause is not included.

\*\*\* HO's catering contract is included in its Facilities Management contract.

#### 4.5.5 Outsourced operations – analysis

- Together, departments reported that they have 6389 outsourced contracts in place. However, in reality this figure will be much higher, as three of the 'big 5' departments (DCA, DWP and MOD) did not know the total number of outsourced contracts they had in place
- The combined value of the 6389 contracts was reported as £8.7 billion, but this is clearly nowhere near the real value given the figures reported elsewhere. Further, neither LOD or – more significantly – MOD reported the total value of their outsourced operations

- Taken together, £21.6 billion was spent on the 98 'top five' contracts. While this is the combined value for the top five contracts reported by each department, these are not necessarily the top 98 contracts across government. Contract values vary substantially. As such, one department's sixth highest value contract may be of a higher value than another department's top valued contract
- MOD's expenditure is significant. All five of its 'top five contracts' appeared in the list of ten highest value contracts across government, with a combined value of £16.7 billion
- Of the 123 contracts for which details were reported (either as a top five supplier or as a contractor providing IT, catering or facilities management services), only 66 (i.e. 53.7%) included a sustainability clause
- The top ten valued contracts have a combined total value of £19.8 billion. Only six of these are known to include a sustainability clause
- 20 of the 21 departments reported having outsourced catering contracts, with a combined value of over £374m (16 reported the value). Only 12 of these – covering 3.1% of total known spend on catering – were reported to include a sustainability clause. This is despite sustainable food procurement being a pan-government initiative for a number of years
- 19 of the 21 departments reported having outsourced facilities management (FM) contracts, with a combined value of £13.3bn. Of these, 16 were reported to include a sustainability clause. These 16 cover 99.9% of the total value of all FM contracts
- 18 of the 21 departments reported having outsourced IT contracts, with a combined value of £2.3 billion. Of these, 11 were reported to include a sustainability clause. 95.8% of the total contracts value was therefore covered by clause.

## 4.6 Is government buying more sustainable products?

### 4.6.1 Quick Wins

The 'Quick Wins' are a set of mandatory minimum environmental standards for the procurement of a variety of goods, including IT equipment, white goods, paper and construction materials. The standards relate to characteristics such as energy consumption, recycled content, and biodegradability. The 'Quick Win' mandatory standards were introduced in 2003, and now cover 54 product areas.

In our assessment we asked a number of questions relating to the use of the Quick Win mandatory standards, the responses to which are shown below in Table 4.8. The specific products selected were considered to be indicative of compliance with the Quick Wins, as products that would most likely be procured by all departments, rather than being singled out as the most important products in terms of impact.

## 4.6.2 Quick Wins – performance

Table 4.8 Compliance with Quick Wins

Department	Include Quick Wins in all relevant contracts	Have systems in place to measure compliance with the standards	% contracts that comply with the Quick Wins for ...	
			Light bulbs	Photocopier/printer paper
CLG	No	No	-	-
CO	No	Yes	100%	100%
DCA	Yes	No	NK	100%
DCMS	No	Yes	100%	100%
Defra	Yes	Yes	100%	100%
DfES	Yes	Yes	N/A	39%
DFID	Yes	Yes	100%	100%
DfT	Yes	Yes	NK	100%
DH	No	No	-	-
DTI	Yes	No	-	100%
DWP	Yes	Yes	N/A	100%
ECGD	Yes	Yes	N/A	100%
FC	No	No	-	90%
FCO	Yes	Yes	100%	100%
FSA	No	No	-	-
HMRC	Yes	No	N/A	95%
HMT	No	No	NK	NK
HO	Yes	Yes	N/A	
LOD	No	No	-	-
MOD	Yes	No	N/A	N/A
ONS	No	No	0%	0%
<b>Pan-government</b>	<b>12/21 (57.1%)</b>	<b>10/21 (47.6%)</b>	<b>5/21 are 100% compliant</b>	<b>10/21 are 100% compliant</b>

## 4.6.3 Quick Wins - analysis

- It is quite staggering that nine of the 21 departments still do not include clauses regarding the mandatory product standards in all of the appropriate contracts, given that they have been mandatory since 2003
- Fewer than half of all departments reported that they had general systems in place to monitor compliance with the Quick Wins

- Fewer than half of departments reported procuring the mandated standard of paper, and fewer than a quarter reported procuring the mandated standard of light bulb.

On the whole, government departments are not only not complying with the mandatory standards, they are also not grasping the opportunity to make easy operational gains by purchasing products that meet the standards. There is a significant opportunity remaining for departments to capitalise on the Quick Wins, and to ensure that they are indeed won quickly.

### Case Study 4.3

#### The DFT pan-government recycled printing papers framework

“The original Recycled Printing Papers Framework developed in 2000 by what was then the Department of Environment, Transport and the Regions was set up to stimulate the procurement of recycled paper by government and demonstrate commitment to the Sustainable Procurement Agenda. During the framework, some 30 central government organisations have benefited from procuring recycled papers, which has not only avoided about 27,000 tonnes of waste going to landfill, but has generated savings of more than £4 million for government.

The framework has also been instrumental in the enlargement of the market sector and gaining increased commitment from the paper industry in developing and securing sources to meet demand, as well as stimulating greater awareness of the benefits of using recycled paper both in the public and private sectors.

#### Challenges and barriers

The original Recycled Printing Papers Framework was a prelude to a new framework established by the Department for Transport working with Defra and the ODPM and in partnership with OGC Buying Solutions and the Waste and Resources Action Programme (WRAP) and was launched at the Sustainable Procurement Conference on 19th October 2005. The original framework provided the opportunity to understand the economics of introducing and transforming market sectors to meet the agendas set out by government for the increased use of recycled papers, whilst balancing the need for cost efficiencies to make that transformation easier.

One of the big challenges was to align two diametrically opposed agendas, environmental needs and cost efficiency. Development of the Sustainable Procurement Agenda to push forward environmental legislation for sustainability and environmental impact of what government buys and driving through cost efficiencies into not

only the business process but in the products as well. Value for money (VFM) has been achieved through complementing the environmental and cost efficiency agendas to provide a better and more considered approach to procuring recycled paper, thus reducing the disparity in price between virgin and recycled papers.

Varying the framework in August 2006 worked towards driving VFM changes through introducing 50% recycled products, thus giving greater consideration to productivity to reduce costs and improve pulp supply. However, a barrier still exists that will affect the provision of good quality de-inked recycled fibre. Apart from the paper mills with integrated pulp mills that make recycled pulp, there is limited supply for all other non-integrated paper mills that make and want to make recycled papers. This is an extremely important issue that needs to be addressed now by government and the paper industry if recycled paper manufacturing and use for printing and copier papers is to continue.

#### Outcomes and benefits realisation

Access to the framework is now open to central government and the wider public sector. It provides opportunity for all public sector organisations to benefit as it makes available a wide range of recycled papers that meet the requirement of the Sustainable Procurement Agenda revised 2007 “Quick Wins” Agenda, which now includes a minimum of 50% recycled fibre coated and uncoated printing papers. One of the objectives of this framework is to continue to work with the paper industry to increase the capacity and quality of recycled printing papers and build on the work that has already been done. Our aim is to increase the public sector use of recycled printing papers to comply with the published criteria. The frameworks have provided a platform from which the government departments and agencies and

those organisations in the wider public sector using it can operate knowing that they will be working towards achieving their organisations environmental targets.

Developing the internal market place has stimulated the use of recycled paper and has helped in reducing the amount of waste going into landfill and has increased demand for raw material which in turn promotes more and better recycling by local authorities and the charity sector. The frameworks have encouraged the paper industry to react positively by manufacturing and bringing on new products to the market place and increase supplies to meet the additional demand.

The trade has also reported that because of our recycled paper initiative, the corporate sector has adopted recycled papers for many of their publications and that paper merchants have seen significant growth of recycled papers within both the private and public sectors. The printing industry has also reacted positively to this stepped change in paper use and organisations are no longer experiencing quality issues from the use of recycled paper, since both industry sectors have been working closely to meet demands from both public and private sector organisations.

Levels of recycled paper sales have increased over the last five years on average by 4% as measured against the total sales of recycled and virgin coated and uncoated wood free papers. We have been told by the paper industry that

without the promotion of our recycled paper initiative, the market place for recycled papers would not have progressed as positively as it has. In aggregating demand for recycled printing papers, historical data has provided evidence that we can influence the manufacturing, stocking and price of the paper. Savings made through this framework are on target to realise more than £20 million by October 2009. More importantly, we will have influenced more than 120,000 tonnes of waste paper being diverted from landfill to recycling.

#### So why use recycled papers?

Generally there is wide recognition that landfill of waste is the worst disposal option and recycling is the most desirable. Most life cycle analysis studies support this conclusion. Too often, collection is considered to be recycling. Whilst collection is an important part, it is only half of the equation. A market for the recovered material is just as important. The purchase of recycled copier, graphics and tissue paper is necessary to provide the economic incentive for collections especially from business and offices. Recycling is necessary to provide an alternative to landfilling of paper waste. This is why recycled content paper procurement is now part of the governments sustainability policy and is increasingly becoming a significant part of private company's Corporate Social Responsibility (CSR)."

DfT, 2007.

#### 4.6.4 Timber procurement

The SPAP included the following commitment on timber procurement:

"From 1 April 2009 only timber and timber products originating from independently verified legal and sustainable sources or from a licensed FLEGT<sup>48</sup> partner will be demanded for use on the government estate – appropriate documentation will be required to prove it. From 1 April 2015, only legal and sustainable timber would be demanded."

However, timber procurement has been an important issue for government for a number of years, and has been included in previous SDiG reporting. Current UK government timber procurement policy

requires central departments to actively seek to purchase legal and sustainable timber and wood derived products. To provide government procurement personnel with information and advice to support the implementation of the policy, Defra set up a shared service, 'The Central Point of Expertise on Timber Procurement (CPET)'. CPET's services include a website with information on government procurement policy, and advice on how public sector buyers and their suppliers can meet these policy requirements in practice; a helpline and training. CPET is also undertaking a monitoring programme of UK government timber procurement to determine whether contract requirements are being met in practice.



### 4.6.5 Timber procurement - performance

All departments, except for DfES, HMT, LOD and ONS, have systems in place to measure compliance with the timber procurement target. LOD reported that

it sourced all of its timber through OGC framework agreements, although it did not say how it ensured that this complied with the standard in practice.

**Table 4.9 Compliance with the timber procurement target**

% contracts that comply with the timber procurement target	Department(s)
100%	CO, DFID, DfT, DH, DTI, ECGD, FC, FCO, FSA, DCA
90%	DWP
80%	Defra
70%	HMRC
Have systems in place to measure compliance, but % not known	CLG, DCMS, MOD
Have systems in place to measure compliance, but % not reported	HO
Do not have systems in place to measure compliance	DfES, HMT, LOD, ONS

Of the 17 departments with systems in place, 10 reported that 100% of their timber contracts complied with the SPAP timber procurement target, and a further three reported compliance at 70% or higher. Three of the remaining four did not know what percentage of their timber contracts complied

with the standard, despite having systems in place, and one did not respond. One explanation could be that systems were put in place after the reporting year. If this is the case, the SDC would expect to see data on compliance with the standard in next year’s reporting.

### 4.6.6 Delivering sustainable procurement through collaborative contracts

The Office of Government Commerce (OGC) and OGCbuying.solutions (OGCbs) will be instrumental in making sure that procurement supports shared government sustainable development goals. Government has encouraged departments to work with OGC and other government departments to develop contracts for goods and services applying sustainability criteria where appropriate. This was reinforced in the SPAP commitments in relation to meeting updated and extended mandatory product standards.

OGC is responsible for improving value for money by driving up standards and capability in procurement, and capitalising on the government’s collective buying power. The OGC Collaborative Procurement Directorate (CPD), for example, has been looking at the challenge of delivering the SOGE targets and the SPAP commitments in the face of increasing budgetary constraints, and has found that in many cases sustainability and ‘Value for Money’ are compatible. By acting collaboratively, departments can more easily achieve better value,

and through aggregating demand can work with suppliers to create sustainable solutions (see Box 4.4). OGCbs (an executive agency of OGC) provides the mechanisms by which to procure value for money goods and services.

14 of the 21 departments reported that they are engaged with OGC or other departments in specific areas of contract development or ownership. These include electricity, paper, fuel, travel and fleet contracts. CO, for example, worked with OGC in sourcing renewable energy for its estate and implementing the Quick Wins (and CO's performance on both of these areas is good); Defra collaborated with OGC and OGCbs to develop the OGCbs electricity re-let framework contract (see Box 4.4); and the departments of the LOD work together through

its Procurement Group to identify collaborative opportunities.

Given that a significant number of departments already procure through OGC framework/collaborative contracts, and this is likely to increase in future as the Transforming Government Procurement and SPAP agendas are both rolled out and developed, the SDC will be monitoring the situation very closely to ensure that sustainability is properly embedded into contract arrangements, including sub-contracting arrangements and contract management. It also needs to be explored whether those departments making use of collaborative contracts are actually performing better against the operational targets.

#### **Box 4.4**

##### **Office of Government Commerce - Collaborating for sustainability**

"The Office of Government Commerce (OGC) Collaborative Procurement Directorate (CPD) has been looking at the challenge of delivering the Sustainable Operations on the Government Estate (SOGE) targets and Sustainable Procurement Action Plan in the face of increasing budgetary constraints. OGC has found that in many cases sustainability and Value for Money are actually compatible. By acting collaboratively, departments can achieve better value, and through aggregating demand can work with suppliers to create sustainable solutions.

Working across categories representing £75billion of common spend, CPD has started a programme to embed sustainability within its category management activities. CPD category teams are helping departments to meet the demands of sustainability policies and targets and embed sustainability within their activities. Working with Defra and other bodies to create links between sustainability policy makers and procurement practitioners enables the category teams to provide access to deals with a proven record of offering value for money, which also offer sustainability benefits.

##### **To source 10% of energy from renewable sources by 2008**

Collaborative Procurement's Energy Team worked with Defra to ensure that the re-let of the OGCbuying.solutions electricity framework was aligned with government's sustainability policies on renewable energy. The deal allows

departments to meet a proportion of their electricity needs from renewable sources, at no additional cost, and at a price which will remain protected despite increased demand and prices for the next four years. On average OGCbuying.solutions' customers access 30% of their electricity requirements from renewable energy sources, enabling them to meet the requirements of the SOGE targets, without incurring additional costs.

In addition, an Energy Collaborative Category Board was established in April 2007. Sponsored by the Ministry of Defence, with support from OGC, the Board brings together key stakeholders from across the public sector, from large buyers of energy through to policy and sustainability leaders. The Board is supporting the development of a framework agreement enabling all government departments and public bodies to access energy saving software for networked computers. By managing demand for energy, and avoiding waste, departments can save both carbon and cash.

##### **Reduce carbon emissions from road vehicles used for government administrative operations by 15% by 2010/11, relative to 2005/06 levels.**

New cars purchased by government and used for administrative operations are to have average emissions 130gCO<sub>2</sub>/km by 2010/11. Both the SOGE targets and the Energy White Paper challenge departments to manage and

reduce the CO<sub>2</sub> emissions associated with their fleet vehicles. As part of the pan-government Vehicle Purchase framework contract let by the Department for Work and Pensions, the Collaborative Procurement Fleet Team developed the fleet costing model. Using this tool, public sector organisations are able to model the impact in terms of both cost and carbon to inform decisions regarding the profile of their fleet. Public sector organisations using the model have already identified significant cash savings, as well as options to reduce the CO<sub>2</sub> associated with their fleet by up to 12%.

**Departments to reduce their waste arisings by 5% by 2010, and by 25% by 2020 relative to 2004/05 levels; and departments to increase their recycling figures to 40% of their waste arisings by 2010, and 75% by 2020.**

OGC's Collaborative Procurement Fleet team also supported the development of deals for vehicle glass and tyres available to all public sector bodies. As part of these deals the team worked with suppliers to understand their approach to sustainable development, particularly with regard to waste management and end of life disposal and to embed all three of the 'Three Rs' (reduce, re-use and recycle) within the deals.

Glass suppliers were asked details of their rates of repair, rather than replacing windscreens. Repairing damage reduces the waste associated with operating vehicles, and can be up to 58% cheaper than purchasing replacement glass.

Reducing the impact of operations through reusing assets where possible is also key.

The team worked with suppliers to establish a commitment to re-tread tyres under the pan-government tyre framework wherever possible.

Finally, both frameworks actively promote recycling. Suppliers were assessed on their recycling rates, as part of the tender process, and will be encouraged to increase these during the life of the frameworks. Tyres can be recycled into a diverse range of products; from safety surfaces for play areas to protective netting for reef conservation, while glass can be used as insulation material.

**Departments to increase their energy efficiency per m<sup>2</sup> by 15% by 2010, and 30% by 2020 relative to 1999/00 levels.**

CPD's ICT Hardware team works with public bodies to enable them to access ICT equipment via reverse e-Auctions. To participate in this process, suppliers must provide details of the energy usage of the equipment to be supplied. All suppliers are asked to meet the Energy Star (or equivalent) standards, and are assessed on the energy usage of their equipment. This enables procurers' visibility of the whole life costs of ICT equipment, ensuring that they can access the value savings associated with lower energy use, providing a strong incentive for both suppliers and procurers to provide sustainable options to departments."

For further information on any of the activities mentioned in this case study, please contact the OGC Service Desk on 0845 000 4999 or [ServiceDesk@ogc.gsi.gov.uk](mailto:ServiceDesk@ogc.gsi.gov.uk)

OGC, 2007

#### 4.6.7 Engaging with suppliers

Suppliers have a key role in supporting the delivery of government operational targets and broader sustainable development goals. However, only eight departments reported that they had worked with the OGC and other government departments to strengthen engagement with key sectors in order to ensure key suppliers have plans in place to fully embrace sustainable development principles, and lower their own eco-footprint and that of their supply-chains. Below are some examples:

- OGC's Supplier Management team works in liaison with colleagues in OGC's Markets and Suppliers division. Under their new category management model, their supplier

management activities will increasingly incorporate working with suppliers to improve their sustainability performance and that of their supply chains

- HO require that for all major competitions, suppliers provide them with details of their sustainability plans
- Defra launched its supplier engagement programme at a conference, 'Pioneering Sustainability and Delivering Value', attended by its top 60 strategic suppliers.

The SDC is aware of other supplier engagement activities across government, for example Defra's work with producers and along supply chains as part of the Public Sector Food Procurement Initiative

(PSFPI), and on its travel contracts. However, the sum total of 'engagement' activities, as we understand them, does not constitute a pan government strategic approach to supplier engagement.

#### 4.6.8 How is government seeking to improve performance?

The profile of sustainable procurement has increased significantly over the 2006/07 reporting year. The key developments include:

- **Sustainable Procurement Action Plan (SPAP)** – As already stated, the SPAP set out the goal for the UK government to become one of the European Union leaders on sustainable procurement by 2009, to achieve a low carbon and more resource efficient public sector. Its aim was to move towards:
  - a sustainably built and managed central government estate that minimises carbon emissions, waste and water consumption and increases energy efficiency (in line with the SOGE targets)
  - sustainably built and managed properties and roads throughout the public sector, and
  - government supply-chains and public services that are increasingly low carbon, low waste, water efficient, and which respect biodiversity and deliver wider sustainable development goals.

The SPAP also set out a number of requirements (as covered above in Section 4.5.1) to bring about the shift needed by departments to achieve sustainable procurement; and tasked the SDC with a broader role to scrutinise departmental and pan-government performance on sustainable procurement. Given that the SPAP requirements were not published until the end of the 2006/07 reporting year, the SDC did not cover all of them in this year's SDiG assessment, and performance has not been included in calculations of departmental 'star ratings'. Future SDiG reports will respond more fully to this role and will examine how sustainable procurement is being implemented and what outcomes it is delivering.

Transforming Government Procurement (below) and the SPAP together comprise the government's overall approach on procurement, and its full response to the Sustainable Procurement Task Force.

- **Transforming Government Procurement** – In January 2007 government announced a number of reforms to public procurement in *Transforming Government Procurement*.<sup>49</sup> The reforms gave OGC a number of new powers, including delivery of the transformation agenda and driving up standards and capability across government. The measures set out in *Transforming Government Procurement* recognise that the government must lead by example when spending taxpayers' money, and together with the SPAP are intended to help achieve the sustainable operations targets. A programme of 'Procurement Capability Reviews', being carried out by the OGC, is a central element of the transformation agenda. The reviews provide a challenge to departments. They assess how far government procurement meets the standards required to deliver value for money, by considering procurement activities across the whole lifecycle, and aim to drive improvements in capability. However, SDC considers that the current capability review process does not adequately take account of sustainable procurement.
- **Prime Minister's Delivery Unit (PMDU) report** – The PMDU, working with a cross government team, was commissioned by Sir Gus O'Donnell (via the Sustainable Procurement and Operations Board – or SPOB), to look at how the SPAP could be delivered as part of the overall delivery of the sustainable operations targets. Finalised in July 2007, its report<sup>50</sup> concluded that targets are within reach if 'swift and decisive' action is taken, followed by a sustained drive and performance monitoring. It identified a number of barriers, and made recommendations covering the way in which sustainable procurement is championed across government, accountability, performance management, supplier

engagement, skills and cross government working. Some of the recommendations were already included in the SPAP, while others were new ideas stemming from the review.

The report prioritised a number of urgent first steps (see Box 4.5). It also set out a delivery plan to take forward the recommendations.

#### Box 4.5

#### Urgent recommendations from the PMDU Report on delivery of the SPAP

##### Leadership

- Sustainability objectives for senior leaders must feed into pay, performance and promotion discussions. The 'story' around Whitehall must be that sustainable procurement matters
- Each department to make an accessible, public, sustainability 'pledge' about where it will be by when
- A communication to suppliers stating minimum requirements of government on sustainability and which emphasises their role in helping the government deliver in its targets.
- Identify a suitable leader for the new performance management group... supported by a small team of people with a skill set similar to the PMDU delivery team. This support will be required for a period of 12 months.

##### Governance

- Governance structures to be refreshed, including the creation of a new sub-group on performance management, and a Procurement Council. MOD, HMRC, HO and DWP to have membership at all (new) governance levels. A suitable volunteer from one of the big four procuring departments to be the lead official on the SPOB Working Group, responsible for ensuring best practice is shared across government

##### Data

- Estate managers, heads of procurement, communication managers and major 'buyers' to have performance objectives which clearly incentivise sustainability
- Sir Gus O'Donnell endorses the SDC with the power to investigate poor data/performance of departments. Departments to be required to provide resource to an SDC review team on an ad hoc basis

##### Performance management:

- Sir Gus O'Donnell to report directly to the Defra Minister on performance against the sustainable operations targets and consider performance data submitted by SPOB on a regular cycle and feed this into his Permanent Secretary Management Group and 'Wednesday Morning Group'

##### Cross departmental working:

- This will in part be resolved through improving the robustness of governance. Specifically good practice should be addressed via the Sustainable Operations and Procurement Working Group.

- **Changes in governance structures for procurement** – To reflect the increased importance of sustainable procurement to delivering operational improvements, in September 2006 the Sustainable Operations Board became the Sustainable Procurement and Operations Board (SPOB). Following the PMDU report, some key changes were made to the governance

structures in place to support procurement, including:

- Creation of a Procurement Council, chaired by HMT Permanent Secretary, responsible for implementing Transforming Government Procurement, reviewing performance data and directing SPOB
- Creation of a SPOB sub-group on performance management.

SPOB has also established a 'Practitioners Forum' to facilitate the sharing of best practice between departments. This group covers operations more generally, as well as having a specific focus on sustainable procurement.

At the departmental level, there are a number of examples of progress being made on sustainable procurement, as illustrated in Case Studies 4.4 and 4.5.

## Case Study 4.4

### Sustainable procurement in Defra

"Following the publication of the Sustainable Procurement Task Force report, *Procuring the Future*, and subsequent government response, the Procurement and Contracts Division (PCD) in Defra embarked on an ambitious journey to meet its self-set target of being Level 5 of the Flexible Framework (FFW) by Autumn 2008. Since then, the already responsible procurement approach adopted by PCD, demonstrated through its leadership across government on sustainable timber, food and travel procurement, intensified and commenced a two-year intensive development programme that could help the Defra Network meet this target.

During this period, through procurement, Defra like the rest of central government, aims to meet the SOGE targets which can help save 1m tonnes of CO<sub>2</sub> emissions by 2020. PCD's sustainable procurement project has been running for a year and will continue during 2008.

Progress is monitored through quarterly reporting against the FFW and other milestones linked to each of the FFW themes. This is part of the 'Defra as Sustainability Leader' (DaSL) programme that aims to raise ambition and make Defra an exemplar in embedding sustainable development in policy making. Ultimately, achievements will be reflected in the annual SOGE report.

For the purpose of this project, one FTE sustainable procurement experienced practitioner was recruited for the two-year period, whilst five FTEs have been looking after sustainable food, timber (including illegal logging) and travel policies, on a non-project basis. The project is directly championed by the Director of Procurement, with leadership at Permanent Secretary level. It is contributing to the wider sustainable procurement agenda and represents

an application of policy as described in the UK Government *Sustainable Procurement Action Plan* (SPAP).

Staff can be overwhelmed with information and the current atmosphere of change adds to the difficulty in communication. We are putting in place, a new internal communication system, "Sharing Procurement Ideas – Delivering Efficiencies and Results" (SPIDER), which will help raise awareness. SPIDER, a web-based, shared-access facility emerged from discussions PCD had with colleagues from the Defra Network on how to improve communications.

As part of meeting the 2008 target, PCD has put in place a series of internal sustainable procurement training courses, *Moving on Up*, and Defra is financially supporting the delivery of 10 such courses for other government departments, on a first-come first-served basis. Through a series of collaborative procurement workshops, procurement specialists from across the Defra Network have been kept abreast of information and introduced to how sustainability fits with their procurement decisions. By engaging with suppliers, either through conferences or through more targeted engagement with high priority sectors, PCD aims to maximise the benefits of procurement in order to meet the SOGE targets. In the process of awareness raising, wider sustainability issues have started coming to the foreground; PCD, following discussions with the Sustainable Development Unit, will be amending contracts to explain and capture information on third sector organisations.

To date, this project has successfully delivered against its targets and progress is as planned. Personal commitment and a clear direction of travel have helped."

Defra, 2007.

## Case Study 4.5

### MOD approach to sustainable procurement

“Following publication of the Sustainable Procurement Task Force’s National Action Plan (NAP) in June 2006, the MOD produced a Sustainable Procurement Delivery Plan. This sets out actions to achieve Level 1 in all 5 themes of the NAP Flexible Framework by April 2007, which were achieved. The Delivery Plan also addressed what needs to be done to reach level 3 in all 5 themes and level 5 in supplier engagement by December 2009.

At the same time, Enviro Consulting was commissioned by the MOD’s Sustainable Procurement Working Group (SPWG) to undertake the Sustainable Procurement Task Force’s Prioritisation Methodology for procurement using available MOD spend data. Applying the SPTF expenditure prioritisation methodology to the MOD’s procurement allowed the identification of priority areas, and on where and how we should focus our efforts. Specific actions taken to inform this prioritisation exercise included:

- Establishing a single source of data through the Procurement Services Database
- Undertaking an initial analysis of the database, which showed that there were approximately 1770 categories containing expenditure information
- Reducing this down to 62 categories by considering significant environmental impacts and the possibility of quick wins. This reduction in the number of categories did not involve the exclusion of any data, but categories were rationalised by aggregating smaller values into more workable larger units
- Market share was then determined. Followed by determining the market share in each category
- Two Stakeholder Engagement workshops were held. The environmental and socio-economic impacts associated with each category were identified and a scoring and ranking system allocated.

The outcome identified the following priority areas for the MOD, all of which feature in the top 18 priority spend areas in the NAP:

- Transport
- Construction
- Food
- Fuel
- Clothing, etc.

Although initial emphasis has been on these five priority areas, the MOD recognises that sustainable procurement is good procurement and that the future strategy for SP in the MOD should seek to strengthen the requirements for all types of procurement from commodities, including services, as well as items which support equipment, platforms, research and development, support, and more.

#### Challenges/barriers

The size and diversity of the MOD’s procurement activities and number of suppliers involved makes embedding SP into our normal business a real challenge. We are determined that our work on SP is at the forefront of UK best practice.

#### Outcomes

Work to advance the MOD procurement activity along the NAP Flexible Framework includes the following:

- The MOD has appointed a Board level sustainable procurement champion to oversee the embedding of sustainable development in procurement activities, including overseeing new SP governance arrangements and chairing an SP Board
- The MOD has held a Sustainable Procurement Industry day with over 100 Defence Industry representatives in which a clear message was sent that MOD would only deal with suppliers that can show a demonstrable commitment to sustainable development, a message that was well received by industry
- The Defence Estates Supplier Association is assisting in improving delivery of sustainable development outcomes across existing major estate projects. This includes working towards a suite of improved and consistent Performance Indicators to drive improved sustainable development behaviour. New major contracts, where appropriate, will be added to the Supplier Association arrangement
- The main management Board of the Defence Equipment and Support organisation had a workshop on Sustainable Procurement and have endorsed two statements on SP:
  - Sustainable Development in general, and carbon emissions in particular, will be

taken into account in all the Department's investment decisions

- We will, in future only do business with suppliers with a demonstrable commitment to sustainable development
- A number of training courses aimed at commercial officers also now include sustainable procurement, and sustainable development and sustainable procurement have been identified as a key priority skills for the 2008/09 upskilling programme
- Defence Fuels Group (DFG) assumed responsibility for contracting for transport fuel supply for other areas of government. These contracts are in addition to the contracts already in place for supply of transport fuel to the MOD. The transport fuel purchased under these arrangements is to current EU specification thus up to 5% 'bio' content. DFG also use extended-life lubricants, reducing through-life consumption and reducing waste disposal.
- Project Oriented Environmental Management Systems: tool to manage environmental performance and environmental liabilities of equipment and services throughout acquisition process.
- Timber: Medical and General Supplies team use 100% legal timber sources and demand suppliers guarantee certified sustainable sources enabling stock/usage to rise from 40% sustainable in 2004 to 90% now. The HMS Victory renovation has complied with the 2009 standard for at least last three years (working with WWF 95+ Group and ProForest).
- Catering: The new MOD Main Building catering arrangements used the relationship with private sector supplier in the canteen refurbishment to embed sustainable development principles. In practice this meant more efficient use of power, increased water recycling and introduction of crockery (less waste arisings). 'Steamplicity' cooking was also introduced which uses less power, less water, produces waste and gives a better taste. All coffee procured is Fair Trade.
- Travel: The MOD is developing an enhanced travel booking tool which will provide users with travel options for a given journey and the associated carbon dioxide emissions from each option. When vehicles in the MOD's leased administrative vehicle fleet are replaced our suppliers recommend an alternative fit for purpose smaller, cleaner vehicle category type that produces lower carbon dioxide emissions.
- Clothing: Commercial Staff Licences are conditional upon completion of a training module which includes SP.
- Construction: Project Allenby/Connaught (Aspire Defence contract) is the largest PFI of its kind in UK (£8bn through-life) to deliver accommodation. Refurbished buildings will deliver BREEAM very good, with new builds excellent. Project includes solar panels and 58 buildings with CHP plants (all swimming pools and some buildings) and rain water harvesting for toilet flushing.
- Wellbeck 6th Form College: classrooms have ducting for natural airflow to cool building providing exposed thermal mass to store heat from sun in winter and act as heat sink for cooling in summer. Night purge and thermal mass improve thermal performance and it has a sedum roof.
- RAF Woodbridge: redeveloped to house and train newly formed Army Regiment. Delivered by construction services group Skanska, who from outset worked with local community including police, ambulance service, fire brigade, and local primary school. Numerous sustainable development innovations employed including recycling demolition materials, flat panel modular construction reducing numbers of deliveries and thermal mass of flat panel concrete construction improving thermal performance. Project aiming for BREEAM Excellent."

MOD, 2007



## 4.6.9 Helps and hinders

Departments were asked to provide details of anything that had helped or hindered their progress on sustainable procurement. A selection of responses is provided in Box 4.6.

### Box 4.6

#### Helps and hinders

##### Helps

- **MOD** – “Leadership (is) critical: 2nd Permanent Under Secretary of State chairs pan-government Sustainable Procurement and Operations Board, tasked with driving forward sustainable development in central government, including procurement and delivering SOGE targets; Defence Commercial Director is the Sustainable Procurement Champion”
- **DCA** – “Procurement Managers have been attending Sustainable Procurement workshops and a Sustainable Procurement Action Plan has been developed”
- **DH/NHS PASA** – “The Department has formed a Procurement Centre of Expertise, effective from 1 April 07. This will provide support and expert input to all major procurement activity in the Department”
- **OGC Buying Solutions** – “Five Senior Civil Servant Board Members have performance objectives relating to sustainable operations and/or procurement”
- **ONS** – “We make widespread use of OGC framework agreements including environmental clauses and good practice”
- **CLG** – “Have revised procurement guidance to account for sustainability”
- **DFID** – “We hold regular procurement workshops and include SP in induction sessions held for in-house staff”
- **HO** – “We have service management and internal audit which can undertake spot checks on contracts”
- **DFID** – “DFID procures all timber through procurement agents who are all supplied with Defra guidance and ensure that all timber procured is certified as being from sustainable sources”

##### Hinders

- **CLG** – “Still perceived barrier of up front costs over long term sustainability and value for money on whole life basis. Departments still not giving enough positive signals to suppliers/innovators”
- **FC** – “Our main problem is limited resource. We only have a very small team currently focusing attention on savings management”
- **MOD** – “Complexity of MOD and decentralisation of activities to Top Level Budgets; tensions between efficiency programmes and sustainable development, and short term affordability; lack of skills in sustainable procurement (although we are now building capacity)”
- **HMRC** – “(we have) been undergoing a major transformation over the past couple of years which has prevented us from giving as much attention to progressing sustainable procurement within the Department as we would have liked”
- **DTI** – “Each agency is autonomous and there is no one point of contact to gather information and reporting systems are not in place”
- **Defra** – “The biggest hindrance on paper during the period was the decision to lower the quick wins target for recycled paper. This has taken a lot of explaining and the paper trade – which had worked hard to achieve our targets – is in danger of being confused”.

