



Potential Carbon Abatement from the Public Sector in Scotland

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This report has been produced by the Carbon Trust on behalf of Scottish Ministers. The views expressed in the report are those of the Carbon Trust and do not necessarily represent those of Scottish Ministers.

The accompanying technical PowerPoint report is available on the Scottish Government website <http://www.scotland.gov.uk/Publications/2013/02/4171>.

1 Executive Summary

As part of the RPP2 process, the Scottish Government commissioned the Carbon Trust to estimate the carbon abatement potential of the Scottish public sector.

The study took 6 weeks and used the Carbon Management Plans of Scottish public sector bodies and the Carbon Trust's proprietary database of carbon reduction recommendations made to the public sector. Due to time constraints, public sector bodies were not directly involved.

The study had three main objectives:

- To create an emissions baseline for the Scottish public sector estate;
- To estimate the abatement potential out to 2030 and provide inputs to the RPP2 process;
- To identify the main barriers to public sector carbon abatement and possible interventions to address them.

Baseline

The study aggregated the emissions baseline information in the Carbon Management Plans (CMPs) of 138 public sector bodies to create an emissions baseline for the public sector. Most CMPs use 2008 or 2009 as their baseline year. The CMPs available cover around 80% of the c. 175 public sector bodies in Scotland by number and we estimate 90-95% of emissions.

Including all the sources covered in the CMPs – principally emissions from electricity and fossil fuel consumption in buildings, emissions from owned transport and waste emissions – total emissions are 3.4 million tonnes of CO₂ per annum. Local authorities account for around two thirds of the total. Buildings is the largest source category,

accounting for c. 65%, followed by waste and transport at 17% and 13% respectively. For the RPP2 process it was necessary to create a second baseline figure excluding emissions sources counted elsewhere in the process (traded emissions, transport and waste). Excluding these sources reduces the baseline to 0.98 million tonnes. Of this reduced 'RPP2' baseline, 98% is generated by buildings (on-site fossil fuel consumption). Local authorities account for c. 60%.

Abatement Potential

To estimate the abatement potential from the public sector, two methods were used. The first analysed the carbon reduction projects included in the CMPs (each plan contains a list of quantified projects). It was possible to analyse the projects from 67 of the CMPs available, amounting to c. 1,350 separate projects and around 250 thousand tonnes of CO₂. Of these around half relate to the reduced 'RPP2' baseline (excluding measures which impact emissions from the traded sector, transport or waste). Each project's emissions reduction impact was calculated as a % of the emissions baseline of that organisation and it was assumed that all organisations from the same sector could make similar reductions by implementing similar projects. In total this would amount to a 39% reduction against the RPP2 baseline. The categories of behaviour change, building fabric and renewables offer the largest reductions vs the baseline.

The second method used the Carbon Trust's proprietary database of carbon reduction recommendations made to customers. This contains records for c. 5,000 recommendations made to Scottish public sector bodies, amounting to nearly 700 thousand tonnes of CO₂ of annual savings and more than 6 million tonnes over the full lifetime of the measures (including all emissions). Behaviour change, renewables,

HVAC and building fabric are the largest categories in terms of total emissions reduction. The projects in the database aggregate to a total % reduction of 29% against the RPP2 public sector baseline.

Barriers to implementation

These estimates of potential assume that 100% of identified projects are implemented. In the Carbon Trust's experience, not all recommendations made to organisations actually get implemented, even those with short payback periods. A number of cultural, financial and organisational barriers stop good projects from getting implemented. The most significant barriers for the public sector in Scotland are:

- Senior leadership is not sufficiently engaged and incentivised to make carbon reduction an organisational priority in public sector bodies;
- Procurement functions do not drive energy efficiency through public sector supply chains;
- Finance is not available for, or allocated to, energy efficiency projects;
- The relevant skilled resources are not available or lack the bandwidth to focus on energy efficiency and emissions reduction;

- Split incentives, especially in schools and tenanted buildings, mean that the people most able to reduce emissions are often not incentivised to do so.

