

HM Revenue & Customs Climate Change Plan

Date: 10 March 2010

Foreword

I am delighted to introduce this Climate Change Plan for HMRC and its Executive Agency, the Valuation Office.

This Plan demonstrates our commitment to the requirements of the Climate Change Act 2008 and the UK's Low Carbon Transition Plan 2009. It sets out the carbon budget we have been allocated to drive the transition to a low carbon economy, how we will meet this budget by reducing the carbon emissions from our buildings and operations, and how we intend to plan for the future to minimise the growing risk of climate change on our activities.

HMRC's unique role in managing the Climate Change Levy and the Landfill and Aggregates taxes enables us to support priorities for action on climate change across the wider UK. Our own priorities for the environment are shaped by the government targets set for 2020 and the way in which we respond to them in managing our estate and interacting with our customers. We have recently installed new software to switch our desktop computers into a low power mode overnight. Last year we reduced our car fleet by 300 vehicles and cut emissions from road travel by 2,203 tonnes of CO₂. In the summer of 2007 when many businesses were adversely affected by severe flooding, we responded by relaxing the rules for them on the payment of tax and the submission of returns. These are just a few examples of the things we have already achieved. This Plan provides the framework for our future actions as we move to a low carbon society and meet the challenges of climate change.

Lesley Strathie, Chief Executive and Permanent Secretary

Contents

- 1 Executive Summary**
- 2 Introduction**
- 3 Governance**
- 4 About HMRC**
- 5 Drivers for better carbon management**
- 6 Main carbon contributors**
- 7 The Carbon Budget**
- 8 Carbon Budget Period 1: carbon reduction actions**
- 9 Carbon Budget Period 2: carbon reduction actions**
- 10 Actions to embed carbon management**
- 11 Adapting to climate change**
- 12 Priorities for climate change management**
- 13 Climate change capacity building**
- 14. Climate change implications for estates and procurement**
- 15. Business continuity**

Annex A - Performance against SOGE targets

Annex B – Communications plan for environmental actions on HMRC estate

1. Executive summary

Climate change will impact on every aspect of the UK's economy, society and environment. The latest set of UK Climate Projections 2009 (UKCPO9) expanded climate change predictions from now until the end of the century and show that the UK faces hotter, drier summers, warmer wetter winters, sea level rises and an increase in extreme weather events such as heavy rains and heat waves. Some degree of climate change is now inevitable but the long-term severity of the change will depend on the extent of a global reduction in carbon emissions.

The Climate Change Act 2008 provides the UK's focus for tough action. The Act addresses the need to mitigate to avoid dangerous consequences and to adapt to what is already a changing climate. It sets legally binding greenhouse gas emission targets and has created a system of carbon budgets or caps, which span five year periods, the first of which runs from 2008 to 2012. The budgets require a 22% reduction in carbon emissions below 1900 levels in 2008-12, a 28% reduction in 2013-17 and a 34% reduction in 2018-22. The Government's UK Low Carbon Transition Plan allocates the carbon budgets that government departments are required to deliver. The Department of Energy and Climate Change has produced an overarching document '[Climate Change: Taking Action](#)'.

Each department is charged with producing a Carbon Reduction Delivery Plan (CRDP) to demonstrate the mitigating actions it will take to achieve its emission targets. Chapters 5 to 10 of this document provide the CRDP for HMRC and its Executive Agency, the Valuation Office. They highlight:

- the drivers for carbon management at HMRC, ie the government targets, the Carbon Reduction Commitment, building energy efficiency and finance;
- HMRC's carbon budgets;
- HMRC's comprehensive programme of actions for meeting the emissions cap in period 1 (2008-12), and the progress that has already been made;
- the less defined programme of action for period 2 (2013-17); and

- how carbon management will be embedded across the organisation through business improvement, communications, data and policy alignment.

The Climate Change Act also requires 'adaptation' reporting to identify and plan for future climate risks. Chapters 11 to 15 outline the early steps HMRC intends to take to embed adaptation into its operations, processes and decision making, ie:

- the climate change impacts for each of HMRC's strategic objectives;
- organisational priorities for addressing climate change action, ie how it will be co-ordinated, embedded, planned for and reviewed;
- the implications for estates and procurement; and
- business continuity.

This document will be updated over the next twelve months as more detailed information is to hand on 2009-10 progress, projected savings, the SOGE 2 targets and the consequential revised carbon budgets. Progress so far indicates that HMRC has a very full programme of actions over the next two years for both carbon reduction and climate change adaptation. This is endorsed by the read across to actions in the Sustainable Development Action Plan (SDAP). For the longer term, more collaboration may be required with other government departments and HMRC's PFI contractors to achieve the necessary scale of carbon reduction, a harder hitting programme of actions will be drawn up for period 2 and beyond, and climate change risks will be factored into business continuity plans, and considered as part of customer engagement and interaction.

2. Introduction

The Climate Change Act created a new approach to managing and responding to climate change in the UK. The Act not only set a long term target to reduce greenhouse gas emissions by 80% below 1990 levels by 2050, but also legally binding milestones toward this target in the form of five year 'Carbon Budgets'

This Climate Change Plan responds to the expectations in the Climate Change Act 2008 for the public sector to consider the risks of the changing climate on its assets, logistics, people and processes. It also responds to the longer term UK target to reduce carbon emissions by 80% by 2050.

The Plan sets out HMRC's carbon budgets, which cap emissions over successive five year budget periods from 2008 to 2022, and outlines activities and projects that will be necessary to reduce carbon and change behaviours in the key carbon generating areas of buildings, IT and travel. It also addresses emissions in the supply chain and those related to water usage and waste management, particularly paper waste. The latter part of the Plan summarises the actions HMRC will take to ensure that its ability to deliver business objectives is not hampered by extreme weather patterns.

3. Governance

Key roles

- The HMRC Executive Committee (ExCom), led by Lesley Strathie, has overall accountability for this Plan.
- The Chief Finance Officer and ExCom Environment Champion ensures that carbon and climate change thinking forms part of HMRC's strategic decision making.
- The Head of Corporate Responsibility, Diversity and Wellbeing influences and co-ordinates HMRC action to reduce carbon and to respond to climate change.