## 4.7 Sustainable procurement – summary

Despite the high-level attention afforded to sustainable procurement over the last 18 months, performance on the ground signals that there is a lot to do to turn words into action. While there are some pockets of good practice, some of them significant, departments on the whole are not yet making the efforts needed to embed sustainability into procurement decisions. The whole area is littered with examples of missed opportunities, especially on collaborative procurement, supplier engagement and more simple steps like using the mandatory ‘Quick Wins’ product standards, where compliance levels are poor.

Aside from refreshing governance structures, little else appears to have happened since the PMDU report was published. This is disappointing given the momentum gained up to this point, and the level of effort made in recommending a practicable way forward. In particular, OGC does not seem to have fully taken forward its responsibility for ensuring sustainability is embedded in procurement processes, and departments feel there is a lack of clear high-level direction and coordination.

Anecdotal evidence strongly suggests that many sustainable development practitioners still see sustainable procurement as simply purchasing from lists of recommended goods and services. Sustainable procurement is also about managing demand effectively, and using procurement as a means to achieving the UK’s sustainable development goals – all the way down supply chains and across society. The extent to which procurement activities can be regarded as ‘sustainable’ depend on the role they play within this broader context.

Other barriers to progress include a perceived mismatch between efficiency drives and sustainable procurement; lack of awareness and skills; and lack of effective supplier engagement.

Government also needs to galvanise the spending power of the wider public sector. In particular local government and the health and education sectors have huge leverage, and are critical to the delivery of sustainability across the UK.

## 4.8 Recommendations

The SDC makes the following recommendations on sustainable consumption and production. The key recommendations are highlighted in bold:

### Waste

- **SPOB should consider introducing more ambitious future waste minimisation and recycling targets to ensure departments continue to challenge themselves and create opportunities for improvement.**
- Departments need to ensure they have systems in place capable of providing high quality data on waste arisings and recycling across their full estate. Where there are major data collection difficulties, departments need to set out how they intend to resolve these. These discussions should be held under the overall auspices of the new SPOB sub-group on performance management.

### Procurement

- **Government needs to set out exactly how the commitments in the *Sustainable Procurement Action Plan*<sup>51</sup> (SPAP) and *Transforming Government Procurement*<sup>52</sup>, and recommendations of the PMDU report, will be prioritised and taken forward, by whom, and when.**
- **Government needs to develop, implement and monitor a strategic pan-government supplier engagement programme to ensure that the products and services government procures help it meet its sustainable operations targets and encourage sustainable practices down supply chains, as well as helping it meet the UK’s wider sustainable development goals.**

- The operational impacts of suppliers and service providers, both on and off the government estate, should be monitored and reported on, with a view to tasking them to be more sustainable, learning from their innovative practices, and enabling government's full impacts to be better understood.
- OGC should ensure that sustainable development is fully embedded in the procurement capability review process.
- All departments should engage fully with the Sustainable Procurement Flexible Framework, and ensure that well evidenced progress is made against the levels in it. Government needs to send a clear signal to departments about where it expects them to be on the framework, and by when. The levels chosen need to be realistic but challenging.
- Departments' sustainable procurement policies (as required at Level 1 of the Flexible Framework) should explicitly include demand management, so that justifying the need for goods or services is the first step in the procurement process.
- **Each department must take appropriate steps to ensure that Quick Wins are adopted in all relevant contracts, and that robust systems are in place to monitor compliance. OGC should routinely review compliance levels across departments, and reinforce to procurers that they should be used.**
- All major contracts should include relevant sustainability clauses that ensure alignment between contractor activities and the SOGE requirements. These clauses should include requirements for the contractor to provide the client with regular and accurate sustainability performance information against the requirements of the contract, and plans for the ongoing development of sustainable goods, services and operational activities. Departments need to actively manage contracts, including monitoring compliance with sustainability requirements.
- Defra and OGC should provide guidance to departments on the practical ways that sustainability can be embedded into supplier contracts, including examples of sustainability clauses and best practice case studies.
- Departments should continue to work with OGC, OGCBuying.solutions and other government departments to construct contracts that support sustainability and efficiency objectives. This includes the development of pan-government collaborative contracts and sharing experience on contract development, supplier engagement and contract management.



## 151 children per year

benefit from the Wyre Forest Schools scheme, which helps with behavioural problems through team-building.

Sarah Robertshaw, Wyre Forest Education Officer, Worcestershire, at the Forestry Commission.



**Natural resource  
protection**

## 5 Natural Resource Protection

“Natural resources are vital to our existence and the development of communities throughout the world. The issues we face are the need for better understanding of environmental limits, the need for environmental enhancement where the environment is most degraded to ensure a decent environment for everyone and the need for a more integrated policy framework to deliver this.”

*Securing the Future, 2005.*

### 5.1 Why is natural resource protection important on the government estate?

The central government departments, executive agencies and the selected NDPBs which are included in this assessment have reported ownership of 5,427 km<sup>2</sup> of land. This is 2.2% of the entire UK land mass. More than 90% of this land is owned by the MOD and FC, and includes designated sensitive sites such as Sites of Special Scientific Interest (SSSIs), Special Protection Areas and Areas of Outstanding Natural Beauty. Given that the government estate is so diverse, and not limited as some might imagine to

the offices of Whitehall, there is both a legal and a ‘caretaker’ duty for this land, and everything on it.

A key natural resource is water. The way in which government departments use and consume this precious resource to deliver services is of vital importance to the UK. Government must aim to be a leader in the minimising water wastage, and optimising the way in which water is used across the government estate.

### 5.2 Biodiversity

The government has reported sole ownership of 378 SSSIs. In addition to SSSIs, departments also own a great deal of other land not classified as SSSIs on which stewardship is of equal importance for biodiversity. Specific examples of the variety of UK government land ownership are as follows:

- Defra manages a number of sites which have been converted from previous uses into nature reserves including:
  - former Foot and Mouth Disease burial sites
  - a decommissioned chemical weapons production and storage facility
- The MOD operates military training areas where protected species have flourished because the area is restricted to military use
- Royal Parks, an executive agency of DCMS, manages the Royal Parks which provide enjoyment to millions throughout the year
- FC manages a variety of sites including wetlands, riparian land, upland grazing areas and, of course, forests. Case study 5.1 shows how managing biodiversity can create social benefits in a community.

## Case study 5.1

### FC – Forest school for dis-engaged teenagers – the Wyre Forest.

#### “Description of the project

Forest School has been happening in the Wyre Forest for the past five years, during which time we have done some significant work with young people who are dis-engaged at school, either because of social and behavioural issues or because they have very low confidence and self-esteem. In today's educational climate where students constantly have pressure on them to achieve academic targets in school, there are undoubtedly many young people who are failing in the system because for many different reasons they don't have the resources to succeed.

The concept of Forest School is about providing the environment for these young people to succeed. Through weekly sessions, (for up to one year) we work with them in the forest, facilitating their personal development, building of self-confidence, self worth and self-esteem by delivering a programme which is flexible, student led and absorbing. The programmes typically consist of setting up a 'wild camp' area using natural materials for shelter building and fire lighting and from there we progress to tool use, chair and table making, whittling, bug hunts, games, tree identification, camp cooking, nettle string making, digging clay... the list is endless.

To run Forest School within a remote forest environment the leaders need to be trained as a Forest School Practitioner, level 3. The qualification requires a lot of time commitment and costs over £600. To run Forest School effectively, the ongoing commitment has to be high in order to deliver and monitor the benefits to small numbers of students – practitioners need to be working closely with the school or educational establishment involved. This relationship with the school is a vital part of the transference of learning for the student and is an important part of monitoring and gathering qualitative evaluation for the project.

#### The barriers

- Forest School is very labour and staff intensive, usually for a small number of students
- The students who typically access Forest School are usually on the 'exclusion' borderline, so attendance is unpredictable
- The school has to really 'buy in' to the process, as Forest School is expensive, and they need to release a member of staff to

accompany the students each week

- The 'wilderness feel' is a very important part of the students' development as they begin to learn to take responsibility for their actions so a suitable 'remote' piece of woodland is useful
- The staff involved in the project have to really enjoy working with challenging young people and prior experience in this field is helpful.

#### The outcomes and benefits

We have learned through five years of experience that in order to appreciate the benefits of Forest School, it is absolutely vital to be realistic from the outset. For example, if a 15 year old student has a reading age of six, within the timescale of one year of Forest School, he is unlikely to reach his correct reading age. BUT Forest School has been identified as a means of keeping students actually accessing school when previously they may have chosen to exclude themselves.

Forest School is not an alternative means of testing and assessing students who are already failing in school, but for many students it is a chance for them to learn how to relate to others, how to moderate their own behaviour and how to behave in the outdoors and look after the environment. There are many successes noticed by teachers but also by the students themselves when we ask them to do their own evaluation at the end of the year. For one it was as simple as managing to hold a conversation with an adult without stuttering, for another just managing to hold a conversation without being abusive. It is always important to remember that most of these young people are already badly damaged and that the smallest of successes should be celebrated.

I think that the biggest lesson we have learned has been to communicate fully with the school. Forest School should not be a weekly session which stands on its own, but part of a process for the students involved and this process can only be fully achieved with consistency.

Also Forest School training has been part of an ongoing process for the leaders involved – it may be necessary to do some drugs awareness training! Bushcraft training, etc. – the point is that you will never be able to stand still when you become involved with young people at this level!"

FC, 2007

## 5.2.1 How is government performing against its SOGE targets?

The SOGE target relating to biodiversity is shown in Box 5.1.

### Box 5.1

#### SOGE targets – Natural resource protection – Biodiversity

##### Biodiversity

Departments to meet or exceed the aim of having 95% of Sites of Special Scientific Interest (SSSIs) in sole ownership or control in target condition by 2010.

Target condition is defined as SSSIs in ‘favourable’ or ‘unfavourable recovering’ condition as assessed by national bodies such as Natural England and Scottish Natural Heritage.

The assessment of the condition of a SSSI varies in different parts of the UK and therefore it is not straightforward to assess UK-wide performance

against this target where there is a mix of English, Welsh and Scottish SSSIs, and Areas of Special Scientific Interest (ASSIs) in Northern Ireland. The MOD data has been split into the UK countries to reflect this. Table 5.1 shows the performance of departments with SSSIs.

**Table 5.1** Government owned SSSIs in target condition

Department	Number of SSSIs on estate in sole ownership or control	Percentage of SSSIs in target condition	Performance
DCMS	1	0%	
Dft	1	100%	
DWP	1	100%	
FC	192	83%*	
HO	8	76%	
MOD – England	125	82%*	
MOD – Scotland	131 features***	69%*	
MOD – Wales***	39 features**	75%*	
MOD – Northern Ireland (ASSIs)***	5 features**	63%*	
<b>Pan-government</b>	<b>378**</b>	<b>82%****</b>	

\* These percentages have been determined by assessing the area of SSSIs which are in target condition rather than the number of sites which are in target condition, as with the other departments in this table.

\*\* SSSIs in Wales, Scotland and NI are assessed by the ‘features of interest’, which includes habitats, plants and animals. These features are spread across a total of 50 SSSIs; therefore the MOD’s UK-wide SSSIs number 175.

\*\*\* The target year for the MOD in Wales and NI is 2013 as opposed to the SOGE target of 2010, and a target percentage for the MOD in Wales is 85% as opposed to the SOGE target of 95%.

\*\*\*\* Information was provided by number of sites, area covered, and features. However, this figure is an average of SSSIs in target condition only and therefore the pan-government figure does not include information from the 50 SSSIs in Scotland, Wales and NI as this is based on features.

Excellent progress
Good progress
Some progress
No or poor progress/ Not Known
Not applicable



## 5.2.2 Biodiversity – analysis

- Government as a whole has reported that 82% of its SSSIs were in target condition, which represents ‘good progress’ towards meeting the biodiversity target of 95% or higher by 2010
- However, further endeavours are required by individual departments, specifically, DCMS, the MOD and HO, to achieve 95% in target condition by 2010
- DCMS was the only department that has shown poor performance against the SSSI target. DCMS has one SSSI made up of two possible assessment units and it was not in target condition following an assessment of one of these units. DCMS noted that the other assessment unit is on target, but this distinction is not possible given the biodiversity target’s method of calculation.

## 5.2.3 How is government seeking to improve performance?

- Departments with SSSIs undertake surveys and monitoring exercises to ensure good information is available to both stakeholders and regulators alike
- While the SOGE target applies to SSSIs in full ownership, DfT has also committed to aspire to the target for its part-owned SSSI as well
- Departments also use their SSSIs to engage local communities and to support conservation education, e.g. FC and the MOD (see FC’s Case study 5.1)
- The MOD and FC own the majority of government’s SSSIs and have long had arrangements in place to protect biodiversity. Both departments perform key operational activities on their sites, i.e. military training and forestry respectively
- Departments without SSSIs but who are still landholders also play a significant role in maintaining and improving the biodiversity of the UK, and have a duty to do so under the Natural Environment and Rural Communities Act 2006.<sup>53</sup> It is therefore essential that all departments consider biodiversity on their estates, big or small (see FCO’s Case study 5.2 for further details).

### Case study 5.2

#### FCO – Pond development, Hanslope Park

##### “Description of the project

The pond area at Hanslope Park was generally overgrown with mature shrubs and trees, which limited the amount of wildlife being attracted to the area, and detracted from its aesthetic value. It was not considered to be a pleasant or relaxing area for staff to use during their lunchtime. The marginal planting of reeds had aggressively overtaken large areas of the water, which when combined with a hot summer and a damaged liner caused the pond to lose a significant amount of water. The fish were being starved of oxygen and had been removed and re-housed elsewhere.

The aim of the project was to regenerate the pond area into a conservation area and simultaneously create a pleasant environment for staff to relax in.

The objectives of the project were to:

- Create optimum environmental conditions for pond wildlife, to reintroduce the original fish and encourage new pond life
- To encourage biodiversity in the surrounding area by placing bat and bird boxes around the site and designing planting specifically to provide natural refuges for animals and to attract insects
- To encourage recycling of natural waste; cuttings from plants and old coffee grounds are recycled to help make compost at the area.

The FCO is committed to ensuring the well-being of its staff and the environment in which it is based. The development of the pond is a good example of how the FCO is working towards these aims. This is because the pond has not only brought many environmental benefits through increasing the biodiversity but also acted as a relaxing and sociable space where staff can congregate.

#### The barriers

The main barriers to the development of the pond were the relatively small budget available and the limited timeframe that was set for project completion. The local rabbit population at Hanslope Park has also caused some unexpected problems – causing considerable damage to many of the newly planted plants!

The costs were kept to a minimum by prioritising the tasks undertaken. In terms of the time available, although it was limited, the project was completed on schedule due to all staff working efficiently, and a spell of good weather which helped to ensure optimal working conditions. The plants damaged by the rabbit population are being replaced periodically. We would also like to pay special tribute to our facilities management company, Operon, and their grounds maintenance contractor, Frosts Landscape Construction Ltd, for their dedication and enthusiasm throughout the project.

#### The outcomes and benefits

The development of the pond was intended to bring environmental benefits through increased biodiversity and social benefits in terms of creating a better working environment for staff. It is generally felt that these expectations have not only been achieved but exceeded.

The original fish were re-introduced when the pond water had been tested and the right environment had been achieved. To help settle the newly introduced fish, barley straw was introduced to clear the water and encourage more wildlife to inhabit the area.

An increase in biodiversity has been achieved. A pair of mallard ducks now visits the pond regularly, and moorhens are nesting on the pond and producing chicks which are hugely popular with the children from the crèche. The flowering plants are attracting a wide range of butterflies, bees, hover flies etc. The fish are visibly larger and have produced many offspring; and herons and kingfishers have been attracted to the area.

In terms of the social benefits it has been observed that there is always a large number of people having their lunch around the pond, enjoying the surroundings on a sunny day, and the site gardener reports that staff are frequently praising him for how good the pond looks. The pond also acts as an interesting, interactive, educational tool for the FCO children at the on site crèche."

FCO, 2007

## 5.2.4 Helps and hinders

Departments were asked to provide details of anything that had helped or hindered the delivery of their SOGE biodiversity target (Box 5.2).

### Box 5.2 Helps and hinders

#### Helps

None reported.

#### Hinders

- **MOD** – "Target condition for SSSIs is assessed in different ways in England, Wales, Scotland and Northern Ireland"
- **Defra** – "The main barrier to progress in this area is funding. Because the SOGE target does not apply to Defra, our limited finances are focussed on priority areas such as reducing energy usage at our sites."

### 5.2.5 Biodiversity – overview

As a landowner, government seems to be making good progress in maintaining or improving biodiversity across its estate. Good progress on SSSIs was reported by departments, and all but one was on track to meet the biodiversity target. However, meeting this target will require significant effort and ongoing commitment for the key departments.

Furthermore, government as a whole must

not ignore biodiversity on land that is not a SSSI. For example, the MOD owns a significant proportion of the UK's National Parks area. The Natural Environment and Rural Communities Act 2006 states that every public authority must have regard to the purpose of conserving biodiversity.<sup>54</sup> Biodiversity is important on all parts of the government estate, and requires strong stewardship from all departments.

## 5.3 Water consumption

Government uses a multitude of natural resources and processes that rely on the UK's ecosystem services; a prime example is the provision of clean water. Departments use water for drinking, cleaning and sanitary use as would be expected. The government estate also includes various laboratories, prisons, barracks, vehicle washing facilities and park flower beds, all requiring water. Consumption of water that is of drinking quality can impact on the water resources of the environment as water is often sourced from groundwater or river abstraction.

This is a particular concern during periods of drought or long seasons of low rainfall. Furthermore the energy used by the water industry to deliver clean water to the user is high, and therefore inefficient water use also has a direct link to climate change.

In February 2008, the government released its Water Strategy<sup>55</sup> (see section 5.3.4). It is reputationally important that when government asks the private and household sectors to value water and be efficient in its use, departments should also do the same.

### 5.3.1 How is government performing against its SOGE targets?

The SOGE targets relating to water consumption are shown in Box 5.2.

#### Box 5.3

#### SOGE targets – Natural resource protection – Water consumption

##### Water consumption

Reduce water consumption by 25% on the office and non-office estate by 2020, relative to 2004/05 level.

Reduce water consumption to an average 3m<sup>3</sup> per person per year for all new office builds or major office refurbishments.

Table 5.2 shows the departmental performance against the SOGE target for water consumption.

**Table 5.2** Departmental performance against SOGE target for water consumption

Department	Total water consumption from office and non-office locations in 2004/05 (m <sup>3</sup> )	Total water consumption from office and non-office locations in 2006/07 (m <sup>3</sup> )	% change in water use since 2004/05	Performance
<b>CLG</b>	250,674	250,385	-0.1%	Excellent progress
<b>CO</b>	42,297	47,997	13.5%	No or poor progress/ Not Known
<b>DCA*</b>	472,460	645,543	36.6%	No or poor progress/ Not Known
<b>DCMS</b>	386,663	352,021	-9.0%	Good progress
<b>Defra</b>	376,724	399,341	6.0%	No or poor progress/ Not Known
<b>DfES</b>	59,475	66,145	11.2%	No or poor progress/ Not Known
<b>DFID</b>	12,501	12,398	-0.8%	Excellent progress
<b>DfT</b>	184,417	205,091	11.2%	No or poor progress/ Not Known
<b>DH</b>	22,048	21,746	-1.4%	Excellent progress
<b>DTI</b>	58,584	48,272	-17.6%	Good progress
<b>DWP</b>	1,179,739	1,137,368	-3.6%	Good progress
<b>ECGD</b>	8,956	2,640	-70.5%	Good progress
<b>FC</b>	NK	NK	NK	No or poor progress/ Not Known
<b>FCO</b>	60,739	68,667	13.1%	No or poor progress/ Not Known
<b>FSA</b>	9,514	12,408	30.4%	No or poor progress/ Not Known
<b>HMRC</b>	799,797	683,956	-14.5%	Good progress
<b>HMT</b>	235,877**	234,447	-0.6%	Excellent progress
<b>HO</b>	8,380,201	8,305,083	-0.9%	Excellent progress
<b>LOD</b>	NK	NK	NK	No or poor progress/ Not Known
<b>MOD***</b>	24,000,000	24,000,000	0.0%	No or poor progress/ Not Known
<b>ONS</b>	32,897	29,984	-8.9%	Good progress
<b>Pan-government</b>	36,573,563	36,523,492	-0.1%	Excellent progress

\* Unlike the road vehicle target, where DCA did not rebaseline, DCA has rebaselined on the water target, and therefore the performance reported is included in the pan-government figure.

\*\* This figure includes the Executive Agency water consumption figure for 2006/07 due to a lack of data in 2004/05.

\*\*\* Due to poor data the MOD reported no change in water consumption.

Excellent progress
Good progress
Some progress
No or poor progress/ Not Known
Not applicable

## 5.3.2 Water – analysis

### 5.3.2.1 Water consumption

- Overall, government has reported a reduction in water consumption of 0.1%. This means that government is well off-track from achieving its water consumption target of 25% by 2020
- ECGD reported a 70.5% reduction in water use since 2004/05. Other notable reductions were reported by DTI (17.6%) and HMRC (14.5%). These reductions were reported to be due to a combination of water efficiency measures, cultural change and estate rationalisation
- Notable increases in water use were reported by DCA (36.6%) and FSA (30.4%). For DCA, the estate has grown but the recalculated baseline did not fully capture the extent of changes. FSA reported a challenge in reversing the current trend due to landlord restrictions, which meant it had little control over its water management. However, Case studies 5.3 and 5.4 show some of the good practices DCA and FSA have undertaken in regards to water management
- The MOD accounted for 65.7% of governmental water use in 2006/07. However, due to poor data, the MOD reported no change in water consumption, as it continues to work with its contractors to get accurate data while realising efficiencies. These reductions should be apparent in next year's SDiG report. Given the scale of the MOD water use, this will greatly affect pan-government performance.

#### Case study 5.3

##### DCA/Her Majesty's Court Service (HMCS) – Rectifying water leak at Merthyr Courts

###### “Description of the project

HMCS became responsible for Merthyr Courts on the 1st April 2005. Through the taking of meter readings a leak was detected on the 26th April 2005. To avoid waste of natural resources and ensure that the water supply to the court was uninterrupted HMCS took immediate action.

###### The barriers

Standard procedures within HMCS are to keep plans covering water pipes and drains on file in case of a leak. This site was a new addition to the DCA Estate and did not have any plans. In addition, the 50 metre long pipe run meant digging for the leak was not a reasonable alternative and inserting a 1” pipe down the

original pipe was not an option due to the bends in the pipe.

###### The outcomes and benefits

By obtaining permission from the Council to dig a hole to conduct a camera survey the leak was located and the faulty pipe was excavated and replaced. The works took five days to complete. The financial value of the water consumption from the leak was in excess of £7,000 per month. This incident demonstrates the importance of keeping plans of water mains and drains and of conducting regular meter readings when buildings are not in use i.e. during night time and weekends.”

DCA/HMCS, 2007

## Case study 5.4

### FSA – Mains fed bottled water system

#### “Description of the project

In an effort to support the Food Standards Agency’s (FSA) sustainable development commitments FSA considered alternative options to the bottled water provided for hospitality by the caterers. The objectives were to reduce waste (boxes and used bottles), save energy (transportation) and promote re-use of resources (re-use of bottles). In addition, the facility to add FSA’s logo, with a commitment to sustainability printed on the bottles, was a good way of raising general awareness and encouraging other sustainability initiatives.

This was seen as a long term initiative. The project lasted six months and there was plenty of consultation with our caterers, the supplier and internal staff on how best to move forward with this idea. The catering contract manager was dedicated to the project and worked closely with procurement and finance to get this project off the ground.

#### The barriers

Various option papers were written comparing costs and any potential additional catering manpower. We identified savings on the bottles

and established that filling the bottles from the mains fed water pumps did not pose additional burden on the hospitality supervisor. We did incur some cost in purchasing the customised bottles and a new dishwasher tray; however, overall there was a financial saving through the lower cost of water. One big concern was staff taking away the bottles for mementos; however, there have been few cases of this. We looked at whether the mains fed bottled water system would dramatically increase our water consumption but this has not been evident.

#### The outcomes and benefits

We have seen positive benefits from the new system e.g. our glass waste has been reduced to zero and a reduction in costs to FSA has reduced the price to the internal customer. The system takes up little space in the hospitality pantry and the hospitality supervisor adapted to the new system really well. Our stakeholders have commented on what a good idea it is. FSA are very happy with the introduction of this initiative which shows a strong commitment to sustainability and it has been welcomed by all staff.”

FSA, 2007

### 5.3.2.2 Water use in new builds and major refurbishments

Government office new builds and major refurbishments should have an average water consumption of 3m<sup>3</sup> per person per year. This target was set to show leadership in the way government uses building design to manage water consumption.

In total, there were 351 completed new build or major refurbishment projects across government in 2006/07. However, to get a clear picture of performance against this target, the building needs to have been occupied for a certain period of time.

Of the 10 departments with building projects completed in 2006/07, only DfT was able to provide this data. DfT completed 10 new build projects and five major refurbishments, and are reported as being ‘on target’ with an average water consumption of 2.9m<sup>3</sup> per employee per year. DfT has proved that the target is achievable in practice.

Departments unable to report this year will be expected to provide suitable water consumption data on these projects so that this target can be assessed as part of next year’s report.

**Table 5.3** Departmental performance against SOGE target for water consumption in new builds and major refurbishments.

Department	Total water consumption from new office builds, or offices which have undergone a major refurbishment (m <sup>3</sup> )	Average water consumption per FTE (m <sup>3</sup> ) per year	Performance
DfT	3350	2.9	
Pan-government	3350	2.9	

Excellent progress	Good progress	Some progress	No or poor progress/ Not Known	Not applicable
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### 5.3.3 The “Department of Averages” and normalised data

Analysing the data in ways other than simply looking at progress against the SOGE targets can provide further, valuable insight into performance. One such method is to “normalise” the data using comparable units such as floor area (m<sup>2</sup>) or staff numbers.

Table 5.4 shows water consumption per m<sup>3</sup> for each staff member (FTE), with departments ranked

according to performance. The overall government performance and that of a fictional ‘Department of Averages’ are included as benchmarks. While water consumption per person per year in existing buildings is not a SOGE target, it is a useful indicator of how efficiently water is being used.

**Table 5.4** Normalised departmental performance for water consumption on the office and non-office estate.

Department	Total water consumption from office and non-office locations in 2006/07 (m <sup>3</sup> per FTE per year)
DTI	4.4
ONS	6.0
DH	6.9
DFID	7.1
HMRC	7.8
ECGD	9.0
DWP	9.5
DfT	10.4
DfES	10.9
Defra	15.9
DCA	17.0
FCO	17.5

Department cont.	Total water consumption cont.
CO	18.4
FSA	18.7
CLG	23.9
Pan-government	29.9
Dept. of Averages	42.7
HMT	44.6
HO	115.6
DCMS	424.1
FC	NK
LOD	NK
MOD*	NK

\* The MOD was removed from analysis as data given was only an estimate, and therefore falsely skews performance per FTE water consumption. Historical water data is incomplete due to difficulties in collection.

The normalised data and the 'Department of Averages' is skewed here by the presence of DCMS and its Royal Parks executive agency, HMT with the Royal Mint's manufacturing function, and HO with its Prison Service, all of which use water outside of the normal requirement of administrative operations. All other departments consume less than 30m<sup>3</sup> of water per FTE; less than the average consumption of 42.7m<sup>3</sup> of water per FTE. However, this data still shows water consumption per FTE well above that expected for an office estate, though there remain many non-office activities within the remaining departments.

Table 5.5 shows water consumption per FTE on the office estate only, ranked using the 2006/07 data. This reduces the skew from departments and executive agencies which used a large volume of water for non-office functions. The data here is compared with equivalent data for 2005/06, and shows that overall water consumption per person across the government office estate increased by 14.7% from the previous year, with 8.6m<sup>3</sup> water used per FTE. This is of concern, particularly given the previous SDGE target: to reduce water consumption in office buildings to 7.7m<sup>3</sup> per person by March 2004. Three years on from this target, government has still not managed to make the required reduction in water use.

**Table 5.5** Normalised departmental performance for water consumption on the office estate only – comparison of 2005/06 and 2006/07.

Department	Water consumption on the office estate (m <sup>3</sup> /FTE)		% change in water consumption per FTE from 2005/06 - 2006/07
	2005/06*	2006/07	
<b>HMT**</b>	10.0	4.1	-59.3%
<b>DTI</b>	7.0	4.4	-37.4%
<b>HO</b>	12.3	4.4	-64.3%
<b>Defra</b>	6.1	5.0	-18.5%
<b>ONS</b>	7.3	6.0	-18.0%
<b>DH</b>	5.3	6.9	29.4%
<b>DFID</b>	7.7	7.1	-7.2%
<b>DfT</b>	6.6	7.1	8.1%
<b>HMRC</b>	7.7	7.8	1.3%
<b>Pan-government</b>	<b>7.5</b>	<b>8.6</b>	<b>14.7%</b>
<b>ECGD</b>	NK	8.9	NK
<b>DWP</b>	9.0	9.5	5.1%
<b>Dept. of Averages</b>	<b>9.9</b>	<b>10.1</b>	<b>2.1%</b>
<b>DfES</b>	10.2	10.9	7.1%
<b>CLG</b>	7.1	14.9	110.2%
<b>FCO</b>	8.5	15.9	87.3%
<b>DCA</b>	14.0	17.0	21.5%
<b>CO</b>	19.0	18.4	-3.1%
<b>FSA</b>	12.2	18.7	53.4%
<b>DCMS</b>	15.0	NK	NK
<b>FC</b>	NK	NK	NK
<b>LOD</b>	NK	NK	NK
<b>MOD***</b>	NK	NK	NK



- \* This analysis uses 2005/06 data from SDiG 2006 as the comparison year instead of the 2004/05 baseline, as comparable FTE data was not available for water usage.
- \*\* In 2005/06, HMT reported that a faulty water meter could have resulted in erroneous data.
- \*\*\* The MOD was removed from analysis as data given was only an estimate, and therefore falsely skews performance per FTE water consumption. Historical water data is incomplete due to difficulties in collection. Further, MOD was unable to provide data split office from non-office water consumption.

Departmental performance on the office estate was variable, with some good progress. HMT had the lowest water consumption per FTE in 2006/07 (4.1m<sup>3</sup>/FTE), with an apparent 59.3% decrease on the previous year. HO and DTI also performed very well, both reducing their water consumption considerably to 4.4m<sup>3</sup>/FTE. ONS and Defra also made reductions and, along with DfT, DFID and DH remained below the old SDGE target level of 7.7m<sup>3</sup>/FTE.

However CLG (which met the SDGE target in 2005/06) more than doubled its office water consumption per person to 14.9m<sup>3</sup>/FTE in 2006/07. Water use in the FCO (15.9m<sup>3</sup>/FTE) and FSA (18.7m<sup>3</sup>/FTE) also increased significantly from the previous year, by 87.3% and 53.4% respectively. Other departments with high water consumption on their office estate in 2006/07 were CO (18.4m<sup>3</sup>/FTE), DCA (17.0m<sup>3</sup>/FTE) and DfES (10.9m<sup>3</sup>/FTE).

### 5.3.4 How is government seeking to improve performance?

The government's Water Strategy<sup>56</sup> sets out the long term vision for water and the framework for water management in England, and identifies a number of practical steps to ensure there is clean water for people, businesses and nature. It also includes some initiatives to help it achieve (and exceed where possible) its own water targets, such as:

- The 'Defra as Sustainability Leader' (DaSL) programme will promote examples of where government offices can lead the way in using water more efficiently

- Improving the sustainability of government buildings. New Defra offices in York and Alnwick are integrating rainwater harvesting systems to use in flushing toilets and urinals
- DH will be producing best practise guidance on water management and water efficiency in 2008.

Case studies 5.5 and 5.6 provide examples of how MOD and the Environment Agency Wales have reduced their water consumption on some sites.

#### Case study 5.5

##### MOD – Project Aquatrine – Leakage work

###### “Description of the project

Project Aquatrine is a 25 year Private Finance Initiative in which management of all aspects of the MOD's water and wastewater services are managed by third party consortia, bringing together leading service delivery organisations from the water industry sector. Let in three packages, Package C is managed by C2C, a consortium comprising Severn Trent and Costain. C2C cover the North, East and South East of England and serve over 1500 of the UK's most important military sites.

Since the start of Package C in 2005, C2C have invested heavily in the installation of accurate

metering and measurement techniques across the estate in order to understand consumption and manage leakage effectively. Since the start of the project C2C have reduced leakage by nearly 40% of its value. Today the volume of water saved is approximately 2Mm<sup>3</sup> p.a. and represents an industry leading achievement in terms of the rate of leakage per km of mains water system managed by C2C.

Recognising the success of the C2C approach, Defence Estates recently asked C2C to investigate a suspected leak at a site outside of the scope of the Package C area.

### **The outcomes and benefits**

Following investigation of the initial problem of a 'no supply' to one of the Married Quarter properties, it was found out that this was due to a leaking connection where the customers service pipe had become disconnected. This was repaired the same day enabling the occupier to move back into their property with minimal disruption.

Analysis of the flow data showed an immediate reduction in the nightline flow (a measure of actual leakage) from 12.6m<sup>3</sup>/hr to 5.4m<sup>3</sup>/hr; however it was clear that further leakage remained to be addressed.

A C2C leakage survey was carried out across the whole of the married quarter estate. This identified a further four leaks in addition to the one already repaired and two suspected

internal leaks which were reported back to the MOD for further investigation. As an example, internal leaks may include things like dripping taps, overflowing toilet cisterns or water tanks and are common in many older properties.

The external leaks were subsequently repaired, further reducing the leakage from 5.4m<sup>3</sup>/hr to a much more efficient 2.05m<sup>3</sup>/hr. As a result of these works the cost saving in the water bills alone to the MOD will be around £1,400 a week, or approximately £74,000 a year. This is a significant saving when compared to the leak detection and repair cost of approximately £9,000. Addressing the internal leaks as well could yet yield additional savings for the MOD and is currently being reviewed."