These barriers will need to be addressed to realise the full, currently identified abatement potential.

Longer Term Potential

The abatement potential identified in the CMPs and the Carbon Trust's database is biased towards immediate, relatively short payback opportunities. Once those have been implemented, there remain substantial opportunities for further reduction. Some of the main areas of potential are:

- New ways of using space and delivering services, including better space management, space rationalisation, shared services and provision of remote services;
- Major retrofits including exploration of the opportunities in natural ventilation, waste heat recovery and long payback building fabric measures;
- District heating, decentralised energy and greater penetration of on-site renewables;
- Procurement reforms.

2 Introduction

Context

The Scottish Government has adopted ambitious targets for the reduction of carbon emissions that will require substantial contributions from all sectors of the economy. To help understand the potential contribution from the public sector to that effort, and to provide inputs to the update of the Report on Policies and Proposals (RPP2), the Scottish Government commissioned the Carbon Trust to explore the potential for carbon abatement from the Scottish public sector estate.

Objectives

The study had 3 main objectives:

- To create an emissions baseline for the Scottish public sector estate;
- To estimate the abatement potential out to 2030 and provide inputs to the RPP2 process;
- To identify the main barriers to public sector carbon abatement and possible interventions to address them.

Scope and Sources

The study covered emissions from electricity use, on-site fossil fuel use, owned transport and waste. All public sector bodies were in scope and were included where data was available. The Public Sector Emissions Baseline section of this document provides further detail on the organisations included.

Because traded emissions (principally electricity), transport emissions and waste emissions are covered elsewhere in the RPP2 process, it was necessary to estimate the baseline and abatement potential at several levels. A baseline and estimate of abatement potential was created that excludes traded emissions, transport and

waste (referred to as the 'RPP2' baseline), and a total baseline including all sources and measures was also created (referred to as the 'Combined' baseline).

The study was conducted over 6 weeks during June and July 2012 and only used and analysed data and evidence that was already available. Due to time constraints, there was no primary data collection and public sector bodies were not directly involved in the study. The main sources of data were the Carbon Management Plans of c. 130 public sector bodies and the Carbon Trust's proprietary database of carbon reduction recommendations made to customers, 'Close Out'. Some additional research into longer term reduction potential was carried out, and the Carbon Trust's Public Sector Team contributed their experience of working with 3,000 public sector bodies across the UK.

3 Public Sector Emissions Baseline

Method

To inform and sense-check the estimate of abatement potential, an emissions baseline was developed by aggregating the baseline information from the Carbon Management Plans (CMPs) of 138 public sector bodies (PSBs) that were available. The 138 organisations included represent c. 80% of the total PSBs in Scotland by number and we estimate around 90-95% by volume of emissions. CMPs were available for all 32 Local Authorities and all 19 emergency services, with coverage of between 65% and 79% by number of organisations across other sectors of the public sector.

The majority of CMPs are 5 or 6 year plans (100 of the 138) with a small number taking a longer term (10 yr) view. All plans have a baseline year against which their carbon reduction targets are set, and in the majority (over 60%) of CMPs the baseline year was either 2008 or 2009.

