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# Department for Work and Pensions Carbon Management Plan



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## Front cover

- Left - Bournemouth Jobcentre Plus (green roof, Brise Soleil shading, rainwater recycling, ecological landscaping)
- Right - Falkirk CMEC building (solar hot water panels, Brise Soleil shading, chilled beam cooling, rainwater recycling, Western Red Cedar cladding)

## Foreword and Executive Summary from Hunada Nouss – Finance Director General

In my role as Finance Director General and also Senior Accountable Officer for Sustainable Development, I am pleased to present and sponsor the Department for Work and Pensions' Carbon Management Plan (CMP).



This builds on and replaces our Carbon Reduction Delivery Plan published in March 2010 and complements our Climate Change Adaptation Plan as an integral part of our strategic approach to Sustainability and Climate Change. It provides a baseline of current carbon emissions and associated costs and a structured route-map to further reduce our carbon emissions through a series of strategic, administrative and technical proposals. The Plan aligns with and supports the overall UK Carbon Plan commitment to mitigate the impacts of climate change through reducing carbon emissions. It also supports the continuing accreditation of the Department to the Carbon Trust Standard.



DWP is one of the largest departments in government, currently with around 1,000 buildings and 108,000 staff providing services to the majority of the UK population. As such, it has a pivotal role in reducing public sector carbon emissions.

To date, working in partnership with our suppliers, we have been very successful. As shown at Figure 1, **DWP has reduced CO<sub>2</sub> emissions from energy and road travel by 23% (61,000 tonnes) over the past 3 years.**

This, and the ongoing reductions in 2010/11, means that the Department will surpass the outgoing target for Sustainable Operations on the Government Estate (SOGE) of a 12.5% reduction between 1999/00 and 2010/11. Our successes, together with our plans for the future, have helped us to achieve the Carbon Trust Standard, the largest public sector organisation to have done so.

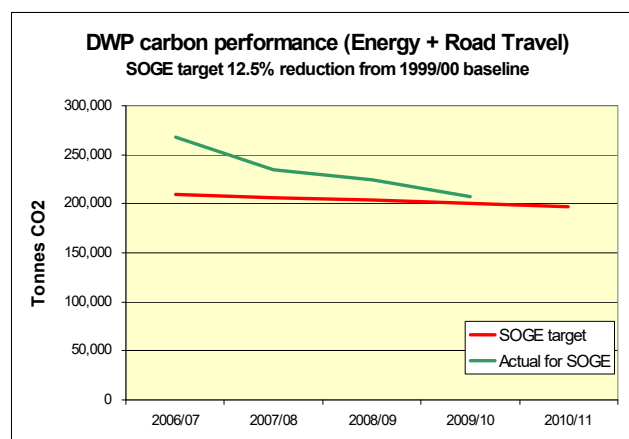


Figure 1 - On track to deliver SOGE carbon target

But we can do more. And we will.

Our vision is to be one of the lowest-carbon (per capita) departments in government, building on our recent successes and continually challenging ourselves and our suppliers to achieve our objectives whilst continuing to deliver high quality services to our customers. To realise this vision we will utilise existing governance, stakeholder and communications channels, thereby mainstreaming carbon reduction within our core business.

**DWP's baseline for this CMP is 209,868tCO<sub>2</sub>** (see 'Emissions Baseline and Projections' for details of how this has been developed).

***"We have reduced emissions by 23% (61,000tCO<sub>2</sub>) over the past three years.***

***We will reduce them by a further 25% (52,000tCO<sub>2</sub>) by April 2015.***

***This will save 213,000tCO<sub>2</sub> and £83M over five years."***

**Our aim is to reduce emissions by a further 25% by 2015.**

This will support DWP's contribution to the UK Climate Change Act 2008 commitment of a 34% reduction by 2020 and to Greening Government targets. Successful completion of all projects described in this plan will deliver the 52,467tCO<sub>2</sub> reduction needed to meet our target.

**Over the 5-year life of the plan this will save 213,222 tCO<sub>2</sub> and £83.2M** when taking account of projected Business as Usual carbon and tariff increases (see 'Projections and Value at Stake' for clarification).

Figure 2 shows the projected Business as Usual emissions, the target and our projected emissions in a Reduced Emissions Scenario as we deliver our objectives.

The Department is working closely with its key suppliers to deliver a range of measures to achieve its carbon management objectives. These include ambitious spend-to-save projects across the estate to make best use of emerging low-carbon technologies, estate rationalisation programmes, and energy efficiency campaigns with staff. Funding (where required) will be provided via DWP's Private Finance Initiative (PFI) and managed service providers and is therefore not specifically identified within this CMP.

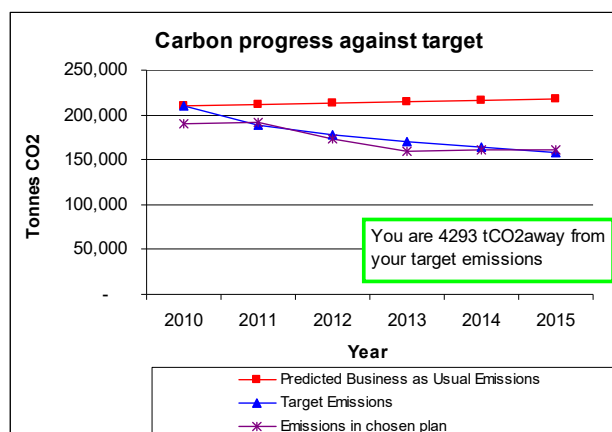


Figure 2 - Projected progress towards carbon target

The major projects to deliver these reductions are outlined in Figure 3. Other, as yet unquantified, projects are also being planned. Many will continue to deliver financial and carbon savings after the five year programme is complete, and further planning will be required to maintain the trajectory of reductions beyond 2015.

Project	Annual savings (tonnes CO <sub>2</sub> )
Install Combined Heat and Power in Quarry House Leeds	428
Travel avoidance and impact reduction measures including video, audio and web conferencing and a smaller/lower-carbon fleet	7,923
AWaRE campaign (Energy Champions, site management, challenging behaviours)	5,001
Install PIRs/timers on water boilers	52
Remove Durham House data centre	9,795
Estate rationalisation programme	11,466
Reduce power consumption of desk telephones	2,318
Increase server/comms rooms cooling temperatures to 28 degrees	326
Review and reduce building operating times	459
Install voltage optimisation	1,200
Site-specific schemes (lighting and boiler controls, variable speed drives, LED lighting etc)	4,500
Install further Automatic Meters and reset Building Management Systems to enable building settings to be reviewed and altered	8,937
Replace printers, scanners and photocopiers with Multi-Function Devices	3,209

Figure 3 - Summary of projects

The DWP CMP has been developed by the Sustainability and Climate Change Team in close collaboration with the Department's businesses, Estates and IT organisations and key suppliers, and with support from the Carbon Trust as part of its Central Government Carbon Management Programme. The plan is owned by Richard Fountain (Head of Sustainability and Climate Change and CMP Programme Manager), and is supported by the Right Honourable Chris Grayling MP (DWP Minister for sustainability), Robert Devereux (DWP Permanent Secretary) and Richard Rugg (Head of Public Sector, Carbon Trust).