MOD, 2007

## **Case study 5.6**

### **Environment Agency Wales – Water management**

#### **"Description of the project**

Environment Agency Wales achieved an annual water use of 4.2m<sup>3</sup>/FTE for the year 2006/07 across the region. This equated to 82% of our water target.

The main reason for the low water use is due to the fact that we have three sites currently with rainwater harvesting systems – Ty Cambria (Regional Office), Maes Newydd (SW Area office) and Plas Gwendraeth (District Office/Depot).

We also have waterless urinals and low flush WCs at all our main office sites. All other sites (depots etc.) have water saving devices (hippos) or "interflush" systems on the WCs. Some of the depot sites also have leak detection systems. All office sites also have push taps (so they can't be left on) with spray fittings.

#### **The outcomes and benefits**

Rainwater harvesting systems were put in place at Plas Gwendraeth and Maes Newydd at the start of the building projects. Ty Cambria was added to an existing building as part of the refurbishment. Estimated costs for installation are in the region of £5,000 to £15,000 dependant on size and type of installation.

The three office sites with rainwater harvesting systems have achieved a "per FTE" figure of less than 2m<sup>3</sup> (although none have a canteen). The two remaining area offices – Plas yr Afon and Llwyn Brian achieved a figure of 4.9m<sup>3</sup>. Both these sites have the same water saving measures in place but without rainwater harvesting. It is predicted that we could save up to 45-50% of our total water use at these two sites by installing rainwater harvesting."

Environment Agency Wales, 2007

### 5.3.5 Helps and hinders

Departments were asked to provide details of anything that had helped or hindered the delivery of their SOGE water consumption targets (Box 5.4).

#### Box 5.4

#### Helps and hinders

##### Helps

- **CO** – “The Thames Water survey was very helpful in that allowed us to fully understand which areas were in need of improvement”
- **Defra** – “Of particular help in this area are the Rainwater harvesting initiatives at Alnwick, Norwich and Hartpury new buildings and Kings Pool refurbishment.”

##### Hinders

- **FCO** – “Wilton Park reports that they can only influence, not control, the water consumption choices made by visitors”
- **Several departments** reported that metering or invoicing errors can affect performance considerably.

### 5.3.6 Water – overview

Government has shown a reduction in water consumption; however it is very small (-0.1%) and greater efforts are required to make progress against this target. DTI was the most efficient with water use of 4.4m<sup>3</sup> per FTE across the office and non-office estate, while the departmental average was much worse at 42.7m<sup>3</sup> per FTE. Even when only

considering the office estate, water consumption across government was 8.6m<sup>3</sup> per FTE. Given the previous SDGE target of 7.7m<sup>3</sup>/FTE by March 2004, this is hugely disappointing.

Water reductions must come through behavioural change, water efficiency measures and better water management and building design.

## 5.4 Recommendations

The SDC makes the following recommendations on natural resource protection. The key recommendations are highlighted in bold:

- In addition to improving the condition of SSSIs on the government estate, government should require departments to conserve and enhance the condition of their entire estates
- Departments should continue to reduce their water use through behaviour change, improved estates management, and leak detection and resolution. Departments should also consider the potential for building design and water management techniques, such as rainwater harvesting and the use of grey water systems,<sup>57</sup> to help deliver reductions in water use
- **SPOB should consider a water use target for existing buildings.**



6

## 49 ambulances

purchased in the North East region through new contracts that require sustainable development criteria.

Geoff Craik, Operational Support Manager, Newcastle, at the NHS Purchasing and Supply Agency.



**Mechanisms and  
supporting  
processes**

# 6 Mechanisms and Supporting Processes

## 6.1 Introduction

In addition to the key ‘outcome driven’ SOGE targets, analysed in Chapters 3-5, there are a number of mechanisms and processes which the UK government has mandated departments to implement to support delivery of the sustainable operations targets. Some of these mechanisms have been carried forward from the previous requirements and are referred to as ‘Government to Mandate’ requirements in the SOGE framework, whilst others have been mandated through the UK government *Sustainable Procurement Action Plan* (SPAP).

The SDC has assessed the extent to which departments are using these mechanisms, to gauge compliance with government requirements, and establish whether departments are using the tools at their disposal to put them in a position where they are more likely to achieve future performance improvements. For example, if departments implemented environmental management systems (EMS) across their whole estate, environmental impacts might be better understood and managed; if BREEAM assessments were to be carried out on all new buildings and refurbishments, the

government estate of the future might operate in a more sustainable way; and if departments are adopting carbon management programmes, you would expect to see reductions in carbon emissions over time. If these mechanisms are not being used, departments risk not being able to meet the current SOGE targets, and being less able to respond to future challenges.

Progress on implementing these mechanisms and supporting processes has not been included in the overall performance ‘star rating’ system, but has been compiled as a separate rating on the use of mechanisms to deliver sustainability (see Chapter 2 – Performance Assessment). The ‘mechanisms rating’ is based only on the mechanisms covered in Section 6.2. Two further ‘Government to Mandate’ requirements – volunteering and the OGC Property Benchmarking Scheme – are discussed in Section 6.3.

The remaining mechanisms and supporting processes are covered elsewhere in the report: data collection and reporting is discussed in Chapter 2; and mandatory standards and timber procurement are discussed in Chapter 4.

## 6.2 Delivering performance improvements

Box 6.1 below details the various mechanisms and processes and how they fit into the SOGE reporting framework.

<p><b>Box 6.1</b> <b>Mechanisms and supporting processes</b></p>	
<p><b>Mechanisms to deliver performance</b></p>	<p><b>From ‘Government to Mandate’ section of SOGE targets framework:</b></p> <ul style="list-style-type: none"> <li>• Departments to adopt the Carbon Trust’s Carbon Management Programme and/or Energy Efficiency Accreditation Scheme</li> <li>• Departments to apply BRE’s Environmental Assessment Method (BREEAM) excellent standards or equivalent, to all new builds/major refurbishments</li> <li>• Departments to work towards an accredited certified environmental management system (EMS) i.e. ISO 14001 or EMAS</li> <li>• Departments to engage with the OGC’s Property Benchmarking Scheme – aimed at improving the efficiency and effectiveness of corporate estate management</li> <li>• Departments to conduct sustainability appraisals of office relocations.</li> </ul>

<p><b>Mechanisms to deliver performance</b></p>	<p><b>From Sustainable Procurement Action Plan:</b></p> <ul style="list-style-type: none"> <li>• Permanent Secretaries are accountable for their department’s overall progress and for ensuring, from 2007/08 onwards, key staff in their departments have performance objectives and incentives that drive the implementation of this plan, linked to performance objectives for delivering efficiency savings</li> <li>• Departments encouraged to make full use of the Sustainable Procurement Task Force Flexible Framework where it helps improve procurement practice and achieve sustainability targets while OGC are developing a new detailed procurement framework.</li> </ul>
<p><b>Supporting processes</b></p>	<p><b>From ‘Government to Mandate’ section of SOGE targets framework:</b></p> <ul style="list-style-type: none"> <li>• Departments to encourage staff to take an active role in volunteering in the community</li> <li>• Data collection and reporting – departments to identify core data to be reported against the new targets.</li> </ul> <p><b>From Sustainable Procurement Action Plan:</b></p> <ul style="list-style-type: none"> <li>• Departments to set out the actions they are taking to ensure procurement practice helps to achieve their sustainable operations targets in their departmental Sustainable Development Action Plans</li> <li>• Departments (as well as the OGC) to take action in respect of central government contracts to meet updated and extended mandatory standards</li> <li>• New government contracts, where relevant, will include appropriate requirements for suppliers and sub-contractors to provide products and services that comply with agreed mandatory standards and assist in the delivery of departmental sustainable operations targets</li> <li>• Departments (from April 1st 2009) to source timber and timber products from independently verified legal and sustainable sources or from a licensed FLEGT partner.</li> </ul>

### 6.2.1 Carbon Trust commitments

Departments to adopt the Carbon Trust Carbon Management Programme or sign up to the Carbon Trust Energy Efficiency Programme, and show proactive management to the risks and opportunities relating to climate change mitigation.

The Carbon Trust’s Carbon Management Programme (CMP) provides organisations with a systematic approach to managing the carbon related risks and opportunities presented by climate change. As an alternative to signing up to a CMP, government departments can also implement the Carbon Trust

Energy Efficiency Accreditation Scheme (EEAS). This scheme allows for independent recognition that a department has adequate emission management procedures in place to achieve current and future energy efficiency improvements.

**Table 6.1 Carbon Trust commitments**

Department	Adopted a Carbon Trust Carbon Management Programme?	Scope of this programme in relation to whole estate	Signed up to the Carbon Trust's Energy Efficiency Programme?	Scope of this accreditation in relation to whole estate.	Performance
CLG	Yes	Majority coverage	No	-	Good progress
CO	Yes	All major sites	Yes	All major sites	Good progress
DCA	No	-	No	-	No or poor progress
DCMS	No	-	Yes	The whole of the core estate	Good progress
Defra	Yes	Core, Environment Agency and executive agencies	Yes	Entire estate	Good progress
DfES	Yes	All HQ buildings	No	-	Good progress
DFID	No	-	Yes	Both UK buildings	Good progress
DfT	No	-	Yes	Embryonic at present	Some progress
DH	No	-	No	-	No or poor progress
DTI	Yes	HQ, limited cover to executive agencies	Yes	Headquarters	Good progress
DWP	Yes	-	No	-	Good progress
ECGD	No	Not applicable (department too small)	No	-	Not applicable
FC	No	-	No	-	No or poor progress
FCO	Yes	Majority of UK estate	No	-	Good progress
FSA	No	Discussions taking place with the Carbon Trust	No	-	No or poor progress
HMRC	No	Action plan in place to develop CMP	No	-	No or poor progress
HMT	Yes	Carbon Trust have evaluated operations	Yes	No further information provided	Good progress
HO	No	-	Prison estate - accreditation has lapsed	Prison Service estate	No or poor progress
LOD	No	-	Yes	CPS only	Some progress
MOD	No	Programme being developed with Carbon Trust	Yes	Looking to achieve accreditation by end 2009.	Good progress
ONS	No	-	Yes	No further information provided	No or poor progress
Pan-government	-	-	-	-	Some progress

Good progress	Some progress	No or poor progress	Not applicable
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In general there has been a fair uptake of the schemes across departments, with 10 departments signing up to one or both of the schemes and showing a good level of coverage; and a further three departments with reasonable coverage. Of the remaining departments, FSA and HMRC have action plans in place to engage with the schemes, and the HO prison estate had achieved accreditation to the EEAS in the past but this has lapsed due to lack of funding. ECGD has been advised by the Carbon Trust

that it is too small to be able to engage with either scheme.

The SDC would urge those departments not yet in either of the Carbon Trust schemes to sign up as a matter of urgency. Where the Carbon Trust has advised that the department's estate size precludes participation in either scheme, government should agree an alternative method for attaining an equivalent standard.

### Case Study 6.1

#### Defra – Carbon Management Programme and Workshops

"The Built Environment Sustainability Team (BEST) Defra Estates analysed performance across the estate in Summer 2006 and found that Defra was not on track to deliver key energy efficiency and carbon reduction targets. Defra had signed up to the Carbon Management Programme in October 2005, but no real progress had been made.

BEST, working with the Carbon Trust, developed a Carbon Management Programme to assist Defra in developing a systematic approach to carbon management and reducing its carbon emissions. This programme runs from April 2006 to March 2009 and has a ring-fenced fund of £600,000 to deliver projects which will assist Defra in achieving the necessary carbon emissions reductions.

Part of this programme is to increase Buildings and Facilities Managers' participation in carbon reduction projects within the Defra Network. In order to raise awareness of the issues, promote good practice and develop a series of operational projects, BEST assisted by a Carbon Trust consultant, organised and facilitated a series of carbon management workshops in a number of different locations.

These workshops set the context for the programme, outlined the importance of Defra's role in the UK Climate Change Programme, focused on the operational carbon and energy efficiency of buildings and equipment within the estate, and the impact those attending the workshops could have on them. A follow

up questionnaire captured feedback from the events, which was used to shape the agenda for subsequent workshops. Good practice and lessons learned have also been shared through the network along with details of specific carbon reduction initiatives across the estate.

To date, three workshops have been held and a further nine are planned. BEST have now developed specific improvement trajectories which, with the appropriate level of investment, will deliver our 2010 and 2020 targets. Progress towards this is monitored quarterly and includes information supplied through the Carbon Management Programme. Future workshops will provide the opportunity to inform Building and Facilities Managers of progress and will identify further improvement opportunities.

Initially, there was a high level of scepticism within the target group – a feeling of "I am already doing everything I can within my building – what else can I do?" Consequently, attendance at the first workshop was a little low. BEST has used their intranet website to share information, presentations, ideas for projects and details of available funding from the Carbon Management Programme. This has been followed up with a series of contacts by members of the team and seems to have sparked more interest in the programme. Attendance at events two and three have improved and we are confident that this will continue throughout the remainder of the programme."

Defra, 2007

## 6.2.2 Application of BREEAM to new builds and major refurbishments

Departments to apply BRE's Environmental Assessment Method (BREEAM) excellent standards or equivalent, to all new builds/major refurbishments.

Departments are mandated to apply the Building Research Establishment's Environmental Assessment Method (BREEAM) or an appropriate equivalent to all completed new build projects and major refurbishments with a value in excess of £0.5million. The aim of the BREEAM process is to understand and mitigate the environmental impacts associated with building and refurbishment.

Where BREEAM is used, all new projects must achieve an "excellent" rating and all refurbishment projects at least a "very good" rating, unless site constraints or project objectives mean that this requirement conflicts with the obligation to

achieve value for money. Where an alternative environmental assessment methodology is used, such as the Ministry of Defence's Defence Related Environmental Assessment Methodology ('DREAM'), projects should seek to achieve equivalent ratings.

10 departments completed new build or major refurbishments during 2006/07 (see Table 6.2). The following departments did not complete any new builds or major refurbishment projects in the reporting year, so are not included in this part of the assessment: CO, CLG, Defra, DfES, DFID, DH, DTI, ECGD, FSA, HMT, and ONS.

**Table 6.2** Application of BREEAM to new builds and major refurbishments

Department	Number of new builds which had a BREEAM assessment	Number of major refurbishments* which had a BREEAM assessment	Number of projects which had a BREEAM assessment achieving the target standard	Number of all projects achieving target standard	% all projects achieving target standard	Performance
DCA	2/2	1/1	3/3	3/3	100%	Good progress
DCMS**	0/0	1/1	NA	NA	NA	Not applicable
DfT	10/10	1/5	11/11	11/15	73.3%	No or poor progress/ Not Known
DWP	5/6	NK/122	NK/5	NK/128	0%	No or poor progress/ Not Known
FC	0/3	0/0	0/0	0/3	0%	No or poor progress/ Not Known
FCO	0/0	1/1	1/1	1/1	100%	Good progress
HMRC	0/0	0/12	0/0	0/12	0%	No or poor progress/ Not Known
HO***	2/124	0/37	1/2	1/161	0.6%	No or poor progress/ Not Known
LOD	0/0	1/1	1/1	1/1	100%	Good progress
MOD****	22/26		11/22	11/26	42.3%	No or poor progress/ Not Known
<b>Pan-government</b>	46/351 (13%)		28/45 (62.2%)	28/350**	8%	No or poor progress/ Not Known

\* Refurbishment projects over £0.5m in value.

\*\* DCMS had not had the result of its BREEAM assessment for its major refurbishment at the time of publication. As such its 1 project was removed from the figures showing the total number of all projects achieving the standard.

\*\*\* HO has commissioned assessments on 34 of its project.

\*\*\*\* The MOD had 26 projects in total which should have had an assessment completed – 18 New Builds, 4 Major Refurbishments and another four where project descriptions were not available.

Good progress

Some progress

No or poor progress/  
Not Known

Not applicable

The application of BREEAM (or equivalent) to projects is poor, with less than one in seven projects (or 13%) having had a mandatory assessment, and only 8% of all projects shown to meet the required standard. Of those which were assessed, 62.2% met the required standard.

In particular, HO and DWP completed a total of 289 projects, but only seven were known to have had an assessment, and only one was reported as meeting the standard. HO reported that it had commissioned a further 34 BREEAM assessments on its prison estate projects. However, this would still only represent less than one in four of all HO projects, indicating poor performance. DWP did not know whether BREEAM assessments had been carried out on its major refurbishments. The requirement for 'excellent' standards on new builds is now part of DWP's corporate estates strategy so improved performance in future years is expected.

As these two departments accounted for the lion's share of projects, their performance has a big effect on the pan-government picture. If DWP and HO are removed from the figures, 62.9% of all projects had a BREEAM assessment, and of those nearly 70% achieved the standard required. However, while excluding DWP and HO shows a better picture, the application of BREEAM is still disappointing, with under two-thirds of projects having had an assessment, and just under a half of all projects completed meeting the standards.

Only DCA, the FCO and LOD reported complete application of BREEAM, and all achieved the required standard. However, the number of projects undertaken by these departments was a fraction of the total across government. While the MOD carried out assessments on most of its projects, only half

achieved the required standard. DfT assessed two thirds of its projects, all of which met the required standard.

One of the simplest ways for government to reduce its own environmental footprint is to incorporate performance considerations into the design of new buildings and refurbishments upfront, rather than making modifications at a later stage. Improved uptake of BREEAM, and having buildings that achieve the highest possible environmental standards, is essential if government is to reduce the impact of its estate and lead other construction projects by example. Departments also need to identify common reasons for missing the standards, and incorporate these lessons into future design and planning specifications.

Planning new builds, refurbishments and relocations also needs to account for the predicted impacts of climate change, to ensure that government buildings will be fit for purpose in the medium and long term. The old SDGE framework had included a requirement for departments to include climate change adaptation in estate management strategies, but it is not explicitly mentioned in the new SOGE targets. This is, of course, still relevant. The new Planning Bill,<sup>58</sup> for example, would place a duty on councils in preparing local development plans to take action on mitigating and adapting to climate change.

Links should also be made with the OGC's High Performing Property<sup>59</sup> initiative, which is looking to make government property more cost-effective, and realise up to £1.5 billion of annual efficiency savings by 2013. This drive for efficiency should support efforts across government to reduce the operational impact of buildings on the civil estate.

### 6.2.3 Sustainability appraisals of office relocations

Departments to conduct sustainability appraisals of office relocations.

The relocation of government offices can have positive and negative socio-economic and environmental impacts on both the old location and the new. A 'sustainability appraisal' is an appraisal that systematically identifies and evaluates such impacts, so that alternative solutions or mitigation measures can be explored, and positive effects identified and promoted.

The approach for conducting a sustainability appraisal is not specifically prescribed within the SOGE framework, which gives departments some flexibility in their approach. The MOD, for example, produced a handbook to assist in the carrying out of sustainability appraisals for Defence Estate projects, outlining a series of 16 objectives which need to be considered as part of any forthcoming project;

and CLG have a process whereby any proposals are appraised by the Sustainable Operation Manager, with a particular focus upon carbon emissions and

water use. Their appraisal process is strongly linked to the BREEAM process.

**Table 6.3 Application of sustainability appraisals to office relocations**

Department	Number of relocations having a sustainability appraisal	Percentage	Performance
CLG	3/3	100%	Good progress
CO	0/19	0%	No or poor progress
DCA	NK	N/K	No or poor progress
Defra	1/1	100%	Good progress
DfT	3/14	21.4%	No or poor progress
FC	NK	NK	No or poor progress
HMRC	34/34	100%	Good progress
HO	1/1	100%	Good progress
LOD	0/5	0%	No or poor progress
MOD	4/4	100%	Good progress
Pan-government	46/81	56.8%	No or poor progress



Eight departments reported having undertaken office relocations during 2006/07. The top performers were CLG, Defra, HMRC, HO and the MOD who each undertook sustainability appraisals on all of their office relocation projects. CO and LOD did not undertake any sustainability appraisals. DCA and FC did not have information on either the number of relocations or sustainability appraisals undertaken.

Though no reasons were given in the cases where sustainability appraisals were not undertaken, the lack of a prescribed approach could act as a barrier to some departments who need more direction on how to manage and undertake the appraisal process. At present, government advises that the MOD tool is a useful approach for others to follow. Government should consider whether clear guidance needs to be

provided to support those departments who do not have a current approach, while at the same time maintaining flexibility for those departments who have developed their own.

As with planning for new builds and major refurbishments, sustainability appraisals for relocations need to account for the predicted impacts of climate change; and links should be made with the OGC’s High Performing Property<sup>60</sup> initiative. The National Audit Office (NAO) recently reported<sup>61</sup> a significant difference in regional accommodation costs, and recommended that departments explore options for locating in cheaper regions. If this recommendation is pursued, government will need to ensure that the sustainability impacts of such decisions are fully considered.

**6.2.4 Implementation of Environmental Management Systems**

Departments to work towards an accredited certified environmental management system (EMS) i.e. ISO 14001 or EMAS.

EMS coverage across the government estate is not as widespread as might be expected with 2,243 of 9,472 sites (23.7%) and 26.5% of staff reported to be covered by a certified or non-certified EMS. This is an increase of 420 sites since 2005/06.

The implementation of an appropriate Environmental Management System (EMS) is important to the wider delivery and management of sustainable development targets. An EMS that operates using the recognised Plan-Do-Check-Act methodology will allow a department to identify its significant environmental impacts, and implement appropriate procedures to monitor and mitigate them. Such a system should deliver the systematic approach to managing, reporting, checking and reviewing the process of meeting the SOGE targets. The EMS cycle is presented in Appendix K, along with

some guidance on how to use the system elements to support performance improvement.

A department is making clear progress towards this objective if it has in place an appropriate EMS, with the intention of achieving (if not achieved already) ISO14001, EMAS or a suitable alternative. The implementation of EMS is flexible and can be measured either in terms of staff coverage or site coverage. In evaluating performance against this mechanism, the value (staff or site coverage) which is greater is the one that has been used in our assessment of departmental performance. For example, if a department has 50% of its sites covered by its EMS, but this encompasses 90% of its staff then it is the 90% figure which has been used for the assessment.

**Table 6.4 Environmental Management Systems**

Department	Coverage of certified and non-certified EMS following the Plan-Do-Check-Act cycle		Performance
	Sites	Staff	
CLG	68.2%	91.9%	Green
CO	80%	100%	Green
DCA	4.6%	20.3%	Red
DCMS	3.0%	99.8%	Green
Defra	6.9%	56.2%	Yellow
DfES	100%	100%	Green
DFID	100%	100%	Green
DfT	0.7%	33%	Red
DH	42.9%	5.8%	Red
DTI	28%	100%	Green
DWP	97.2%	96.9%	Green
ECGD	50%	100%	Green
FC	0%	0%	Red
FCO	50%	95.5%	Green
FSA	100%	100%	Green
HMRC	0.5%	11.7%	Red
HMT	70.5%	29.9%	Yellow
HO	25.5%	NK	Red
LOD	1.3%	7.1%	Red
MOD	17.7%	NK	Red
ONS	100%	100%	Green
Pan- government	23.7%	26.5%	Red

Note: Some departments will have unmanned sites or sites with very few personnel. This results in discrepancies between the percentage of sites covered and the percentage of staff covered.

Key as for page opposite

11 departments have good EMS coverage, seven of which have 100% coverage of their sites and/or staff. All 11 have either full ISO14001 certification or have plans in place to achieve certification on at least part of their estate in the future. DfES, DTI, ECGD, and CO can be congratulated for moving up to 100% coverage over the last 12 months.

Additional efforts are required by DCA, Defra, DfT, DH, HMRC, HO, HMT, LOD and the MOD to meet this commitment. The MOD has the largest number of sites (4000, many of which are small locations including small military careers offices or very small Territorial Army units) and reported that achieving

full coverage is a significant challenge. However, it has made extensive progress across the Army using innovative non-certified EMS models, and the vast majority (85%) of major sites are covered by an EMS. This covers their most significant sites in terms of environmental impact.

FC reported that it is making use of IEMA's staged BS8555 'Acorn' approach to implementing an EMS.<sup>62</sup> Taking a staged approach has enabled them to tackle achievable goals in smaller steps. They hope to achieve phases one and two (staff commitment and legal compliance) by winter 2007, and have a full EMS accredited to ISO 14001 in future.

## Case Study 6.2

### NHS PASA – EMS delivering waste performance improvements

"As part of its ISO14001 environmental management system, NHS PASA identified office waste as one of its most significant impacts and began measuring the quantities of waste generated at its offices in April 2000.

#### Description

Facilities managers monitored waste weekly by making visual estimates of how full skips were, to calculate the amount of waste in litres. By visually assessing the waste going in, it became apparent that paper and card formed a significant part of the waste stream. As space constraints on site made it impractical to accommodate a large number of separate skips it was decided to split out the wastes that could provide the biggest volume reduction and be most readily recycled – i.e. paper and card, cans and general waste, rather than focus on wastes, such as plastic bottles, for which it was more difficult to arrange collection by a waste contractor.

Following an information campaign, extensive recycling facilities were provided with prominent large paper recycling bins located in every office, generally one between no more than eight people, and also at locations where large quantities of waste are generated such as the print and post rooms. In one office the appointed waste contractor was also able to provide small desk top paper collectors to make it even easier to segregate paper from general waste.

By collecting paper waste separately from June 2000, the volume of waste sent to landfill reduced by half in 2000/01 alone. Since then NHS PASA has consistently sent nearly half its waste, by volume, for recycling and we now also recycle

mobile phones, toner cartridges and plastic vending cups.

In line with the waste hierarchy, waste minimisation has also been considered at the same time. These have ranged from small scale initiatives (changing hand towel dispensers to a model that generates less waste) to more wide ranging initiatives such as moving to eProcurement. The IT and facilities teams reviewed printer provision to include multi function devices and double sided printing. As a result of these and other initiatives the amount of paper ordered has fallen by 25%.

These initiatives significantly reduced the amount of waste being generated overall. This has resulted in less waste suitable for recycling being produced at NHS PASA offices. This has led to the proportion of total waste recycled falling slightly to 59% for the last financial quarter although total waste volume was also reduced.

#### The barriers

There were some difficulties initially as the waste contractor did not have the capability to recycle card and plain and coloured paper together. For that reason it was necessary to provide three separate collection points. These took up considerable floor space and resulted in some confusion e.g. over what counted as card and what was stiff paper etc.

Posters were placed at recycling points to clarify what material could go in which bin; however audit found that the three streams were still getting put in the wrong bins and that paper and card was still being consigned to general waste bins. It is possible that confusion over this

segregation is one reason why recycling rates at this office, though high, were slightly less than at the other office.

As the contractor now has the capability to recycle paper and card wastes together, we plan on reducing the number of different paper bins to increase space and make it simpler for staff to recycle.

#### **Outcomes/benefits**

NHS PASA recently conducted waste audits at Chester and Reading to check that the recycling provision was sufficient. This confirmed that paper still accounts for an average of 42% of the waste generated daily across the offices.

The audit also identified that used paper hand towels at Reading were suitable for recycling, and that this could potentially reduce the waste sent to landfill by up to 17% for that office. The hand

towel dispenser was also changed to a type that creates less paper waste. Action has already been taken to recycle this waste and we hope to see an increase in our recycling performance going forward.

The approach taken was triggered by the structure of our environmental management system. First waste was identified, and agreed as a priority issue, by senior management and staff and data gathered on waste production. Based on this, objectives and targets were set for waste minimisation and recycling and an action plan drawn up to prioritise the waste streams to be targeted. We have been reporting to all staff quarterly on our progress against these targets and we are currently revising our waste action plan and planning new initiatives in discussion with staff."

NHS PASA, 2007

## **6.2.5 Permanent Secretaries and key staff sustainability objectives**

Permanent Secretaries are accountable for their department's overall progress and for ensuring, from 2007/08 onwards, key staff in their departments have performance objectives and incentives that drive the implementation of this plan (SPAP), linked to performance objectives for delivering efficiency savings.

Sustainable operations are an important part of every department and should feature throughout the departmental hierarchy. As part of a department's leadership and accountability commitments, Permanent Secretaries are accountable for their department's overall progress against the SOGE targets, and from next year, key staff in their departments will be expected to have performance objectives and incentives that seek to improve departmental environmental performance.

10 departments indicated that their Permanent Secretaries have had the SOGE targets incorporated into their performance agreements (Defra, DFID, DfT, DH, DTI, ECGD, FSA, HMRC, MOD and ONS). Of these, eight departments' Permanent Secretaries had received appropriate training to ensure they are able to achieve these targets (all except DfT and DH).

The role of Senior Civil Servants (SCS) and other key staff is important to ensure any direction provided from the top level of management is cascaded throughout the organisation. Departments were also asked to provide information on this, where available. However, the response rate was poor, with only 10 departments providing a response. Of these, seven reported that their SCS have sustainability objectives as part of performance agreements/contracts (Defra, DFID, ECGD, FSA, HMRC, LOD and ONS) and five had provided training for all staff with these objectives (all except HMRC and LOD; LOD provided training to 40%). DCMS reported that it provided training to all of its staff with key sustainability objectives, but did not know the percentage of staff covered by these objectives.

**Table 6.5** Permanent Secretary (PUS) sustainability objectives

Department	Does your Permanent Secretary(ies) have the sustainable operations targets incorporated into performance agreements / contracts?	Has your Permanent Secretary(ies) had appropriate training to ensure he/she can achieve these targets?	Rating
CLG	No	No	
CO	No	No	
DCA	No	No	
DCMS	No	No	
Defra	Yes	Yes	
DfES	No	No	
DFID	Yes	Yes	
DH	Yes	No	
DfT	Yes	No	
DTI	Yes	Yes	
DWP	NK	NK	
ECGD	Yes	Yes	
FC	No	No	
FCO	No	No	
FSA	Yes	Yes	
HMRC	Yes	Yes	
HMT	No	No	
HO	No	No	
LOD	No	No	
MOD	Yes	Yes	
ONS	Yes	Yes	
Pan-government	-	-	

\* While this mechanism is a yes or no question for departments, the SDC has made the assessment that this mechanism has been partially achieved across government.

Good progress
Some progress
No or poor progress/ Not Known
Not applicable



### 6.2.6 Sustainable Procurement Task Force Flexible Framework

Departments encouraged to make full use of the Sustainable Procurement Task Force Flexible Framework where it helps improve procurement practice and achieve sustainability targets while OGC are developing a new detailed procurement framework.

The Sustainable Procurement Task Force (SPTF) developed the Flexible Framework to “help organisations understand and take the steps needed at an organisational and process level to improve procurement practice and to make sustainable procurement happen.” This was published as part of *Procuring the Future*<sup>63</sup> and was then referred to within the Sustainable Procurement Action Plan<sup>64</sup> (see Chapter 4). Departments are not mandated to make use of the framework, but are encouraged to make use of it in order to work towards best practice.

The framework sets out a way of measuring performance from entry Level 1 (Foundation) to exemplar Level 5 (Lead) against five key areas, summarised below:

- **People** – incorporating sustainable procurement principles in staff objectives and training plans
- **Policy, strategy and communications** – agreeing, delivering and communicating a sustainable procurement strategy across the organisation

- **Procurement process** – assessing key sustainability risks in contracts and doing a full analysis of expenditure, incorporating life-cycle assessments in procurement decisions
- **Engaging suppliers** – analysis of supplier spend, leading into a general programme of active supplier engagement
- **Measurements and results** – appraising the sustainability impacts of procurement activity, linking procurement objectives with overall sustainability objectives and measuring performance.

For this year’s report, in line with SPTF recommendations, departments achieving Level 1 across all of the five areas by March 2007 are considered to be good performers. 12 departments reported that they were at Level 1 or above on all five themes. A further two departments reported reasonable progress, having achieved Level 1 against three or four of the framework areas. Defra and LOD reported that they were at Level 4 (enhance) in some areas.

**Table 6.6** SPAP Flexible Framework

Department	Summary of use of Flexible Framework	Performance
CLG	Level 1 across all five areas	
CO	Level 1 across all five areas	
DCA	Level 1 across three areas and some progress to Level 1 across two areas	
DCMS	Level 1 or 2 across all five areas	
Defra	Between Level 2 and 4 across all five areas	
DfES	Level 1 across all five areas	
DFID	Between Level 1 and 3 across all five areas	
DH	Level 1 across two areas	
DfT	Level 1 across all five areas	
DTI	Not widely used	

Department	Summary of use of Flexible Framework	Performance
DWP	Level 1 to 4 across all five areas	Good progress
ECGD	Level 1 to 2 across four areas	Some progress
FC	Not used	Not applicable
FCO	Not known	No or poor progress/ Not Known
FSA	Level 1 to 2 across all five areas	Good progress
HMRC	Level 1 to 2 across all five areas	Good progress
HMT	Not used	Not applicable
HO	Level 1 on one area; partial progress to Level 1 across two areas	No or poor progress/ Not Known
LOD	Level 2 to 4 across all five areas	Good progress
MOD	Level 1 across all five areas	Good progress
ONS	Not used	Not applicable
Pan-government		Some progress

Based on these self-assessments, it appears that some progress is being made across government against the five areas of the Flexible Framework. However, given the performance on procurement reported in Chapter 4 it is not clear whether current efforts are good enough to deliver the improvements needed. Departments should reflect on whether their self-assessments against the Flexible Framework are supported by their own performance.

Good progress
Some progress
No or poor progress/ Not Known
Not applicable

## 6.2.7 Sustainable Development Action Plans

The UK Sustainable Development Strategy, *Securing the Future*, requires all central government departments and their executive agencies (EAs) to produce Sustainable Development Action Plans (SDAPs) and report progress on them regularly. An SDAP sets out the strategic actions that the organisation intends to take to integrate sustainable development into its decision-making and everyday operations.

Most departments published their first SDAP in 2006, for the period covering 2006/07. As this period came to an end, the SDC designed a self-assessment guidance tool to help departments and EAs produce a progress report. The tool covered progress made against actions and the impact of these on the *Securing the Future* shared priorities;

the extent to which sustainability had been embedded into the organisation's policies, people, operations and reporting mechanisms; progress on sustainable procurement; and details of what had helped and hindered the organisation in delivering its SDAP.<sup>65</sup>

To assess this mechanism, we have chosen to look at the departments' performance on embedding sustainable development into operations, as an indicator of how 'geared up' they are to deliver on the SOGE targets. Departments reported a score from one to 10, where 10 is the best possible performance. The score reported in the progress report has been converted to the SOGE scoring system, as indicated below. The self-assessment scores are provided in Table 6.7.