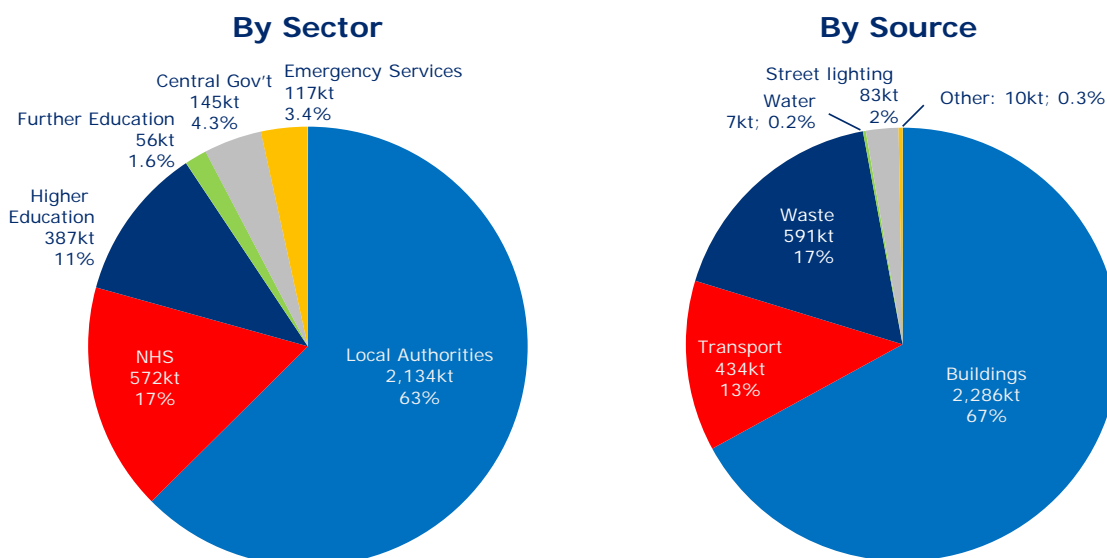
As a result there is very little explicit coverage beyond 2015 in CMPs. The carbon reduction targets in CMPs – which are defined by the PSB itself – vary from 10% reduction over 5 years to 50% over 5 years, with an average close to 20% (weighted by emissions) in each sector.

The 'Combined' Emissions Baseline

The 'Combined' baseline includes all emissions reported in CMPs, both traded and non-traded and including in many cases emissions from waste and transport. Total 'Combined' emissions from the public sector are estimated to be 3.4 million tonnes of CO₂ (MtCO₂) per annum. The charts in Figure 1 show the breakdown by sector and by source.

Local Authorities account for two thirds of the emissions baseline, and together with NHS and Higher Education account for over 90% of the total baseline. From an emissions source perspective, buildings account for over two thirds of the total emissions baseline, and for most sectors account for 80-90% of emissions. The exceptions are Local Authorities, where waste accounts for 26% of emissions (Local Authorities account for 94% of waste emissions from the whole public sector) and Emergency Services where transport accounts for 24% of emissions.

Figure 1: Combined Emissions Baseline (Total 3,411 ktCO₂)



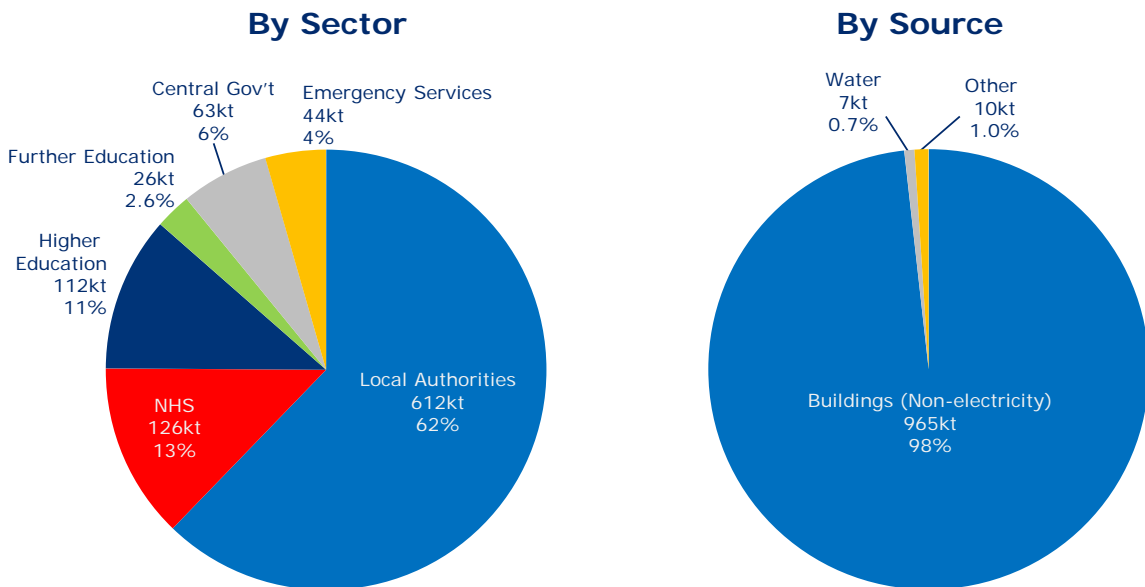
Source: Carbon Trust analysis of 138 Carbon Management Plans