Committees

- The Ethics and Responsibilities Committee, which meets quarterly and has an assurance role, will monitor progress against this plan. This Committee is chaired by a Non Executive Director.
- The Responsible Business Steering Group (RBSG), which meets three times a year and is chaired by an ExCom member, takes decisions on strategic actions and policies related to the environment and carbon reduction, including those contained in this Plan.
- The Directors General on the Executive Committee are responsible for their business areas meeting the performance measures on carbon, which are set out in HMRC's Business Plan and link to this Plan.
- The Performance Committee, which meets monthly, challenges and monitors performance against HMRC's Business Plan.
- The Sustainable Development Operating Committee provides the working lead for implementing and monitoring performance against HMRC's Carbon Budgets. The SDOC meets bi-monthly as a group and key members have fortnightly meetings with the Corporate Responsibility, Diversity and Wellbeing team.

Monitoring and reporting

- Actions in this Plan are linked to activity in HMRC's Sustainable Development Action Plan and Sustainable Operations Targets. They will also influence HMRC's Carbon Reduction Commitment. Progress will therefore be reviewed at least six monthly with updates and an outturn report completed annually. A major review will take place at the end of each Carbon Budget period, starting from 2012.
- Progress on reducing many of the carbon and climate change initiatives in this Plan will also be reported in HMRC's Annual Report and its Corporate Responsibility Report.

4. About HMRC

HMRC employs approximately 80,000 people at 650 sites across the UK. Its Executive Agency, the Valuation Office, employs 4,200 at 80 sites. The sites vary from listed historical buildings, concrete framed and 1960's red brick to new builds. Most are managed by Private Finance Initiative (PFI) contracts.

Vision and purpose

HMRC's vision is to close the tax gap, to make the tax system simple and even handed for its customers and to be seen as a professional and efficient organisation. HMRC's purpose is to make sure that money is available to fund the UK's public services and to help families and individuals with targeted financial support.

Activity

HMRC's main business activity is to collect taxes, duties and National Insurance contributions and make tax credit and Child Benefit payments. In 2008-09 over £435 billion in revenue was collected and over £35 billion paid out in tax credits and benefits.

HMRC's administration of Climate Change Levy, Aggregates and Landfill Taxes contributes to the wider UK effort to combat climate change and reduce carbon emissions. The administration of customs policies prevents the illicit importation of substances and products that are harmful to the environment as well as protecting endangered species.

Policy teams work closely with their HM Treasury counterparts to ensure the continued effectiveness of taxes and policies aimed at changing the environmental and social behaviours of individuals and businesses.

The Valuation Office compiles the business rating and tax valuation lists for England and Wales, and values property in England, Wales and Scotland for taxes administered by HMRC.

Structure

Four operational business units deliver HMRC's front line services to its customers.

They are:

Personal Tax - supports 60 million individual customers across the UK to fulfil their tax obligations;

Business Tax - assists businesses in paying the right amount of tax;

Benefits and Credits - helps families to receive the benefits and tax credit payments they are entitled to; and

Enforcement and Compliance - ensures that the full amount of money due is collected from UK tax payers and investigates tax and duty offences.

These four lines of business are supported by corporate service functions, a legal profession and a number of units that have specific remits to enhance the delivery of HMRC's Strategic Objectives.

5. Drivers for better carbon management

HMRC's Low Carbon Vision is: to be a Department that is environmentally sustainable in the way that it manages its operational activities and its estate.

HMRC recognises that its business activities and the decisions it makes can have a significant impact on the environment. One of the ways HMRC has already reduced its impact on the environment is by enhancing its internet presence, thereby saving huge quantities of paper for tax returns, notices and letters as well as the emissions associated with paper manufacture, transportation and disposal. As an example: rationalising the number of Self Assessment manuals produced in 2008-09 saved 300 tonnes of paper and removed 12 trucks from the roads.

Sustainable Operations on the Government Estate (SOGE) targets

In line with the SOGE targets, HMRC has been working towards interim milestones to:

- reduce carbon emissions from offices by 12.5% by 2010-11, relative to 1999-00 levels and by 30% by 2020; and
- reduce carbon emissions from road vehicles used for Government administrative operations by 15% by 2010-11, relative to 2005-06.

HMRC's carbon budgets are based on the reported emissions in these two target areas. The budgets are intended to enable a 30% reduction by 2020 and a 34% reduction by 2022.

The Carbon Reduction Commitment (CRC)

The CRC, which begins in 2011, is a mandatory energy efficiency scheme for large public and private sector organisations. It commits them to purchasing carbon credits to cover their emissions from electricity use. After an initial start up period of three years, caps will be placed on emissions and participating organisations will need to take action to reduce their energy consumption in line with the caps or face escalating financial penalties. All government departments are mandated to take

part. HMRC has been working closely with its PFI partners to ensure that it will be in a position to meet the CRC requirements.

The Energy Performance in Building Directive (EPBD)

The EPBD came into force in 2007. It requires energy surveys to be conducted in all buildings that are open to the public and Display Energy Certificates (DECs), which rate the energy efficiency of a building on an A to G scale (A being the highest and G the lowest), to be exhibited in each building. Buildings with the highest energy consumption will be given priority in HMRC's carbon management programme.

Finance

As energy prices have risen steeply in recent years and public sector funding is being squeezed, finance is now a major driver in the bid to reduce energy use and carbon emissions. HMRC spends just under £40 million each year on fuel bills for electricity, gas and a little oil.

6. Main carbon contributors

Scope

This Plan covers the carbon reduction plans for HMRC and the VOA up to 2012, the end of the first carbon budget period. It also outlines initiatives for the second and third budget periods. The main contributors to the plan are the estate (including IT services) and business travel.

The Estate

HMRC has approximately 650 offices across the UK and the VOA has 80 offices in England, Scotland and Wales. HMRC's estate is currently undergoing a significant programme of rationalisation with buildings being closed and activities managed at fewer, more cost effective locations. This consolidation is contributing to a reduction in both carbon emissions from buildings and waste.

Energy conservation is now a driving theme in the management of the estate. Carbon Trust surveys of HMRC's top energy using buildings are planned to take place in 2010-11 and surveys of VOA sites are already underway. The surveys will form the basis of an estate wide carbon management plan for all buildings.

Projects to improve the efficiency of IT services, such as lowering energy consumed by PCs and improving the efficiency of data centres, also contribute to carbon management across the estate.

Travel

Reducing HMRC's business travel footprint is about adopting alternative communication mediums for face to face meetings and travelling in more sustainable ways when it is necessary to do so. The sheer size and scale of HMRC and VOA operations, including the need to visit businesses and individuals on their premises, means that business travel is not just about air, road and rail travel. The road category can be broken down into fleet cars, pool cars, grey fleet, hire cars, taxis etc, not all of which are possible to include in the carbon budgets.