	1	2	3	4	5	6	7	8	9	10
SDAP progress report scale	Starting out		Some progress			On course			Fully integrated	
SDiG equivalent	No or poor progress		Some progress			Good progress				

Table 6.7 SDAP performance

Department	Department's self-assessment of progress on embedding sustainable development into its operations	Rating	Performance star rating
CLG	6	Green	★★★★★
CO	8	Green	★★☆☆☆
DCA	7	Green	
DCMS	8	Green	★☆☆☆☆
Defra	7	Green	★★★★☆
DfES	6	Green	★★★☆☆
DFID	8	Green	★★★★☆
DH	7	Green	★★★★★
DfT	3	Yellow	★★★★☆
DTI	8	Green	★★★★★
DWP	8	Green	★★★★☆
ECGD	4	Yellow	★★★★☆
FC	6	Green	★★☆☆☆
FCO	6	Green	★★☆☆☆
FSA	6	Green	★★★★★
HMRC	4	Yellow	★★★☆☆
HMT	6	Green	★★★★☆
HO	6	Green	★★★☆☆
LOD*	6	Green	★★☆☆☆
MOD	8	Green	★★★★☆
ONS	6	Green	★★★★★
Pan-government	6.3	Green	

\* This is based upon the CPO Score, although general performance across LOD was generally good, APO were assessed and given a rating of 2, although they represent a small proportion of overall LOD operations.

The majority of departments assessed themselves as being at Level 6 or above ('on course'). The exceptions are DfT, ECGD and HMRC, although it is clear that there is at least some progress being made in these departments. CO, DCMS, DFID, DTI, DWP and the MOD all assessed themselves as being near the higher end of the scale.

However, when the scores are mapped against actual performance against the SOGE targets, performance does not always match the assessment of how well sustainability is perceived to be embedded into an organisation's operations. CO, DCA, DCMS, FC, the FCO and LOD all scored themselves at Level 6 or above – or 'on course' – yet they only achieved 2 or below on the SOGE star ratings, indicating that performance is not on track. This may be a result of the time lag between organisational change and the impact of such

changes on operational performance, especially as the Flexible Framework self-assessment was completed at the end of the current reporting year. If this is the case, then the SDC would expect to see year on year performance improvements against the SOGE targets as a result of actions taken to embed sustainability into the organisation. However, this mis-match could also be due to more fundamental problems: either that there is a misperception of the department's capability (resources, expertise, governance arrangements etc) to reduce its impact; or that the actions taken are not delivering the required results. Departments should reflect on the extent to which they are embedding sustainable development into their operations, and whether this is sufficient enough to deliver the SOGE targets and wider sustainable development goals.

## 6.3 Other supporting processes

The following two requirements are included in the 'Government to Mandate' part of the SOGE framework, and progress is therefore reported in

our assessment. These have not been included in the overall mechanisms rating.

### 6.3.1 Volunteering

Departments to encourage staff to take an active role in volunteering in the community.

As part of broader government commitments started through the 'Year of the Volunteer' in 2005, departments are encouraged to provide opportunities for staff to take a more active role in volunteering in their local community.

A basic approach to measuring volunteering activity is to identify how many days per year staff are entitled to use for volunteering as part of a departmental commitment. Although this is not a particularly useful or wholly representative method for how well a department actually promotes volunteering, it does give an indication of departmental commitment. Further, it is debatable whether government staff using their time in this

way actually constitutes volunteering, given that it is paid time. Nor is it known the extent to which these volunteering activities serve to promote sustainable development in the local community.

Of the 15 departments who reported that they did make days available for volunteering, the average was six days per employee per year. MOD made up to 40 days available to staff for volunteering activities each year, depending on the activity. Defra and DfT reported the highest number of staff days actually used for volunteering purposes, and there were noteworthy levels of volunteering activity for CO, CLG and HMRC.

**Table 6.8** Volunteering

Department	No. of days each member of staff is entitled to use for volunteering purposes per annum	Staff days used by staff for volunteering purposes	No. of staff who used work time for volunteering purposes
CLG	NK	146	132
CO	1	230	NK
DCA	1	NK	NK
DCMS	5	NK	NK
Defra	1	5069	3565
DfES	2	NK	NK
DFID	1	15	15
DH	1	NK	NK
DfT	3	1088	633
DTI	NK	38	15
DWP	NK	NK	NK
ECGD	24	26	3
FC	0	0	0
FCO	5	NK	NK
FSA	NK	NK	NK
HMRC	3	318	264
HMT	2	13	10
HO	5	NK	NK
LOD	1	NK	NK
MOD	1-40	NK	NK
ONS	NK	NK	NK
Pan-government	6*	6943	4637

\* The average number of days staff is entitled to use for volunteering purposes per annum across all departments.

### Case study 6.3

#### Home Office – Crime and Drug Strategy Directorate – Volunteering

##### “Description of project

Young Enterprise is breaking new ground in providing the youngest members of society with a truly innovative education programme. The programme provides building blocks for skills development and the understanding of work to help the young entrepreneurs of the future.

There are a variety of programmes including the ‘Learn to Earn’ programme which teaches students about work and money. In this programme a business volunteer will guide and encourage students in the activities while discussing work experiences and career paths.

##### Challenges and Barriers

A two hour training session was provided to understand what the programme is about and

what is covered throughout the day. Staff from Young Enterprise were also able to provide one to one training about the programme.

Procedures within Home Office were followed for the participant to apply for the special leave and incorporate the activity into their personal development plan. Working with children requires several forms for the Criminal Records Bureau to undertake standard checks for volunteers.

##### Outcomes

The out of office experience improves skills which staff do not normally develop at the work station as well as providing the social benefit of the activity itself.”

Home Office, 2007

### 6.3.2 OGC Property Benchmarking Scheme

Departments to engage with the OGC’s Property Benchmarking Scheme – aimed at improving the efficiency and effectiveness of corporate estate management.

A key element of the government’s approach to sustainability is the need to improve asset management on its Civil Estate. Critical to this is the need for departments to have information that is accurate, complete, readily accessible and well presented. OGC is taking forward a project designed to initiate property benchmarking across the central government estate which allows organisations to benchmark property against a resource of private and public sector building performance averages. Indicators of performance would include water use per FTE and energy efficiency consistent with the SOGE targets. The SDC will consider using

these performance indicator benchmarks in next year’s report to further illustrate government performance.

Participation in the OGC scheme is good. Only five departments are not yet engaged (FC, FCO, FSA, HMRC and ONS), and two of these (FCO and HMRC) are planning to participate in future. DH and LOD were pilot departments during the scheme’s development, and DH in particular indicated it was an active user of the scheme. Participation by LOD currently covers three of its six departments, and there are plans to extend this to two more next year.

## 6.4 Linking mechanisms with performance

DTI, ONS, DFID and Defra, which all reported very good progress on the use of mechanisms, also performed well against the SOGE targets. Many of the departments performing poorly on the SOGE targets have weaker mechanisms in place. However, there are also some notable exceptions. DH, for example, achieved a 5 star rating in terms of performance with a low 2 stars for associated mechanisms. Similarly, DfT achieved 4 stars for performance whilst recording only 2 stars for mechanisms.

The correlation between mechanisms and performance is not as strong as one might expect. Two possible explanations for this are:

- 1 Timing: Some of the mechanisms are quite new and it will take time for these to affect performance. For example, achieving a BREEAM 'excellent' rating on a new building completed in 2006/07 will not deliver performance improvements straight

away, but improved performance would be expected in the future when the building is occupied and data reported.

- 2 Performance of the mechanism: While mechanisms may have been designed to support delivery of operational targets, how well they actually do this will depend on how they have been implemented by a department, the level of local leadership, and the extent to which they are used to drive forward real improvements. It is therefore important that mechanisms are reviewed over time and amended or replaced accordingly, to ensure they remain fit for purpose.

The SDC intends to assess these links more fully in future reporting.

## 6.5 Mechanisms – summary

Use of the mandated mechanisms and supporting processes is patchy. There are good levels of participation in the Carbon Trust carbon management schemes and the OGC Property Benchmarking Scheme; most departments are using the Flexible Framework to guide progress on sustainable procurement; and it is positive that 10 departments' Permanent Under Secretaries of State already have SOGE targets incorporated into their performance agreements.

However, there are two key areas where government is performing poorly: application of BREEAM to new builds and major refurbishments; and poor EMS coverage. Both are significant mechanisms to improve the operational performance of the government's estate, in particular its buildings,

first at the design stage and then through ongoing management during use. Yet only 46 of the 351 new build/refurbishment projects completed in 2006/07 were assessed against BREEAM; of these 46, only 28 met the required standard. And while EMS coverage has improved, only a quarter of the government estate is currently covered.

By failing to incorporate sustainability considerations at the design stage, departments may find themselves locked into poorly performing estates, where they can only retrofit improvements at a higher cost and with delayed benefits. And by failing to apply an EMS, departments are less likely to identify, manage and then reduce the negative impacts of their estate.

## 6.6 Recommendations

The SDC makes the following recommendations on mechanisms and supporting processes. The key recommendations are highlighted in bold:

- **To ensure accountability and high level leadership, Permanent Secretaries and Senior Civil Servants should have the SOGE framework targets and other key sustainable development commitments explicitly built into their personal objectives at the earliest opportunity, with quarterly monitoring of progress.**
- Departments need to make use of the mechanisms and supporting processes in place to deliver future operational performance improvements. Existing tools and mechanisms need to be reviewed and refreshed to ensure they effectively support delivery of the SOGE targets. As a priority:
  - Those departments with incomplete EMS coverage need to step up their efforts and develop the required systems for effectively managing the performance of their estates.
  - The mandate to apply BREEAM to all new buildings and major refurbishments, and for these projects to meet the government standards, needs to be strongly reinforced
  - SPOB should explore why uptake of BREEAM is so poor, and why many of the projects that are assessed failed to meet the required standard. Lessons need to be incorporated into future design and planning specifications
  - Government should consider whether it needs to provide guidance on sustainability appraisals for office relocations to support those departments who do not have such an approach currently. At the same time flexibility needs to be maintained for those departments that have developed their own approaches
  - Where the existing Carbon Trust carbon management schemes are not suitable, government should require departments to identify alternative measures that will deliver the same benefits.



**20,320kWh of electricity**

generated each year through the installation of solar panels at one building.

Craig Perera, Building Services Manager, at The Insolvency Service (part of the Department for Business, Enterprise and Regulatory Reform).

# Appendices



























# **Appendix A**






## **Departmental summaries**

# Key

Star rating	Mechanisms rating	Definition
		Less than 25% of target points
		25 – 39% of target points
		40 – 54% of target points
		55 – 69% of target points
		70 – 84 of target points
		85% or more of the target points






Land Estate	As reported – based on questionnaire returns
	0 to 2,500 hectares
	2,501 to 10,000 hectares
	10,001 to 50,000 hectares
	50,001 to 100,000 hectares
	>100,000 hectares

Employees	Full-time equivalents (FTEs), as reported – based on questionnaire returns
	1 to 5,000 FTEs
	5,001 to 10,000 FTEs
	10,001 to 50,000 FTEs
	50,001 to 100,000 FTEs
	>100,000 FTEs





Office space	As reported – based on questionnaire returns
	1 to 50,000 m <sup>2</sup>
	50,001 to 100,000 m <sup>2</sup>
	100,001 to 500,000 m <sup>2</sup>
	500,001 to 1,000,000 m <sup>2</sup>
	>1,000,000 m <sup>2</sup>

Expenditure limit	2006-7 Estimated Outturn*
£	<£2,500m
££	£2,500m to £5,000m
£££	£5,001m to £10,000m
££££	£10,001m to £20,000m
£££££	>£20,000m

\* Sources: Public Expenditure Statistical Analyses 2007, Chapter 6: Central Government Own Expenditure, Table 6.1, HMSO, or based on information received from departments

Traffic light indicators for mechanisms*	
	Excellent progress warranting recognition
	Good progress
	Some progress
	No progress/ Poor progress/ Not known
	Not applicable

\* See Appendix D for traffic light scoring system

Operational performance score	Departments' self-assessments of the extent to which sustainable development was embedded into their operations. Source: SDAP Progress Reports, SDC, 2007.		
		Performance	Criteria for self-assessment
	9-10	Good progress	Full structure around the SOGE Framework
	6-8	Good progress	Much structure around the SOGE Framework
	3-5	Some progress	Some structure around the SOGE Framework
	1-2	No progress/ Poor progress	Little or no structure around the SOGE Framework

# Cabinet Office




## Departmental overview

The Cabinet Office (CO) has the overarching purpose of making government work better through supporting the Prime Minister, supporting the Cabinet and strengthening the Civil Service. CO is committed to ensuring that sustainable development is considered in the development of policies and services and also within the day-to-day support activities across government.

**Executive Agencies reported on:** Central Office of Information was included in the energy section only (1/1).

**NDPBs and other bodies reported on:** None.

## Overall scale of operations

	Core Department	Summary
<b>Expenditure</b>	£2,613m	£££
<b>Employees</b> (FTE – including visitors and contractors)	2,608	
<b>Office space</b>	62,756m <sup>2</sup>	
<b>No. of Sites/ Land estate</b>	15/0ha	

## 2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

**Overall star rating**  
(performance against SOGE targets)



Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)
		NK								

## Highlights

- Waste arisings had reduced by 27.1% since 2004/05, as a result of staff awareness campaigns and better waste stream management and monitoring. This is already in excess of the 25% target reduction by 2020
- The Department recycled 67.8% of its waste – higher than the 40% target recycling rate for 2010, and well on track to achieving the 75% recycling target for 2020. This was achieved through segregation of waste both on-site and at an off-site waste segregation facility
- 55.5% of CO's electricity was from renewable sources – exceeding the 10% target for March 2008.

## Lowlights

- Vehicle mileage data was unavailable, so carbon emissions arising from road-based travel were unknown
- Carbon emissions from office-based energy use increased by 98% from the 1999/00 baseline level. The Department has now adopted the Carbon Trust's Carbon Management Programme which it hopes will improve performance in the future

- Office energy efficiency was slightly worse, with a 2.6% increase in energy use per m<sup>2</sup> since the 1999/00 baseline
- Water use increased by 13.5% since 2004/05. A recent water survey highlighted areas for improvement and an action plan has been developed.

2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating



Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

## Highlights

- All staff covered by an Environmental Management System
- Adopted the Carbon Trust Carbon Management Programme and Energy Efficiency Accreditation Scheme across its central London estate
- Reported to be at Level 1 in all five themes of the Sustainable Procurement Task Force Flexible Framework
- Scored itself 8/10 on the extent to which sustainable development has been embedded into its operations (however, this is not matched by operational performance).
- Participate in OGC's Property Benchmarking Scheme.

## Lowlights

- Permanent Secretary does not have the sustainable operations targets incorporated into their performance agreement
- No sustainability appraisals undertaken for any of its 19 office relocations during 2006/07.

### The Cabinet Office's commentary on its overall SOGE performance:

The Cabinet Office did not provide a statement.

# Communities and Local Government

Departmental overview

Communities and Local Government (CLG) has a vision of prosperous and cohesive communities, offering a safe, healthy and sustainable environment for all. The CLG remit covers local government, social exclusion, neighbourhood renewal, communities, race, faith, and equalities. One specific example of CLG's responsibilities is the building regulations regime, which principally exists to ensure the health and safety of people in and around buildings. As such, CLG is committed to protecting and enhancing the environment and to tackling climate change through

the introduction of tougher building regulations for the building of sustainable homes.

**Executive Agencies reported on:** Planning Inspectorate (office functions); Ordnance Survey (office functions); Fire Service College (non-office functions); Queen Elizabeth Conference Centre (non-office functions): (4/4).

**NDPBs and other bodies reported on:** Audit Commission; English Partnerships; Valuation Tribunal Service; Regional Government Office Network.

Overall scale of operations

	Core Department	Executive Agencies	NDPBs & other bodies	Total	Summary
<b>Expenditure</b>	-	-	-	£4,011m	££
<b>Employees</b> (FTE - including visitors and contractors)	4,371	3,816	6,473	14,660	👤👤👤
<b>Office space</b>	48,344m <sup>2</sup>	123,764m <sup>2</sup>	100,201m <sup>2</sup>	272,309m <sup>2</sup>	🏢🏢🏢
<b>No. of Sites/ Land estate</b>	4/Not known ha	4/182ha	84/Not known ha	92/Not known ha	🌐

2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

**Overall star rating**  
(performance against SOGE targets)



Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)
🔴	🔴	🟢	🟢	🔵	🔵	🔵	🟡	🔵	🔵	🟢

## Highlights

- Of the 21 departments that reported, CLG had the second-best overall performance against the SOGE targets in 2006/07, achieving a score of 89.4%
- Office energy efficiency improved, with a 11.6% reduction in energy use per m<sup>2</sup> since the baseline year (2002/03 for core department; 1999/00 for Executive Agencies)
- Carbon emissions from road-based operational travel were 9.9% lower than in 2005/06
- Waste arisings were 22.1% lower than in 2004/05, and 51.9% of waste was recycled – higher than the 40% target recycling rate for 2010. The removal of personal bins on some sites, and a successful composting scheme, contributed to this achievement
- 72.7% of CLG's electricity was from renewable sources - exceeding the 10% target for March 2008. A further 9.8% of its electricity was generated through Combined Heat and Power – on track to meet the 2015 target.



## Lowlights

- Carbon emissions from office-based energy use increased by 7.1% since the baseline year (2002/03 for core department; 1999/00 for Executive Agencies).

2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating



Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

## Highlights

- 91.9% staff covered by an Environmental Management System
- Adopted the Carbon Trust Carbon Management Programme, which covers the majority of its estate. Some surveys undertaken on key sites
- Reported to be at Level 1 in all five themes of the Sustainable Procurement Task Force Flexible Framework
- Scored itself 6/10 on the extent to which sustainable development has been embedded into its operations
- Completed sustainability appraisals on all three of its office relocations during 2006/07
- Participate in OGC's Property Benchmarking Scheme.

## Lowlights

- Permanent Secretary does not have the sustainable operations targets incorporated into their performance agreement.

### Communities and Local Government's commentary on its overall SOGE performance

"CLG has continued to successfully progress its sustainable operations agenda despite challenging resource issues. Road vehicle emissions have fallen in all areas of the estate since 2004/05. Total waste arisings have already fallen below the 2010 requirement and recycling rates have increased. Water consumption has reduced significantly throughout the majority of the estate and the Department is actively developing its sustainable procurement programme. Target coverage has also increased considerably to include the Ordnance Survey and three of Communities' largest NDPBs.

The Department's greatest challenge is to reduce its carbon emissions from buildings which have increased partly due to Machinery of Government related additional building occupants and associated resource requirements. Plans to reduce emissions include consolidating the estate by reducing the total number of buildings occupied – this will impact on reported energy efficiency, however, which takes no account of occupational density. Absolute carbon reductions must be the priority though and this programme shall be continued with." – CLG.

# Department for Constitutional Affairs

## Departmental overview

The Department for Constitutional Affairs (DCA) was responsible for upholding justice, rights and democracy. As such, DCA was committed to promoting fair work practices for its staff, improved access to services for its customers, while ensuring it achieved sound economic sustainable development in all its operations. In May 2007, the responsibilities

of DCA were transferred to the new Ministry of Justice (MoJ).

**Executive Agencies reported on:** Land Registry; National Archives; Tribunals Service; HM Courts Service (4/4). Also included Scotland Office and Wales Office (which are not Executive Agencies).

**NDPBs and other bodies reported on:** None.

### Overall scale of operations

	Core Department	Executive Agencies	Total	Summary
<b>Expenditure</b>	-	-	£3,702m	£££
<b>Employees</b> (FTE – including visitors and contractors)	2,027	35,920	37,947	👤👤👤
<b>Office space</b>	87,523m <sup>2</sup>	1,196,147m <sup>2</sup>	1,283,670m <sup>2</sup>	🏢🏢🏢🏢🏢
<b>No. of Sites/ Land estate</b>	8/5 ha	941/111ha	949/116 ha	🌐

### 2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

#### Overall star rating (performance against SOGE targets)

DCA was unable to provide historical data between the baseline year and the current performance year. It has therefore not been possible for SDC to rate the overall performance of DCA. The SDC welcomes the fact that MOJ is currently working to address this issue.

Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)
				NK	NK					

### Highlights

- 21.5% of DCA's electricity was from renewable sources, exceeding the 10% target for March 2008.

### Lowlights

- DCA's estate increased significantly in 2006/07, due to the inclusion of the magistrates' courts. DCA was unable to update its baseline data to reflect this major change in the estate. Therefore, the data suggests that DCA has:
  - Increased carbon emissions arising from office-based energy use by 81.6% since 1999/00

- Increased carbon emissions from road-based operational travel in the core department by 257% since 2005/06
- Increased water usage across the estate by 36.6% since 2004/05
- However, these figures are highly misleading, and do not represent the true performance of the Department in 2006/07. MoJ must now submit a case to the SDC for rebaselining to capture the major changes to its estate, and to allow for more accurate reporting in the future
- Energy efficiency in offices worsened, with energy use per m<sup>2</sup> increasing by 18.9% since 1999/00
- Waste arisings and recycling data were unavailable, so performance against these targets was unknown. A waste strategy and associated reporting mechanism for the new Ministry of Justice was expected to be in place by March 2008. The Department was confident that it would deliver future improvements in waste-related targets.

### 2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating



Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

### Highlights

- DCA undertook BREEAM assessments on its three new build and major refurbishment projects, all of which achieved the required standard
- Participate in OGC's Property Benchmarking Scheme
- Scored itself 7/10 on the extent to which sustainable development has been embedded into its operations (however, this is not supported by operational performance).

### Lowlights

- Permanent Secretary does not have the sustainable operations targets incorporated into their performance agreement
- Less than a quarter of staff (20.3%) and only 4.6% of sites are covered by an Environmental Management System, although a number of other sites were in the process of attaining certification
- The Department has not adopted the Carbon Trust's Carbon Management Programme or Energy Efficiency Accreditation Scheme, although the Carbon Trust had provided some recommendations which have been implemented where practical
- Reported to be at Level 1 across three themes and to be making some progress to Level 1 across the other two themes of the Sustainable Procurement Task Force Flexible Framework.

### The Department for Constitutional Affairs' commentary on its overall SOGE performance

"The Department is fully aware of the importance of working sustainably and has introduced a number of measures to support this. The migration of magistrates' courts onto the DCA system and the introduction of new improved monitoring systems and reporting procedures have produced comprehensive data, allowing the

department to more accurately measure departmental performance. With the new systems and procedures the 2006/07 data will, in some areas, appear to have increased in comparison to previous years and will therefore not accurately reflect the progress made towards meeting government targets." - DCA.

# Department for Culture, Media and Sport

## Departmental overview

The Department for Culture, Media and Sport (DCMS) is responsible for government policy on licensing alcohol and entertainment, architecture and design, arts, broadcasting, creative industries, press freedom and regulation, licensing gambling, and the historic environment. The Department is committed to improving the quality of life for all through cultural and sporting activities, and is

looking to promote the sustainable development of tourism through working closely with other government departments.

**Executive Agencies reported on:** The Royal Parks (1/1).

**NDPBs and other bodies reported on:** None.

## Overall scale of operations

	Core Department	Executive Agencies	Total	Summary
<b>Expenditure</b>	–	–	£1,642m	£
<b>Employees</b> (FTE – including visitors and contractors)	661	169	830	👤
<b>Office space</b>	13,365m <sup>2</sup>	20,480m <sup>2</sup>	33,845m <sup>2</sup>	🏢
<b>No. of Sites/ Land estate</b>	4/1 ha	131/2,050 ha	135/2,051 ha	🌐

### 2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

**Overall star rating**  
(performance against SOGE targets)



Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)
		NK			NK					

## Highlights

- Water use across the departmental estate was 9% lower than the 2004/05 baseline. This was in part due to the incorporation of water saving devices in the recently refurbished Cockspur Street site
- 100% of DCMS's electricity was from renewable sources.

## Lowlights

- Carbon emissions from office-based energy use increased by 12.9% since their 2002/03 baseline. In part, this may be due to poor data quality in previous years
- Office energy efficiency has worsened, with a 5.9% increase in energy use per m<sup>2</sup> since 2002/03
- The Department was unable to provide a baseline figure for road vehicle carbon emissions, so its performance against this target was unknown
- Waste arisings increased slightly by 1.7% from the 2004/05 baseline, and information on recycling rates was not known. A new waste management system was implemented from January 2007, which should result in improved data collection in the future.

2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating



Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

## Highlights

- 99.8% of its staff (including Executive Agency staff) covered by an Environmental Management System
- Adopted the Carbon Trust Energy Efficiency Accreditation Scheme across its core estate
- Participate in OGC's Property Benchmarking Scheme
- Reported to be at Level 1 or 2 in all five themes of the Sustainable Procurement Task Force Flexible Framework
- Scored itself 8/10 on the extent to which sustainable development has been embedded into its operations (however, this is not matched by operational performance).

## Lowlights

- Permanent Secretary does not have the sustainable operations targets incorporated into their performance agreement.

### The Department for Culture, Media and Sport's commentary on its overall SOGE performance

"Since the last report DCMS has almost completed a major refurbishment programme to upgrade our headquarters building and restore it to the open plan it was originally designed to be. None of our redundant furniture went to land-fill, but was sent to a firm called Green-works to be re-used. We have installed lighting which is far more energy efficient; multi-functional machines which print double sided as default, photocopy and may be used for faxes; sensor sensitive water taps which will save water; a recycling system for office waste; and a new chiller

Sustainable Development Commission

system. We ensured that our contractors followed the most environmentally friendly construction processes; our new furniture was carefully chosen for sustainability and even our carpets are capable of being recycled. We have already been able to track a reduction in our paper use, and we have meters which record our electricity use every half-hour to help us monitor the power we expend. Altogether we expect our operational performance to have improved considerably since last year, and expect this to be a continuing trend." – DCMS.

# Department for Education and Skills

## Departmental overview

The Department for Education and Skills (DfES) was responsible for creating opportunity, releasing potential and achieving excellence for all. As such the Department was committed to ensuring that sustainable development is considered in the building and operation of schools and that students are educated in sustainable living. In June 2007, DfES was disbanded and two new government departments – the Department for Children, Schools and Families (DCSF), and the Department for Innovation, Universities and Skills (DIUS) – were created in its place.

**Executive Agencies reported on:** DfES did not have any Executive Agencies.

**NDPBs and other bodies reported on:** None.

## Overall scale of operations

	Core Department	Summary
<b>Expenditure</b>	£4,293m	£££
<b>Employees</b> (FTE – including visitors and contractors)	6,055	
<b>Office space</b>	90,982m <sup>2</sup>	
<b>No. of Sites/ Land estate</b>	4/7 ha	

Note: DfES does not report data from education establishments. These are outside of the SOGE scope.

## 2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

<b>Overall star rating</b> (performance against SOGE targets)	
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Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)

## Highlights

- Waste arisings were 13.1% lower than in 2004/05, and 55.8% of waste was recycled – in excess of the 40% target recycling rate for 2010
- 8.9% of DfES's electricity was from renewable sources – on track to meet the 2008 target of 10%.

## Lowlights

- Office energy efficiency worsened, with a 7.7% increase in energy use per m<sup>2</sup> since the 1999/00 baseline
- Carbon emissions from road-based operational travel increased by 2.0% from the 2005/06 baseline level. Proposed changes in the use of hire cars may help to improve performance against this target in future

- Water use increased by 11.2% compared to 2004/05. This was partly due to a water meter fault which resulted in one site having significantly higher reported water use over a number of months.

2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating



Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

## Highlights

- All staff and sites covered by an Environmental Management System
- Adopted the Carbon Trust Carbon Management Programme, with surveys conducted in three out of its five headquarters buildings
- Participate in OGC's Property Benchmarking Scheme
- Reported to be at Level 1 in all five themes of the Sustainable Procurement Task Force Flexible Framework
- Scored itself 6/10 on the extent to which sustainable development has been embedded into its operations (however, this is not matched by operational performance)
- DfES Senior Civil Servants have the sustainable operations targets incorporated into their performance agreement.

## Lowlights

- Permanent Secretary does not have the sustainable operations targets incorporated into their performance agreement.

## The Department for Education and Skills' commentary on its overall SOGE performance

"Considerable improvements in waste recycling have achieved over 300% increase on the baseline year with 61% waste for 2006-07 recycled, re-used or sent for heat recovery and so avoiding landfill. The EMS we are implementing will enable the Department to manage and improve our environmental impacts." – DfES.

# Department for Environment, Food and

## Departmental overview

The Department for Environment, Food and Rural Affairs deals with the essentials of life – food, air, land, water and people, and is responsible for improving the current and future quality of life for all. As such the Department has a role in championing sustainable development across the whole of the UK and across government.

**Executive Agencies reported on:** Centre for Environment, Fisheries and Aquaculture Science (Cefas); Central Science Laboratory (CSL); Pesticides

Safety Directorate (PSD); Rural Payments Agency (RPA); Veterinary Laboratories Agency (VLA); Veterinary Medicines Directorate (VMD); State Veterinary Service (SVS) – became Animal Health (AH) from 01/04/07; Marine Fisheries Agency (MFA) – became Marine and Fisheries Agency from 01/04/07; Government Decontamination Service (GDS): (9/9).

**NDPBs and other bodies reported on:** Environment Agency (EA), Joint Nature Conservation Committee (JNCC).

## Overall scale of operations

	Core Department	Executive Agencies	NDPBs & other bodies	Total	Summary
<b>Expenditure</b>	–	–	–	£3,790m	££
<b>Employees</b> (FTE – including visitors and contractors)	4,121	9,981	11,113	25,215	
<b>Office space</b>	268,533m <sup>2</sup>	147,696m <sup>2</sup>	209,456m <sup>2</sup>	625,685m <sup>2</sup>	
<b>No. of Sites/ Land estate</b>	441/4,161 ha	108/22,768ha	288/14,204 ha	837/ 41,133 ha	

## 2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

**Overall star rating**  
(performance against SOGE targets)



Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)

## Highlights

- Carbon emissions from offices were 8.5% lower than the 1999/00 baseline level. This was the result of a number of activities, including projects supported by the Carbon Trust
- Carbon emissions from road-based operational travel were 4.7% lower than in 2005/06
- 74.6% of total waste arisings were recycled – in excess of the 40% target recycling rate for 2010
- 43.6% of Defra's electricity was from renewable sources – exceeding the 10% target for March 2008 - and a further 10.8% of its electricity was generated through Combined Heat and Power – on track to meet the 2015 target.



# Rural Affairs

## Lowlights

- Office energy efficiency in the Department worsened, with a 32.1% increase in energy use per m<sup>2</sup> since 1999/00
- Waste arisings increased by 4.3% relative to 2004/05 levels
- Water use increased by 6.0% relative to 2004/05 levels.

2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating



Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

## Highlights

- Sustainable operations targets were incorporated into the Permanent Secretary's performance agreements, and those of Senior Civil Servants
- The Department adopted the Carbon Trust Carbon Management Programme across its core and executive agency sites, and anticipated achieving accreditation for the Energy Efficiency Accreditation Scheme for its entire estate during 2007/08
- Participate in OGC's Property Benchmarking Scheme
- Reported to be at Level 2-4 in all five themes of the Sustainable Procurement Task Force Flexible Framework
- Scored itself 7/10 on the extent to which sustainable development has been embedded into its operations
- Two new build projects, completed shortly after the end of the reporting year, both received BREEAM "excellent" ratings
- Conducted a sustainability appraisal on its one office relocation during 2006/07.

## Lowlights

- Only 56.2% staff and 6.9% sites covered by an Environmental Management System. A programme was underway to increase this scope.

### The Department for Environment, Food and Rural Affairs' commentary on its overall SOGE performance

"Defra has developed appropriate strategies to deliver both the long and short term SOGE targets. We have clear performance improvement trajectories and comprehensive data gathering and analysis systems in place to allow reporting of progress against our

targets. We have made some progress this year, but expect significant improvement over the next year as our carbon management and efficiency measures take effect." – Defra.

# Department for International Development




## Departmental overview

The Department for International Development (DFID) is responsible for promoting development and reducing poverty through managing Britain's aid to developing countries. DFID has a key role to play in ensuring that the work undertaken in developing countries considers economic, social and environmental aspects according to the priorities and circumstances in each country.

**Executive Agencies reported on:** DFID does not have any Executive Agencies.

**NDPBs and other bodies reported on:** None.

## Overall scale of operations

	Core Department	Total	Summary
<b>Expenditure</b>	-	£4,942m	££
<b>Employees</b> (FTE - including visitors and contractors)	1,735	1,735	
<b>Office space</b>	26,870m <sup>2</sup>	26,870m <sup>2</sup>	
<b>No. of Sites/ Land estate</b>	2/4 ha	2/4 ha	

## 2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

**Overall star rating**  
(performance against SOGE targets)



Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)

## Highlights

- Carbon emissions from road-based operational travel were 53.3% lower than in 2005/06 – exceeding the reduction target of 15% by 2010
- Waste arisings reduced by 9.6% from the 2004/05 baseline, and 80.9% of waste was recycled – in excess of the 75% target recycling rate for 2020
- 96.7% of DFID's electricity was from renewable sources – exceeding the 10% target which has been set for March 2008.

## Lowlights

- Carbon emissions from office-based energy use were 86.7% higher than the 1999/00 baseline. A significant proportion (although not all) of this increase could be attributed to changes in DFID's size, resulting from its broader responsibilities
- Energy efficiency worsened, with a 35.2% increase in energy use per m<sup>2</sup> since 1999/00 baseline levels. The Department has now signed up to the Carbon Trust Energy Efficiency Programme.

2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating



Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

### Highlights

- Sustainable operations targets were incorporated into the Permanent Secretary's performance agreements, and those of Senior Civil Servants
- All staff and sites are covered by an Environmental Management System
- Had accreditation for the Energy Efficiency Accreditation Scheme across both of its UK buildings
- Participate in OGC's Property Benchmarking Scheme
- Reported to be at Level 1-3 in all five themes of the Sustainable Procurement Task Force Flexible Framework
- Scored itself 8/10 on the extent to which sustainable development has been embedded into its operations.