I believe this plan, and specifically the projects within it, will deliver real and sustainable carbon reductions and make a positive contribution to the climate change challenge.

*Handwritten signature: Huwado Naiss*

## Foreword from the Carbon Trust from Richard Rugg - Head of Public Sector

Cutting carbon emissions as part of the fight against climate change should be a key priority for central government organisations. Carbon management is about realising efficiency savings, transparency, accountability and leading by example.



The UK government has identified the public sector as key to delivering carbon reduction across the UK in line with its Climate Change Act commitments, and the Central Government Carbon Management Service is designed in response to this. It helps organisations to save money on wasted energy and put it to better use in other areas, while making a positive contribution to the environment by lowering carbon emissions.

The Department for Work and Pensions (DWP) partnered with the Carbon Trust on this pilot programme in 2010 to help realise substantial carbon and cost savings. This Carbon Management Plan commits DWP to a target of reducing CO<sub>2</sub> by 25% by 2015 and underpins potential financial savings and cost avoidance to the organisation of around £83.2M by that date. DWP's partnerships with its suppliers will be key to the implementation of the carbon reduction projects in this plan, and will ultimately determine its success.

Central government organisations can contribute significantly to reducing CO<sub>2</sub> emissions and improving efficiency. The Carbon Trust is therefore very proud to support DWP in their on-going implementation of carbon management.





## Introduction

Climate change is the greatest environmental challenge facing the world today. Rising global temperatures will bring changes in weather patterns, rising sea levels and increased frequency and intensity of extreme weather, the effects of which will be felt in the UK. We are acting now to reduce the risk by contributing less to the causes, as part of our broader strategy to both mitigate climate change and adapt to its increasingly inevitable impacts on our core business.

The Department for Work and Pensions (DWP) is responsible for welfare and pension policy and is a key player in tackling child poverty. It supports the government's commitment to being transparent about public finances.

The Carbon Trust's Central Government Carbon Management (CGCM) Programme is based around a five-step process through which participating central government departments can create an organisation-wide carbon management strategy and action plan. The steps in the CGCM process are as follows:

- Step 1: Mobilise the organisation
- Step 2: Set baseline, forecasts and targets
- Step 3: Identify and quantify options
- Step 4: Finalise Carbon Management Plan
- Step 5: Implement Plan

The process has been undertaken systematically by the Department over an eleven month period to March 2011, culminating in the production of this Carbon Management Plan which sets out a strategy to April 2015 for managing carbon emissions, including emission reduction targets and specific actions by which those targets can be met. The Plan has been developed in consultation with DWP's businesses and key corporate groups (primarily through the Sustainable Development Delivery Group) to ensure it challenges 'business as usual' but remains deliverable.

## Our low carbon vision

DWP understands the need to continually reduce carbon to meet its targets and reduce costs, and has a well-defined plan setting out how it will do this.

***"Our vision is to be one of the lowest-carbon (per capita) departments in government, building on our recent successes and continually challenging ourselves and our suppliers to achieve our targets at the same time as continuing to deliver high quality services to our customers."***

***Our aim is quite simply to build on our 23% reduction in the past 3 years by reducing our emissions by a further 25% by 2015, thereby delivering to the new Greening Government Operations and Procurement (GGOP) targets. This will reflect our commitment to sustainable development and support our recent corporate accreditation to the Carbon Trust Standard."***

Our journey will ensure that we not only meet our carbon targets and reduce costs, but that we contribute towards reducing UK emissions and the greater aim of reducing global emissions and slowing climate change. For our businesses, this will mean delivering services in the way our customers expect and need, but with procurement of goods and services with energy efficiency and low-carbon technology as standard, and careful energy and travel management. Our staff will be fully engaged in helping the Department meet this challenge and our policy development will reflect the changing natural environment and the resultant change in demands from our customers. This will also support our Carbon Reduction Commitment (CRC) Energy Efficiency Scheme position.

## Context and drivers for carbon management

UK legislation is increasingly focusing on carbon emissions. DWP accepts the overwhelming evidence that demands a significant reduction in greenhouse gas emissions and, by working with the Carbon Trust, is seeking to define strategic and operational measures capable of reducing CO<sub>2</sub> emissions by at least those agreed nationally and internationally.

The UK Climate Change Act 2008 set a target to reduce UK emissions by 34% by 2020 and 80% by 2050. Emerging from the Act is specific legislation such as the CRC Energy Efficiency Scheme (CRC EES) that imposes the requirement on major public and private sector organisations to purchase carbon allowances annually. The ongoing costs of the CRC EES to organisations will depend on their success in limiting emissions from its energy consumption, so this provides a significant financial incentive to manage emissions. The UK Carbon Plan<sup>1</sup> sets out a number of measures to reduce emissions, including within government operations.

All UK Government Departments are subject to the Greening Government Operations and Procurement (GGOP) targets which require reductions in carbon emissions from energy and travel, and also in water and waste.

To incentivise early progress, and as one of the coalition government's first announcements, the Prime Minister committed to reduce central government emissions by 10% within 12 months (i.e. by May 2011). Real-time energy usage for each department's HQ building is published online, and a competition between these buildings (which DWP won with a CO<sub>2</sub> reduction of 22%) was held in October 2010.

Promoting transparency, all buildings with public access and over 1,000 square metres are legally required to provide Display Energy Certificates (DECs) in a prominent place. Buildings are rated A to G, where A is the lowest CO<sub>2</sub> (best) and G is the highest (worst). DWP has 366 buildings in England and Wales requiring DECs, and 47 in Scotland. **As at November 2010, 65% were rated 'D' or better (above average), up from 57% in February 2009.** The breakdown is shown in Figures 4 and 5.