7. The Carbon Budget

The HMRC/VOA carbon budgets cap carbon emissions from the estate and operations. The current carbon budgets, as set out in the UK Low Carbon Transition Plan, are as follows:

Carbon Budget Summary								
Budget Period 1 2008 -12 (tCO₂e)			Budget Period 2 2013-17 (tCO₂e)			Budget Period 3 2018-22 (tCO₂e)		
Offices	Vehicles	Total	Offices	Vehicles	Total	Offices	Vehicles	Total
768,272	115,007	883,279	694,219	103,168	797,387	614,306	93,305	707,611

Indicators

The Sustainable Operations on the Government Estate (SOGE) targets act as the main indicators of progress against the carbon budgets. Other indicators of success will include achievement of the Carbon Trust Standard, CRC League Table position and Display Energy Certificates (DECs).

As details of the new SOGE framework are built into the allocation from carbon budget period 2 onwards, HMRC and VOA will work across their estates to ensure that the revised targets are met. Achieving these reductions in public sector carbon emissions will also contribute to the Government's aim of releasing £300m in energy bill savings by 2012-13 through greater energy efficiency.

HMRC's carbon budget will be updated to reflect the new period 2 measures when they are introduced.

Projected achievement towards targets

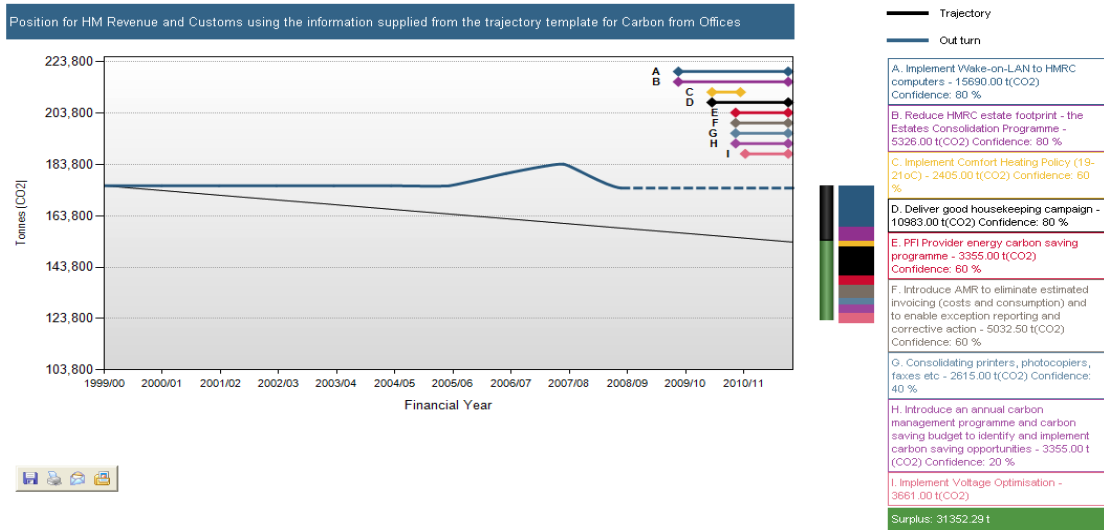
The table at Annex A shows HMRC's latest published performance against the SOGE targets.

A 3.6% improvement in reducing carbon from offices was reported at the end of 2008-09, reversing the previous upward trend, which translates to an 11% reduction to achieve by the end of 2010-11. The travel target was exceeded at the end of

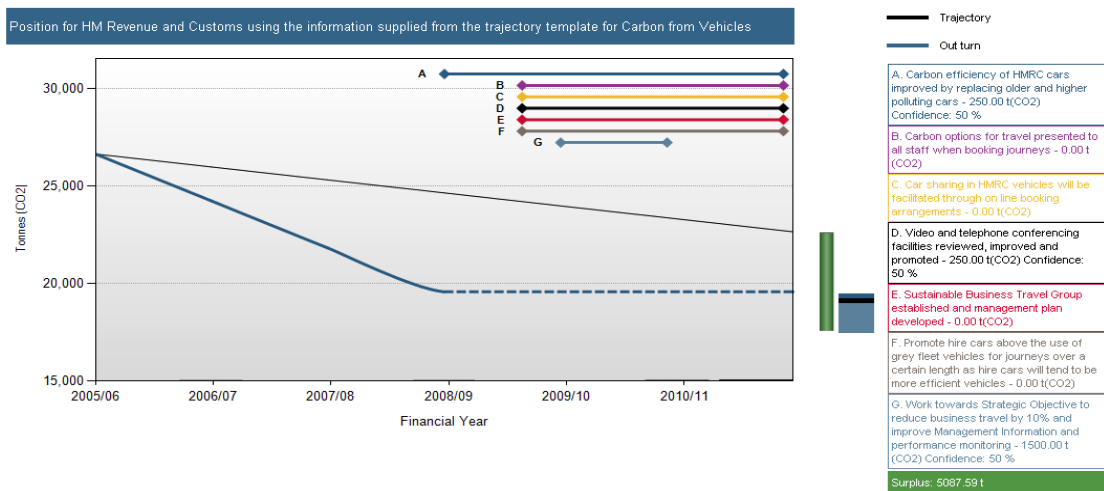
2008-09 with a 26.5% reduction in carbon emissions from road vehicles against 2005-06 levels.