### The Department for International Development's commentary on its overall SOGE performance

"DFID remains strongly committed to the new set of SOGE targets. We installed sub-metering to monitor energy usage and air vents in patch rooms to reduce air conditioning. We conducted feasibility studies on renewable technologies including – a wind turbine, biomass boilers, solar thermal panels & tri-generation; we aim to implement renewable technology during 2007/08.

To reduce water consumption we are trialing Eco cubes/urinal cartridges. We are taking further measures to separate waste streams – containers for batteries/food composter. We recycled PCs benefiting

17,480 young people in developing countries.

We contribute to the GCOF and last year we introduced internal DFID targets to reduce air miles by 5% pa. DFID achieved a reduction of 14% on flights booked through the UK during 06/07, relative to 05/06 levels. DFID saved 303 tons of CO<sub>2</sub> using video conferencing facilities which we are upgrading and expanding. DFID aims to be carbon neutral for all UK travel for 06/07.

Our main overseas offices are implementing a system to manage/monitor their energy water usage." – DFID.

# Department for Transport

## Departmental overview

The Department for Transport (DfT) is responsible for overseeing the delivery of a reliable, safe and secure transport system that responds efficiently to the needs of individuals and business whilst safeguarding the environment. DfT has a key role to play in seeking a balance in the increasing demand for travel against the goal of protecting the environment effectively and improving the quality of life for everyone.

### Executive Agencies reported on:

Driving Standards Agency (DSA); Driver and Vehicle Licensing Agency (DVLA); Government Car and Despatch Agency (GCDA); Highways Agency (HA); Maritime and Coastguard Agency (MCA); Vehicle Certification Agency (VCA); Vehicle and Operator Services Agency (VOSA): (7/7).

**NDPBs and other bodies reported on:** None.

## Overall scale of operations

	Core Department	Executive Agencies	Total	Summary
<b>Expenditure</b>	-	-	£7,587m	£££
<b>Employees</b> (FTE – including visitors and contractors)	1,701	14,908	19,636	
<b>Office space</b>	48,931m <sup>2</sup>	360,043	408,974m <sup>2</sup>	
<b>No. of Sites/ Land estate</b>	7/Not known ha	1,136/Not known ha	1,143/Not known ha	

### 2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

**Overall star rating**  
(performance against SOGE targets)



Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)

## Highlights

- Waste arisings had decreased 13.4% since 2004/05, and 57.1% of waste was recycled – in excess of the 40% target recycling rate for 2010
- Carbon emissions arising from road-based operational travel were 10.6% lower than in 2005/06
- 10 new build projects and five major refurbishments were completed in 2006/07. These buildings consumed 2.9m<sup>3</sup> of water per person (against a target of 3.0m<sup>3</sup> per person)
- 62.5% of DfT's electricity was from renewable sources, and it derived a further 10.1% from Combined Heat and Power – on track to hit the 2015 target
- The Department's only Site of Special Scientific Interest (SSSI) was in the target condition.

## Lowlights

- Carbon emissions from office-based energy use were 12.6% higher than the baseline (the baseline was derived from various years' data, predominantly 2002/03)

- Energy efficiency had worsened. Energy use per m<sup>2</sup> was 5.7% higher than the baseline. To tackle this, the Department initiated a number of carbon management and energy efficiency programmes
- Water use increased by 11.2% compared to the 20004/05 baseline. This was partly attributable to the inclusion of additional DVLA buildings.

**2006/07 performance against mandated mechanisms and supporting structures**

**Overall mechanisms rating**



Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

**Highlights**

- Sustainable operations targets were incorporated into the Permanent Secretary's performance agreements
- Participate in OGC's Property Benchmarking Scheme
- Reported to be at Level 1 in all five themes of the Sustainable Procurement Task Force Flexible Framework
- Two new build projects, completed shortly after the end of the reporting year, both received BREEAM "excellent" ratings
- Conducted a sustainability appraisal on its one office relocation during 2006/07.

**Lowlights**

- Only 33% staff are covered by an Environmental Management System
- Only scored itself 3/10 on the extent to which sustainable development has been embedded into its operations
- Had not yet adopted either of the Carbon Trust programmes, but had started work on adopting the Energy Efficiency Accreditation Scheme
- Only did a BREEAM assessment on 11 of its 15 new build/refurbishment projects. However, those assessed all met the required standard
- Only completed sustainability appraisals for three of its 14 office relocations.

**The Department for Transport's commentary on its overall SOGE performance**

"The Department for Transport has committed an increased level of resource to the task of compiling the 2006/07 SOGE response in an effort to ensure that the data submitted is as robust as is possible and more importantly to drive forward lasting improvements in the department's sustainable performance. We have begun to embed the principles of sustainability into procurement processes and from this we are sure that our performance will show continuous improvement. We are also confident

that the data collected for this year's return is more comprehensive and accurate than has been produced previously. However it is recognised that there is still some way to go, particularly in improving our ability to gather relevant management information pertinent to the task of adequately demonstrating our performance on sustainability issues. We will continue to improve our abilities in this area." – DfT.

# Department for Work and Pensions

Departmental overview

The Department for Work and Pensions (DWP) has responsibility for promoting opportunity and independence for all, helping individuals achieve their potential through employment and working to end poverty. DWP has committed to taking steps to reduce carbon emissions, closely linked with reducing energy consumption, waste reduction and recycling,

and reduction in water consumption.

**Executive Agencies reported on:** Job Centre Plus (JCP); Disability and Carers Service (DCS); The Pensions Service (TPS); Child Support Agency (CSA): (4/5).

**NDPBs and other bodies reported on:** Health and Safety Executive (HSE) – although data was only included where it was available and robust.

Overall scale of operations

	Core Department	NDPBs & other bodies	Total	Summary
<b>Expenditure</b>	-	-	£7,047m	£££
<b>Employees</b> (FTE – including visitors and contractors)	116,618	3,659	120,277	👤👤👤👤👤
<b>Office space</b>	2,151,026m <sup>2</sup>	87,011m <sup>2</sup>	2,238,037m <sup>2</sup>	🏢🏢🏢🏢🏢
<b>No. of Sites/Land estate</b>	1,221/Not known ha	35/Not known ha	1,256/Not known ha	-

2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

<b>Overall star rating</b> (performance against SOGE targets)	
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Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)

## Highlights

- Waste arisings reduced by 26.5% since 2004/05 – in excess of the 25% target reduction for 2020
- The 66.5% recycling rate was one of the highest of all departments – and was in excess of the 40% target recycling rate for 2010
- 53.5% of DWP’s electricity was from renewable sources, and a further 9.4% was derived from Combined Heat and Power – on track to hit the 2015 target
- Water use was 3.6% lower than the 2004/05 baseline level.

## Lowlights

- Carbon emissions from offices were 15.4% higher than 1999/00 baseline levels
- Energy efficiency per m<sup>2</sup> was 5.1% worse than in 1999/00

- Carbon emissions from road-based administrative travel were 21.5% higher than in 2005/06. DWP intended to adopt a more co-ordinated approach in the future, and was still confident in hitting the target.

### 2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating



Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

### Highlights

- 96.9% of staff and 97.2% of sites are covered by an Environmental Management System
- The Department adopted the Carbon Trust Carbon Management Programme
- Participate in OGC's Property Benchmarking Scheme
- Reported to be at Level 1-4 in all five themes of the Sustainable Procurement Task Force Flexible Framework
- Scored itself 8/10 on the extent to which sustainable development has been embedded into its operations.

### Lowlights

- DWP did not report whether sustainable operations targets were incorporated into the Permanent Secretary's performance agreements
- The Department completed six new build and 122 major refurbishment projects during 2006/07. Only five of the new build projects had BREEAM assessments, but it is not known whether these met the target standard. It is not known whether any of the refurbishments had a BREEAM assessment.

### The Department for Work and Pensions' commentary on its overall SOGE performance

"DWP is one of the largest government departments, with over 1200 sites and in excess of 111,000 staff. Embedding sustainability in to our business is a huge task but we are confident we can meet this challenge. We are proud of the achievements we have made so far and are committed to delivering further improvements on the management of the main environmental impact areas, including energy, waste/recycling and water. An energy consumption campaign has been launched in our largest 300 buildings, results for the first quarter 2007/08 show an average reduction across the regions of 15%.

This fantastic result shows that significant savings in energy and carbon are achievable, with the right approach.

Developing expertise in the sustainable procurement field will continue to enable DWP to secure goods and services which address environmental, economic and social issues.

Much of the work undertaken so far has been aimed at reducing the effects of climate change. Further work has commenced on climate change adaptation to enable the Department to prepare for this most difficult of challenges." – DWP.

# Department of Health

## Departmental overview

The aim of the Department of Health (DH) is to improve the health and wellbeing of the people of England by setting national standards, shaping the direction of the National Health Service (NHS) and social care services and promoting healthier living. The Department has developed policies with a health focus on communities, environment and economy.

**Executive Agencies reported on:** NHS Purchasing and Supplies Agency (NHS PASA); partial coverage from Medicines and Healthcare Products Regulatory Agency (MHRA): (2/2).

**NDPBs and other bodies reported on:** None.

## Overall scale of operations

	Core Department	Executive agencies	Total	Summary
<b>Expenditure</b>	-	-	£81,757m*	££££££
<b>Employees</b> (FTE – including visitors and contractors)	2,970	1,007	3,977	👤
<b>Office space</b>	42,529m <sup>2</sup>	15,542m <sup>2</sup>	58,071m <sup>2</sup>	🖨️🖨️
<b>No. of Sites/Land estate</b>	3/3 ha	Not known/4 ha	Not known/7 ha	🌐

\*Note: Expenditure includes NHS, but this report does not cover NHS operations.

## 2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

**Overall star rating**  
(performance against SOGE targets)



Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)
🟢	🟢	🟢	🔴	🟢	🟢	🟡	🟡	🟡	🟢	🟡

## Highlights

- Of the 21 departments that reported, DH had the best overall performance against the SOGE targets in 2006/07, achieving a score of 97.3%
- Carbon emissions from offices were 18.5% lower than 1999/00 baseline levels (a reduction in excess of the 2010 target of 12.5%)
- Carbon emissions from road-based operational travel were 10.9% lower than in 2005/06
- Waste arisings were 50.2% lower than the 2004/05 baseline, and 91.5% of waste was recycled – in excess of the SOGE waste targets for 2020 (25% waste reduction and 75% recycling rate). DH was the best performing department against both of these targets
- 99.9% of DH's electricity was from renewable sources.



## Lowlights

- Energy efficiency had worsened since 1999/00, with a 9.3% increase in energy use per m<sup>2</sup>. The Department expects improvements in this area in the future, through improved data collection and a number of projects in association with the Carbon Trust.

2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating



Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

## Highlights

- Sustainable operations targets were incorporated into the Permanent Secretary's performance agreements
- Scored itself 7/10 on the extent to which sustainable development has been embedded into its operations
- Participate in OGC's Property Benchmarking Scheme.

## Lowlights

- Only 42.9% of its sites and 5.8% staff are covered by an Environmental Management System. However, NHS PASA had full ISO14001 certification. The core department was looking to ensure its new FM contractor was contracted to implement and maintain a certified EMS in the future
- Did not engage with the Carbon Trust's Carbon Management Programme or Energy Efficiency Accreditation Scheme, although the Carbon Trust recommended an alternative approach in undertaking a 'specific opportunities' survey. NHS PASA was looking to engage with the CMP in the near future
- Reported to be at Level 1 in only two of the five Sustainable Procurement Task Force Flexible Framework themes.

### The Department of Health's commentary on its overall SOGE performance

"We are currently developing a long term accommodation strategy for the core department. This, when available, will enable us to produce a detailed strategy and investment plan for further enhancing the sustainability of our buildings. We will be working with our contractors and the Carbon Trust to achieve this. In addition, we are negotiating with our FM contractor for them to provide us with a dedicated sustainable development resource. This will enable us to benefit from an on-site expert resource for delivering ongoing sustainable development benefits.

NHS PASA maintained good progress against the key sustainable development aspects of its activity over the past year despite significant changes to the scope and structure of operations. The Agency underwent major reorganisation in 2005-06, and in October 2006 a substantial range of contracting activity transferred to NHS Supply Chain under a ten year outsourcing arrangement between the DH and DHL. Following this the Agency has been involved in reviews to determine its relationship with the DH Commercial Directorate." – DH.

# Department of Trade and Industry

## Departmental overview

The Department of Trade and Industry (DTI) was the department responsible for trade, business, employees, consumers, science and energy. As such DTI was committed to achieving safe, secure and sustainable energy supplies and, ultimately, a low-carbon economy as part of a wider strategy to create the conditions for business success in the UK. In June 2007 DTI was disbanded and its functions

were transferred to the new Department for Business, Enterprise and Regulatory Reform (BERR).

**Executive Agencies reported on:** National Weights and Measures Laboratory; Companies House; Insolvency Service; Intellectual Property Office: (4/5).

**NDPBs and other bodies reported on:** None.

## Overall scale of operations

	Core Department	Executive agencies	Total	Summary
<b>Expenditure</b>	-	-	£6,104m	£££
<b>Employees</b> (FTE – including visitors and contractors)	10,525	5,483	16,008	👤👤👤
<b>Office space</b>	73,119m <sup>2</sup>	91,453m <sup>2</sup>	164,572m <sup>2</sup>	🏢🏢🏢
<b>No. of Sites/Land estate</b>	7/Not known ha	43/13 ha	50/Not known ha	🌐

### 2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

**Overall star rating**  
(performance against SOGE targets)



Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)
🟢	🟡	🔴	🔴	🟢	🟢	🟡	🟢	🟡	🟢	🟢

## Highlights

- Carbon emissions from offices were 14.4% lower than the 1999/00 baseline (a reduction in excess of the 2010 target of 12.5%), and initiatives were put in place to improve performance further through awareness and energy efficient product trials
- There was a 30.7% reduction in waste arisings since 2004/05 – in excess of the 25% target for 2020. DTI's low level of total waste arisings (0.08 t/FTE) made it one of the top performers against this target
- 55.8% of total waste arisings were recycled – in excess of the 40% target recycling rate for 2010
- 20.1% of DTI's electricity was from renewable sources, a further 24.4% was derived from Combined Heat and Power – in excess of the 2015 CHP target
- Water use had reduced by 17.6% against the 2004/05 baseline – on course to meet the target of 25% reduction by 2020. DTI used the least water per FTE of all departments that reported (4.4m<sup>3</sup>/FTE).

## Lowlights

- The use of energy (kWh) per m<sup>2</sup> had increased by 39.6% since 1999/00. However, a significant amount of this could be attributed to a programme of estate rationalisation which reduced floor space by 46% since 1999/00. When energy used was measured according to FTE, DTI was amongst the most efficient government departments (0.96 tonnes CO<sub>2</sub>/FTE)
- Carbon emissions from administrative road-based travel increased by 3.8% since 2005/06, although the Department remained confident it would hit the 2010 target for a 15% reduction.

2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating



Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

## Highlights

- Sustainable operations targets were incorporated into the Permanent Secretary's performance agreements
- All staff are covered by an Environmental Management System
- Reported to be at Level 1 in all five themes of the Sustainable Procurement Task Force Flexible Framework
- Scored itself 8/10 on the extent to which sustainable development has been embedded into its operations
- Had taken on board some appropriate elements of the Carbon Trust Carbon Management Programme as advised by the Carbon Trust. The Department was in the advanced stages of adopting the Energy Efficiency Accreditation Scheme in its headquarters
- Participate in OGC's Property Benchmarking Scheme.

## The Department of Trade and Industry's commentary on its overall SOGE performance

"As a measure of its commitment to sustainable development, DTI HQ has established a Sustainable Development team at Group level comprising members of the SCS with responsibility for conduit for communication on sustainable development and SCP to Board level champion and staff in Group, including:

- Contributions to the DTI Sustainable Development Action Plan and ongoing monitoring and reporting of sustainable development projects in the plan
- Promotion of awareness of sustainable development in Group and sponsored sectors/activities
- Dissemination of information on sustainable development
- Collection of information about barriers in the Group/sponsor sectors to sustainable development and dissemination of details to SDRD

- Attendance at the sustainable development Champions meetings
- Generation of ideas for promotion of sustainable development in DTI/externally.

### Objectives:

- To promote and co-ordinate current activity on sustainable development within the Department and externally, and stimulate further engagement in sustainable development issues in sectors sponsored by BERR and staff
- To understand barriers to sustainable development, their impact, and their relative priority for addressing
- To ensure BERR policy on sustainable development is implemented within Groups
- Exchange of information/ideas/best practice" – DTI.

# Export Credits Guarantee Department




## Departmental overview

The Export Credits Guarantee Department (ECGD) is the UK's official Export Credit Agency. It has the role of benefiting the UK economy by helping exporters of UK goods and services win business, and insuring UK firms investing overseas, taking into account the government's international policies. ECGD is committed to achieving sustainable economies through facilitating exports that benefit the UK and overseas economies, ensuring an assessment of the environmental, social and human rights impacts of exports and overseas projects.

**Executive Agencies reported on:** ECGD does not have any Executive Agencies.












**NDPBs and other bodies reported on:** ECGD does not have any NDPBs.

## Overall scale of operations

	Core Department	Summary
<b>Expenditure</b>	-	
<b>Employees</b> (FTE - including visitors and contractors)	294	
<b>Office space</b>	9,111m <sup>2</sup>	
<b>No. of Sites/ Land estate</b>	2/1ha	

## 2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

<b>Overall star rating</b> (performance against SOGE targets)	
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Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)
										

### Highlights

- Carbon emissions from road-based administrative operations were 66.7% lower than the 2005/06 baseline level. This was the best performance against this target of any department, and exceeded the reduction target of 15% by 2010. The reduction was in part due to the closure of ECGD's Cardiff office, resulting in fewer journeys between offices. ECGD also had a low emission hybrid car as the fleet standard, and reduced the number of parking spaces which encouraged the use of other modes of transport
- Carbon emissions from offices were 21.1% lower than the 2004/05 baseline. This was the largest reduction of any of the 21 departments which reported for the period, and was in excess of the 12.5% target reduction by 2010
- 45.8% of total waste arisings were recycled – in excess of the 40% target recycling rate for 2010. This was due to improvements in the office recycling facilities for staff
- Water use was 70.5% lower than in 2004/05 – in excess of the SOGE target of 25% reduction by 2010. ECGD was the best performing department against this target. This was partially due to the ECGD's success in influencing its landlords to reduce water consumption throughout its office building.

## Lowlights

- Energy use per m<sup>2</sup> increased by 8.1% from 2004/05 baseline levels. However, a significant amount of this change can be attributed to an 18% reduction in floor space
- Waste arisings increased by 24.7% since 2004/05. This was partly a result of departmental re-organisation. The ECGD was still confident that it would hit the 2010 target.

2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating



Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

## Highlights

- Sustainable operations targets were incorporated into the Permanent Secretary's performance agreements, and those of Senior Civil Servants
- All staff are covered by an Environmental Management System
- Participate in OGC's Property Benchmarking Scheme.

## Lowlights

- Scored itself 4/10 on the extent to which sustainable development has been embedded into its operations
- Reported to be at Level 1-2 in four of the five Sustainable Procurement Task Force Flexible Framework themes.

ECGD was advised by the Carbon Trust that it was too small to be able to engage with either the Carbon Management Programme or the Energy Efficiency Accreditation Scheme.

### The Export Credits Guarantee Department's commentary on its overall SOGE performance

"ECGD's main office is as a single tenant in a multi-tenanted building and as such it has limited ability to influence the building managers as to the sustainability of the building. For instance, even the type of light bulbs ECGD must use are restricted by the building managers. It cannot determine, in the same way it can for its Cardiff file repository where it is the only occupier, the type of electricity purchased. Similarly many of the utilities for which

ECGD is charged are charges invoked on the basis of ECGD's share of an overall bill. This share is based on ECGD's share of the floor space in the building. Clearly, this will be affected by another tenant having a high number of staff in its area, or having a large number of visitors. Also, it would be affected by any parts of the building being vacant one year and tenanted the next." – ECGD.

# Food Standards Agency

## Departmental overview

The Food Standards Agency (FSA) is responsible for protecting the public's health and consumer interests in relation to food. FSA contributes to sustainable development through fulfilling its remit in relation to food safety and standards, nutrition and helping consumers make informed choices.

**Executive Agencies reported on:** None (0/1).

**NDPBs and other bodies reported on:** None.

## Overall scale of operations

	Core Department	Summary
<b>Expenditure</b>	£143.9m	£
<b>Employees</b> (FTE – including visitors and contractors)	663	👤
<b>Office space</b>	11,865m <sup>2</sup>	🏢
<b>No. of Sites/ Land estate</b>	1ha	🌐

## 2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

**Overall star rating**  
(performance against SOGE targets)



Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)
🟢	🟡	🔴	🟡	🟡	🟡	🟡	🔴	🟡	🟡	🟡

## Highlights

- Carbon emissions from offices were 16.7% lower than 2001/02 baseline levels, and energy use per m<sup>2</sup> reduced by 19.8% over the same period (reductions in excess of the 2010 SOGE energy targets). The modern building used by FSA had an effective building management system which helped energy monitoring and performance
- 100% of FSA's electricity was from renewable sources
- Total waste arisings were 8.3% lower than in 2004/05, and 50.4% of waste was recycled – in excess of the 40% target recycling rate for 2010.

## Lowlights

- Carbon emissions from road-based administrative travel were 6.1% higher than in 2005/06
- Water use increased by 30.4% since 2004/05. FSA noted that future support from its landlord would be required to achieve this target.

2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating	★ ★ ★ ★ ☆
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Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

### Highlights

- 100% of staff and sites are covered by an Environmental Management System
- Sustainable operations targets were incorporated into the Chief Executive's performance agreement, and those of Senior Civil Servants
- Reported to be at Level 1-2 in all five themes of the Sustainable Procurement Task Force Flexible Framework
- Scored itself 6/10 on the extent to which sustainable development has been embedded into its operations.

### Lowlights

- FSA did not participate in either of the Carbon Trust carbon management programmes, although an audit had been undertaken, and there were plans to discuss the next steps with the Carbon Trust and the landlord
- FSA do not participate in OGC's Property Benchmarking Scheme.

**The Food Standards Agency's commentary on its overall SOGE performance**

"Video conferencing facilities have been upgraded and usage is increasing which should have an impact on the volume of travel. Our systems for recording and analysing travel by FSA staff are being improved to enable more detailed analysis of travel information and the development of more targeted action within the organisation.

Development of sustainable procurement policy is on track to meet the Flexible Framework

requirements, including development of the procurement portal, and individual contract managers are being assisted by the central procurement unit in addressing the Quick Wins agenda.

The FSA has recently introduced an on site facility to bottle (and carbonate) mains fed water which has drawn favorable stakeholder comment as a demonstration of commitment to sustainability on food issues as well as the estate." – FSA.

# Foreign and Commonwealth Office

Departmental overview

The Foreign and Commonwealth Office (FCO) is responsible for foreign affairs and overseas relations with the aim of encouraging a safe, just and prosperous world. As such, FCO is committed to promoting greater respect for human rights, democracy and governance, and promoting sustainable management of natural resources in priority countries, through improved environmental

governance and more effective implementation and enforcement of international and national agreements and legislation.

**Executive Agencies reported on:** FCO Services and Wilton Park (2/2). FCO Services data included within the core department data. Wilton Park, as a stand alone conference centre, reported separately.

**NDPBs and other bodies reported on:** None.

Overall scale of operations

	Core Department	Executive agencies	Total	Summary
<b>Expenditure</b>	-	-	£1,946m	£
<b>Employees</b> (FTE – including visitors and contractors)	3,846	73	3,919	👤
<b>Office space</b>	85,443m <sup>2</sup>	2,326m <sup>2</sup>	87,769m <sup>2</sup>	🏢🏢
<b>No. of Sites/Land estate</b>	5/85 ha	1/6 ha	6/91 ha	🌐

2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

**Overall star rating**  
(performance against SOGE targets)



Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)
Red	Red	Red	Red	Green	Blue	Grey	Red	Grey	Green	Red

## Highlights

- 41.2% of waste arisings were recycled – in excess of the 40% target recycling rate for 2010
- Total waste arisings were 3.2% lower than 2004/05 baseline levels. The Department expected continued improvement
- 32.7% of FCO's electricity was from renewable sources – exceeding the 10% target which has been set for March 2008.

## Lowlights

- Carbon emissions from office-based energy use increased by 8.1% since 1999/00 baseline levels. Energy use per m<sup>2</sup> rose by 3.0% over the same period. FCO started to implement the Carbon Trust Carbon Management Programme, and expects this to improve future performance



- Carbon emissions from road-based administrative vehicles were 78.5% higher than the 2005/06 baseline level. This was due in part to an improved accounting system, which provided better mileage data for taxis and private cars for business usage
- Water use was 13.1% higher than 2004/05 baseline levels. FCO was investigating the reasons for this and initiating several water-saving projects, including the installation of a rainwater harvesting system, which should improve future performance.

2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating



Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

### Highlights

- 95.5% of staff are covered by an Environmental Management System
- The Department was in the initial stages of implementing the Carbon Trust Carbon Management Programme across the majority of its UK estate
- Scored itself 6/10 on the extent to which sustainable development has been embedded into its operations (however this is not matched by operational performance)
- Achieved the required BREEAM standard on its one major refurbishment project.

### Lowlights

- Sustainable operations targets were not incorporated into the Permanent Secretary's performance agreement
- FCO did not know which levels it had reached on the Sustainable Procurement Task Force Flexible Framework, although it reported that it did use the Framework
- Do not participate in OGC's Property Benchmarking Scheme, but plan to do so in future.

### The Foreign and Commonwealth Office's commentary on its overall SOGE performance

"Reducing carbon emissions remains the biggest challenge on the FCO Estate. The IT infrastructure necessary to support our worldwide operations, and its associated energy usage, has been increasing year on year to enable us to deliver our global service effectively. We are implementing the Carbon Trust's Carbon Management Programme and examining alternative renewable energy sources to counter this demand.

Our waste management performance is improving because of regular awareness campaigns, new recycling facilities and the recruitment of a dedicated recycling officer. We are implementing water efficiency measures e.g. low water use taps & showers etc in existing buildings and a new building (completed in 2007) will use a rain water harvesting system." – FCO.

# Forestry Commission



## Departmental overview

The Forestry Commission (FC) is responsible for protecting and expanding Britain's forests and woodlands with the aim of increasing their value to society and the environment. FC has a key role in ensuring woodlands are managed, where possible, as natural or semi-natural ecosystems for the benefit of the rural economy, local communities and wildlife. FC ensures protection of historic sites and landscapes, and restoration of ancient woods where it is practicable to do so.

**Executive Agencies reported on:** Forest Enterprise England; Forest Research (2/4).

**NDPBs and other bodies reported on:** None.

## Overall scale of operations

	Core Department	Summary
<b>Expenditure</b>	£60m*	£
<b>Employees</b> (FTE – including visitors and contractors)	1,331	
<b>Office space</b>	Not known	-
<b>No. of Sites/ Land estate</b>	Not known/ 256,000ha	

\*Source: Forestry Commission Annual Report 2006

## 2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

**Overall star rating**  
(performance against SOGE targets)



Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)
				NK	NK		NK			

## Highlights

- 100% of FC's electricity was from renewable sources
- 83% of FC's 192 SSSIs were in target condition – on track to meet the biodiversity target by 2010.

## Lowlights

- Carbon emissions from offices were 152.9% higher than 2002/03 baseline levels. Energy use per m<sup>2</sup> also increased by 67.5% over the same period. These were the greatest increases of any department which reported against this target. FC is undertaking a full baseline data collection programme as part of its Greenerways Initiative and hopes to report improved performance in future years
- Carbon emissions from road-based administrative travel increased slightly by 1.6% since 2005/06 baseline levels. FC remained confident in meeting the 2010/11 target and planned to implement a strategy to achieve this

- FC did not collect data on waste arisings or recycling. It planned to be able to monitor performance adequately by 2008/09, in tandem with a waste management strategy under its EMS
- Water consumption was not monitored so performance against the water target could not be measured. FC expects to be able to set baselines and monitor performance by 2008/09.

### 2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating

Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

### Highlights

- Scored itself 6/10 on the extent to which sustainable development has been embedded into its operations (however, this is not matched by operational performance).

### Lowlights

- Permanent Secretary does not have the sustainable operations targets incorporated into their performance agreement
- The Forestry Commission did not have an EMS in place, but was using the BS8555 'Acorn' standard to work towards a full EMS in the future
- The Department had not adopted either the Carbon Trust's Carbon Management Programme or its Energy Efficiency Accreditation Scheme
- Had completed three new build projects in the reporting year, but none of these had BREEAM assessments
- FC did not use the Flexible Framework to assess progress on sustainable procurement
- Do not participate in OGC's Property Benchmarking Scheme.

### The Forestry Commission's commentary on its overall SOGE performance

"The Forestry Commission is a GB government department charged with the sustainable management of the nation's forest estate, certified under the UKWAS Standard.

In 2005 we began the process of managing our back-office function to a similar auditable standard,

through the BS8555 environmental management system. We are progressing with baseline data collection, have our own in-house sustainable development programme 'Greenerways', and aspire to meet future government and EMS targets." – FC.

# Her Majesty's Revenue and Customs



Departmental overview  
Overall scale of operations

HM Revenue and Customs is responsible for collecting the bulk of tax revenue as well as paying Tax Credits and Child Benefits, and strengthening the UK's frontiers. HMRC is committed to reducing impacts on society and the environment through reducing the impacts of day-to-day activities which

include water and energy use, use of refrigerants, waste production, purchasing, travel and estate management.

**Executive Agencies reported on:** Valuation Office Agency (1/1).

**NDPBs and other bodies reported on:** None.












	Core Department	Executive agencies	Total	Summary
<b>Expenditure</b>	-	-	£4,582m*	££
<b>Employees</b> (FTE – including visitors and contractors)	90,912	4,240	95,152	
<b>Office space</b>	1,537,897m <sup>2</sup>	85,366m <sup>2</sup>	1,623,263m <sup>2</sup>	
<b>No. of Sites/Land estate</b>	534/Not known ha	77/Not known ha	611/Not Known ha	-

\* Source: 2005/06 Department Expenditure Budget, from 2004 Spending Review

## 2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

**Overall star rating**  
(performance against SOGE targets)



Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)
										

## Highlights

- Carbon emissions from road-based administrative travel were 11.9% lower than the 2005/06 baseline. Improved standards for fleet cars, and an effective intranet resource providing useful information on sustainable travel, contributed to this reduction
- 100% of HMRC's electricity was from renewable sources
- Total waste arisings were 2.9% lower than 2004/05 baseline levels
- Water use reduced significantly by 14.5% since 2004/05. Savings were made through proactive monitoring, repairing leaks and installing no/low cost solutions.

## Lowlights

- Carbon emissions from office-based energy use increased by 18.9% from baseline levels\*. Energy efficiency also worsened, with a 35.2% increase in energy use per m<sup>2</sup> in the same

period. Key business areas were producing Corporate Responsibility Plans that included actions to reduce energy consumption. An environmental forum for key contractors was planned for 2007/08, to identify opportunities for further improvement

- 13.4% of waste was recycled – the lowest of all departments that reported against this indicator. However, a small amount of progress was made during the reporting period and major plans were in place to improve performance significantly, and work towards achieving the 2010 target.

\*Baseline data from 2000/01 for core department, and 2002/03 for VOA

**2006/07 performance against mandated mechanisms and supporting structures**

<b>Overall mechanisms rating</b>	★ ★ ★ ☆ ☆
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Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

**Highlights**

- Permanent Secretary has the sustainable operations targets incorporated into their performance agreement, and those of Senior Civil Servants
- There were 34 office relocations during 2006/07, all of which had a sustainability appraisal
- Reported to be at Level 1-2 in all five themes of the Sustainable Procurement Task Force Flexible Framework.

**Lowlights**

- Only 11.7% of its staff (including its executive agency) were covered by an EMS
- HMRC did not engage with the Carbon Trust's Carbon Management Programme (CMP) or Energy Efficiency Accreditation Scheme, although it was in the process of creating an action plan for its own carbon management programme
- Scored itself 4/10 on the extent to which sustainable development has been embedded into its operations
- Do not participate in OGC's Property Benchmarking Scheme.

**HM Revenue and Customs' commentary on its overall SOGE performance**

"HMRC is serious about integrating sustainable development into its policies, operations and day-to-day activities.

As the Department responsible for administering environmental taxes, we perform a unique role in supporting the priorities for action on climate change. We also protect the environment through our Customs responsibilities e.g. by prohibiting the importation of ozone depleting substances and endangered species.

Our estate is currently going through a significant rationalisation programme as we close buildings in favour of a more logical and cost effective approach to office

locations. This should put us in a strong position to reduce our energy and waste in future years.

We have made progress in key areas this year such as a 14% reduction in water consumption (since 2004/05), 12% reduction in road vehicle emissions (since 2005/06) and a 4% reduction in energy consumption (since 2005/06, prior to the weather correction factor being applied). We are keen to build on this, managing our operations and estate as sustainably as possible to meet government targets and improve our environmental footprint." – HMRC.

# HM Treasury

Departmental overview

The Treasury is the United Kingdom's economics and finance ministry. It is responsible for formulating and implementing the government's financial and economic policy. Its aim is to raise the rate of sustainable growth, and achieve rising prosperity and a better quality of life with economic and employment opportunities for all.

**Executive Agencies reported on:** There were contributions from the following organisations, but not on all questions: UK Debt Management Office (EA); OGC (Department); OGC Buying solutions (EA of OGC); Government Actuary's Department (Department); National Savings and Investments (EA); Royal Mint (EA).