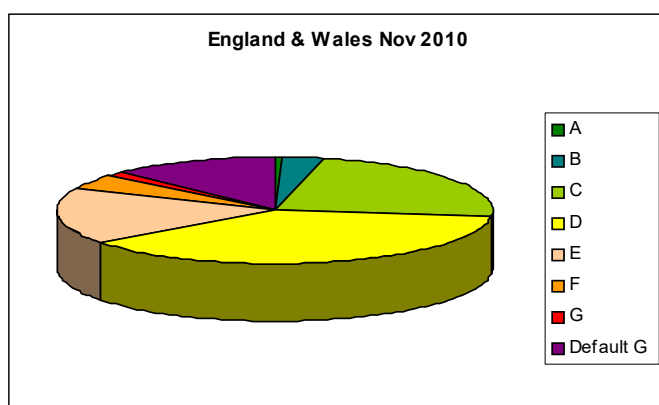
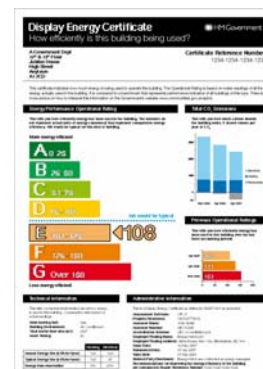


Figure 4 - DECs in England and Wales

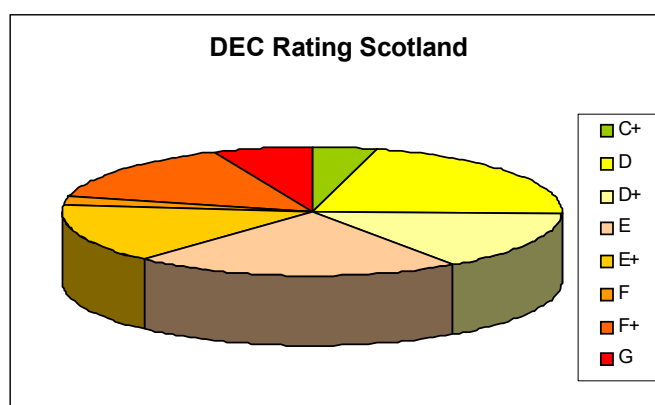


Figure 5 - DECs in Scotland

Following significant increases in recent years, energy prices reduced during the global recession. They are now increasing again, as are fuel costs, and are expected to continue to do so. Energy and travel efficiency are very visible ways of making better use of public funds, minimising demand whilst maintaining levels of comfort and safety for staff and ensuring that service to customers is maintained. DWP has an energy spend of approximately £25M p.a., and a 25% reduction by 2015 would deliver £80.7M savings over the life of the CMP at today's prices. In addition, CRC EES costs to DWP are currently estimated at approximately £2.5M p.a. (at £12 per tonne of CO<sub>2</sub>), and delivering the 25% target reduction in energy use would realise a further saving of £2.5M over the life of the CMP. **Projected total savings from the delivery of the objectives within this CMP would be 213,222 tCO<sub>2</sub> and £83.2M.**

Ensuring that carbon reduction objectives are integral to overall sustainability strategy principles is essential for any organisation wishing to demonstrate that it is leading by example. This then ensures that environmental management initiatives are fully aligned and do not conflict with social and economic objectives. Within DWP, this is currently achieved through alignment with our Sustainability and Climate Change Strategy (currently being developed to replace our 2007-2010 SD Action Plan) and our Climate Change Adaptation Plan.

<sup>1</sup> <http://www.decc.gov.uk/assets/decc/What%20we%20do/A%20low%20carbon%20UK/1358-the-carbon-plan.pdf>



## Emissions baseline and projections

### Scope

This section will detail the data sources that have been included and how the emissions baseline has been calculated. The baseline (2009/10) will be used to measure the DWP's emissions reduction performance as carbon-saving initiatives are implemented during future years.

The assessment methodology is based on the DEFRA guidelines for Greenhouse Gas Emissions and using the Carbon Trust Central Government Carbon Management Baseline Tool 'Lite'. The scope for the baseline and target is energy and all business travel (road and non-road). Waste, water, commuting, fugitive and supply chain related emissions have been excluded.

Included within the emissions for DWP are those for our key businesses Jobcentre Plus, Pensions Disability & Carers Service, Child Maintenance and Enforcement Commission, and Shared Services. Excluded are the Health and Safety Executive and other Arms-Length and Non-Departmental Public Bodies. The scope of the CMP projects includes operational activities on DWP sites by our own and supplier staff and the potential improvements achievable through policy development. DWP has around 1,000 buildings across the UK, its business, policy and corporate groups, and Arms Length Bodies staffed and organised (as at December 2010) as at Figures 6 and 7.

Jobcentre Plus	75,000
Pension, Disability and Carers Service	13,300
Child Maintenance and Enforcement Commission	7,900
Shared Services	3,800
Corporate	8,600
<b>Total</b>	<b>108,600</b>

Figure 6 - DWP staffing (to nearest 100)

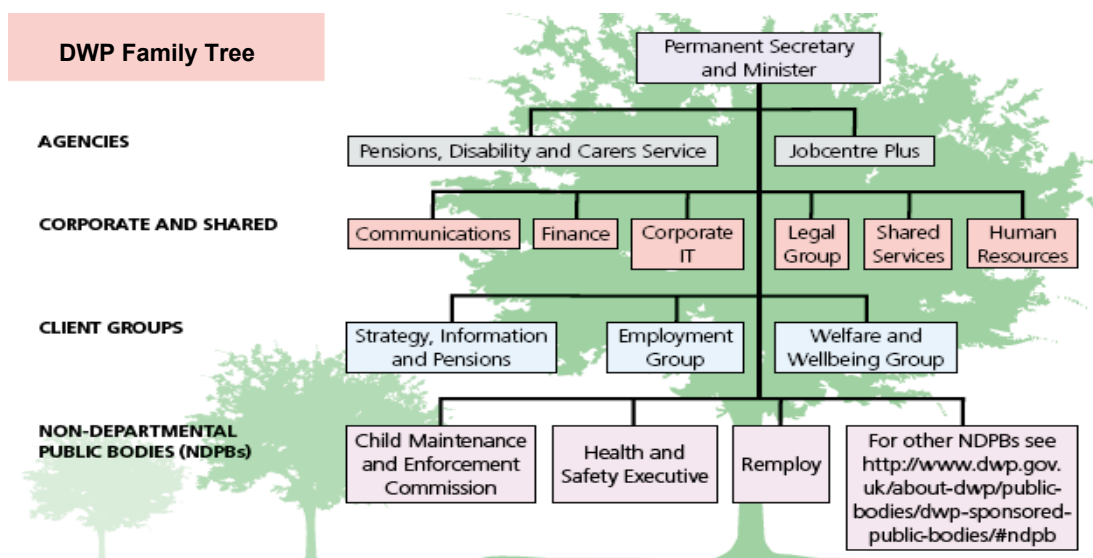


Figure 7 - DWP organisation

### Baseline

**DWP has reduced its CO<sub>2</sub> emissions from energy and road travel by 23% (61,000tCO<sub>2</sub>) over the past 3 years - from 268,311tCO<sub>2</sub> in 2006/07 to 207,348tCO<sub>2</sub> in 2009/10 (the equivalent of 10,000 households'**

emissions). This, and the ongoing reductions in 2010/11, means that the Department is on track to surpass the outgoing SOGE target of a 12.5% reduction by 2010/11 from a 1999/00 baseline.