HMRC's trajectories against the SOGE targets are show in the following graphs:

Carbon emissions from offices



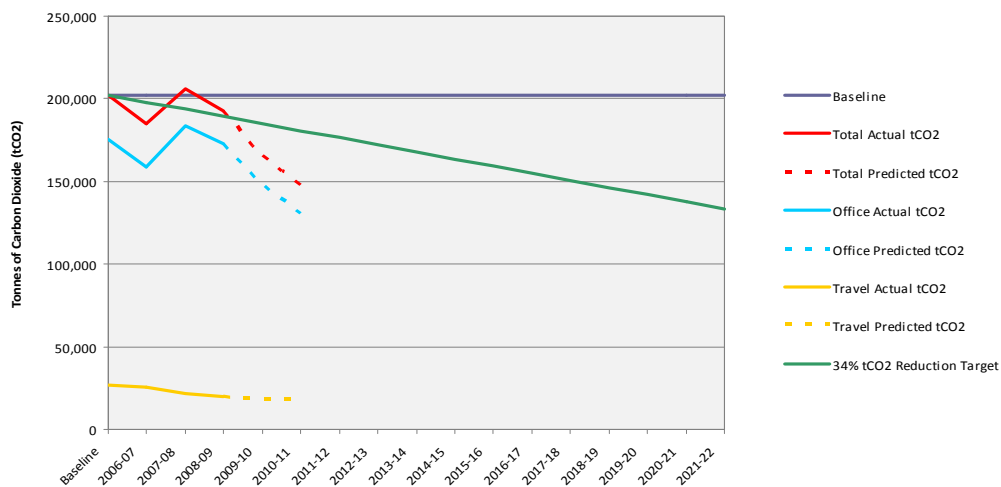
Carbon emissions from road vehicles



The following table and graph show HMRC’s actual and predicted emissions. A 3% per year average reduction is forecast through to 2022

HMRC Carbon Emissions Actuals and Projection versus Target							
Year	34% tCO ₂ Reduction Target	Total Actual tCO ₂	Total Predicted tCO ₂	Office Actual tCO ₂	Office Predicted tCO ₂	Travel Actual tCO ₂	Travel Predicted tCO ₂
Baseline	202174	202174		175516		26658	
2006-07	197878	184891		159094		25797	
2007-08	193582	205795		183968		21827	
2008-09	189286	192550		172979		19571	
2009-10	184990		165574		147960		17614
2010-11	180694		148059		130445		17614
2011-12	176398						
2012-13	172102						
2013-14	167806						
2014-15	163510						
2015-16	159214						
2016-17	154918						
2017-18	150622						
2018-19	146326						
2019-20	142030						
2020-21	137734						
2021-22	133438						

HMRC Carbon Emissions - Actuals & Projections versus Target



Financial costs and sources of funding

Government funding for low carbon technologies is being accessed from DEFRA, supported Salix fund and DECC's Low Carbon Innovation Fund. As HMRC's estate is owned and managed by PFI Contractors, agreements have to be reached about paying for improvements and sharing the savings.

Case study – Automatic Meter Reading (AMR) on HMRC Estate

Funding has already been secured from DECC for the implementation of Automatic Meters in all HMRC and VOA buildings. This will facilitate more effective monitoring of energy consumption and lead to substantial reductions of energy use and cost savings.

The AMR units will read electricity and gas usage at every building every 30 minutes and send the information direct to the energy supplier for invoicing purposes. The half hourly data will be used to profile energy consumption and to target inefficient buildings in taking remedial action.

Through the AMR programme, HMRC hopes to save 6,500 tonnes of CO₂ across the estate, which translates to approximately £800,000.

DECC funding has also been obtained to purchase 100 low carbon vehicles so that carbon emissions from essential road travel can be further reduced.

An Energy Management Fund will be established to enable money saved through energy efficiency projects to be reinvested into initiatives that will support continual improvement in carbon reduction and management.

8. Carbon Budget Period 1: carbon reduction actions

HMRC recognises the huge financial benefits to be realised from tightly managing its energy usage and carbon emissions. A reduction in energy consumption means lower running costs and overheads. Energy efficiency is already built into a number of procurement processes. Plans are being developed to integrate carbon management into investment appraisal and policy development.

Carbon Reduction Plans for buildings and IT

The table below outlines the measures planned to reduce carbon emissions from buildings and IT. The financial and carbon savings for a number of the measures are currently being assessed and will be added to the table during 2010-11.

Period 1: Estates and IT actions to meet the carbon budget	Projected savings and carbon reductions	Lead and timeframe
Estates		
Carbon management - develop carbon management programme to identify, plan, implement and review carbon saving projects. Develop carbon management assessment tool to analyse carbon saving opportunities Develop carbon abatement actions	Financial, energy and carbon savings to be assessed for each change to the estate	Head of Estates 2009-10
Specialist resource - recruit an Environmental/Sustainability Manager, a Carbon and Energy Manager and Project Officers to deliver carbon savings projects	No direct saving	Head of Estates 2009-10
DEC Compliance surveys - establish annual programme of surveys to assess building energy ratings. Develop and implement schedule of actions to improve energy ratings. Annual cost £150,000	Financial saving target - TBC Energy saving target – TBC Carbon saving target - TBC	Head of Estates 2009-10
Awareness campaigns - develop campaigns to encourage staff to switch off electrical equipment when not in use	Financial saving target – £1,000,000 Energy saving target – 15,000,000 kWh	Heads of CRD&W and Estates 2009-12

	Carbon saving target – 7,500 tCO ₂	
Estates rationalisation - incorporate carbon and energy efficiency into the Estates strategy Incorporate carbon and energy efficiency into structured sustainability appraisals of office changes (closures, moves, rationalisation)	Financial, energy and carbon savings to be assessed for each change to the estate	Head of Estates 2009-12
Comfort heating - pilot review of winter comfort temperatures in top 50 buildings winter 2009-10 Revise winter heating guidance Roll out of winter comfort temperatures guidance winter 2010-11	Financial saving target - £350,000 Energy saving target – 14,000,000 kWh Carbon saving target - 2,500tCO ₂	Head of Estates 2010/11
Carbon Trust - calculate carbon footprint for buildings and travel Complete application for scope 1 emissions – Total cost - £15,000 Incorporate scope 2 and 3 emissions in future years	Financial saving target - £200,000 Carbon saving - TBC	Head of Estate s 2010-11
Meter reading - review opportunities for the installation of Automatic Meter Readers (AMRs) Develop and cost a programme of AMR installation (£475,000)	Financial saving target - £800,000 Energy saving target – 17,000,000kWh Carbon saving target – 6,500 tCO ₂	Head of Estates 2010/11
Voltage optimisation - optimise the supply of power to sites Identify estate opportunities Cost potential programme of works Engage PFI contractors in implementing programme Total cost approx £500,000	Financial saving target – Energy saving target - Carbon saving target 1,260,000 tCO ₂	Head of Estates 2010/11
Carbon surveys - engage Carbon Trust to conduct surveys Target top energy consuming sites Develop and deliver programme of surveys Total cost £18,000	Financial saving target - £300,000 Energy saving target - 3,400,000 kWh Carbon saving target – 2,700 tCO ₂	Head of Estates 2010/11
Carbon Reduction Commitment - calculate carbon footprint Develop processes to manage and monitor CRC requirements and performance in league tables and agree with Estates contractors. Initial start up first payment - approx £2,200,000	No direct saving	Head of Estates 2011/12
IT		
Data Centre Audit - implement Carbon Audit Programme	Financial saving target - TBC Carbon saving target - TBC	Chief Information Officer 2010-11
Wake on Lan - agree programme with IT suppliers	Financial saving target -	Chief