**NDPBs and other bodies reported on:** None.

Overall scale of operations

	Core Department	Executive agencies	Total	Summary
<b>Expenditure</b>	£202m	-	-	£
<b>Employees</b> (FTE – including visitors and contractors)	1,337	4,748	6,085	
<b>Office space</b>	31,200m <sup>2</sup>	174,738m <sup>2</sup>	205,938m <sup>2</sup>	
<b>No. of Sites/Land estate</b>	1/1 ha	43/39 ha	44/40 ha	

2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

**Overall star rating**  
(performance against SOGE targets)



Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)

## Highlights

- Carbon emissions from offices were 18.7% lower than 1999/00 baseline levels (a reduction in excess of the 2010 target of 12.5%)
- Carbon emissions from administrative road-based travel were 50% lower than the 2005/06 baseline levels – exceeding the reduction target of 15% by 2010. This was a result of improvements in lease car use by the OGC and effective monitoring processes by the core department
- 77.4% of HMT's electricity was from renewable sources – exceeding the 10% target which has been set for March 2008
- Waste arisings had reduced significantly, by 38.5% from the 2004/05 baseline level – in excess of the 25% target reduction by 2020.

## Lowlights

- Energy efficiency (kWh/m<sup>2</sup>) was 20.4% worse than 1999/00 baseline levels. This could be partly attributed to an estates' rationalisation policy, which reduced floor space but increased staff density. However, the Department reported that recent performance was improving and that it had plans in place to improve energy efficiency both in the core department and some of its Executive Agencies
- 17.4% of waste was recycled, indicating that HMT was not on track to meet the 40% target recycling rate for 2010. However, the Department reported that it had plans in place to improve recycling in the future, and was confident that it would meet the 2010 target.

2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating



Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

## Highlights

- Scored itself 6/10 on the extent to which sustainable development has been embedded into its operations
- HMT had engaged with both the Carbon Trust's Carbon Management Programme and its Energy Efficiency Accreditation Scheme, and had already implemented many of the recommendations
- Participate in OGC's Property Benchmarking Scheme.

## Lowlights

- Sustainable operations targets were not incorporated into the Permanent Secretary's performance agreement
- Only 70.5% of its sites and 29.9% of staff were covered by an EMS
- HMT did not use the Flexible Framework to assess progress on sustainable procurement.

### HM Treasury's commentary on its overall SOGE performance

"The Treasury has taken note of the 2006 SDiG report and will be prioritising those areas where improvements are needed. This year's return reports on all executive agencies, although data availability is variable. The Permanent Secretary does not

currently have sustainable operations targets incorporated into their performance agreement, although delivering Treasury objectives will meet wider environmental objectives." – HMT.

# Home Office

Departmental overview

The Home Office (HO) is responsible for ensuring a safe, just and tolerant society by putting public protection at the heart of all that is done. HO is responsible for the police services and the justice system in England and Wales, national security and immigration. HO is committed to investment in staff, adoption of a sustainable approach to consumption

in conjunction with efficient management of waste. **Executive Agencies reported on:** HM Prison Service; Identity and Passport Service – reported separately (2/4). National Probation Service; Border and Immigration Agency – included in ‘core’ department. **NDPBs and other bodies reported on:** None.

Overall scale of operations

	Core Department	Executive agencies	Total	Summary
<b>Expenditure</b>	-	-	£8,016m	£££
<b>Employees</b> (FTE – including visitors and contractors)	19,636	52,724	72,360	
<b>Office space</b>	283,515m <sup>2</sup>	3,905,212m <sup>2</sup>	4,188,727m <sup>2</sup>	
<b>No. of Sites/Land estate</b>	76/36 ha	163/1,040 ha	239/3,076 ha	

2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

**Overall star rating**  
(performance against SOGE targets)



Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)

## Highlights

- Energy efficiency from offices was 12.9% better than the 1999/00 baseline level
- 44.8% of waste was recycled – in excess of the 40% target recycling rate for 2010
- 13.9% of electricity was sourced from Combined Heat and Power – well on track to meet the 15% target by 2010
- 76% of the Department’s eight SSSIs were in target condition – on track to meet the 2010 biodiversity target.

## Lowlights

- Carbon emissions arising from office-based energy use were significantly higher than baseline levels (132.8% increase since 1999/00). This could in part be attributed to the inclusion of the National Probation Service into the HO estate. It is expected that HO will take the opportunity to re-baseline for next year’s SDiG report



- Carbon emissions from road-based administrative travel were 80.3% higher than in 2005/06. This was in part due to poor data collection in previous years which understated emissions from the baseline. As with office emissions, it is expected that HO will re-baseline in the near future
- 61.2% more waste was produced than in the 2004/05 baseline year.

### 2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating



Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP
Red	Red	Red	Green	Red	Red	Green

### Highlights

- Scored itself 6/10 on the extent to which sustainable development has been embedded into its operations
- There was one office relocation during 2006/07, which had a sustainability appraisal conducted
- Participate in OGC's Property Benchmarking Scheme.

### Lowlights

- Sustainable operations targets were not incorporated into the Permanent Secretary's performance agreement.
- Only 25.5% of its sites were covered by an EMS, but plans were in place to set up a full corporate EMS to encompass all core HO office sites.
- HO only undertook BREEAM assessments on two of its 124 new build projects, and none of its major refurbishment projects (the majority of new projects were on the prison estate). Only one of these achieved the required rating. Another 34 BREEAM assessments had been commissioned, and HO was awaiting the results
- In previous years, the Prison Service was accredited to the Carbon Trust Energy Efficiency Accreditation Scheme (EEAS), and the working framework still existed in 2006/07 although accreditation had lapsed due to a lack of funding
- HO reported some progress against the Sustainable Procurement Action Plan (SPAP) Flexible Framework, achieving Level 1 in one theme, and making progress towards Level 1 in another two themes.

### The Home Office's commentary on its overall SOGE performance

"2006 – 2007 marks an important transition year for the Home Office. The move to an estates shared services system in October 2006 led to a major reorganisation in the way that SOGE data is collected

and disseminated. In the short term the quality of the data may have deteriorated slightly but the benefits of the new approach should be evident next year." – HO.

# Law Officers' Department

Departmental overview



The Law Officers' Department (LOD) covers the activities of a number of departments and agencies in the field of criminal justice and government legal advice. These departments are the Attorney General's Office, the Crown Prosecution Service, Her Majesty's Crown Prosecution Service Inspectorate, Revenue and Customs Prosecution Office, the Serious Fraud Office and the Treasurers Solicitors Department.

Data for the 'core department' covered the Crown Prosecution Service offices only.

**Executive Agencies reported on:** Not applicable.

**NDPBs and other bodies reported on:** Attorney General's Office; the Crown Prosecution Service; Her Majesty's Crown Prosecution Service Inspectorate; The Serious Fraud Office; Revenue and Customs Prosecution Office; Treasurers Solicitors Department – reported under 'other bodies'.









Overall scale of operations

	Core Department	NDPBs & other bodies	Total	Summary
<b>Expenditure</b>	-	-	£701m	£
<b>Employees</b> (FTE – including visitors and contractors)	8,405	1,619	10,024	
<b>Office space</b>	126,942m <sup>2</sup>	25,745m <sup>2</sup>	152,687m <sup>2</sup>	
<b>No. of Sites/Land estate</b>	71/Not known ha	6/Not known ha	77/Not known ha	-

2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

**Overall star rating**  
(performance against SOGE targets)



Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)
				NK	NK		NK			

## Highlights

- 9.4% of electricity was sourced from Combined Heat and Power – on track to meet the 15% target by 2010
- 65.2% of LOD's electricity was from renewable sources
- Carbon emissions from road-based administrative operations were 8.1% lower than in 2005/06, partly due to improved emissions performance from contract cars.

## Lowlights

- Carbon emissions from office-based energy use had increased 6.4% from the baseline (baseline year for 2000/01, except SFO and HMCPSI for which is 2001/02)

- LOD was unable to provide full waste arisings and recycling data, so its performance against the waste targets could not be determined. However some LOD departments had data for both waste arisings and recycling rates
- LOD was unable to provide full water use data, so its performance could not be determined. However, some departments had their own water data and some expect to be able to report at some point in the future.

### 2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating



Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

### Highlights

- CPS scored itself 6/10 on the extent to which sustainable development has been embedded into its operations (however this is not matched by operational performance). Progress in the other LOD departments was variable, with some good progress reported.
- All the LOD departments made good use of the Sustainable Procurement Action Plan (SPAP) Flexible Framework, with CPS achieving between Level 2-4 in all five performance areas
- LOD undertook a BREEAM assessment, and achieved the required rating, on its one major refurbishment project
- Participate in OGC's Property Benchmarking Scheme

### Lowlights

- Sustainable operations targets were not incorporated into the Permanent Secretary's performance agreement. However, they were incorporated into those of its Senior Civil Servants
- Only 7.1% of staff were covered by an EMS. Actions are being taken to increase its scope
- The Crown Prosecution Service (CPS) started work on adopting the Carbon Trust's Energy Efficiency Accreditation Scheme (EEAS). No other LOD department had adopted either the EEAS or Carbon Management Programme
- No sustainability appraisals were undertaken on the five office relocations during 2006/07.

### The Law Officers' Department's commentary on its overall SOGE performance

"The LODs comprise six separate departments varying in size. The largest is the CPS with 8400 staff. The others have staff numbers ranging from 35 to 710. The overall estate comprises a mixture of leasehold/owned and listed buildings.

Over the last year we have made real progress towards meeting the data requirements of SOGE and are in a position to report on more areas. With so

many processes involved it does take time to change our data collection processes and embed sustainable development. However we expect to show further annual improvements in all areas each year. We welcome the baseline adjustments which reflect improvements in data collection and which will make it easier for us to demonstrate progress." – LOD.

# Ministry of Defence

Departmental overview

The Ministry of Defence (MOD) is responsible for defending the UK and its interests, strengthening international peace and stability and acting as a force for good in the world. MOD is committed to embedding sustainable development into its operations through effective management of its estate. In addition, MOD contributes to longer term sustainable development outcomes on security, international peace and stability,

military aid to civil authorities, crisis management domestically, as well as roles such as bomb disposal, fisheries protection and counter-drugs operations.

**Executive Agencies reported on:** Army Base Repair Organisation, Meteorological Office, UK Hydrographic Office, Defence Science and Technology Laboratory.

**NDPBs and other bodies reported on:** None.

Overall scale of operations

	Core Department	Executive Agencies	Total	Summary
<b>Expenditure</b>	-	-	£33,922m	££££££
<b>Employees</b> (FTE – including visitors and contractors)	289,990	10,080	68,334,893	👤👤👤👤
<b>Office space</b>	68,334,893m <sup>2</sup>	-	168,334,893m <sup>2</sup>	🖥️🖥️🖥️🖥️
<b>No. of Sites/Land estate</b>	4,000/240,000 ha	37/Not known ha	4,037/240,000 ha	🌐🌐🌐🌐🌐

## 2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

**Overall star rating**  
(performance against SOGE targets)



Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)
🟢	🟢	🟢	🟢	🔴	🟢	🟢	🔴	🟡	🟢	🔴

## Highlights

- Carbon emissions from offices were 11.6% lower than 1999/00 baseline levels. However, it is not clear how much of this decrease is a result of estate changes, and how much is due to performance improvements
- Energy use per m<sup>2</sup> was 28.6% lower than 1999/00 baseline levels – this was the strongest performance against this target of all departments, and was in excess of the 2010 target for a 12.5% reduction from the baseline
- Carbon emissions from administrative road-based travel were 8% lower than the 2005/06 baseline level. A wide-ranging reform to reduce expenditure on business travel contributed to this reduction
- MOD reported a 37.4% recycling rate, although data collection was poor so this may not reflect true performance. Future reported performance may differ as data collection improves
- The quality of the 175 SSSIs on the MOD estate is improving year on year, with 82% in target condition in England. However, the condition of SSSIs in Scotland, Northern Ireland and Wales was variable.

## Lowlights

- MOD was unable to provide waste arisings data for the 2004/05 baseline year, so performance against this target could not be established. MOD is undertaking a significant amount of work in this area, so reporting in future years should improve
- MOD only provided an estimate of water use. However, it is understood that improvements to the data collection process are in place, and that more accurate water data will be available in the future.

2006/07 performance against mandated mechanisms and supporting structures

Overall mechanisms rating



Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

## Highlights

- Sustainable operations targets were incorporated into the Permanent Secretary's performance agreement
- MOD started work on adopting the Carbon Trust's Energy Efficiency Accreditation Scheme, with a number of sites already accredited. MOD was looking to achieve accreditation across the whole estate by the end of 2009. The Department was working with the Carbon Trust to determine the scope for piloting the Carbon Management Programme across the whole of MOD
- Scored itself 8/10 on the extent to which sustainable development has been embedded into its operations
- Reported good performance against the Sustainable Procurement Action Plan (SPAP) Flexible Framework, achieving Level 1 in all five themes
- A sustainability appraisal was conducted for all four office relocations during 2006/07
- Participate in OGC's Property Benchmarking Scheme.

## Lowlights

- The coverage of EMS across the MOD estate was inconsistent across its 4000 sites, with only 17.7% of all sites covered. Progress was being made to expand the scope of the EMS, although this was constrained somewhat by the unique nature of the MOD estate and its staffing patterns. However, it has made extensive progress across the Army using innovative non-certified EMS models, and the vast majority (85%) of major sites are covered by an EMS. This covers their most significant sites in terms of environmental impact. The MOD set itself a target to have 100% of its sites covered by December 2008
- 22 of the 26 new build/major refurbishment projects had a BREEAM assessment during 2006/07, of which only 11 achieved the required rating.

## **The Ministry of Defence's commentary on its overall SOGE performance**

"The Armed Forces and civilians who work with them in MOD do a vital job defending the UK and its interests, and strengthening international peace and stability. They also provide search and rescue, explosive ordnance disposal and other important assistance UK-wide. With a large and diverse estate, as a large employer, and with a large procurement budget, we are committed to helping to deliver a low carbon, low waste, more water efficient

estate. New build and major refurbishments are incorporating innovative and sustainable solutions. We are on track to reduce our carbon emissions by 12.5% by 2010/11, and are working with our supply chains to reduce our carbon footprint. We are delivering improvements in water efficiency, and we are getting better at managing our waste. We continue to strengthen our links with local communities." – MOD.

# Office for National Statistics

## Departmental overview

The Office for National Statistics (ONS) is responsible for providing statistical and registration services. ONS has committed to taking steps to conserve resources, waste reduction and recycling, sustainable procurement, training and communicating to all staff.

**Executive Agencies reported on:** ONS does not have any Executive Agencies.

**NDPBs and other bodies reported on:** ONS does not have any NDPBs.

## Overall scale of operations

	Total	Summary
<b>Expenditure</b>	£196m	£
<b>Employees</b> (FTE – including visitors and contractors)	4,983	👤
<b>Office space</b>	74,591m <sup>2</sup>	💻💻
<b>No. of Sites/ Land estate</b>	6/15 ha	🌐

## 2006/07 performance against Sustainable Operations on the Government Estate (SOGE) targets

**Overall star rating**  
(performance against SOGE targets)



Climate Change and Energy				Sustainable Consumption and Production		Natural Resource Protection			Renewable Energy and CHP	
Reversing upward trend in carbon emissions	Carbon emissions from offices	Carbon emissions from road vehicles	Energy efficiency	Waste arisings	Recycling	SSSIs	Water consumption	Water consumption (new office builds or major refurbishment projects)	Electricity sourced from renewables	Electricity from Combined Heat and Power (CHP)
🟢	🟡	🟢	🟡	🟢	🟢	🟡	🟢	🟡	🟢	🔴

## Highlights

- Carbon emissions from administrative road-based travel had reduced by 8.2% against 2005/06 baseline levels. This was partly the result of a CO<sub>2</sub> reduction commitment from the Permanent Secretary, and a number of initiatives to reduce travel
- Waste arisings were 25.4% lower than 2004/05 baseline levels – in excess of the 25% target reduction by 2020. The 74.5% recycling rate was well in excess of the 40% target recycling rate for 2010
- Water use was 8.9% lower than the 2004/05 baseline level
- 24.4% of ONS's electricity was from renewable sources – exceeding the 10% target which has been set for March 2008.

## Lowlights

- ONS did not derive any electricity from Combined Heat and Power
- Although carbon emissions from offices had decreased (2.4%) and energy efficiency had improved (9.2%) since 1999/00, a greater rate of change would be required over the next few years if ONS is to meet the 2010 SOGE targets for these themes. However, ONS reported that it would still meet these targets.

**2006/07 performance against mandated mechanisms and supporting structures**

<b>Overall mechanisms rating</b>	★ ★ ★ ★ ☆
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Application of BREEAM	Environmental Management Systems (EMS)	SPTF Flexible Framework	Sustainability Appraisals	Carbon Management Programme or EEAS	PUS performance objectives	'Operations' element of SDAP

**Highlights**

- Sustainable operations targets were incorporated into the Permanent Secretary's performance agreement, and those of its Senior Civil Servants
- 100% of staff and sites are covered by an EMS
- Scored itself 6/10 on the extent to which sustainable development has been embedded into its operations.

**Lowlights**

- While the ONS has signed up to the Carbon Trust's Energy Efficiency Programme, it has not reported the scope of this accreditation. ONS has not adopted the Carbon Management Programme at all
- ONS did not use the Sustainable Procurement Action Plan (SPAP) Flexible Framework to report progress on sustainable procurement
- Do not participate in OGC's Property Benchmarking Scheme.

**The Office for National Statistics' commentary on its overall SOGE performance**

"ONS is a small department going through a challenging period of modernisation, efficiency and relocation. In November 2005 the Chancellor of the Exchequer announced his intention to make statistics independent of government and ONS will become an independent body. In response to recommendations outlined in the Lyons report we have recently transferred our headquarters from London to Newport, South Wales and are in the process of relocating some 600 posts from London

to Newport. Despite these major organisational changes ONS continues to be among the leading departments in meeting the government's sustainability targets. We have embarked on an extensive programme of building modernisation and refurbishment, introducing many energy saving features. We expect to improve our performance substantially as we begin to realise the benefits of vacating ageing buildings and moving into more energy efficient offices." – ONS.



# Appendix B

## Sustainable Operations on the Government Estate (SOGE) framework

In 2006, government developed a new framework for assessing the sustainability of its own operations – the Sustainable Operations on the Government Estate (SOGE) framework. This replaced the 2002 Framework for Sustainable Development on the Government Estate (SDGE). The SOGE framework consists of three elements:

- **SOGE targets** – 14 outcome-orientated performance targets to support delivery of three of the four UK sustainable development strategy’s shared priority areas for immediate action.<sup>66</sup> In addition, two targets have been carried forward from the former SDGE framework, as target dates had not been reached. These targets relate to acquiring electricity from renewable and combined heat and power sources
- **Eight ‘Government to Mandate’ requirements** – covering mechanisms that

departments should adopt to help deliver the SOGE targets, improve data collection and reporting, and broaden out the targets. One of the eight requirements was to mandate “accepted elements from the Sustainable Procurement Task Force National Action Plan”, as subsequently published in the SPAP

- **Commitments from Annex B of the SPAP** – covering leadership and accountability on sustainable procurement; budgeting and accounting practice; building capacity; raising standards; and supplier engagement.

The first two elements applied to the reporting period April 2006 to March 2007; and the third became applicable on publication of the SPAP in March 2007

The full list of SOGE requirements is provided in Tables B.1 - B.3, mapped against the former targets from the SDGE Framework.

**Table B.1** SOGE targets – Performance focussed targets mapped to former framework targets

Theme	SOGE targets	Previous SDGE Targets
Climate change and energy	Carbon emissions from offices	
	Reverse the current upward trend in carbon emissions by April 2007.	N/A
	Reduce carbon emissions by 12.5% by 2010-11, relative to 1999/00 levels.	Government departments to reduce absolute carbon, from fuel and electricity used in buildings on their estate by 12.5% by 2010/11, relative to 1999/00.

Theme	SOGE targets	Previous SDGE Targets
<b>Climate change and energy</b>	Reduce carbon emissions by 30% by 2020, relative to 1999/00 levels.	
	<b>Carbon emissions from road vehicles</b>	
	Reduce carbon emissions from road vehicles used for government administrative operations by 15% by 2010/11, relative to 2005/06 levels.	Reduce road transport vehicle CO <sub>2</sub> emissions by at least 10% by 31 March 2006 (against a baseline year of 2002/03), to be achieved through any combination of three options: Reducing total business vehicle mileage; improving the average fuel efficiency of vehicles and; or reducing total fuel consumed.
	<b>Carbon Neutral</b>	
	Central government's office estate to be carbon neutral by 2012.	N/A
	<b>Energy Efficiency &amp; Renewables</b>	
	Departments to increase their energy efficiency per m <sup>2</sup> by 15% by 2010, relative to 1999/00 levels.	Government departments to increase the energy efficiency of the buildings on their estate, measured in terms of kWh of 1) fuel and 2) electricity use per square meter of building floor area,67 or estate area, by 15% by 2010/11 relative to 1999/00.
	Departments to increase their energy efficiency per m <sup>2</sup> by 30% by 2020, relative to 1999/00 levels.	
	<b>Existing Sustainable Operational Commitments (to continue until completion)</b>	
	Departments to source at least 10% of electricity from renewables (31 March 2008)	Government departments are required to source at least 10% electricity from renewable sources by 31 March 2008 (2010 for the MOD). This will be measured by kilowatt hours for: Purchasing of renewable electricity; and self-generation of renewable electricity (excluding CHP).
	Departments to source at least 15% of electricity from Combined Heat and Power (2010)	Source at least 15% electricity from Good Quality Combined Heat & Power by 2010 (with allowances for departments that already purchase 100% renewable energy).

Theme	SOGE targets	Previous SDGE Targets
<b>Sustainable Consumption and production</b>	<b>Waste arisings</b>	
	<p>Departments to reduce their waste arisings by 5% by 2010, relative to 2004/05 levels.</p>	<p>From the date that total site arisings have been calculated, departments should reverse the upward trend in waste arisings, through progressive reduction by at least 1% per annum in total waste arisings generated, and where possible extend this to each type of waste arisings generated. For those departments that currently have no waste arisings data, site data must be circulated by December 2006 and reported on in the following period. The D2 Target requires departments to measure and obtain a figure for waste arisings from a site. Put in place monitoring programmes incorporating comprehensive data collection methods for identifying and quantifying waste arisings in line with the timescales adopted in departmental strategies.</p>
	<p>Departments to reduce their waste arisings by 25% by 2020, relative to 2004/05 levels.</p>	
	<b>Recycling</b>	
	<p>Departments to increase their recycling figures to 40% of their waste arisings by 2010.</p>	<p>The target for D4 is that as soon as recycling/composting figures from Target D2 have been established at a site or a unit of establishments, departments should increase these rates by at least 5% per annum with the aim of reaching 75% recycling/composting rate overall. Where possible this should be extended to each type of waste arising generated.</p>
	<p>Departments to increase their recycling figures to 75% of their waste arisings by 2020.</p>	

Theme	SOGE targets	Previous SDGE Targets
<b>Natural resource protection</b>	<b>Biodiversity</b>	
	<p>Departments to meet or exceed the aim of having 95% of Sites of Special Scientific Interest (SSSIs) in sole ownership or control in target condition by 2010.</p>	<p>The H4 target requires departments that own SSSIs to achieve at least 68% 'favourable' or 'unfavourable recovering' conditions status on sites by 2006, and 95% by 2010. 'By 2006' has been interpreted as being by 1 January 2006.</p>
	<b>Water consumption</b>	
	<p>Reduce water consumption by 25% on the office and non-office estate by 2020, relative to 2004/05 levels.</p>	<p>Reduce water consumption in office buildings where the department is the sole occupier or is billed for water services to an average of 7.7m<sup>3</sup> per person per year by 31 March 2004; and to 7 m<sup>3</sup> per person per year for all new buildings and major refurbishments where design commences after 2002.</p>
	<p>Reduce water consumption to an average of 3m<sup>3</sup> per person/year for all new office builds or major office refurbishments. (1)</p>	<p>N/A</p>

(1) This will be a one off assessment for the first year of occupancy.

**Table B.2 SOGE Government to Mandate requirements mapped to former SDGE Requirements**

Government to mandate	Previous SDGE target
Departments to adopt the Carbon Trust's Carbon Management Programme – involves the proactive management of the risks and opportunities relating to climate change mitigation. (1)	
The application of BRE's Environmental Assessment Method (BREEAM) excellent standards, or equivalent, to all new builds and major refurbishments. (2)	Departments will incorporate a full range of sustainable development considerations into all new build and major refurbishment construction projects where design commences on or after 1 December 2005. These projects should incorporate the targets and principles laid out in the government's Common Minimum Standards for the Procurement of Built Environments, and follow the guidance laid out in the OGC Achieving Excellence in Construction Guide 11: Sustainability.
Accepted elements from the Sustainable Procurement Task Force National Action Plan.	<p><b>F1 Sustainable Procurement</b> Departments were required to draw up a Sustainable Procurement Strategy or review that already in place by 1 December 2005.</p> <p><b>F2 Environmental Clauses</b> Where legitimate and in accordance with the Joint Note on Environmental Issues in Purchasing, departments must include clauses relating to environmental considerations in all contracts for goods, works and services. These clauses should be for the life of the contract and ensure compliance of the product or service with other sections of the Framework. This target applies to all contracts including partnership contracts. When developing contracts, departments should include the principles laid out in relevant documents.</p> <p><b>F3 Training</b> Departments should develop and implement appropriate training and awareness programmes on sustainable procurement for procurement staff, senior management and other staff with responsibility for procurement.</p>
OGC's Property Benchmarking Scheme – aimed at improving the efficiency and effectiveness of corporate estate management. (3)	N/A
Departments to work towards an accredited certified environmental management system (EMS) such as ISO1401 or EMAS. (4)	<p>There are two different time-scales set depending on the type of estate:</p> <p>For mainly office-based estates: All main offices (more than 50 staff) – EMS required by 31 March 2004 All other offices/sites (including mixed and non-office sites) by 31 March 2006</p> <p>For mixed and non-office estates: 40% estate should be covered by 31 March 2004 80% estate should be covered by 31 March 2006</p>
Data collection and reporting – identification of core data to be reported against the new targets.	By April 2003, all departments should have had arrangements in place to report publicly on their sustainable development impacts and to verify their performance data.

Government to mandate	Previous SDGE target
All departments to encourage staff to take an active role in volunteering in the community.	
All departments to conduct sustainability appraisals of office relocations.	Departments must draw up a strategy by 31 March 2006 that sets out how it will identify, assess and monitor significant social impacts that arise from the management of its land, building and operations. This strategy should include procedures to ensure that proposals to significantly change the management of land and buildings take account of potential impacts on staff and communities. Strategies should be published on departmental websites.

- (1) Those departments which have signed up to the Carbon Trust's Energy Efficiency Programme would be viewed as having fulfilled this requirement.
- (2) In conjunction with BREEAM guidance, departments are to define what constitutes new build and major refurbishment for their own estate. An environmental assessment process such as BREEAM or an equivalent (e.g. CEEQUAL, DREAM etc.) appropriate to the size, nature and impact of the project must be carried out on all projects. Where BREEAM is used, all new projects are to achieve an "excellent" rating and all refurbishment projects are to achieve at least a "very good" rating, unless site constraints or project objectives mean that this requirement conflicts with the obligation to achieve value for money. Where an alternative environmental assessment methodology is used, projects should seek to achieve equivalent ratings.
- (3) The scheme is already collecting data on a government building by building basis – consideration will need to be given how the new targets' data should be collected to avoid duplication of effort.
- (4) This does not mean departments must replace their existing EMS. Departments can decide whether to implement an accredited certified EMS for their whole estate, or in selected buildings only.

**Table B.3 Sustainable Procurement Action Plan (SPAP) commitments**

SPAP targets
<b>Leadership and accountability</b>
Permanent Secretaries are accountable for their department's overall progress and for ensuring, from 2007/08 onwards, key staff in their departments have performance objectives and incentives that drive the implementation of this plan, linked to performance objectives for delivering efficiency savings.
<b>Budgeting and accounting practice</b>
Where responsibility for capital and revenue budgets is divided between different organisations, sponsoring departments will review budgeting arrangements and performance frameworks to ensure any barriers to choosing sustainable solutions are resolved. In addition, where departments believe an upfront cost constraint prevents them from choosing the most sustainable option, they may raise this with the Treasury.
<b>Building capacity</b>
Departments to set out the actions they are taking to ensure procurement practice helps to achieve their sustainable operations targets in their departmental Sustainable Development Action Plans.
Government encourages organisations to make full use of the Task Force flexible framework where it helps improve procurement practice and achieve sustainability targets while OGC are developing a new detailed procurement framework.

## SPAP targets

### Raising Standards

Departments/OGC to take action in respect of central government contracts to meet updated and extended mandatory standards.

Existing contracts will be updated as soon as is practical.

New contracts will be required to meet these standards.

Steps will be taken to remove offers that fall below these standards from framework agreements within 12 months (where permissible under existing contract terms).

Departments will make use of pan-government collaborative contracts in key areas to achieve compliance.

New government contracts, where relevant, will include appropriate requirements for suppliers and sub-contractors to provide products and services that comply with agreed mandatory standards and assist in the delivery of departmental sustainable operations targets.

From 1 April 2009, only timber and timber products originating either from independently verified legal and sustainable sources or from a licensed FLEGT partner will be demanded for use on the government estate – appropriate documentation will be required as proof. From 1 April 2015, only legal and sustainable timber will be demanded.

OGC will help departments achieve their sustainable operations targets through supporting the development of pan-government procurement of goods and services, required to meet the sustainable operations targets.

### Market engagement and capturing innovation

OGC and government departments will work together to strengthen their strategic engagement with key sectors to ensure key suppliers have plans in place to lower their carbon footprint and that of their supply-chains.

# Appendix C

## Key steps in the project

This section outlines the key steps in the project, as illustrated in Figure C.1.

Figure C.1 Project approach

<b>Project inception</b>	Entec re-commissioned Feedback workshop from SDiG 2006 Initial approach designed Re-baselining process undertaken with departments
<b>Questionnaire development and agreement</b>	New question set devised and consulted upon Online questionnaire developed and tested Questionnaire workshops held with BRE
<b>Data submission and clarification</b>	Online questionnaire launched Questionnaire data submitted by departments Energy data submitted and processed by BRE Initial data checked and clarification process undertaken
<b>Data analysis</b>	Data analysis undertaken and initial analysis consulted upon Full analysis undertaken
<b>Reporting</b>	Entec report to SDC SDC draft full report

### 1. Project inception

The release of the new SOGE targets in June 2006 meant the question-set needed redesigning to take the changes into account. Consideration of how best to create a framework whereby Executive Agencies and NDPBs could be added over time was also required. To ensure consistency for the departments it was decided to make the process as similar as possible to the 2005/06 process. Entec were re-commissioned to develop the questionnaire and reporting tool, analyse the responses and report to the SDC on their findings.

A workshop was held by the SDC on 29 March to allow department representatives to provide feedback on previous years' reporting processes. This informed the approach taken this year.

Departments were given the opportunity to provide alternative baseline data where their data collection systems have changed or the scope of the data has changed. There are also cases where departments have provided a description of how baselines may no longer be accurate due to changes in their estates.

### 2. Questionnaire development and agreement

The questionnaire was developed through consultation between SDC, Entec and the departments themselves. The aim was for the questions to be as consistent as possible with the previous year's questionnaire, but less onerous. They was also designed to allow departments to provide additional context where relevant. After a

brief consultation process in April 2007, a finalised version was sent to departments in Excel format, ahead of the launch of the online tool. This was to give departments more time with the data requirements, and to allow them to disseminate the questionnaire to their Executive Agencies and NDPBs as necessary.



An online data submission website was created based on a platform developed by the project subcontractors, iNOVEM, a software developer that specialises in online data collection systems. A screen-shot of the online questionnaire is shown in Figure C.2.

### 3. Data submission

The online questionnaire went 'live' on 21 May 2007. Entec provided assistance to the departments with regard to data submission. The deadline for data returns was 6 July 2007.

### 4. Data cleansing

An initial process of 'sense checking' and data verification was undertaken. This revealed a number of inconsistencies in data submitted across the government estate, and there were a number of cases where clarification was required from departments. In most cases these inconsistencies related either to discrepancies in reported baseline data or in the way that data had been calculated.

### 5. Analysis of data

An initial analysis of the data was undertaken, classifying data into the key SOGE target areas, as well as producing commentary tables on other target areas. This analysis was undertaken using a draft version of the performance assessment methodology which is described in more detail in Appendix D. This initial analysis was sent to departments for consultation and following this, the methodology was refined into the final version. A full analysis was subsequently undertaken.

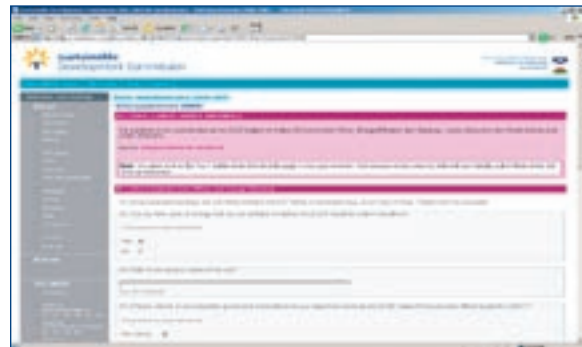
Data has been reported to the number of decimal places felt appropriate for that data set. Discrepancies between reported data and reported percentages will occur as raw data (not 'rounded' data) which has been used wherever possible.

### 6. Reporting

A report was produced by Entec for the SDC. This was used as a basis for the SDC's full SDiG report.

Two workshops were held in May 2007, and all departments were encouraged to attend. The aims were to allow government estate representatives to become familiar with the questionnaire, how it operated and how the data collection system worked. Departments were also encouraged to ask questions at this stage in the process.

**Figure C.2** Screen view of the questionnaire



Having received clarification on most queries, updates to the analysis spreadsheets were made. Following these updates, analysis tables for the final report were developed as well as charts to provide a graphical representation of the progress against different targets.

### 7. Limitations

The report provides an objective and independent assessment of performance against the SOGE targets. However, there are a number of factors to be considered when determining whether this represents a comprehensive assessment of the government estate's sustainable development performance.

The assessments made on departmental and therefore pan-government performance are only as accurate as the quality of the data that has been provided by departments in their returns. This is a broader issue relating to the SOGE reporting process and is discussed in more detail in the main report.

All findings are based upon the questionnaire, clarifications and requests for information. Our knowledge of particular departments has not been directly used in this assessment to ensure the maximum level of fairness and objectivity.