This performance, and the fact that 65% of buildings have a DEC rating of D or better (see above), demonstrates that the energy efficiency of DWP buildings has improved significantly (and has achieved a good level) in recent years.

These successes, and DWP's plans for future improvement, resulted in DWP being awarded the Carbon Trust Standard in 2009 (the largest public sector organisation to receive it). This CMP supports DWP's continuing accreditation to the Standard.

Using 2009 DEFRA conversion factors, and sourced from SOGE submissions, **DWP's baseline for the financial year 2009/10, and therefore for this CMP, is 209,868tCO<sub>2</sub>**. The baseline was developed as shown at Figure 8.

	tCO <sub>2</sub>
Original 2009/10 outturn	207,348
Less Health and Safety Executive (not included within this CMP)	-4,767
Plus non-road travel previously excluded from SOGE	7,267
<b>Total 2009/10 baseline</b>	<b>209,868</b>

Figure 8 - baseline calculation

The baseline is a combination of emissions from energy and business travel as shown at Figure 9.

Summary Carbon Footprint - 2009/10	Emissions tCO <sub>2</sub>	Percentage
<b>Energy</b>	187,701	89.4%
<b>Transport</b>	22,167	10.6%
<b>TOTAL</b>	<b>209,868</b>	

Figure 9 - Carbon baseline 2009/10

The baseline is a mix of emissions from electricity and gas (energy) and air, rail and vehicles (transport) as demonstrated at Figures 10 and 11.

**Utility Breakdown**

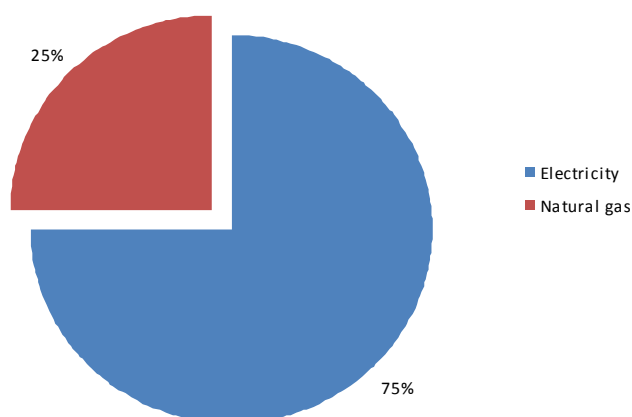


Figure 10 - Utility baseline breakdown

**Transport Breakdown**

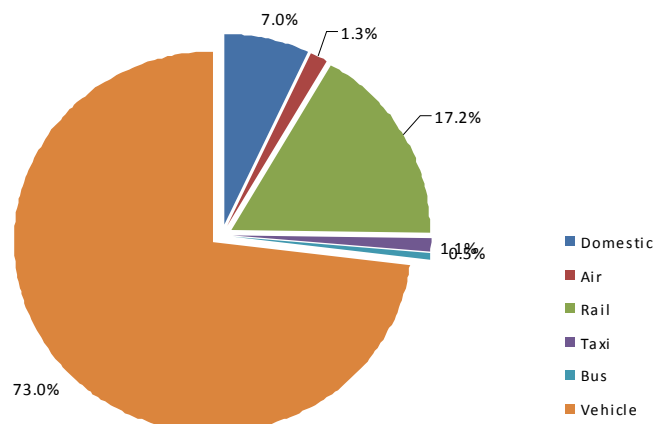


Figure 11 - Transport baseline breakdown

## Projections and Value at Stake

Fundamentally there are two scenarios used in the projections of Carbon and Costs to identify the Value at Stake (VAS) showing the potential financial benefits of implementing the measures within the plan, Business as Usual (BAU) and Reduced Emissions Scenario (RES).

The **BAU** scenario predicts the effect on cost and emissions and assumes no additional actions are taken to reduce carbon emissions. It shows the amount of carbon emitted by the DWP over the next 5 years. The model takes into account forecast increases in energy consumption of 0.7% and expected inflation in the energy and travel markets of 3.5% and 8.4% p.a. respectively. **Over the period examined, carbon emissions in a BAU scenario would be expected to increase from 209,868tCO<sub>2</sub> in 2009/10 to 217,307tCO<sub>2</sub> by April 2015, and costs from £49M to £65.1M.**

The **RES** assumes that the actions outlined in this CMP are carried out to reduce carbon. **Over the period examined, carbon emissions are actually expected to decrease from 209,868tCO<sub>2</sub> in 2009/10 to 157,401tCO<sub>2</sub> by April 2015, and costs from £49M to £38.6M** (in effect, carbon reductions neutralising expected inflation in the energy and travel markets and then delivering additional savings). **Over the 5-year life of the plan, our Value at Stake (our cumulative potential savings against BAU) is 213,222tCO<sub>2</sub> and £80.7M (plus £2.5M in carbon costs).**

Figures 12 and 13 show the BAU and RES scenarios. Predicted savings are the difference between these two amounts (plus associated carbon costs), and are shown in more detail at Figure 17. All financial values are at current market rates so can be subject to dramatic change in a volatile market – they should not be assumed to convey a guarantee of future savings.

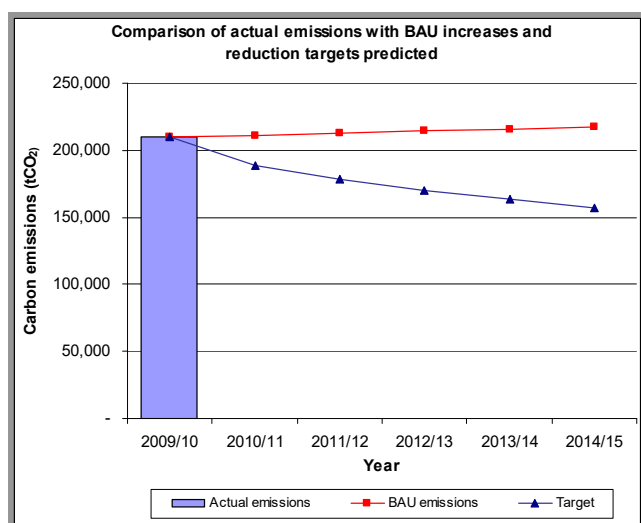


Figure 12 - DWP Carbon Value at Stake to 2014/15

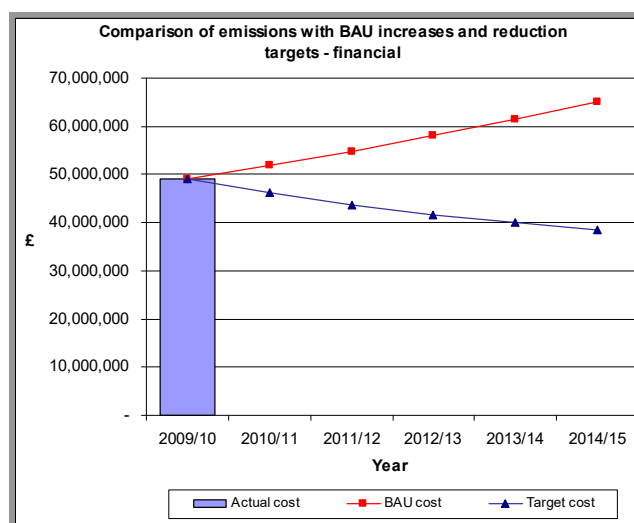


Figure 13 - DWP Financial Value at Stake to 2014/15

## Targets and objectives

**DWP aims to reduce the carbon emissions from its energy use and business travel by 25% by 31<sup>st</sup> March 2015 from a 2009/10 baseline.**

To assist in achieving the target, the Department aims to reduce emissions from energy by 11% by May 2011 (the Prime Minister's target for the first 12 months of the coalition government). Additionally we will cut domestic air flights by 20% from a 2009/10 baseline.