The ‘RPP2’ Emissions Baseline

To be consistent with the RPP2 process, where traded emissions, transport and waste are covered separately, it was necessary to produce a baseline excluding those items. This baseline is referred to in this document (and the accompanying PowerPoint version) as the ‘RPP2’ baseline to distinguish it from the ‘Combined’ baseline that includes all sources. To calculate the RPP2 baseline the portion of buildings emissions derived from electricity (because this is traded) was estimated using the energy consumption data in the CMPs (49% of buildings emissions derive from electricity) and excluded, along with transport and waste (which are reported separately in CMPs). Excluding these items reduces the baseline to 0.98 MtCO₂. Figure 2 shows the breakdown of the RPP2 baseline by sector and source.

The sector breakdown of the RPP2 baseline is similar to that of the Combined baseline, with Local Authorities accounting for over 60% of the total. The breakdown by source is very different, due to the exclusion of the transport and waste categories. Buildings (on-site consumption of fossil fuels) account for 98% of emissions in the RPP2 baseline. Analysis of the make-up of the RPP2 baseline by organisation reveals that the 5 largest PSBs account for 20% of the RPP2 baseline, and the largest 17 account for 50%.

Figure 2: ‘RPP2’ Emissions Baseline (Total 983 ktCO₂)



Source: Carbon Trust analysis of 138 Carbon Management Plans

4 Estimation of Abatement Potential

Introduction

The primary objective of this study was to estimate the potential for carbon abatement from the Scottish public sector estate, to provide inputs to the RPP2 process and to highlight major areas of opportunity for public sector carbon reduction. As with the baseline calculation it was necessary to distinguish between the overall ‘Combined’ opportunity including all sources (and the measures that reduce emissions), and the ‘RPP2’ baseline and relevant measures, excluding traded emissions and transport and waste.

We used two different methods to estimate the abatement potential, one based on information contained in the Carbon Management Plans and one based on the Carbon Trust’s proprietary database of carbon reduction recommendations, ‘Close Out’. The remainder of this section explains the approach used in each method and summarises the results.