# Appendix D

## SDiG performance assessment methodology

### Methods of assessment

The report uses two illustrations of performance assessment: traffic light indicators and overall star ratings. The key findings based on this assessment are drawn out in Chapter 2 – Performance Assessment.

### 'Traffic light' indicators of performance

The scoring framework is outlined in Table D.1 below. Progress and scoring against each of the SOGE targets is based on four categories:

**Table D.1** Performance traffic light indicators

	'Excellent progress warranting recognition' which could mean a future target performance level has already been achieved.
	'Good progress' which is defined as being on track to hit the target.
	'Some progress' which recognises that some progress has been made, but is not sufficient to be on track to meet the target.
	'No progress or poor progress' where no progress or in our judgement only slight progress has been made. Red is also used where data was 'not known'.
	Not applicable

What constitutes 'excellent', 'good', 'some' or 'no/poor' progress is based on the degree of progress made against the target, considering where a department should be now if the outcomes required are to be achieved by the target date. The scoring

methodology is shown in Table D.2. The points awarded for each target area are added together to give an overall percentage of points scored, on which the star rating is based.

**Table D.2** Core assessment methodology

Target	"Excellent progress warranting recognition" = 1.2 points	"Good progress" = 1 point	"Some progress" = 0.5 points	"No progress / poor progress" = 0 points	Rationale
Reverse the current upward trend in carbon emissions by April 2007.*	N/A	Hit target*	N/A	Not achieved target	This target date has passed therefore good progress (0.5 points) if target achieved and 0 points if not achieved. Benchmarked against 99/00 this year due to lack of data for 05/06 and to best reflect that a 'trend' has been reversed.

\* The 'reversal in upward trend of carbon emissions' target is scored out of 0.5 points.

Target	<b>"Excellent progress warranting recognition"</b> = 1.2 points	<b>"Good progress"</b> = 1 point	<b>"Some progress"</b> = 0.5 points	<b>"No progress / poor progress"</b> = 0 points	Rationale
Reduce carbon emissions by 12.5% by 2010-11, relative to 1999-00 levels.	Carbon emissions down by 12.5% or more	Carbon emissions down by 8% - 12.4%	Carbon emissions down between 0.1% and 7.9%.	Carbon emissions equal or higher than 99/00 levels	Indication of progress determined by linear extrapolation for 2006/07. 11 years to hit target, approx 1.14 % per year linear. Seven years progressed, round up to 8%. Some reduction gains half point. If the target has been hit early a bonus will be applied.
Reduce carbon emissions from road vehicles used for government administrative operations by 15% by 2010/11 relative to 2005/06 levels.	Carbon emissions down by 15% or more	Carbon emissions down between 3% and 14.9%	Carbon emissions down between 0.1% and 2.9%	Carbon emissions equal or higher than 05/06 levels	Indication of progress determined by linear extrapolation for 2006/07. Linear scale of progress, 3% per year up to 2010/11. Some reduction gains half point. If the target has been hit early a bonus will be applied.
Central government's office estate to be carbon neutral by 2012.	N/A	N/A	N/A	N/A	Progress against this target has not been measured for 2006/07. The focus must be on reduction of emissions at this time. The target is discussed in more detail in section 4.4.
Departments to increase their energy efficiency per m <sup>2</sup> by 15% by 2010, relative to 1999/00 levels.	Energy use per m <sup>2</sup> down by 15% or more compared to 99/00 levels	Energy use per m <sup>2</sup> down between 10.5% and 14.9% compared to 99/00 levels	Energy use per m <sup>2</sup> down between 0.1% and 10.4% compared to 99/00 levels	Energy use per m <sup>2</sup> equal or higher than 99/00 levels	Target date defined as 31 March 2010. Indication of progress determined by linear extrapolation for 2006/07. 10 years to hit target, approx 1.5% per year for seven years = 10.5%. Some efficiency gains half point. If the target has been hit early a bonus will be applied.
Departments to source at least 10% of electricity from renewables (by 31 March 2008).	50% or more of electricity sourced from renewable sources	More than 8.3% of electricity derived from renewable sources	5% - 8.3% of electricity derived from renewable sources	Less than 5% of electricity derived from renewable sources	Indication of progress determined by linear extrapolation for 2006/07 against a baseline of 2002/03. Some progress is defined as 5% and is consistent with the assessment for 2005/06. 50% renewables applied as the bonus threshold.

Target	"Excellent progress warranting recognition" = 1.2 points	"Good progress" = 1 point	"Some progress" = 0.5 points	"No progress / poor progress" = 0 points	Rationale
Departments to source at least 15% of electricity from Combined Heat and Power (by 2010). <i>Target is not applicable where greater than 85% is procured as renewable energy.</i>	15% of electricity generated from CHP (target achieved)	9.4% - 14.9% of electricity derived from CHP	5% - 9.3% of electricity derived from CHP	Less than 5% of electricity derived from CHP	Target date defined as 31 March 2010. Indication of progress determined by linear extrapolation for 2006/07. Some progress is defined as 5% and is consistent with the assessment for 2005/06. If the target has been hit early a bonus will be applied.
Departments to reduce their waste arisings by 5% by 2010, relative to 2004/05 levels.	Waste arisings down by 5% or more compared to 04/05 levels	Waste arisings down between 2% and 4.9% compared to 04/05 levels	Waste arisings down between 0.1% and 1.9% compared to 04/05 levels	Waste arisings equal or higher than 04/05 levels	Target date defined as 31 March 2010. Indication of progress determined by linear extrapolation for 2006/07 - 1% per year since 2004/05. Any overall reduction in waste risings is rewarded with half point. If the target has been hit early a bonus will be applied.
Departments to increase their recycling figures to 40% of their waste arisings by 2010.	Recycling rate of 40% or more	Recycling rate of 30-39.9%	Recycling rate of 20-29.9%	Recycling rate of less than 19.9%	Not a linear scale as there is no baseline year. Category boundaries determined by judgement reflecting on previous year's performance and understanding of what should be achievable. If the target has been hit early a bonus will be applied.
Departments to meet or exceed the aim of having 95% of SSSIs in sole ownership in target condition by 2010.	95% or more of SSSIs in target condition	Between 68% and 94.9% of SSSIs in target condition	Between 50% and 67.9% of SSSIs in target condition	Less than 50% of SSSIs in target condition	Not a linear scale as there is no baseline year. Good progress determined by previous framework target of 68%. If the target has been hit early a bonus will be applied. 50% cut off.

Target	"Excellent progress warranting recognition" = 1.2 points	"Good progress" = 1 point	"Some progress" = 0.5 points	"No progress / poor progress" = 0 points	Rationale
Reduce water consumption by 25% on the office and non-office estate by 2020, relative to 2004/05 levels.	Water consumption reduced by 12.5% or more compared to 2004/05 levels	Water consumption reduced between 3.3% and 12.4% compared to 2004/05 levels	Water consumption reduced between 0.1% and 3.2% compared to 2004/05 levels	Water use equal or higher than 2004/05 levels	Target date defined as 31 March 2020. Indication of progress determined by linear extrapolation for 2006/07 since 2004/05. 15 years to hit target, approx 1.6% per year for two years = 3.3%. Any overall reduction in water consumption is rewarded with a half point. If the target has been hit early a bonus will be applied. Excellent progress determined by being half way to 2020 target as longer term target.
Reduce water consumption to an average of 3m <sup>3</sup> per person/year for all new office builds or major refurbishment projects.	N/A	All new builds or major refurbishments achieving consumption of 3m <sup>3</sup>	N/A	All new builds or major refurbishments not achieving consumption of 3m <sup>3</sup>	This is a 'hit or miss' target. It is possible that a building may have come on line only a couple of months before April 2007 and therefore data may not be available to assess performance. Therefore for this target where a department has stated that the data is 'Not Known' it has been excluded from this assessment without penalty – i.e. considered as 'Not Applicable'. This target will be applied to 2006/07 new builds next year.

One target, the reversal of the upward trend in carbon emissions, has been given a half weighting of 0.5 points because of the uncertain definition of what constitutes meeting the target. This target will be assessed more fully for 2007/08 performance.

Additional bonus points, aside from those offered for 'excellent progress', are available for good

coverage, including that of any Executive Agencies, and for external verification of data as shown in Table D.3. These complement the performance assessment by recognising the importance of coverage in line with government's requirements. The verification bonus is available to encourage better data quality.

**Table D.3 Bonus points**

Bonus Area	Bonus	Rationale
Full coverage, including Executive Agencies (EAs)	Full coverage of core department and, where applicable, 100% coverage of EAs	0.5 point bonus if reporting full coverage of core department and, where applicable, 100% of EAs therefore applying the targets as mandated.
	80% coverage of EAs	0.25 point bonus if reporting 80% or more of EAs.
Verification	Independent verification of all data	1 point bonus for external verification to confirm that the data provided is accurate.

## 'Star Rating' of performance

The SOGE Performance 'Star Rating' indicates the progress made by departments against all 14 SOGE performance targets. It is based on the overall percentage of available target points achieved, as detailed in Table D.4.

Table D.4 Star rating scoring thresholds

Performance star rating	Definition	'Target points' includes a potential to score bonus points for very good performance over and above meeting the target.
	Less than 25% of target points	
★ ☆ ☆ ☆ ☆	25 – 39% of target points	
★ ★ ☆ ☆ ☆	40 – 54% of target points	
★ ★ ★ ☆ ☆	55 – 69% of target points	
★ ★ ★ ★ ☆	70 – 84% of target points	
★ ★ ★ ★ ★	85% or more of the target points	

## Traffic light indicators for mechanisms to deliver sustainability

In addition to the key 'outcome driven' SOGE targets, there are a number of mechanisms and supporting processes which the UK government has mandated departments to implement in order to support delivery of the sustainable operations targets. The SDC has assessed the extent to which departments are utilising these mechanisms, to gauge compliance with government requirements,

but more importantly to establish whether departments are using the tools they have at their disposal to enable them to achieve future performance improvements.

The scoring framework is outlined in Table D.5 below. Progress and scoring against each of the mechanisms/supporting processes is based on three categories shown in Table D.6 below.

Table D.5 Mechanisms – Traffic light indicators

	Mechanism is fully achieved.
	Mechanism is partially achieved.
	Mechanism has not been achieved.
	Not applicable

**Table D.6 Mechanisms scoring methodology**

Mechanism	"Good progress" = 1 point	"Some progress" = 0.5 points	"No progress or poor progress" = 0 points	Rationale
Application of BREEAM 'excellent' standards or equivalent to all new buildings, and 'very good' or 'excellent' for major refurbishments. Source: SOGE framework.	100% of projects achieving appropriate BREEAM standard	80 - 99% of projects achieving appropriate BREEAM standard	Less than 80% of projects achieving appropriate BREEAM standard	These percentage thresholds are consistent with those used for the comparable target last year.
Conduct sustainability appraisals of all office relocations. Source: SOGE framework.	100% of relocations with sustainability appraisals conducted	80-99% of relocations with sustainability appraisals conducted	Less than 80% of relocations with sustainability appraisals conducted	These percentage thresholds are consistent with the approach for BREEAM assessments for office relocations.
Adopt the Carbon Trust Carbon Management Programme (CMP) or Energy Efficiency Programme (EEP). Source: SOGE framework.	Adopted Carbon Trust CMP or EEP with broad coverage	Adopted CMP or EEP with limited coverage, and/or a commitment to broadly adopt programme in the near future	Poor coverage or no programme	This is a subjective judgement based largely upon information provided by departments in response to contextual questions. In general, broad coverage is defined as the vast majority or all of the estate. Limited coverage may be just one building (e.g. HQ) or one part of department with clear omissions.
Departments to work towards an accredited certified EMS i.e. ISO14001 or EMSAS. Source: SOGE framework.	80 - 100% staff or sites covered by EMS	50 - 79% staff or sites covered by EMS	Less than 50% staff or sites covered by EMS	The wording of this target is slightly different to previous years. As such, a sliding scale approach has been adopted to reflect this.
Government encourages the use of the Flexible Framework while OGC are developing a new detailed procurement framework. Source: Sustainable Procurement Action Plan (SPAP).	Progress to Level 1 'Foundation' across all five areas	Progress to Level 1 'Foundation' across three or more areas	Progress to Level 1 'Foundation' in up to 2 areas	This approach follows the Sustainable Procurement Task Force recommendation that departments reach Level 1 or above across the five themes of the Flexible Framework by April 2007. Some progress is subjectively set for three or four themes.
Permanent Secretaries are accountable for the departments' overall progress. Therefore they should have sustainability integrated into their operating objectives. Source: SDiG 2006 and SPAP.	PUS has sustainability written into performance agreement/contract	N/A	PUS does not have sustainability written into performance agreement/contracts	This was a key recommendation from last years Sustainable Development in Government 2006 report, and is important for the achievement of SPAP mandated elements now and in the future. While this mechanism is a yes or no question for departments, the SDC has made the assessment that this mechanism has been partially achieved across government
Self assessment rating on the extent to which sustainable development is embedded in the organisation's operations.	Rating of 6 or more against operations element of SDC progress report	Rating of 3 - 5 against operations element of SDAP progress report	Rating of 0 - 2 against operations element of SDAP progress report	Departments are required to develop and implement a Sustainable Development Action Plan (SDAP). Progress against SDAPs was reported by departments and a self-assessment rating of how well sustainable development has been embedded into operations was provided. Assessments were made on a scale of 1-10, and subsequently converted to traffic light equivalents. See Chapter 6 for further details.

**e. Mechanisms rating**

The overall performance of departments, in terms of the extent to which they are using the mandated mechanisms and achieving any standards required, is illustrated by the star ratings in Table D.7.

**Table D.7** Mechanisms scoring methodology

Mechanisms rating	Definition
	Less than 25% of target points
★ ☆ ☆ ☆ ☆	25 – 39% of target points
★ ★ ☆ ☆ ☆	40 – 54% of target points
★ ★ ★ ☆ ☆	55 – 69% of target points
★ ★ ★ ★ ☆	70 – 84% of target points
★ ★ ★ ★ ★	85% or more of the target points
There are no bonus points offered on mechanisms scores.	



# Appendix E

## Departmental scope

Department	EAs included	EA omissions	NDPBS included	NDPB omissions	Other organisations included
CLG	Planning Inspectorate (Office) Ordnance Survey (Office)- new inclusion Fire Service College (Non- office) Queen Elizabeth Conference Centre (Non-office)	None	Audit Commission English Partnerships Valuation Tribunal Service	Advisory Panel on Beacon Councils, Advisory Panel on Standards for the Planning Inspectorate, Building Regulations Advisory Committee, Community Forum, National Housing and Planning Advice Unit, Women's National Commission, Community Development Foundation, Commission for Equality and Human Rights, Firebuy, Housing Corporation, Residential Property Tribunal Service, Architects Registration Board, Urban Development Corporations, Standards Board for England, Lease Advisory Service, Independent Housing Ombudsman, Housing Action Trust Stonebridge.	The regional Government Office Network
CO	N/A	Central Office of Information (only included in energy return)	N/A	N/A	N/A
DCA	Land Registry, National Archives, Tribunals Service, HMCS, Scotland and Wales Office	None	None	There is no reporting pattern/system in place for NDPBS	There is no reporting pattern/system in place for "other" organisations.
DCMS	The Royal Parks The eight London Royal Parks (Bushy, Greenwich, Hyde, Kensington, Regent's (with Primrose Hill), Richmond, St James's and Green Park) are all covered by this response and the EMS. Brompton Cemetery, Grosvenor Square Gardens and Victoria Tower Gardens are also covered by the scope.	None	N/A	All	N/A

Department	EAs included	EA omissions	NDPBS included	NDPB omissions	Other organisations included
Defra	Centre for Environment Fisheries and Aquaculture Science (CEFAS) Central Science Laboratories (CSL) Pesticides Safety Directorate (PSD) Rural Payments Agency (RPA) Veterinary Laboratories Agency (VLA) Veterinary Medicines Directorate (VMD) State Veterinary Service (SVS) - became Animal Health (AH) from 01/04/07 Marine Fisheries Agency (MFA) - became Marine And Fisheries Agency from 01/04/07 Government Decontamination Service (GDS)	N/A	Environment Agency (EA) Joint Nature Conservation Council (JNCC)	NK	N/A
DfES	N/A	N/A	None	BECTA, CAF/CASS, C Skills, ECITB, HEFCE, IIP, LSC, NCSL, 11m (Office of the Children's Commissioner), OFFA, PFS, QCA, QIA, SFT, SLC, SODA, TDA.	
DFID	N/A	N/A	N/A	N/A	N/A

Department	EAs included	EA omissions	NDPBS included	NDPB omissions	Other organisations included
DfT	Driving Standards Agency (DSA) Driver & Vehicle Licensing Agency (DVLA) Government Car & Despatch Agency (GCDA) Highways Agency (HA) Maritime & Coastguard Agency (MCA) Vehicle Certification Agency (VCA) Vehicle & Operator Services Agency (VOSA)	None	N/A	Passenger Focus Trinity House Lighthouse Service Northern Lighthouse Board British Transport Police	N/A
DH	NHS Purchasing & Supplies Agency (NHS PASA) Medicines & Healthcare Products Regulatory Agency (MHRA) (only waste, procurement. Energy/water are paid to private sector landlord as part of facility charge. Transport data (apart from air travel) not available.	Minor MHRA offices - minor occupiers, data not available Wheelchair Evaluation Centre (MHRA) - data not available (only 9 staff).	None	Council for Healthcare Regulatory Excellence (CHRE) Commission for Patient & Public Involvement in Health (CPPiH) General Social Care Council (GSCC) Monitor Appointments Commission (AC) Postgraduate Medical Education & Training Board (PMETB) Commission for Social Care (CSCI) Healthcare Commission (HC) Human Fertilisation & Embryology Authority (HFEA) Health Protection Agency (HPA) Human Tissue Authority (HTA) National Institute for Biological Standards & Control (NIBSC) National Patient Safety Agency (NPSA)	Special Health Authorities: Health & Social Care Information Centre (HSCIC) NHS Business Services Authority (NHS BSA) NHS Direct (NHS D) NHS Professionals (NHS P) Mental Health Act Commission (MHAC) NHS Blood & Transplant (NHS BT) National Institute for Health & Clinical Excellence (NICE) National Treatment Agency for Substance Misuse (NTA) NHS Institute for Innovation & Improvement (NHSII) NHS Litigation Authority (NHS LA)

Department	EAs included	EA omissions	NDPBS included	NDPB omissions	Other organisations included
DTI	NWML, Companies House, Insolvency service, Intellectual Property Office	NPL	NK	A number of NDPBs have been included in the core data though more than 70 NDPBs have not been included at all	
DWP	Job Centre Plus (JCP), Disability and Carers Service (DCS), The Pensions Service (TPS), Child Support Agency (CSA). However data other than staffing is not kept separately for these agencies and they have therefore been included in the 'Core'.	The Rent Service	Health and Safety Executive - although data has only been included where it is available and robust.	Health and Safety Laboratories, which is an executive agency of the HSE.	N/A
EGGD	N/A	N/A	N/A	N/A	N/A
FC	Forest Enterprise England Forest Research	Forest Enterprise Wales Forest Enterprise Scotland	NK	NK	N/A
FCO	FCO Services and Wilton Park. FCO Services data is included within the Core Department data. Wilton Park, as a stand alone conference centre, reports separately under the EA sections in this questionnaire.	None	N/A	British Association for Central and Eastern Europe (BACEE), British Council, Great Britain-China Centre (GBCC), Marshall Aid Commemoration Commission (MACC), Westminster Foundation for Democracy (WFD), Diplomatic Service Appeal Board (DSAP), The Government Hospitality Advisory Committee for the Purchase of Wine, Wilton Park Academic Council, Foreign Compensation Commission	N/A
FSA	None	One	N/A	N/A	N/A
HMRC	Valuation Office Agency	None	N/A	N/A	N/A

Department	EAs included	EA omissions	NDPBS included	NDPB omissions	Other organisations included
HMT	UK Debt Management Office (EA), OGC (Department), OGC Buying solutions (EA of OGC), Government Actuary's Department (Department), National Savings and Investments (EA), Royal Mint (EA). There are contributions from all the above organisations, but not on all questions given this is the first year of reporting.	ONS are not included here, but will report separately	N/A	N/A	N/A
HO	Prison Service Identity and Passport Service	Criminal Records Bureau	None	All	N/A
LOD	N/A	N/A	N/A	N/A	The LOD comprises: the Attorney General's Office (AGO), Crown Prosecution Service (CPS), Her Majesty's Crown Prosecution Service Prosecution Service Inspectorate (HMCPIS), Revenue and Customs Prosecutions Office (RCPO), Serious Fraud Office (SFO) and Treasury Solicitors (TSol). Each of these departments have office sites.

Department	EAs included	EA omissions	NDPBS included	NDPB omissions	Other organisations included
MOD	<p>Army Base Repair Organisation</p> <p>Meteorological Office</p> <p>UK Hydrographic Office</p> <p>Defence Science and Technology Laboratory (DSTL)</p>	<p>Defence Aviation Repair Agency (DARA)</p>	N/A	All	<p>All UK based operations are included.</p> <p>Army overseas estate Germany - accounts for 25% of the Army (not MOD). Data reported on energy, waste and recycling, CHP, renewables, BREEAM and the MOD equivalent DREEM, and sustainability appraisals.</p> <p>Data reported on energy for estates in Belize, Brunei, Canada, Nepal and Kenya.</p> <p>Permanent Joint Head Quarters overseas sites not included.</p>
ONS	N/A	N/A	N/A	N/A	N/A

# Appendix F

## Context

These context statements have been provided by departments.

### 1. Scope/general

**DWP** – The Rent Service will be moving to the Valuation Office (part of HMRC) in 2009. Due to this shift in their priorities, the Rent Service have been unable to collect or provide accurate data for this year and the priority shift will continue as the agency approaches its transfer date and staff resources are diverted to other duties. Whilst the Rent Service continues to actively support sustainable development principles, they will not be devoting resources to collecting data to substantiate this commitment.

**DWP** – An energy consumption campaign has been launched in the largest 300 buildings. Results for the first quarter of 2007/08 show an average reduction across the regions of 15%. This fantastic result shows that significant savings in energy and carbon are achievable, with the right approach.

### 2. Carbon emissions from offices

**DCA** – The recent changes in the estate with the final migration of the Magistrates Courts to DCA's monitoring system means that the work undertaken to meet carbon and energy targets are not adequately reflected when compared against previous years' performance.

**DCMS** – The baseline year for the Executive Agency (Royal Parks) is 2006/07.

**DFID** – The main office in London moved to a larger refurbished building in December 2001. The East Kilbride office was also refurbished and an additional annex built during the period 2001-2004. Data prior to 2003/2004 is therefore not comparable to current data. During 2006/07, DFID has introduced a number of measures to reduce energy use.

**HO** – There will be some difference in baseline (1999) and 2006 figures that can be attributed to the addition of the National Probation Service (NPS) to the HO estate after the baseline year. This has been a very large increase to their portfolio.

It should also be noted that the NPS will disappear from the HO return next year and resurface with the Ministry of Justice. The Department did not take part in the re-baselining process.

### 3. Energy efficiency in offices

**DCA** – The recent changes in the estate with the final migration of the Magistrates Courts to DCA's monitoring system means that the work undertaken to meet carbon and energy targets is not adequately reflected when compared against previous years' performance.

**DCA** – The introduction of more IT equipment has increased the energy consumption of our sites, especially the courts.

**ECGD** – The deterioration of energy efficiency performance when measured according to floor area can be partially attributed to the reduction in overall floor space due to the closure of the Cardiff office.

**HMT** – The target is difficult to achieve due to the Department's estates rationalisation policy; staff density has increased whilst floor space has changed very little.

**DFID** – The main office in London moved to a larger refurbished building in December 2001. The East Kilbride office was also refurbished and an additional annex built during the period 2001-2004. Data prior to 2003/2004 is therefore not comparable to current data. During 06/07, DFID has introduced a number of measures to reduce energy use.

### 4. Renewable energy and CHP

**ECGD** – Although the Department has signed up to the CHP target, with less than 250 staff, ECGD states that the capital investment involved in building a CHP unit is most likely to be impracticable, and the Department also does not own its own building which makes achieving this target more difficult.

**HMT** – The Department’s heating is sourced from the Whitehall District Heating System (WDHS), which is itself powered by CHP.

**DFES** – The Department’s current strategy is to source 15% electricity from an off-site CHP and review the feasibility of producing electricity from on-site CHP within any new building projects.

**MOD** – The MOD timeframe for sourcing electricity from renewable sources is 2010.

## 5. Carbon emissions from road based transport

**Defra** – Carbon emissions from road vehicles are based upon administrative and operational mileage for the core Department and its Executive Agencies.

**HO** – The large increase in emissions may be partially attributable to a significant amount of 2005/06 travel data being missing, and when the new accounts system was introduced that year people initially miscoded data. There was more vigilance over coding during 2006/07. HO plans to take the opportunity to re-baseline next year.

## 6. Waste arisings

**DCMS** – The Department introduced a new waste management scheme in January 2007 at its Cockspur Street site. Plans are in place to roll this out across the remainder of the estate. As part of that process improved management information systems have been developed to provide better information on waste arisings.

**ECGD** – Departmental reorganisation meant a significant increase in office waste, including all those who left the organisation disposing of their personal papers. Separately, many files were destroyed which could possibly have been destroyed gradually over the previous three or four years.

**HMT** – The baseline may not be wholly representative due to the addition of OGC for the first time this year. HMT states that there are plans in place which are expected to show improvements in the future.

**MOD** – The increase in waste arisings may be partially attributable to improved coverage for waste data. The MOD states that a lot of work has been undertaken throughout the estate to reduce waste arisings over this reporting period and future performance is expected to be more positive.

## 7. Recycling

**DCMS** – The Department introduced a new waste management scheme in January 2007 at its Cockspur Street site. Plans are in place to roll this out across the remainder of the estate. As part of that process improved management information systems have been developed to provide better information on recycling.

**MOD** – Due to the poor coverage of data for waste and recycling, it should be noted that this is not necessarily the performance across the whole estate. Data coverage is improving.

## 8. Water consumption

**DCA** – The recent changes in the estate with the final migration of the Magistrates Courts to DCA’s monitoring system means that the work undertaken to meet water targets is not adequately reflected when compared against previous years’ performance.

**MOD** – During 06/07 the MOD consumed just under 24 million cubic metres of water. In the quarter 1 October to 31 December 2006, leakage levels were reduced saving 3 million cubic metres. A key factor under the AQUATRINE arrangements is that the risk allocation to the service providers includes the responsibility for managing leakage. Given that leakage represents input costs to the service providers (and not the Department), they are incentivised to undertake proactive leakage detection work in order to drive down leakage levels. Although using a figure of 24 million cubic metres for this year may show no change in consumption, for the reasons just stipulated the MOD is making progress on reducing its water usage.



## 9. Carbon Trust commitments

**ECGD** – The Carbon Trust has informed the Department that due to its funding arrangements, it is too small to participate. Whilst a paper based audit was undertaken by the Trust, it has been advised that it can go no further.

**HO** – The Department had previously met this commitment and so its achievement now was of low/limited priority, hence the lapse of funding.

## 10. BRE Environmental Assessment Method (BREEAM)

**FC** – BREEAM has been developed for new buildings in the urban environment. As all of FC's new builds are in a rural setting, the FC has been advised that this poses challenges for meeting the full excellence requirements of BREEAM. The FC is however negotiating with BREEAM to set an amended standard for new builds in the countryside.

**HMRC** – The Department reported two new builds (dog kennels) and twelve major refurbishments which did not present any opportunities for environmental improvements. HMRC were engaged with BRE on discussions about the type of capital works projects that we have been managing and reached an agreement earlier this year that BREEAM assessments were not appropriate for these projects.

**HO** – The majority of projects reported here were for the prison estate.

**MOD** – A BREEAM assessment is undertaken early in a project's life cycle, typically around the end of survey/beginning of design. The MOD undertakes several BREEAM assessments throughout the project's life, the first being required to be complete by the end of the survey stage. Additionally, not every project requires an assessment.

## 11. Environmental Management Systems (EMS)

**MOD** – Although the MOD has some 4000 sites, many of these are small locations including small military careers offices or very small Territorial Army units. The vast majority of major sites are covered by an EMS, with the Army (at around 85%) covering the most significant sites in terms of environmental impact. Given that proportionally the Army has a larger number of units than other Top Level Budgets (TLBs), this is evidence that EMS is widespread in terms of number of people and size of estate covered. Since the Army is not a static organisation, operational commitments have affected EMS roll-out in the Army and future implementation will be dependent on ops commitments. In 2006, the Army developed & launched its tailored activity-based EMS for Army Sites (EMSAS) tool to drive and manage EMS implementation. This may be of benefit to other government departments. A further barrier to 100% roll-out of EMS has been insufficient fully trained static environmental support staff, as EMS staff move off with their unit for an operation.

# Appendix G

## Changes to the estate 2006/07

Department	Estate changes as stated by the department
<b>CLG</b>	Core Department: Since Machinery of Government (MOG) changes and creation of Communities and Local Government, the Department has gained additional ex-Home Office staff in Eland House, as well as ODPM staff previously based at 26 Whitehall. Allington Towers, a new addition to the estate in 2005/06, has had additional staff with occupancy approximately doubling. Executive Agencies: No change. Other: Government Office Network: GO York and Humber vacated its previous buildings and now occupy Lateral House in Leeds, shared with Highways Agency. This is a new building with BREEAM excellent rating. NDPBs: Unknown.
<b>CO</b>	There have been no changes to the Cabinet Office estate in 2006/07. 7 St James's Square and Stockley House ceased to be part of the estate during 2006/07 but have been included for this questionnaire.
<b>DCA</b>	All Magistrates Courts have now been integrated into the energy and water reporting system. This has increased our utility consumption.
<b>DCMS</b>	In March 2006 one of our tenants, Johnson Matthey, vacated the fifth and sixth floors of our building at Cockspur Street. A major refurbishment plan of our building at Cockspur Street commencing April 2006 has led to an ebb and flow in occupancy rates as each floor is refurbished. The refurbishment project is part of the planned rationalisation of the estate. By June 2007, the Department will have vacated Grove House. Staff formerly at Grove House will occupy Cockspur Street (approx 105 people, a mixture of staff and contractors). The Department has one remaining tenant who occupies the 7th floor of Cockspur Street (749m <sup>2</sup> ). We have not been able to separate their usage for the purposes of this questionnaire. We recharge them at a rate of 6.9%. Royal Parks increased by two hectares from last year because the Victoria Tower Gardens have been included. The floor space has reduced because part of the Police Station in the Storeyard, Regent's Park, was demolished.
<b>Defra</b>	In October 2006, with the establishment of Natural England, the departmental estate increased by 31 operational office properties. There were no significant disposals during this period.
<b>DfES</b>	Major refurbishment project in our London offices in progress affecting over 50% of our estates utilities, occupation levels and waste arisings.
<b>DFID</b>	None
<b>DfT</b>	DfT has an additional branch, Rail Accident Investigation, within the core department and nine new builds have come online during the 2006/07 financial year.
<b>DH</b>	NHS PASA: Approximately 70 staff have transferred to the outsourced NHS Supply Chain operation. Some of these staff remain working from Agency premises in this financial year although in the long term it is planned that they will relocate to NHS SC sites.
<b>DTI</b>	The Department has as a part of its estate strategy let two floors of its Buckingham Palace Road site to an agency of DfES and has let out the entirety of 10/18 Victoria Street to various bodies from the Home Office. Whilst it reports on Buckingham Palace Road it is not including any data on 10/18 Victoria street as it does not control this building or its activities. There have been no significant changes to the Agencies' estates.

Department	Estate changes as stated by the department
<b>DWP</b>	The Appeals Service has now moved to the Department for Constitutional Affairs. Their departure will have had little impact on our performance as their staff are mainly in small teams, based in buildings where they are minor occupiers.
<b>ECGD</b>	None
<b>FC</b>	No significant changes to the estate affecting sustainable development performance.
<b>FCO</b>	None
<b>FSA</b>	None
<b>HMRC</b>	We are in the middle of a major Estates Consolidation Programme. In 2006/07 we closed 29 of our offices and gave up space in five others. In some cases staff have seen commuting distances and times increase but we do intend to ensure that the retained offices benefit from improved energy efficiency.
<b>HMT</b>	For core Treasury, the estates policy is to make the most effective use of space, which includes seeking tenants to take up office space. As of July 2006 the Treasury housed around 160 tenants. Higher occupancy puts pressure on targets such as energy efficiency, waste and water. There will be more pressure in the Autumn of 2007 when OGC staff, currently housed at another London site, move into 1 Horse Guards Road. While the combined location will be better for the environment overall, performance against targets for 1 Horse Guards will get worse due to there being more people in the building per square metre. We will seek to gain credit for the disposal of the OGC London site in next year's report.
<b>HO</b>	The Prison estate has expanded to cater for a rise in the prison population of 4.25% between 31 March 2006 and 31 March 2007. This has been done by building new accommodation at existing prisons and by acquiring land for new prisons. The increase in the landholdings has been offset by the farm modernisation programme under which some farmland has been disposed of. A bigger estate will result in a larger carbon footprint. For NOMS the estate management has transferred from NOMS (Non Custodial) to the new Shared Estates Service Centre, Home Office General Property. There is a transition period to affect this change which involves a complete management restructure and a tendering process to appoint new Facilities Management Contractors. For the present the existing FM contractors are still in place, but new contractors are expected to be appointed under different specifications towards the end of this calendar year. As a consequence it is extremely difficult to forward plan for environmental management of the estate. The Border and Immigration Agency (BIA) gained five new buildings in the reporting year. These add a further 12,400m <sup>2</sup> of floor space and a further 545 FTEs.
<b>LOD</b>	CPS, TSol and HMCPsi: None. SFO: Have continued to upgrade parts of Elm House and 200 Grays Inn Road. RCPO: Finished a refurbishment of its London offices; however the management of its estates is contracted within the HMRC estate and most information is included in HMRC figures. AGO: In 2006/07 AGO planned its move from Buckingham Gate to refurbished premises in May 2007. New sustainable development initiatives weren't set in place but are planned for the new premises.
<b>MOD</b>	None.
<b>ONS</b>	We vacated 4338m <sup>2</sup> of our central London site in April 2006. Our total staff FTE has reduced. This would have reduced energy and water consumption.