This 25% target aligns with the new GGOP target. Consideration was given to adopting a target higher than GGOP, but DWP has delivered considerable reductions already so a higher target would almost certainly be unrealistic at this time. This will be kept under review and a higher target set if performance suggests it may be viable.

Annual targets will not be imposed corporately between 2011 and 2015, however for tracking purposes the trajectory (each percentage reduction being from the baseline year) will be assumed to be as at Figure 14. Businesses will have the option to adopt annual targets should they so wish.

2010/11	10% (11% by May 2011)
2011/12	15%
2012/13	19%
2013/14	22%
2014/15	25%

Figure 14 - Carbon reduction trajectory

## Carbon management programme

It is important to note that, to deliver this programme, we will utilise existing governance, stakeholder and communication processes rather than adding in new ones, thereby mainstreaming carbon reduction within normal business. **Accordingly, there are no new processes detailed within this CMP as none are needed.**

### Programme organisation

The Carbon Management Programme in DWP is organised as follows:

- Programme Sponsor      **Hunada Nouss**      Finance Director General
- Programme Leader      **Richard Fountain**      Head of Sustainability and Climate Change
- Deputy Prog Leader      **David Pearce**      Utilities & Environmental Management Team Leader

Delivery of the carbon management programme is not dependent upon the individuals in these posts. Should any of the named individuals move on, their replacements will be required to take ownership. The SCC Team (led by the Programme Leader) supports the programme and are able to step in during any unforeseen circumstances to ensure its continuation.

### Governance and management

DWP undertakes carbon management as an integral part of its sustainability activities. The Sustainability and Climate Change (SCC) Team takes the lead, staffed by qualified members or associate members of the Institute of Environmental Management and Assessment (IEMA) and headed by a Chartered Environmentalist. DWP is represented on all pan-government sustainability programme boards and working groups, and the Minister with responsibility for sustainability sits on the 10% carbon target Ministerial Working Group.

Jobcentre Plus, Pensions Disability and Carers Directorate, Shared Services, the Child Maintenance Enforcement Commission and the Departments corporate and policy groups have sustainability teams and focal points to govern and manage their organisation's support to the carbon challenge.

The Commercial Policy and Process Team takes the lead on sustainable procurement – embedding sustainability principles within commercial policy and strategy, and working with category teams to integrate its objectives within tender exercises and ongoing contract management.

To share ideas and issues, and to integrate activity, a Sustainable Development Delivery Group (SDDG) is in place, comprising representatives from each of DWP's businesses (agencies), key corporate bodies (policy, IT, procurement etc) and key Arms Length Bodies (NDPBs etc). The SDDG meets monthly (with a broader quarterly review), and progress on the CMP will be monitored as part of the agenda. The SDDG is a sub-group to the Department's Planning Performance and Risk Committee (PPRC), which is itself a sub-committee to the Executive Team chaired by the Permanent Secretary and received reports on carbon emissions quarterly via a sustainability scorecard. The Finance Director General, who is the CMP Programme Sponsor and Senior Accountable Officer for Sustainability, chairs PPRC and is a member of the DWP Executive Team. This provides visible and very integrated senior ownership and governance, allows escalation of unresolved issues and a mechanism for the agreement of new initiatives and cascaded delivery across the department.

A number of working groups exist in DWP to identify, develop and monitor the progress of initiatives in the operations (utilities and environment) and procurement areas. In addition, it is important to ensure that carbon reduction and ongoing efficiency is mainstreamed within business processes. To this end, work is ongoing with policy colleagues to build carbon identification and mitigation into policy and planning.

The Department is working with its key suppliers Telereal Trillium (estate), BT and HP (ICT) and Xerox (printing) to identify technical innovation and good management initiatives. Each supplier is developing a carbon footprint or baseline for its areas of responsibility, and prioritising potential measures – these are either included within this CMP where sufficiently developed, or will be included at a later date to be agreed. These measures will complement the existing and planned measures such as housekeeping, management, policy development and estate rationalisation where DWP itself has responsibility.

These governance and management arrangements, which will also be used to govern the delivery of this CMP, are at Figure 15 (yellow boxes indicate DWP bodies, white indicate pan-government bodies):

***" Telereal Trillium is delighted to support DWP, working together to further reduce the Department's carbon footprint and environmental impact through sound energy management techniques and investment in technology."***