and roll out during 2009-10	TBC Carbon saving target – TBC	Information Officer 2009/10
Sustainable printing - develop processes/communications to change settings on all printers to double sided.	Financial saving target - TBC Carbon saving target – TBC	Chief Information Officer 2009-10
Device consolidation - review the scope for device consolidation as part of the wider review of the environmental impacts of IT	Financial saving target - TBC Carbon saving target - TBC	Chief Information Officer 2009-10
Reuse and recycle - review the effectiveness of the current arrangements to identify and recycle equipment that is no longer needed.	Financial saving target - TBC Carbon saving target - TBC	Chief Information Officer 2009-10

Carbon Reduction Plan for Travel

The table below outlines the measures planned to reduce carbon emissions from travel.

Period 1: Travel actions to meet the carbon budget	Projected savings and carbon reductions	Lead and timeframe
Video and telephone conferencing - Introduce formal monitoring arrangements to assess reductions in travel Support Brent phones secure video conferring link for investigative work	Financial saving target - TBC Carbon saving target – TBC	Head of CRD&W 2009-11
Carbon efficient cars - implement programme to improve efficiency of cars	Financial saving target - TBC Carbon saving target – TBC	Head of Commercial 2009/12
Strategic Objective for HMRC Business Plan - reduce business travel by 10% in 2009-10 and the same in 2010-11 with a specific target of 20% for air travel. Improve data management.	Financial saving target - TBC Carbon saving target – TBC	Head of CRD&W 2009-10 and 2010-11
Carbon options for travel - agree new procedure with travel contractors to present options to staff when booking journeys	Financial saving target - TBC Carbon saving target – TBC	Head of Commercial 2009-11
Offset air travel - agree financial arrangements for carbon offsetting payments to come from the business units that need to travel by air on essential departmental business.	Financial saving target - TBC Carbon saving target – TBC	Head of CRD&W 2010-11

Going beyond the scope of carbon budgets - waste and water

Whilst waste and water are outside the scope of the carbon budgets, HMRC has been taking actions to reduce both and to evaluate the equivalent carbon emissions that will be saved. HMRC's waste sent for incineration in 2008-09 was responsible for 84 tonnes of CO₂ equivalent(e); waste to landfill equalled 3,124 tonnes of CO₂(e); and water consumption equated to 340 tonnes of CO₂(e). Processes for evaluating the savings that can be made by implementing measures to reduce both waste and water use will be developed during 2010-11. The table below illustrates some key activities that are being considered.

Period 1: Waste and water actions to meet the carbon budget	Projected savings and carbon reductions	Lead and timeframe
Water and waste		
Develop a carbon footprint on consumption and disposal of water and waste to landfill	Financial saving target - TBC Carbon saving target – TBC Water saving target - TBC	Head of Estates 2010-11
Expand the carbon management programme to include water and waste saving projects	Financial saving target - TBC Carbon saving target – TBC Water saving target - TBC	Head of Estates 2010-11
Develop a carbon abatement plan for water and waste saving projects. Project anticipated carbon emissions and savings	Financial saving target - TBC Carbon saving target – TBC Water saving target - TBC	Head of Estates 2010-11
Waste		
Modernising PAYE Processes for Customers - Implement review of business tax processes, printouts and correspondence with customers	Financial saving target - TBC Carbon saving target - TBC Paper saving target – TBC	Head of Commercial 2009-10
Streamline plus plus project - identify further sources of paper use and areas of waste Take remedial steps to reduce paper use.	Financial saving target - TBC Carbon saving target - TBC Paper saving target – TBC	Head of Commercial 2009-11
Water		
Waterless urinals - develop pilot project with contractors to scope the costs and benefits of installing waterless urinals	Financial saving target - TBC Carbon saving target –	Head of Estates 2010-11

	TBC Water saving target - TBC	
Low flow taps - develop pilot project with contractors to scope the costs and benefits of installing and maintaining low flow taps	Financial saving target - TBC Carbon saving target – TBC Water saving target - TBC	Head of Estates 2010-11

Other projects

Period 1: Other actions to meet the carbon budget	Projected savings and carbon reductions	Lead and timeframe
Communications and management – develop environmental communications strategy, establish green volunteer network and enlist Environment Champion and Senior Responsible Managers' support for environmental campaigns	Not specifically measurable – will form part of estates savings	Head of CRD&W 2009-10
PaceSetter - Incorporate carbon management into PaceSetter business improvement model	Not specifically measurable – will form part of other savings	Head of CRD&W 2009-11
Investment appraisal and policy impact – put in place mechanisms to ensure that carbon is considered when decisions are taken for major investments, change programmes and new policies	Not specifically measurable – will form part of other savings	Head of CRD&W 2009-11
Training – update existing environment e-learning package to include references to carbon budgets. Enhance messages on carbon in induction and management training programmes	Not specifically measurable – will form part of other savings	Head of CRD&W 2009-12

9. Carbon Budget Period 2: carbon reduction actions

Beyond 2012 into carbon budget periods 2 and 3 very few projects have been quantified or planned. Those relating to IT tend to dominate the longer term actions.

Period 2: Actions to meet the carbon budget	Projected savings and carbon reductions	Lead and timeframe
Carbon savings surveys - develop new programme of carbon saving surveys for worst performing and highest energy using sites. Establish a carbon saving survey budget	Financial saving target - £800,000 Energy saving target – 4,300,000 kWh Carbon saving target – 2,700 tCO ₂	Head of Estates 2012-13
Printers - increase percentage of duplex printers	Financial saving target - TBC Carbon saving target – TBC Paper saving target - TBC	Chief Information Officer 2010-15
Data Centres - develop comprehensive programme to include storage virtualisation, server reduction and reduced cooling	Financial saving target - TBC Carbon saving target - TBC	Chief Information Officer 2011-15
Printer consolidation – develop arrangements to consolidate printers and replace with energy efficient multi functional devices (MFDs)	Financial saving target - TBC Carbon saving target - TBC	Chief Information Officer 2009-15
Monitors - pilot arrangements to switch monitors to stand by after 5 minutes of inactivity	Financial saving target - TBC Carbon saving target - TBC	Chief Information Officer 2012-15
Active power management - establish costs and benefits of implementing energy efficient management of desktop PCs	Financial saving target - TBC Carbon saving target - TBC	Chief Information Officer 2012-15
Thin client technology - review costs and benefits of thin client technology as part of the wider review of the environmental impacts of IT equipment.	Financial saving target - TBC Carbon saving target - TBC	Chief Information Officer 2012-15