Carbon Management Plan method

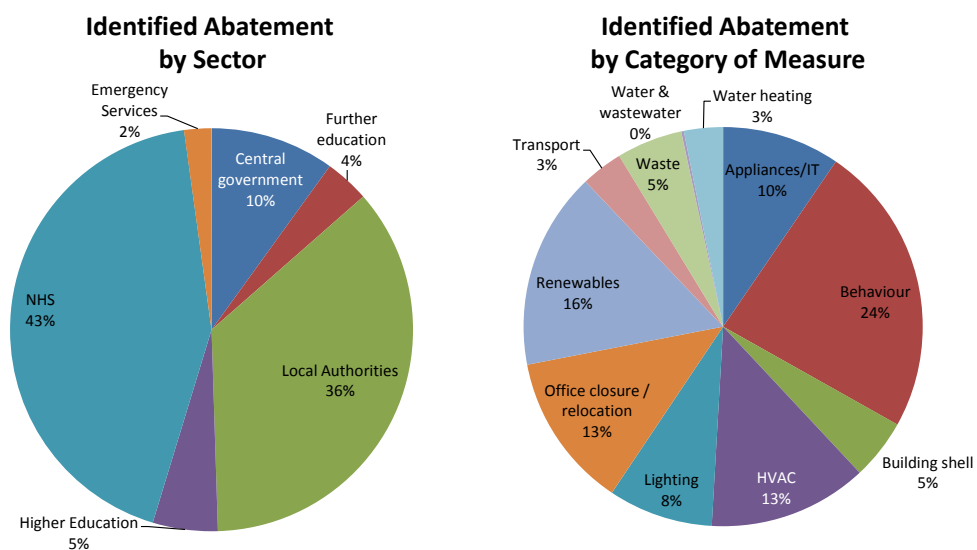
Overview

The first method used information in the Carbon Management Plans of the 138 PSBs. As organisations go through the Carbon Management process, they identify a wide range of carbon reduction projects which can be implemented to reach (and exceed) their carbon reduction targets. In most cases the carbon reduction impact in tonnes of CO₂ and the cost of the project are quantified. We were able to extract lists of projects from 67 of the CMPs (many plans were in formats that prevented this) and analyse these in Excel. The 67 plans accounted for around 50% of the Combined emissions baseline.

Identified Reduction Projects

The project information extracted provided a database of c.1,350 carbon reduction projects amounting to c. 250 ktCO₂. Figure 3 shows the breakdown of these projects by sector and category of measure.

Figure 3: Identified Abatement (Combined)



Source: Carbon Trust analysis of 67 Carbon Management Plans

NHS and Local Authorities between them accounted for around 80% of the carbon abatement identified (they accounted for half of the 67 plans analysed and typically have higher average emissions per organisation). Behaviour Change was the single largest category of abatement measure. This is to be expected because the Carbon Management Plan process targets behaviour change projects in particular, because they are a low-cost and impactful intervention.

Estimation approach

In order to estimate the abatement potential of the public sector, we assumed that within each sector (e.g. NHS, Higher Education), all organisations could implement all the measures identified by the organisations from that sector where we were able to extract and analyse project level information, and that they would achieve the same reduction vs their baseline from that area of activity. So for example, in the Higher Education CMPs analysed, 11 boiler replacement or upgrade projects were identified within the HVAC category, with an average reduction vs baseline emissions of 1.3%.

In this case we would assume that all Higher Education organisations can achieve a 1.3% reduction from boiler upgrades. Using the same approach with other HVAC projects gives a total reduction from HVAC measures (2.9%) which is applied across the whole Higher Education sector baseline. This was repeated for each category and sector to produce a total estimate of abatement potential. The results are shown in Figure 4 below.

In order to produce an estimate that was useful for the RPP2 process, traded measures and transport and waste needed to be excluded. Transport and waste measures were excluded at the category level and buildings measures were categorised at the sub-category level regarding the energy consumption they reduce (electricity, fossil fuels or mixed). Measures affecting traded emissions sources were excluded from the analysis. This reduced the total number of projects in the analysis from c. 1,350 to c. 650.

Figure 4: Abatement Potential vs RPP2 Baseline by Category and Sector (CMP method)

	Central Govt.	Further Ed.	Higher Ed.	LAs	NHS	Emerg. Services	Total
Appliances/IT	0.0%	2.8%	2.0%	0.0%	0.2%	0.1%	N/A
Behaviour	15.9%	13.7%	9.8%	16.5%	9.7%	15.3%	
Build. shell	13.5%	15.1%	3.5%	12.6%	3.2%	3.8%	
HVAC	7.7%	6.2%	2.9%	5.2%	2.7%	3.7%	
Renewables	6.9%	11.6%	0.2%	7.4%	8.0%	7.3%	
Water heat.	3.7%	0.9%	1.2%	0.7%	11.0%	7.9%	
Total	47.7%	50.4%	19.7%	42.3%	34.9%	38.1%	
Baseline (kt)	63	26	112	611	126	43	983
Savings (kt)	30	13	22	258	44	16	384

As can be seen from Figure 4, across the sectors, behaviour change and building shell offer the greatest reductions vs baseline, with a reduction range of 10-17% from behaviour change measures. The weighted average across the whole public sector is a reduction from baseline of 39%, which equates to c. 0.4 MtCO₂.