**Simon Phillips**  
Energy & Environment Director  
Telereal Trillium

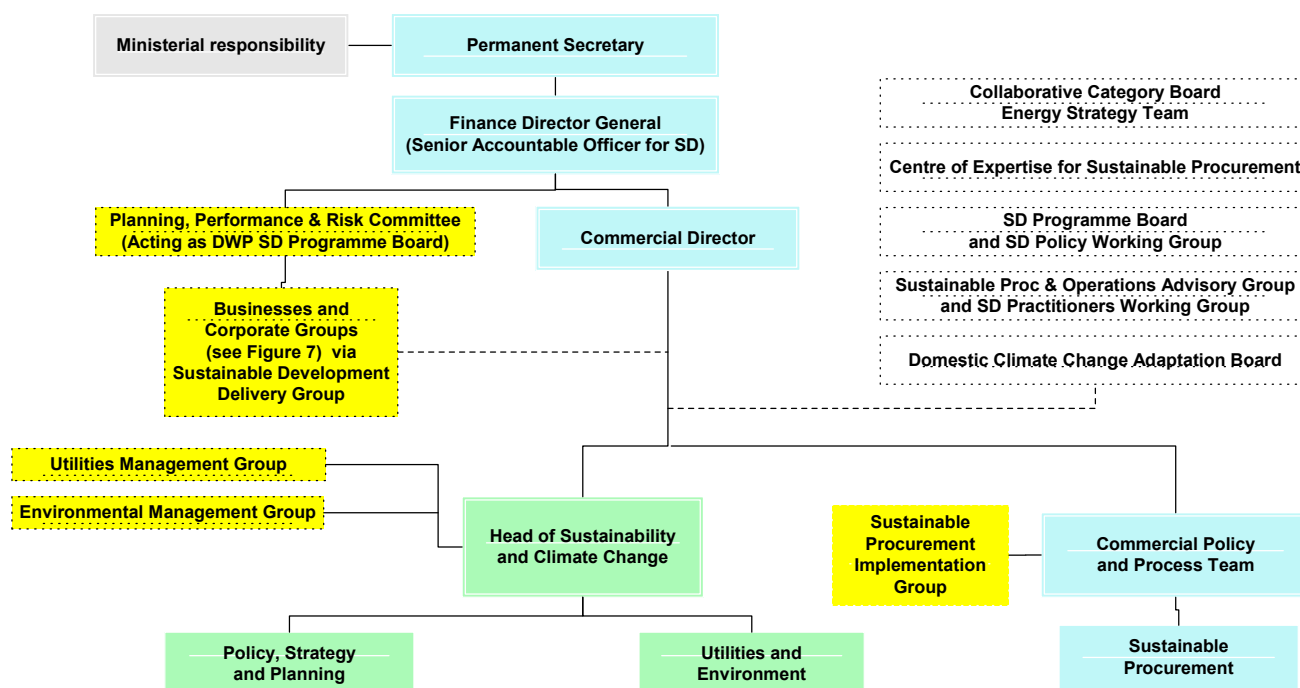


Figure 15 - Governance and organisation

Note: full management chain not shown for simplicity

## Carbon management projects

A number of projects are in place to ensure that DWP meets its emissions target, together aiming to deliver the entire 25% target. These projects are a combination of 'housekeeping' measures delivered as part of energy campaigns and technical measures identified with and by DWP's estates and ICT service partners.

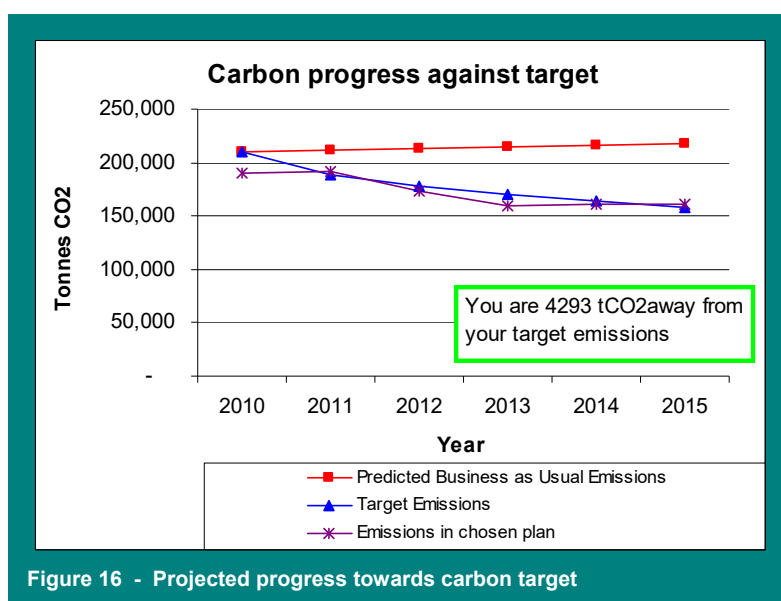
Any unforeseen shortfall from failed projects is expected to be overcome from new projects to be identified and delivered over the life of this CMP.

### Existing projects

Currently planned projects are listed at **Appendix A**. Note that the financial figures are for indicative purposes only and simply to allow calculations and graphs to work – see explanation in CMP Financing section.

### Projected achievement towards target

Figure 16 details the projected annual delivery against the carbon target. Note this shows a small shortfall against BAU increases, but as can be seen in Figure 16, the projects planned within this CMP demonstrate that DWP is projected to meet its target level in actual terms.





## Carbon management plan financing

In the vast majority of cases, funding for technical improvements will be provided by DWP's suppliers under either gain-share arrangements or under contractual obligations. **It is therefore important to note that, in most cases, financial figures are not available for inclusion within this Plan, as the financing is the responsibility of the supplier and would also be commercially sensitive.**

The vast majority of the DWP estate is owned and operated by Telereal Trillium under a Private Finance Initiative (PFI) agreement, the Department receiving fully serviced accommodation. Energy efficiency is a key requirement of the agreement and a shared savings mechanism is operated to incentivise investment in carbon reducing technical improvement and estate management measures. Under this mechanism, Telereal Trillium identify potential measures, provide spend-to-save business cases for DWP approval, and then implement them with their service partners, recovering their investment from the accruing savings. Post recovery, savings are shared 50/50 between DWP and Telereal Trillium. This ensures that a return on investment is achieved (subject to the measure delivering as expected) and that funding is then available for further initiatives.

The Department's new wave of ICT contracts contain clauses requiring carbon footprints to be calculated for the services being delivered, and also requirements to reduce those footprints over time. Again, financial arrangements would be through the suppliers under terms agreed within the contract.

No funding is required for energy campaigns and other administrative measures, as these will be handled using existing resources. Staffing is already in place within the Sustainability and Climate Change Team and supporting groups. The team being situated in Commercial Directorate, and the ownership of sustainable procurement by the Commercial Policy and Process Team, means that regular liaison is maintained with category teams to ensure suppliers deliver their commitments.

The sole measure requiring government funding was the Combined Heat and Power (CHP) plant at Quarry House Leeds. This measure was funded from the government sponsored Salix scheme, funds being transferred to Telereal Trillium to deliver the initiative with their service partners. The Salix loan will be repaid from accruing savings over 4 years.

In all cases, proposed measures are developed by suppliers using their existing business case and project management mechanisms. Accordingly, the template project sheets provided as part of the CMP template will not be utilised. However, to make sure that the projects are delivered (or alternatives identified), existing contract and sustainability management meetings and governance processes will be utilised (for instance through the relevant Category Management Teams and the Sustainability and Climate Change Team).

### Assumptions

- That average gas and electricity tariffs, and transportation costs, grow as predicted to 2015 (3.5% and 8.4% respectively). **It is important to note that projected financial savings should not be seen as guaranteed – these are based on current market prices which can change dramatically.** Financial returns will be recalculated at regular intervals to ensure projects remain viable or assist in justifying new ones.
- That carbon conversion factors and costs remain as at present (again, these will be regularly checked).

### Resources

No additional resources will be required to deliver the CMP. Existing mechanisms will be utilised to facilitate ownership and action. See comments above regarding financial resources.