10. Actions to embed carbon management

Working together

Members of HMRC's Executive Committee (ExCom) are committed to reviewing their business activities, particularly in relation to business travel and paper use. HMRC's Environment Champion is active in communicating HMRC's carbon reduction initiatives and encouraging actions that contribute to the Government targets and promote a behavioural change in day to day activities. Environmental responsibilities have been integrated into the role of the Senior Responsible Manager at each site and a national network of 'green volunteers' has been established to build staff engagement at a local level and to improve the effectiveness and longevity of awareness campaigns.

The Estates, Commercial and IT functions are developing strategies that will have a positive impact on HMRC's environmental footprint, eg engagement with suppliers to procure more sustainable goods and services, and building carbon reduction actions into the job descriptions and personal objectives of their staff.

As communications campaigns and management tools raise awareness levels, more and more people are discussing environmental actions in team meetings, as part of new initiatives and at end of year reviews.

PaceSetter – embedding the thinking

HMRC's PaceSetter programme is a team based improvement process that allows best practice to be implemented consistently across the organisation. It looks at 'waste' in processes and procedures and as the environment is incorporated into PaceSetter, so carbon is becoming one of the 'wastes' to be reduced. The use of energy, paper, water and travel as part of the business is also examined to ensure they are kept to a minimum.

Data Management – measuring the difference, measuring the benefit

HMRC has an ongoing programme to improve the accuracy and availability of environmental data, and in particular carbon data, for its estate, travel and paper usage.

Communication and Training – ensuring everyone is aware

Messages and articles appear regularly on HMRC's intranet newsroom and in its in-house magazine to raise awareness of initiatives to reduce carbon emissions from buildings and business travel as well as the need to reduce waste and increase recycling.

Campaigns for switching off lights and office equipment overnight and reducing building temperatures engage employees who are concerned about the need to protect the environment. Communications are also geared towards HMRC's contractors to make specific groups of staff, eg cleaners and security aware of their responsibilities to reduce energy use.

HMRC's communication plan for action on the estate is attached at Annex B.

An on line training package on sustainable development is being updated to include advice on supporting HMRC in meeting its carbon budgets. Staff induction and management training packages are also being reviewed to strengthen their messages on environmentally conscious behaviours and carbon thinking.

Policy alignment – saving carbon across operations

New procedures are being developed to build carbon thinking into policy maintenance and new policy development. The procedures will apply to:

- procurement – sustainable procurement principles will be fully adopted and performance management processes will be developed to demonstrate how carbon and sustainability has been factored in to every exercise;
- capital works projects – energy use, carbon emissions and whole life costing will form fundamental elements of estates projects guidance;
- HR – sustainable business travel guidance will be kept under review to ensure that only essential travel is undertaken; and
- tax and other policies – the profile and methodology for carbon impact assessments will be enhanced.

Supplier liaison

In accordance with Government and EU guidelines, environmental considerations have been integrated into purchasing procedures. When going to the market for new goods and services a preference is expressed for environmentally friendly products that offer value for money. For existing suppliers, an environmental supply-chain

programme that engages suppliers in a programme to improve their environmental awareness and environmental performance of their activities and products has been established.

Case Study – CAESER

CAESER (Corporate Assessment of Environmental, Social & Economic Responsibility) an on-line assessment tool is being trialled in HMRC to assess the extent to which suppliers are promoting diversity, equality and the environment in the way they operate their businesses. Suppliers are asked to complete a self assessment questionnaire, which is then used for benchmarking.

The carbon impact of purchasing and supply activities is also being reduced by utilising technology to reduce paper flow, avoid replication and minimise the administrative burden on suppliers.

11. Adapting to climate change

Climate change is one of the greatest challenges facing the world today. Until recently mitigation has been the main focus of action on climate change, but with an increasing acknowledgement that some degree of climate change is now inevitable, actions will be necessary to adapt to the challenges and opportunities it presents.

Impacts of climate change

Projected warming could have a range of impacts around the world, including increases in average global temperatures of 2-3°C within the next fifty years, leading to droughts and floods. In the UK the impacts of climate change are likely to affect individuals, organisations, property, infrastructure and services. Storms and heat waves may, for example, cause problems for the transport network, which would in turn affect HMRC's ability to conduct enforcement activities and its customers' ability to meet their obligations. This could translate to a reduction in revenue and then potentially shortages of funds for benefit payments, hospitals, schools etc.

Climate Change Projections

The UK Climate Projections 2009 (UKCP09) are a set of projections looking at temperature, precipitation (rain, snow, sleet and hail), sea level rise and other variables. The projections show that the UK is faced with warmer wetter winters, hotter drier summers, and more frequent extreme weather events. It will also be affected by the impacts of climate change occurring in other countries. Preparing for a changing climate will help the UK to reduce the adverse consequences and take advantage of opportunities.

Climate Change Programme

The Government is leading action nationally and internationally on climate change adaptation, through the cross-Whitehall Adapting to Climate Change (ACC) Programme. The Climate Change Act established a framework for climate change adaptation, including the requirement to undertake a national Climate Change Risk

Assessment (CCRA) by 2011 and to publish a national adaptation programme in 2012. The CCRA will inform detailed consideration of climate change risks and policy development. Through the Adaptation Reporting Power, introduced in the Climate Change Act 2008, and work with local authorities on National Indicator 188, the Government has set clear expectations about the actions that need to be taken by the public sector.

12. Priorities for climate change adaption

It is important that HMRC and VOA are able to adapt to climate change in order to:

- protect systems and processes so that they can continue to collect revenue and deliver services;
- continue to provide advice to customers – businesses and individuals;
- ensure that transformation programmes take the threat of climate change into account;
- protect buildings and IT;
- maintain security of information and assets; and
- keep business continuity plans relevant and up to date.

Strategic objectives and climate change actions

HMRC has aligned its climate change priorities with its strategic objectives to ensure it can continue to operate effectively and meet its commitments.