# Appendix H

## General BRE/energy related footnotes

This information has been provided by BRE.

**Table H.1** Baseline summary for carbon emissions from offices and energy efficiency

Department	Baseline (only departments who report all/part of their return from a different baseline year have been listed)
<b>CLG</b>	Baseline (Core Dept): 2002/03, EP: 2006/07
<b>CO</b>	Baseline (Emergency Planning College): 2003/04
<b>DCMS</b>	Baseline (Core Dept): 2002/03
<b>Dft</b>	Baseline: Corrected baseline from mixed years, depending on which year's data was more accurate and credible. For weather correction purposes, factor year is 2002/03
<b>ECGD</b>	Baseline: 2004/05
<b>FC</b>	Baseline: 2002/03
<b>FSA</b>	Baseline: 2001/02
<b>HMRC</b>	Baseline: 2000/01 for core, 2002/03 for VOA
<b>HMT</b>	OGC (EA) baseline: 2005/06
<b>HO</b>	Crown house (EA) baseline: 2001/02, Prisons Service: Newport (New site): Baseline 2006/07
<b>LOD</b>	Baselines: AGO, CPS, and TSOL: 2000/01, SFO & HMCPSI: 2001/02
<b>MOD</b>	Army (UK & overseas) baseline: 2000/01. CTLB & DE baseline: 2000/01. DLO baseline: 2001/02. PJHQ baseline: 04/05 (not reported 06/07)

### 1. CLG

Weather correction factors for the split baselines may differ from the previous one held, as more precise location identifications can be made. Originally, all consumption had been corrected to the England factor. The core baseline figures have now been corrected to the Thames Valley factor. The Planning Inspectorate (Bristol) as been corrected to the South West factor. The baseline factor for the Ordnance Survey is Southern and for the QE II Conference Centre is Thames Valley.

The baseline year is 2002/03 except for the Ordnance Survey and the QE II Conference Centre, where the baseline is 1999/00.

The baseline for English Partnerships is 2006/07

as this is the first year they report and no data for previous years is available. For the Audit Commission, the baseline year is 2005/06.

The baseline for the Government Office Network is 1999/00.

Although the Audit Commission forwarded a return, no actual figures were available as this is the first time they have reported their energy consumption. As the return included estimated data based on a sample of buildings, it could not be included on the calculation of results but it is hoped that actual consumption figures will be able to be collected for next year's return.

## 2. CO

CO's return includes consumption figures for the Central London Estate and The Emergency Planning College (both classified as "Core") and the Central Office of Information (classified as "Other"). Baseline figures for CO's Central London Estate and for the Central Office of Information are from 1999/00. The earliest data available for the Emergency Planning College was 2003/04.

Since the baseline year, the core estate has more than doubled in size from 31,009m<sup>2</sup> in 1999/00 to 65,483m<sup>2</sup> in 2006/07. Between 1999/00 and 2006/07 CO relinquished responsibility for a number of Executive Agencies. The baseline consumption figures have been amended this year to more accurately reflect changes in the composition of the Department since 1999/00.

The Central London Estate includes minor occupiers whose energy consumption is not sub-metered. The Central London Estate's energy consumption and floor area has been reduced by 11% to take into account the energy used by the minor occupiers (who occupy 11% of the floor area) to more accurately reflect the energy used by CO. Reductions have also been applied to baseline figures.

Three leased sites were excluded from the return as the utilities for these sites are paid for via the service charge and/or they could not get data on energy consumption.

## 3. DCA

DCA's core return includes consumption figures for their Headquarter estates and their EA return includes energy consumption from the HM Courts Service and Tribunals Service. It was not possible for DCA to supply a split baseline in time for this year's reporting deadline so it has only been possible to show progress at the total estate level.

As of the 1 April 2005, DCA and the HM Courts Service took over the running and maintenance of the Magistrates Courts from the Local Authorities. This has effectively doubled the size of their estate. It will be possible to get baseline figures for next year's reporting deadline but until then, it should be noted that the large increase in energy consumption since 2005 has been due to the acquisition of the Magistrates Courts.

## 4. DCMS

The reported progress against the baseline year may not fully reflect progress made within the Department. This is because there are known to be inaccuracies and omissions which are likely to have led to an under-reporting of energy consumption and carbon emissions in earlier years. DCMS have now reviewed their data collection process and, as a result, have brought their energy reporting in house, and plan to undertake an exercise to identify and correct errors in the baseline year. These activities should significantly improve the accuracy of reporting in future years.

## 5. Defra

Defra's core Department includes the main office estate and Defra labs (classified as non-office). Defra is reporting on one executive agency, The Rural Payments Agency, which is classified as office.

The Rural Development Service (RDS) became part of Natural England on 1 October 2006. Defra has retained ownership and responsibility for ex RDS buildings, so figures are still included in return.

## 6. DFID

DFID's main office in London moved to a larger refurbished building in December 2001. Their East Kilbride office was also refurbished and an additional annex built during the period 2001-2004. Data prior to 2003/04 is therefore not comparable to current data.

This year, DFID has introduced a number of measures to reduce energy use. These include more stringent management of heating controls, installing thermostats in the buildings so staff can see the rooms are at an optimum temperature, installing sub-metering on every floor in the East Kilbride office, installing louvre vents in some patch rooms and sticker/poster campaigns to remind staff to switch off.

The Victoria Street office was vacated in December 2006; the floor area for this site has been reduced pro rata.

DFID has signed up to the Carbon Trust Energy Efficiency programme and continues to work with the Carbon Trust to make further improvements to managing energy consumption, including the

implementation of renewable energy on site.

In October 2007 an error occurred in the weather correction factors applied for years 2002/03. This has now been corrected.

## 7. DfT

Changes to the original baseline have been applied when corrections to inaccuracies or missing data were identified by the Department.

## 8. ECGD

100% of ECGD's estate is classified as core. Harbour Exchange Square and Lambourne House (Cardiff) are identified as offices. Both these sites have/had office based functions as their main function. Lambourne Crescent (Cardiff) is identified as non-office. This is a file repository building. ECGD is not reporting on any EAs, NDPBs or Other Organisations.

2004 was the first year that ECGD reported and this has been used as their base year. The baseline data reported this year differs from the data previously reported. This is due to the better quality of data now received by ECGD and further in-depth analysis.

Due to internal reporting systems the data supplied refers to calendar years and not financial years.

ECGD is currently in discussion with British Gas to clarify a discrepancy in the gas meter readings from the Cardiff file repository. Despite no change to staffing levels or the function of the building, the meter readings for 2006 have increased significantly compared to the baseline reading for 2004. ECGD has asked British Gas to investigate, but their findings will not be available in time for this publication publishing of these figures.

The closure of Lambourne House, where ECGD had direct control over the purchase of renewable matched electricity, has led to a reduction in the overall percentage of renewable energy purchased, but it should be noted that the cause of this reduction was a consequence of the loss of office space and not a switch from renewable to grid electricity.

Similarly, the decrease in energy efficiency is related to gas per square metre, and the increase in the amount of fossil fuel per square metre is primarily the result of the release of office space that did not use gas, hence the gas consumed is now based on a significantly reduced floor space.

## 9. FCO

The FCO's core Department includes the FCO and one of its two Executive Agencies; FCO Services. This is because it was not possible to provide data separately as they share buildings in London and at Hanslope Park. The core estate is a mix of office and non-office. The other Executive Agency, Wilton Park, is reported separately. This is classified as non-office.

The baseline figures for the total estate differ from those used in the past. The new baseline includes the consumption from the Executive Agency Wilton Park. Wilton Park started reporting in 2001/02 therefore these figures have been used for its baseline. These baseline figures along with the existing core baseline figures now form the new total estate baseline.

The large reduction in gas usage in the core offices is due to the fact that all the vacated offices were heated by gas compared with the now occupied offices which are heated using the WDHS.

## 10. HMRC

As the floor area for the Valuation Office Agency (VOA) for the baseline year 2002/03 is not available, the energy efficiency target cannot be calculated. Due to the split of core versus Executive Agencies (VOA), no floor area for the core part is available for its baseline year of 2000/01, and energy efficiency targets can not be calculated separately.

## 11. HMT

The baseline year for the core is 1999/00. For OGC the baseline year is 2005/06.

The energy consumption figures for the OGC baseline year (2005/06) have been amended as it was found they were incorrectly reported last year.

## 12. HO

HMPs: The heat and electricity usage figures generated by the CHP plants at HMP Brixton and HMP Guys Marsh were not available as establishments did not provide the data. Therefore the consumption and emissions of the input fuel (natural gas) for the CHP plants have been incorporated into the analysis instead, having the effect of increasing the

results of emissions by fossil fuels and decreasing the results for Renewable Heat and Heat from CHP. A similar effect shows for Energy Efficiency. The Percent Electricity of CHP target would therefore also be affected, as the CHP usage from these plants is not reflected, showing a smaller percentage than it actually should be.

Due to the separate reporting for the first time this year of energy consumption from the HMPS Newport Offices, the baseline for this site is 2006/07, and has been added to the overall existing baseline. In real terms, the HMPS Newport offices have been created via transferring of existing functions partly from Home Office sites, and partly from HMPS sites (which may be categorised overall as non-office sites), whose baseline energy consumption has already been reported under each organisation in the past. Unfortunately, there was no time this year to address this complexity and identify and separate the baseline consumption from those functions which have now been transferred to the Newport offices and therefore the baseline consumption is somehow inflated; this needs to be taken into consideration when looking at this year's target results.

### 13. LOD

The Law Officers' Department comprises the Crown Prosecution Service (CPS), the Attorney General's Office (AGO) (previously the Legal Secretariat to the Law Offices), the Serious Fraud Office (SFO), the Treasury Solicitors (TSOL), HM Crown Prosecution Service Inspectorate (HMCPPI) and the Revenue and Customs Prosecution Office (RCPO). RCPO are located within HMRC's estate and therefore RCPO's energy consumption is included in their return.

AGO (previously LSLO), CPS and TSOL reported for the first time in 2000/01, therefore this is used as their base year. The SFO, however, has used 2001/02 as their base year due to problems with the data for previous years. 2006/07 is the first year HMCPPI has reported. The earliest year that HMCPPI consumption figures were available for was 2001/02 therefore this has been used as their base year.

AGO are currently investigating the reasons for the increase in gas use over the past year.

In December 2005, the SFO signed a lease for additional accommodation at 200 Grays Inn Road, London. This extra space was required to accommodate growth as well as provide decent space while Elm House was being upgraded.

In 2005/06, the Treasury Solicitors carried out a phased move between two buildings. For a large part of the year they were occupying both buildings. The move was complete by April 2006, explaining the large reduction in energy use this year in comparison to last. The floor area figure for 2005/06 has been revised. Last year the floor area figure quoted was for only one of the two occupied buildings. The floor area figure has been adjusted to take into account the period of the year that each building was occupied.

### 14. MOD

2003/04 was the first year for which floor area data was available; therefore this has been used as the base year for the comparison of energy consumption per unit floor area.

The energy efficiency target for the MOD has been calculated using 2003/04 as the baseline due to the lack of floor area data prior to this year.

The baseline for the Royal Navy and Royal Air Force is 1999/00 but floor areas are not available.

The baseline for the Army UK and Army Overseas is 2000/01 but floor areas are not available.

The baseline for the Central TLB (which includes the part now transferred to Defence Estates) and the Defence Logistics Organisation (DLO) is 2001/02 but floor area is not available.

The baseline for the Defence Procurement Agency (DPA) and the Defence Science and Technology Laboratory (DSTL) is 1999/00 but floor areas are not available.

The carbon target has been calculated for all sites, including offices and non-offices, as separate baselines are not available.

Some functions from the Army Mainland UK were transferred in 2006 to the newly created Defence Estates but as their baseline year consumptions cannot be identified and separated, these remain as part of the Army Mainland UK baseline. This could explain part of the decrease in consumption reported.

Energy generated from landfill gas in Germany has been assigned an emission factor of zero for consistency with the UK figures. This heat is bought in from Robert Bks CHP plant, Germany, which is on-site but not owned by the Army. It runs on landfill gas therefore the emissions factor is zero.

Defence Estates was created in 2006 and includes functions transferred from the Army and Central TLB, but split consumption from each part

to extract from each baseline (Army and Central TLB) could not be identified. Therefore, the Army baseline includes consumption from those functions which have now been transferred to Defence Estates, and therefore its consumption and target results appear smaller against this baseline than otherwise would be. Similarly, Central TLB includes in its baseline consumption for functions now part of Defence Estates. As CTLB and DE's consumption have been processed together and compared against the original CTLB baseline, the consumption and results will appear greater than they actually are, as Defence Estates 2006/07 consumption includes Army transferred functions not included in the original CTLB baseline. Both increase and decrease even out within the total results.

Carbon emissions for Defence Science and Technology Lab (DSTL) for 1999/00 and 2000/01 include emissions from what became QinetiQ when a substantial proportion of activities carried out by the former organisation Defence Evaluation and Research Agency (DERA), were transferred to the private sector in 2001/02. It is estimated that if carbon emissions from QinetiQ were removed from the baseline the change between 1999/00 and 2006/07 would be -7.7% as opposed to the -11.6% indicated above. (These figures exclude baseline emissions from Permanent Joint Head Quarters (PJHQ), as no emissions data was available for report in 2006/07). Furthermore, this would change the figure for the entire government estate from -4% to -0.7%."



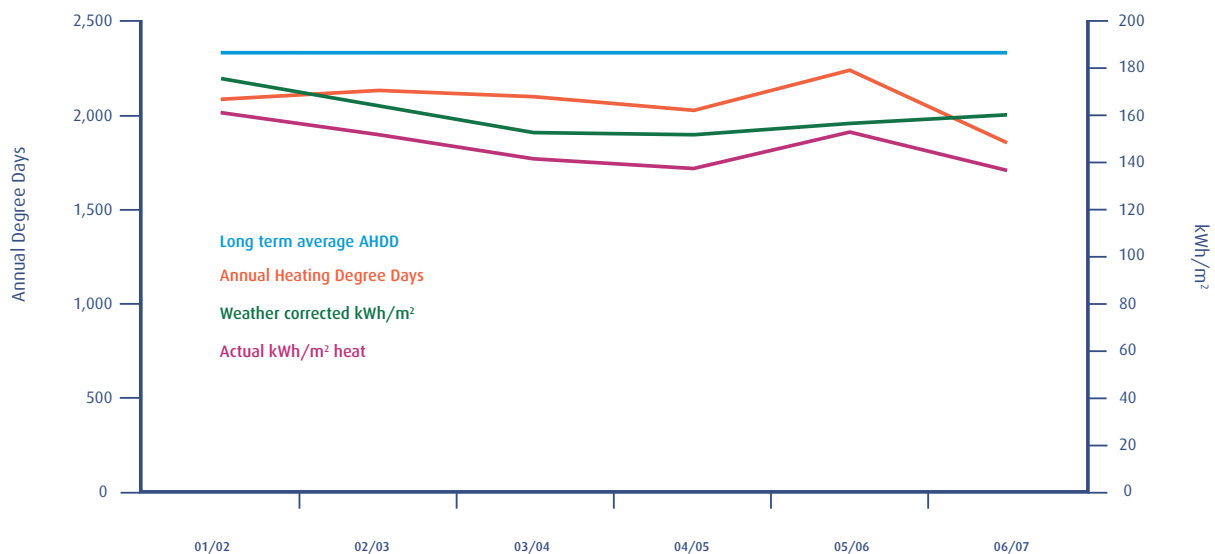
# Appendix I

## Weather correction of building energy consumption data by BRE.

One factor which can have a significant effect on the annual energy consumption of a building is the weather; in particular, the external temperature. In years where the winter is colder than normal, the heating energy consumption will tend to be higher. Conversely, when winters are milder, the annual energy consumption is likely to be lower than normal. So to compare the energy consumption of a building (or organisation) over time, it is desirable to adjust the heating energy consumption to exclude the effect of variations in the external temperature and so give a better reflection of changes in energy performance over time. This adjustment is achieved by applying a weather correction factor to the energy consumption data.

In recent years winters in the UK have tended to be milder than normal, and the winter of 06/07 was particularly warm. This has meant that, in many instances, whilst the actual energy consumption in 06/07 may have been lower than in previous years, the weather corrected values will show a level or increasing trend. The following chart shows the overall impact of weather corrected energy consumption for all the government departments and shows how the decrease in actual energy consumption per m<sup>2</sup> between 05/06 and 06/07, changes to a slight increase after the weather correction has been applied.

**Figure I.1** Annual Degree Days (UK) and fossil fuel heating energy consumption per m<sup>2</sup>



To compare the annual energy performance of government departments for the SOGE targets, a weather correction factor is applied to heating energy use which is based on heating degree days (HDD). Where the number of HDD is a measure of the amount of time, and by how much, the average temperature on a particular day (T<sub>mean</sub>) is below 15.5°C (the base temperature) and is described by the following formula:

$$HDD = 15.5 - T_{mean}$$

So for example, if the average temperature on one day is 10.5°C, then there are 5 HDD for that day. To get the annual heating degree days (AHDD) all positive values of HDD are summed for each day in the year.

The weather correction factor is then the number of HDD in a normal year divided by the number of HDD for that particular year.

$$\text{Weather Correction Factor} = \frac{\text{AHDD}(\text{normal year})}{\text{AHDD}(\text{year X})}$$

Multiplying the actual energy consumption by the weather correction factor provides a measure of what the energy consumption would have been in a year of normal weather. For the SOGE targets the AHDD for the normal year is based on the long term average value for 1971-1999, which is 2333.

So for example, in a year with 2250 annual heating degree days (AHDD), which is warmer than the long term average (2333 AHDD) a weather correction of 1.04 would be applied to the actual heating energy consumption. The weather corrected consumption will therefore be 4% higher than the actual consumption.

It would also be desirable to weather-correct electricity consumption for cooling energy use, as air conditioned buildings are likely to use more energy in years when the weather is warmer. However,

in the UK, cooling demand is largely driven by the amount of internal gains (heat generated by people and equipment within the building) and solar gains (sunlight) rather than by external temperature. As the relationship between external temperature and cooling is complex, this means that it will vary significantly from building to building and a simple adjustment factor based on cooling degree days alone is probably not appropriate. Additionally, electricity consumption for air conditioning would need to be separately reported in order to perform a meaningful correction. So, whilst it is desirable to adjust departmental energy consumption for cooling demand, it is not currently feasible. However, as more buildings in the UK are becoming air conditioned this issue warrants further investigation.

# Appendix J

## DfT guidance on defining administrative travel

The DfT provided guidance on the difference between operational and administrative operations as shown below:

The target typically covers all emissions arising from use of the following:

- a) fleet vehicles
- b) hire cars
- c) personal vehicles used for business travel (reimbursed by motor mileage allowance).

Administrative operations mean all normal, day-to-day activity but can exclude clear operational mileage. In cases of doubt, the default position is to include mileage into the administrative operations total. It is for departments to decide, and justify, any exception, using the examples below as a guide:

### **Example 1: Emergency search and rescue function**

The Maritime and Coastguard Agency is responsible throughout the UK for implementing the government's maritime safety policy. It works to prevent loss of life at the coast and at sea and operates a fleet of specialist search and rescue vehicles to enable it to fulfil this function. Given the clear operational function of the Agency and the lack of alternative delivery methods the above target will not apply but an appropriate, local target is under development.

### **Example 2: Ministerial transportation**

The Government Car and Despatch Agency (GCDA) drives Ministers and senior officials in GCDA vehicles. Travel by car is not necessarily the only means of travel and so all GCDA mileage is covered by the target.

### **Example 3: Staff travel to attend meetings, seminars and conferences**

Emissions incurred by vehicles used by staff whilst travelling to and from meetings, seminars and conferences using any of the above methods are expected to be reported on by departments, and reductions sought.

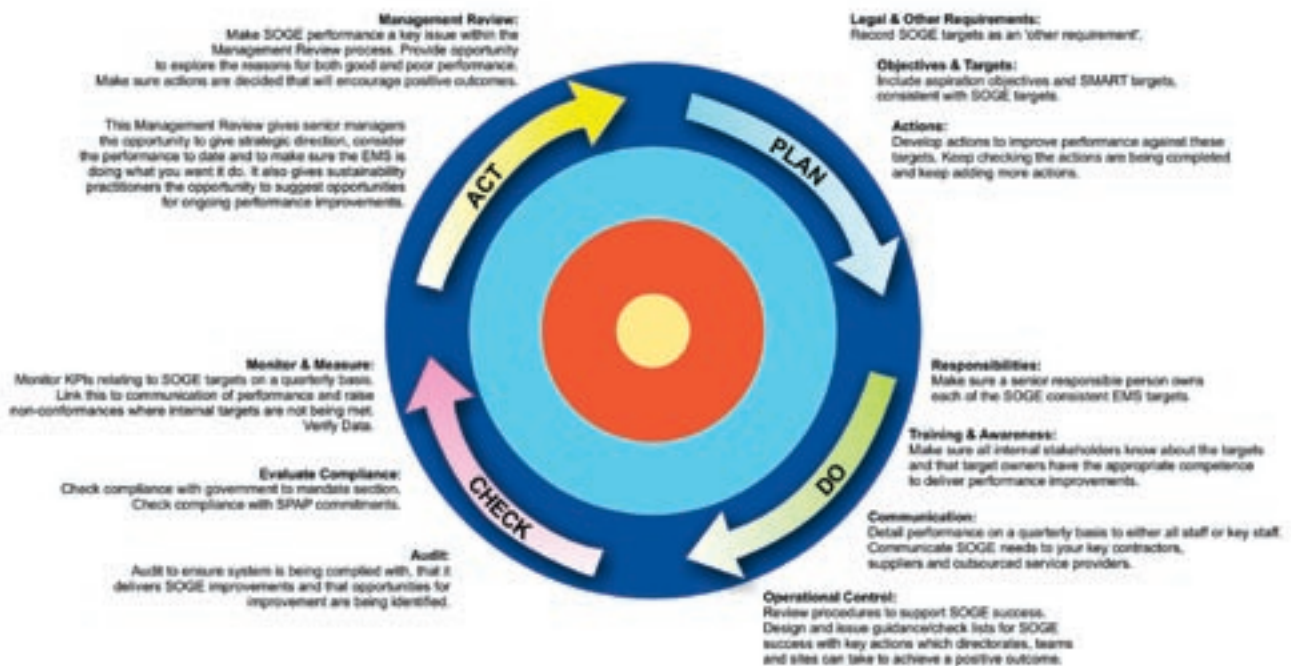
# Appendix K

## Using Environmental Management Systems to deliver sustainable operations

The implementation of an appropriate Environmental Management System (EMS) is important to the wider delivery and management of sustainable development targets. An EMS that operates using the recognised Plan-Do-Check-Act methodology will allow a department to identify its significant environmental impacts, and implement appropriate

procedures to monitor and mitigate them. Such a system should deliver the systematic approach to managing, reporting, checking and reviewing the process of meeting the SOGE targets. Figure K.1 illustrates the EMS cycle, along with some guidance on how to use the system elements to support performance improvement.

**Figure K.1** Using EMS to support delivery of sustainable operations performance



# Endnotes

- 1 Energy Consumption and Carbon Emissions in Government Departments, December 2007, UK National Audit Office.
- 2 The MOD, which currently produces about 50% of government waste, does not have a 2004/05 baseline and therefore its 2006/07 data has been discounted for the pan-government performance indication. See Chapter 5 for more detail.
- 3 Full-time equivalents (FTE) includes employees, visitors and contractors.
- 4 HM Government, UK Government Sustainable Procurement Action Plan – Incorporating the Government Response to the Report of the Sustainable Procurement Task Force, March 2007.
- 5 HM Treasury, Transforming Government Procurement, January 2007.
- 6 The SDC has a formal role as the UK Government’s sustainable development watchdog, reporting to the Prime Minister. In Northern Ireland, Scotland and Wales the SDC’s role as the government’s advisor on sustainable development is being agreed separately, with Memorandums of Understanding (MoUs) being developed between the SDC and each of the respective devolved governments.
- 7 HM Government, Securing the Future – Delivering the UK Sustainable Development Strategy, March 2005.
- 8 [www.sustainable-development.gov.uk/government/estates/index.htm#whatmakes](http://www.sustainable-development.gov.uk/government/estates/index.htm#whatmakes)
- 9 Ibid.
- 10 Ibid.
- 11 HM Government, Procuring the Future – Sustainable Procurement Action Plan: Recommendations from the Sustainable Procurement Task Force, June 2006.
- 12 HM Government, UK Government Sustainable Procurement Action Plan – Incorporating the Government Response to the Report of the Sustainable Procurement Task Force, March 2007.
- 13 The priority areas covered are climate change and energy, sustainable consumption and production, and natural resource protection. The fourth priority area, sustainable communities, is not covered by the SOGE targets and therefore is not discussed in the SDiG report. Refer to Securing the Future for more detail on the priority areas for immediate action.
- 14 The sustainable development performance of the Scottish Administration, including consideration of its own operational performance, has been assessed and reported by the SDC in Sustainable Development in Scotland: A review of progress by the Scottish Executive, SDC, August 2007.
- 15 Climate change and energy, sustainable consumption and production, and natural resource protection. The fourth priority area, sustainable communities, is not covered by the SOGE targets and therefore is not discussed in the SDiG report. Refer to Securing the Future for more detail on the priority areas for immediate action.
- 16 MOD has reported that its performance on the climate change and energy targets was “predominantly due to the disposal of old real estate” (Point 11, Sustainable Procurement and Operations Board (SPOB) 7th Meeting: Minutes, 19 November 2007). This is in addition to the privatisation of QinetiQ. The SDC has not had sufficient information to examine the impact of these additional changes on the MOD’s performance.
- 17 Energy Consumption and Carbon Emissions in Government Departments, December 2007, UK National Audit Office
- 18 All data sourced directly, with thanks, from Environmental / Sustainable Operations Teams apart from Barclays where data was sourced with permission from their Corporate Responsibility Website.
- 19 Business in the Community is a movement of over 800 UK companies committed to improving their positive impact on society. [www.bitc.org.uk](http://www.bitc.org.uk)
- 20 HM Government, Procuring the Future – Sustainable Procurement Action Plan: Recommendations from the Sustainable Procurement Task Force, June 2006
- 21 HM Government, UK Government Sustainable Procurement Action Plan – Incorporating the Government Response to the Report of the Sustainable Procurement Task Force, March 2007
- 22 Rainwater harvesting is the collection of water from precipitation (rain). Greywater is wastewater from all sources in a property other than toilets. [www.environment-agency.gov.uk/subjects/waterres/](http://www.environment-agency.gov.uk/subjects/waterres/)

- 23 Climate Change 2007 – the IPCC Fourth Assessment Report (AR4), November 2007, Intergovernmental Panel on Climate Change (IPCC).
- 24 The Lyons Review: Well Placed to deliver? Independent Review of Public Sector Relocation, March 2004, HM Treasury.
- 25 Based upon the total CO<sub>2</sub> from offices reported through SDiG 2007, and a Carbon Trust total figure of 648 million tonnes of carbon dioxide (CO<sub>2</sub>) – Carbon News – Spring 2007, Carbon Trust. [www.carbontrust.co.uk/energy/startsaving/carbon\\_news\\_spring\\_07.htm](http://www.carbontrust.co.uk/energy/startsaving/carbon_news_spring_07.htm)
- 26 Improving the efficiency of central government’s office property, November 2007, UK National Audit Office.
- 27 All data sourced directly, with thanks, from Environmental / Sustainable Operations Teams apart from Barclays where data was sourced with permission from their Corporate Responsibility Website.
- 28 BERR defines renewable energy as “the term used to describe energy flows that occur naturally and continuously in the environment, such as energy from the wind, waves or tides.” [www.berr.gov.uk/energy/sources/renewables/explained/intro/page14237.html](http://www.berr.gov.uk/energy/sources/renewables/explained/intro/page14237.html)
- 29 The Combined Heat and Power Association (CHPA) defines CHP as “the simultaneous generation of usable heat and power (usually electricity) in a single process.” [www.chpa.co.uk](http://www.chpa.co.uk)
- 30 Energy White Paper: Meeting the Energy Challenge, HM Government, May 2007.
- 31 [www.salixfinance.co.uk/thecompany.html](http://www.salixfinance.co.uk/thecompany.html)
- 32 Energy Consumption and Carbon Emissions in Government Departments, December 2007, UK National Audit Office.
- 33 DfT defines administrative operation travel as “all normal, day to day activity but can exclude clear operational mileage.”
- 34 Transport Statistics for Great Britain: 2007 edition, Section 7 – Roads and Traffic, November 2007, Department for Transport. [www.dft.gov.uk/pgr/statistics/datatablespublications/tsgb/2007edition](http://www.dft.gov.uk/pgr/statistics/datatablespublications/tsgb/2007edition)
- 35 All data sourced directly, with thanks, from Environmental / Sustainable Operations Teams apart from Barclays where data was sourced with permission from their Corporate Responsibility Website.
- 36 Taxis are not covered in the road vehicles target, and there is little data on taxi travel from departments.
- 37 [www.carbontrust.co.uk](http://www.carbontrust.co.uk).
- 38 Ibid.
- 39 Waste Strategy for England (May 2007), Department for Environment, Food and Rural Affairs, HMSO.
- 40 The DCA estate has changed considerably over the last two years and appropriate data is not available. FC do not have data, but have put a system in place which should allow it to report information in 2008/09. Data on waste arisings and recycling was provided by some of the LOD departments, but this represented a small proportion of LOD’s operations (in terms of FTEs), and as such LOD reported the overall figures at not known. LOD should put systems in place to be able to report comprehensively in the future.
- 41 All data sourced directly, with thanks, from Environmental / Sustainable Operations Teams apart from Barclays where data was sourced with permission from their Corporate Responsibility Website
- 42 HM Government, Procuring the Future – Sustainable Procurement Action Plan: Recommendations from the Sustainable Procurement Task Force, June 2006
- 43 Waste Strategy for England (May 2007), Department for Environment, Food and Rural Affairs, HMSO.
- 44 Established in September 2007, the role of the sub-group is to develop a unified approach to reporting, data collection, tracking Department progress, plans and trajectories against the Sustainable Operations Targets on the Government Estate and commitments in the Sustainable Procurement Action Plan.
- 45 Prime Minister’s Delivery Unit, Improving the delivery of the Sustainable Procurement Action Plan, Summary Report, July 2007
- 46 HM Government, Procuring the Future – Sustainable Procurement Action Plan: Recommendations from the Sustainable Procurement Task Force, June 2006
- 47 HM Government, UK Government Sustainable Procurement Action Plan – Incorporating the Government Response to the Report of the Sustainable Procurement Task Force, March 2007
- 48 The EU Action Plan for Forest Law Enforcement, Governance and Trade (FLEGT) is the European Union’s response to the global problem of illegal logging and the international trade in illegally-harvested timber. At the core of the Action Plan are Voluntary Partnership Agreements with timber-producing countries that wish to eliminate illegal timber from their trade with the EU. These agreements involve the establishment of a licensing scheme to

- ensure that only legal timber from producing countries (“Partner Countries”) is allowed into the EU. Unlicensed consignments from Partner Countries would be denied access to the European market under the scheme.
- 49 HM Treasury, Transforming Government Procurement, January 2007.
  - 50 Prime Minister’s Delivery Unit, Improving the delivery of the Sustainable Procurement Action Plan, Summary Report, July 2007
  - 51 HM Government, UK Government Sustainable Procurement Action Plan – Incorporating the Government Response to the Report of the Sustainable Procurement Task Force, March 2007.
  - 52 HM Treasury, Transforming Government Procurement, January 2007.
  - 53 Natural Environment and Rural Communities Act 2006, Part 3, Section 40, HMSO.
  - 54 Ibid.
  - 55 HM Government, Future Water – The Government’s water strategy for England, February 2008
  - 56 HM Government, Future Water – The Government’s water strategy for England, February 2008
  - 57 Rainwater harvesting is the collection of water from precipitation (rain). Grey water is wastewater from all sources in a property other than toilets. [www.environment-agency.gov.uk/subjects/waterres/](http://www.environment-agency.gov.uk/subjects/waterres/)
  - 58 Planning Bill 11 (2007/08), Presented by Secretary Hazel Blears, Ordered by the House of Commons to be printed, 27 November 2007.
  - 59 Launched in 2006, the initiative describes a programme of activity, with associated milestones, to transform the government estate and realise annual efficiency savings of up to £1.5billion by 2013.
  - 60 Launched in 2006, the initiative describes a programme of activity, with associated milestones, to transform the government estate and realise annual efficiency savings of up to £1.5billion by 2013.
  - 61 National Audit Office, Improving the efficiency of central government’s office property, 26 November 2007.
  - 62 The Institute for Environmental Management and Assessment (IEMA) Acorn Scheme, an officially recognised EMS standard recommended by the government, offers accredited recognition for organisations evaluating and improving their environmental performance through the phased implementation of an environmental management system.
  - 63 HM Government, Procuring the Future – Sustainable Procurement Action Plan: Recommendations from the Sustainable Procurement Task Force, June 2006.
  - 64 HM Government, UK Government Sustainable Procurement Action Plan – Incorporating the Government Response to the Report of the Sustainable Procurement Task Force, March 2007.
  - 65 [www.sd-commission.org.uk](http://www.sd-commission.org.uk).
  - 66 Climate change and energy, sustainable consumption and production, and natural resource protection. The fourth priority area, sustainable communities, is not covered by the SOGE targets and therefore is not discussed in the SDiG report. Refer to Securing the Future for more detail on the priority areas for immediate action.
  - 67 Due to the diversity of the government estate, departments can report using either the floor area of their buildings, or the total estate area.
  - 68 The number of degree days in 2006/2007 was 1879, compared to 2052 in 1999/2000.
  - 69 This is based on data received by BRE from government departments on 21/08/2007.
  - 70 For all departments it is assumed that 75% of fossil fuel and other heat sources are for space heating, and therefore the weather correction procedure is applied.

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The Sustainable Development Commission is the Government's independent watchdog on sustainable development, reporting to the Prime Minister, the First Ministers of Scotland and Wales and the First Minister and Deputy First Minister of Northern Ireland. Through advocacy, advice and appraisal, we help put sustainable development at the heart of Government policy.

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