### Benefits and savings – quantified and unquantified

The initial baseline for **2009/10 is 209,868tCO<sub>2</sub> and £49M**. Business as Usual (BAU) forecast inflation within the energy and transport markets (3.5% and 8.4% respectively) and also projected carbon increases (0.7%), would mean that these figures would rise over time (see 'Projections and value at Stake'). As shown at Figure 17, delivery of the Reduced Emissions Scenario (RES) target reductions would realise savings of 213,222tCO<sub>2</sub> and £80.7M over the life of the CMP. In addition, further savings associated with the cost of carbon would be realised. CRC Energy Efficiency Scheme costs to DWP are currently estimated at approximately £2.5M p.a. (at £12 per

tonne of CO<sub>2</sub>). Delivering the 25% target reduction in energy use would realise a further savings of £2.5M over the life of the CMP. **Projected total savings from the delivery of the objectives within this CMP would therefore be 213,222 tCO<sub>2</sub> and £83.2M.**

	2010/11	2011/12	2012/13	2013/14	2014/15	Total
<b>BAU projected financial outturn</b>	<b>£51.8M</b>	<b>£54.8M</b>	<b>£58.0M</b>	<b>£61.4M</b>	<b>£65.1M</b>	<b>£291.1M</b>
<b>RES projected cost</b>	<b>£46.3M</b>	<b>£43.7M</b>	<b>£41.7M</b>	<b>£40.1M</b>	<b>£38.6M</b>	<b>£210.4M</b>
<b>Annual financial saving (BAU-RES)</b>	<b>£5.5M</b>	<b>£11.1M</b>	<b>£16.3M</b>	<b>£21.3M</b>	<b>£26.5M</b>	<b>£80.7M</b>
<b>Annual carbon cost saving at £12/t</b>	<b>£269k</b>	<b>£413k</b>	<b>£532k</b>	<b>£625k</b>	<b>£719k</b>	<b>£2.5M</b>
<b>BAU projected carbon outturn</b>	<b>211,337t</b>	<b>212,816t</b>	<b>214,306t</b>	<b>215,806t</b>	<b>217,317t</b>	<b>1,071,582t</b>
<b>RES projected carbon</b>	<b>188,881t</b>	<b>178,388t</b>	<b>169,993t</b>	<b>163,697t</b>	<b>157,401t</b>	<b>858,360t</b>
<b>Annual CO<sub>2</sub> saving (BAU-RES)</b>	<b>22,456t</b>	<b>34,428t</b>	<b>44,313t</b>	<b>52,109t</b>	<b>59,916t</b>	<b>213,222t</b>
<b>Simple year-on-year CO<sub>2</sub> saving</b>	<b>20,987t</b>	<b>31,480t</b>	<b>39,875t</b>	<b>46,171t</b>	<b>52,467t</b>	<b>190,980t</b>
<b>% of target achieved</b>	<b>10%</b>	<b>15%</b>	<b>19%</b>	<b>22%</b>	<b>25%</b>	

Figure 17 - Summary of quantified potential savings

Unquantified benefits are :

- Potential savings from not needing to purchase carbon allowances.
- Improved reputation (government delivering on its promises, and DWP continuing to play its part).
- Decreased risk from volatile energy markets (the overall risk would remain but a lower energy volume would reduce the impact of tariff increases).

## Actions to embed carbon management in the organisation

### Corporate strategy

The Department's Finance Director General (who sponsors this CMP) is a member of the Executive Team (ET) and chairs the Planning, Performance and Risk Committee (PPRC), thereby providing ownership, leadership and a conduit for reporting progress, resolving issues and agreeing improvement proposals. The Sustainability and Climate Change Team takes the lead on and co-ordinates implementation, via the SD Delivery Group with businesses and corporate groups and via category teams with key suppliers and their service partners.



Carbon reduction is a key part of DWP's Sustainable Development (SD) Policy, which supports the social, economic and environmental aims of the UK Strategy for SD. The CMP will form an integral part of the planned DWP Sustainability and Climate Change Strategy which will be developed this year to replace the outgoing 2007-10 SD Action Plan.

The carbon target will be integrated within the Department's Business Plan, and is already disaggregated to its businesses Jobcentre Plus, Pensions Disability and Carers Directorate, Shared Services, Child Maintenance and Enforcement Commission and the Corporate Centre (Headquarters).



The strategy is to use a mix of good housekeeping (by DWP staff and suppliers/service partners), investment in new technology and estate rationalisation to ensure that the target is met.

## Communication and training – ensuring everyone is aware

The DWP Communications Team is actively engaged in providing information, tips and hints, guidance and reports to DWP staff. The primary means of doing this, being such a large department, is via corporate and business intranets. In all cases, communications are co-ordinated by the SCC Team to ensure they align with the Government's and the Department's sustainability policy, targets and delivery mechanisms, and that they support the objectives of this CMP. Complementing and building on this, and tailoring messages for individual circumstances, each business' sustainability leads develop specific communications for business-wide, regional or local delivery.

The DWP energy campaign *AWaRE (Avoid Waste and Reduce Energy)* is the primary awareness raising package. Posters and other information are provided to engage staff across the DWP businesses. Where appropriate, carbon reduction messages are communicated on the main DWP intranet homepage headline news and 'ticker tape'. In addition to this, SD Delivery Group representatives are informed separately of key messages so they can cascade them through their business via regional and local groups, and an email network is being established for Energy Champions.



Specific training is provided to the SCC Team and to those in the SD Delivery Group who need it, primarily via the Institute of Environmental Management and Assessment. In addition, specific training has been provided to those in key carbon and energy roles across the businesses, including on how to use the very detailed information available in the Stark Energy On-Line AMR data system.

Sustainability is incorporated into the DWP staff induction pack. This provides an overview and points staff towards the comprehensive material provided in the SCC intranet site.

Staff surveys have been used in the past to monitor awareness and develop focused plans to address issues raised. In the past, (and in common with wider public surveys) these have demonstrated increasing (but inconsistent) awareness amongst DWP staff. These will continue to be undertaken as and when appropriate.

Specific communications are undertaken in the run up to climate change and energy focused national and international events (for instance Earth Hour and Climate Week), ensuring that staff understand their role before, during and after the event. This provides UK-wide focus to generate additional interest.

As shown above, comprehensive awareness raising mechanisms are already in place. These will continue to be utilised in delivering this CMP, therefore **no new communications systems will be required**.

## Responsibility – being clear that saving carbon is everyone's job

DWP has an ongoing long-term programme for culture and behaviour change. This applies to everyone across the Department. Senior ownership and leadership is integral to this success, and the Executive Team are regularly informed of latest position with key recommendations for future improvement. An example of this the recent 'Carbon Challenges' on heating, cooling and electricity use developed at DWP's Carbon Conference, endorsed by the Permanent Secretary and Executive Team, and embedded across DWP. The DWP energy campaign *AWaRE (Avoid Waste and Reduce Energy)* is the primary means of engaging staff, sharing ideas and rewarding success (see 'Communication and Training' below).

Sustainability is, of course, the overall role and objective for those in the SCC Team. Where relevant to their role (for instance those involved in the Sustainable Development Delivery Group and those suppliers supporting the programme), sustainability is specifically included within job descriptions and key work objectives.