Strategic Objective	Action to be taken	Measure of success	Date start	Lead and timeframe
Improve the extent to which individuals and businesses pay the tax due and receive the credits and payments to which they are entitled.	<p>Review infrastructure that supports operations to ensure that potential climate change impacts have a minimal impact on HMRC's ability to collect revenue, make payments and carry out day to day activities</p> <p>Consider the potential changing demand for HMRC services as markets shift as a result of climate change</p> <p>Consider the broader demands on climate change for customers and how these demands affect HMRC's economic and social impact</p>	<p>Business Continuity Plans reviewed and climate change impacts and actions incorporated into guidance and procedures</p> <p>Front line operations keep pace with changing customer demands</p> <p>Payment of credits protected in line with targets.</p>	2010	Head of Tax Spring 2012

<p>Improve customers' experience of HMRC and contribute to improving the UK business environment</p>	<p>Review policies and processes to ensure they can be maintained as the climate changes and adapted for freak weather patterns</p> <p>Review customer interface and consider impacts of climate change on maintaining communications</p> <p>Work with UKBA to protect frontier locations from climate change</p>	<p>Maintained and/or improved customer experience levels</p>	<p>2010</p>	<p>Head of, CRD&W Directors of Customer functions Spring 2015</p>
<p>Improve professionalism in dealing with the security of customers' information</p>	<p>Review security of information processes to build in climate change considerations eg providing secure data management of customers' information.</p> <p>Improve and develop the management of electronic data transfers to reduce carbon emissions related to travel as well as other environmental waste impacts</p>	<p>No security breaches Improved data management</p>	<p>2009</p>	<p>Chief Information Officer 2009-12</p>
<p>Deliver an affordable and sustainable cost base providing value for money for the taxpayer</p>	<p>Review transformation and change programmes to identify environmental impacts and potential needs for climate change adaptation.</p>	<p>Assessments take place automatically as new programmes come on line</p>	<p>2010</p>	<p>Head of CRD&W 2010/-2</p>
<p>Create a working environment which motivates and develops people to give of their best and take pride in working for HMRC in order to contribute to business transformation</p>	<p>Build climate change mitigation and adaptation into staff engagement programmes</p> <p>Ensure key staff have the appropriate level of knowledge and skills to deal with the potential impacts of climate change on operations and business activities</p> <p>Consider threats to working conditions and travel arrangements</p> <p>Consider increased health implications for staff working outdoors in extreme conditions</p> <p>Consider impact for HMRC assets and artefacts</p>	<p>Climate change is fully integrated into staff engagement</p> <p>A training regime is provided for key staff</p> <p>Estates and Business Continuity plans ensure that the impacts of climate change are monitored and staff are supported.</p>	<p>2010</p>	<p>Head of CRD&W 2010-15</p>

13. Climate change capacity building

The successful delivery of some of HMRC and VOA's key objectives in the long-term will depend on their ability to identify, assess and manage the risks that arise from the impacts of climate change. Work is being taken forward as a priority to build in the capacity to address these risks. Actions include establishing clear leadership and developing stakeholder partnerships to share information, identifying research needs and pursuing work on climate impacts and adaptation, and raising staff awareness. Key policy and decision-making processes are also being adapted to take climate impacts into account.

HMRC's organisational priorities for climate change

- **Co-ordinate** - appoint a Senior Responsible Officer to take responsibility for considering the likely impacts and risks of climate change across the estate. Working with the Met Office, Department of Energy and Climate Change (DECC), Office of Government Commerce and other government departments should enable HMRC to gain a sound understanding of where the risks lie and what actions may be necessary;
- **Embed** - develop an understanding of climate change risks to existing management strategies and processes such as Business Continuity, Estate Management and IT. Review plans to ensure that climate change is formally taken into account in the decision making processes, guidance and capacity building;
- **Prepare** - produce adaptation strategies for priority risks and incorporate into existing strategies. Ensure key staff have a detailed understanding of weather and climate risk in all vulnerable areas across the estate;
- **Plan** - draw up a comprehensive action plan. Build climate change adaptation into all capital works projects. Consult organisations, such as the Environment Agency, for advice on best practice;

- **Review** - build a process for continuous monitoring and review; and
- **Resource** - allocate appropriate resources to maintain adaptation work and support the projects and changes to processes that are required.

14. Climate change implications for estates and procurement

The value of HMRC and VOA's assets may reduce if buildings are not adapted for hotter summers, wetter winters, floods and coastal erosion. Existing facilities and maintenance regimes will be reviewed so that appropriate decisions are taken on the purchase and maintenance of equipment that will safeguard business continuity. Where buildings are identified as being at risk to rain, storms or subsidence, the cost of refurbishing to low carbon, climate resilient standards will present a significant challenge. However, there may also be some positives, such as a reduction in heating requirements as winters become milder. It will be vital to make the most of the opportunities presented by climate change as well as preparing for the negative impacts.

Key projects

Project	Action to be taken	Measure of success	Date start	Lead and timeframe
Estates Consolidation	Evaluate potential climate change risks in buildings to be retained		2010	Head of Estates 2009-12
Mapping buildings to the climate data provided in the UK Climate Change Projections	Liaison with the Met Office and PFI contractors to assess the implications of the climate change projections and to identify priority areas that may be affected by climate change	Priority areas identified Plans developed to protect the estate on a value for money and risk basis	2010	Head of Estates 2012
Incorporating climate change impacts into building design, construction	Build climate change impacts and location implications, such as proximity to potential river, coastal and urban flooding, into guidance for	Capital works guidance updated Facilities management contracts reviewed Financial implications of	2010	Head of Estates 2012

	<p>all capital works projects Review facilities management contracts to ensure maintenance regimes take climate change into account.</p>	<p>climate change adaptation built into projects and facilities management contracts</p>		
	<p>Monitor the potential increase in price of goods and services purchased; security of power – gas, electricity; paper products; water supply and sewage; transport delivery systems. Agree contingency plans to minimise disruption.</p>	<p>Contingency plans in place for sustainable supply chain management and investment appraisal in renewable energy sources Greater provision of flexible working arrangements to support home working</p>	2010	<p>Heads of Commercial Estates CR&DW 2012</p>

15. Business continuity

Building consideration of climate change impacts into business continuity plans is essential to limiting the risk of access to goods and services being undermined by extreme weather conditions. In addition, an increased risk of flooding may mean clean up costs and loss of business continuity if premises are inaccessible to customers.