Local Energy Champions are in place in the department's key buildings to co-ordinate activity and encourage their colleagues to play their part. They also liaise with Telereal Trillium local Business Service Managers who have responsibility for energy efficiency and to identify technical improvement measures across their area.

To assist in motivating and rewarding staff across DWP to play their part, sustainability is included within the Department's core competencies and induction programme. Specifically to reward those who go the extra mile,

annual Sustainability in DWP (SiD) awards are held, nominations coming from businesses, corporate groups and individuals (for instance, winners of the Jobcentre Plus social, environment and economic sustainability (SEEDS) scheme feed into the SiD awards).

Specific measures being undertaken by individual businesses include:

- Working with local Sustainability/Energy Champions to raise general awareness encourage everyone to play their part – no matter how small - and do their bit to make a difference.
- Delivering the Estate Strategy to specify efficient buildings and incorporate sustainable working practices within them;
- Actively managing and delivering IT Desktop targets and the wider Demand Management agenda;
- Aligning building opening times with heating times, minimising out-of-hours heating and cooling
- Setting policies on heating and cooling temperatures in offices and equipment rooms;
- Including the Environment within local Health and Safety meetings;
- Challenging duplicate and unnecessary equipment;
- 'Switch off' campaigns
- Encouraging staff participation and involvement in *AWaRE* initiatives and more recently in DWP's *Spending Wisely* financial efficiency campaign.

## Monitoring and reporting

Performance is recorded, monitored and reported by Telereal Trillium's energy bureau service, identifying potential issues for resolution by Building Service Managers. Reports are provided to sustainability leads in DWP businesses so they can work with site/accommodation managers to review energy use, seek reductions where relevant, and influence the behaviours of staff.



600 sites are now collecting half-hourly energy data via Automatic Meter Readings (many of those also collecting water data). Reports for all buildings (site by site) are made available to relevant staff showing latest data and comparing it to previous periods, thereby incentivising improvement by demonstrating the results of their actions.

At site level, Health, Safety and Environment (or House Committee) meetings are held to review performance and identify potential improvement measures.

Travel data is collected either from rail, air, hire car and fleet suppliers, or through staff expenses from the DWP Resource Management system. This is provided to businesses quarterly.

Reports on aggregated and disaggregated performance are reviewed at Planning, Performance and Risk Committee meetings quarterly, with recommendations for further action being made by the SCC Team.

Monthly data is provided to the Efficiency Reform Group in Cabinet Office to inform ministerial and senior official reports on progress towards pan-government targets. The DWP SCC Team is currently working with ERG to pilot the development of a central government carbon data tool.

Monitoring of this Carbon Management Plan will be undertaken by the SCC Team, led by the Programme Manager. Monitoring of individual business performance will be undertaken by the SD Delivery Group and the Utilities Management Group. Where relevant, the Commercial Assurance Team can be called upon to audit supplier performance. **No new monitoring and reporting processes will be required for this CMP.**

Appendix A

## Planned projects

Overview management of these projects will be undertaken by the SCC Team, with specific project management being undertaken by suppliers where relevant. Because of this, **individual project records are not needed or included within this CMP.**

Ref	Project	Lead	Cost		Annual Savings (yr 1)		Pay back (yrs)	Net Present Cost (£)	% of Target	Implementation Year
			Capital	Operational	Financial (Gross)	tCO <sub>2</sub>				
1	Install Combined Heat and Power in Quarry House Leeds	Telereal Trillium	£455,609		£56,877	428.1 tCO <sub>2</sub>	8.0	-£199,467	0.82%	2010
2	Travel avoidance and impact reduction measures including video, audio and web conferencing and a smaller/lower-carbon fleet	Business Travel & BT			£3,557,963	7929.3 tCO <sub>2</sub>		-	15.11%	2010
3	AWaRE campaign 2010 (Energy Champions, site management, challenging behaviours)	SCC Team			£280,000	1544.4 tCO <sub>2</sub>		-£2,328,648	2.94%	2010
4	Install PIRs on water boilers	Telereal Trillium			£9,600	52.2 tCO <sub>2</sub>		-£79,838	0.10%	2010
5	Remove Durham House data centre	Estates			£1,800,000	9795.2 tCO <sub>2</sub>		-	18.67%	2010
6	Estate rationalisation programme	Estates			£2,050,000	11466.3 tCO <sub>2</sub>		-	21.85%	2011
7	Reduce power consumption of desk telephones	BT			£426,000	2318.2 tCO <sub>2</sub>		-£3,542,873	4.42%	2012
8	AWaRE campaign 2011	SCC Team			£230,000	1272.3 tCO <sub>2</sub>		-£1,912,818	2.43%	2011
9	Increase server/comms rooms cooling temperatures to 28 degrees	Telereal Trillium			£60,000	326.5 tCO <sub>2</sub>		-£498,995	0.62%	2011
10	Review and reduce building operating times	Estates			£75,000	459.9 tCO <sub>2</sub>		-£623,744	0.88%	2011
11	AWaRE campaign 2012	SCC Team			£130,000	728.1 tCO <sub>2</sub>		-£1,081,158	1.39%	2012
12	Install voltage optimisation	Telereal Trillium	£500,000		£220,515	1200. tCO <sub>2</sub>	2.3	-£117,804	2.29%	2012
13	Site specific schemes (lighting controls, variable speed drives, boiler controls, LED lighting etc)	Telereal Trillium	£2,000,000		£826,932	4500. tCO <sub>2</sub>	2.4	-£316,764	8.58%	2012

14	Install further AMR and reset BMSs to enable building settings to be reviewed and altered	Telereal Trillium			£1,570,000	8937.1 tCO2	0.0	-	17.03%	2012
15	AWaRE campaign 2013	SCC Team			£130,000	728.1 tCO2	0.0	-£1,081,158	1.39%	2013
16	AWaRE campaign 2014	SCC Team			£130,000	728.1 tCO2	0.0	-£1,081,158	1.39%	2014
17	Life-cycle works schemes and spend-to-save top-up	Telereal Trillium							0.00%	2011
18	Install CHP and heat exchanger in Caxton House and Peel Park for cooling	Telereal Trillium							0.00%	2011
19	Replace printers, scanners and photocopiers with Multi-Function Devices	Xerox			£589,710	3209.1 tCO2		-£4,904,382	6.12%	2011
20	Install wireless Building Management System on small sites where no BMS at present	Telereal Trillium	£400,000					£400,000	0.00%	2012
21	Install Vendmiser on vending machines	Telereal Trillium							0.00%	2012
22	Server virtualisation	BT							0.00%	2012
23	Server consolidation	BT							0.00%	2012
24	Replace desktops with thin-client technology	Desktop Managed Service Provider							0.00%	2013