As well as protecting HMRC and VOA buildings, IT and business activities, there is also a need to consider how climate change impacts on customer premises, IT and the wider transport infrastructure and how this may adversely affect revenue collection, provision of services and customer wellbeing. For example, flooded customer premises may result in loss of records which would impact on the accurate completion of tax returns, investigation reviews and HMRC's ability to collect the right amount of money; disruption to transport facilities due to changes in weather patterns may prevent customers accessing front line face to face services, claiming benefit entitlements and receiving accurate property valuations. HMRC and VOA's ability to rise to these challenges will depend on a combination of measures and co-ordinated efforts from their Security and Business Continuity, Estates, Procurement, IT and Finance business units.

Annex A

The following table sets out HMRC's latest published performance against the SOGE targets.

Performance against the targets for Sustainable Operations on the Government Estate 2008-09

TARGET	2008-09 position against base line
1. CARBON EMISSIONS FROM OFFICES <ul style="list-style-type: none"> Reduce CO₂ emissions from the office estate by 12.5% by 2010-11. Reduce carbon emissions by 30% by 2020, relative to 1999-2000 levels. 	1.4% reduction compared with base line.
2. CARBON EMISSIONS FROM ROAD VEHICLES <ul style="list-style-type: none"> Reduce CO₂ emissions from the administrative fleet by 15% by 2010-11. 	Exceeding target: 26.6% reduction compared with base line
3. ENERGY EFFICIENCY <ul style="list-style-type: none"> Improve energy efficiency across the Government estate by 15% by 2010-11. Increase energy efficiency per m² by 30% by 2020, relative to 1999-2000 levels. 	5.3% reduction compared with base line
4. WASTE ARISING <ul style="list-style-type: none"> 5% reduction against the base line by 2010/11. Reduce waste arisings by 25% by 2020, relative to 2004-05 levels. 	Exceeding target: 21.6% decrease against the base line
5. RECYCLING <ul style="list-style-type: none"> Recycling as a percentage of waste to be 40% in 2010/11. Increase recycling to 75% of waste arisings by 2020. 	Exceeding target: 40.8% recycling rate
6. WATER CONSUMPTION <ul style="list-style-type: none"> 25% reduction against the base line by 2020. Reduce water consumption to an average of 3m³ per person/year for all new builds or major refurbishments. 	3.8% reduction against the base line

Annex B: Communications plan for environmental actions on HMRC estate

Month	Communication event	Summary	Key objectives
Jan 10	Carbon cutting – creating a sustainable estate	The Big Switch Off refocused to look at long-term carbon emissions reduction across the estate and the role each key audience plays	Meeting carbon SOGE target Reducing utilities spend
	Carbon cutting – a taxing situation	Carbon cutting looks at the cost of not embedding carbon cutting initiatives in terms of taxes and climate change. Introduces the idea of cost and carbon awareness when using Departmental resources	Meeting carbon SOGE target Reducing utilities spend
Feb 10	Carbon cutting – cost versus carbon (Joint campaign with Finance Directorate)	Embedding cost and carbon awareness across HMRC when making decisions on travel, purchasing, customer service etc	Meeting carbon SOGE target Efficiency targets Reducing utilities spend
	Waste recycling rollout (Mapeley/Carillion managed estate)	How to recycle paper, cardboard, glass, plastics and steel & aluminium cans	Waste and recycling SOGE targets Reducing our Landfill tax bills
	Confidential waste paper recycling publicity (Joint campaign with S&BC)	Clarity on how confidential waste paper is recycled as opposed to general waste paper. Includes reiteration of data protection messages in partnership with S&BC	Waste and recycling SOGE targets Data protection objective
Mar 10	Business Travel – (Joint campaign between CRD&W and Commercial Directorate to promote cost and carbon awareness)	Promoting cost and carbon awareness aspects of business travel prior to the start of the financial year	Meeting carbon SOGE target Reducing T&S spend Reducing business travel carbon emissions
	World Water day 22 March	Hook for communications on how HMRC is going to reduce water consumption.	SOGE water target Reduce utilities spend
	Waste recycling rollout (Mapeley/Carillion managed estate)	How to recycle paper, cardboard, glass, plastics and steel & aluminium cans	Waste and recycling SOGE targets Reducing our Landfill tax bills

Apr 10	Carbon cutting – Spring/Summer campaign commences (TBC)	Raising awareness of reducing carbon emissions from the estate during the summer months (we spend as much on energy in summer as we do in winter)	Meeting carbon SOGE target Reducing utilities spend
	Biodiversity campaign (TBC)	How our estate supports biodiversity	SOGE targets
	Earth Day	Hook for communications on our progress toward SOGE targets	SOGE targets
May 10	Carbon cutting – Spring/Summer campaign		Meeting carbon SOGE target Reducing utilities spend
Jun 10	Carbon cutting – Spring/Summer campaign		Meeting carbon SOGE target Reducing utilities spend
	Water conservation campaign	Reducing unnecessary water consumption across the Estate	SOGE water target Reduce utilities spend
	Recycle Now – Let's waste less campaign 21 – 27 June	Hook for communications on wasting less in the Department. This year's focus is waste electricals.	SOGE Waste target
Jul 10	TBC Waste recycling rollout (Remaining estate)	How to recycle paper, cardboard, glass, plastics and steel & aluminium cans	Waste and recycling SOGE targets Reducing our Landfill tax bills
Aug 10	TBC Waste recycling rollout (Remaining estate)	How to recycle paper, cardboard, glass, plastics and steel & aluminium cans	Waste and recycling SOGE targets Reducing our Landfill tax bills
Sep 10	TBC Waste recycling rollout (Remaining estate)	How to recycle paper, cardboard, glass, plastics and steel & aluminium cans	Waste and recycling SOGE targets Reducing our Landfill tax bills
Oct 10	Carbon cutting – Autumn/Winter campaign commences	Reducing carbon emissions	Meeting carbon SOGE target Reducing utilities spend
Nov 10	Carbon cutting – Autumn/Winter campaign	Reducing carbon emissions	Meeting carbon SOGE target Reducing utilities spend
Dec 10	Carbon cutting – Autumn/Winter	Reducing carbon emissions	Meeting carbon SOGE target

	campaign		Reducing utilities spend
Jan 11	Carbon cutting – Autumn/Winter campaign	Reducing carbon emissions	Meeting carbon SOGE target Reducing utilities spend
Feb 11			
Mar 11			