Close Out Method

Overview

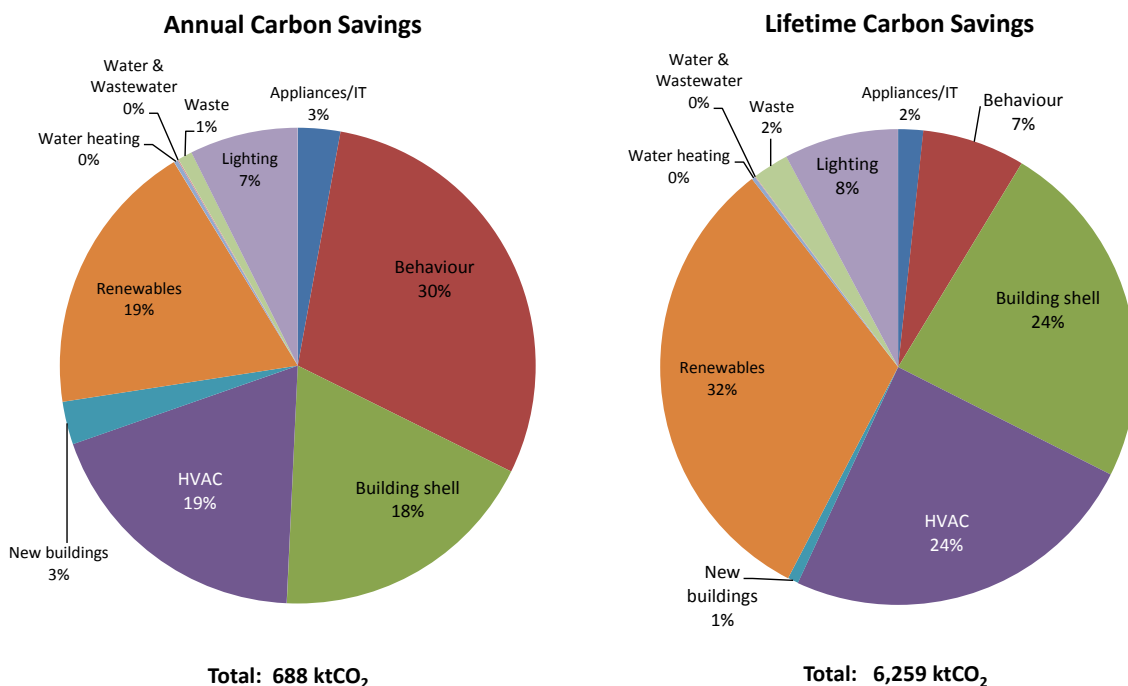
The second method made use of the Carbon Trust’s proprietary database of carbon reduction recommendations, ‘Close Out’. Close Out contains records of all recommendations made to Carbon Trust customers, and is used to track performance and cost-effectiveness. It contains in total around 150,000 recommendation records and for each recommendation captures the detail of the measure, the projected energy, carbon and financial savings, the initial investment cost, the payback period, and a record of whether the measure was actually implemented by the customer (this is tracked by follow up with each customer).

Close Out records both ‘annual’ (savings from one year) and ‘lifetime’ (total savings expected over the life of a measure) carbon savings. Close Out contained 7,000 recommendations relating to the Scottish public sector of which c. 5,000 were suitable for analysis in this study. These recommendations covered 130 of the 138 PSBs for which a Carbon Management Plan was available at the time of the study.

Identified Reduction Projects

As with the CMP based method, behaviour change projects offer the most identified annual savings, though because these projects typically have a shorter lifetime than buildings or equipment related measures, other measures offer greater lifetime savings. Renewables, HVAC and building shell are important categories for both annual and lifetime savings, with the long life of renewables projects contributing the most lifetime savings. Figure 5 shows the breakdown of identified abatement by category of measure.

Figure 5: Identified Abatement by Category of Measure (Combined)



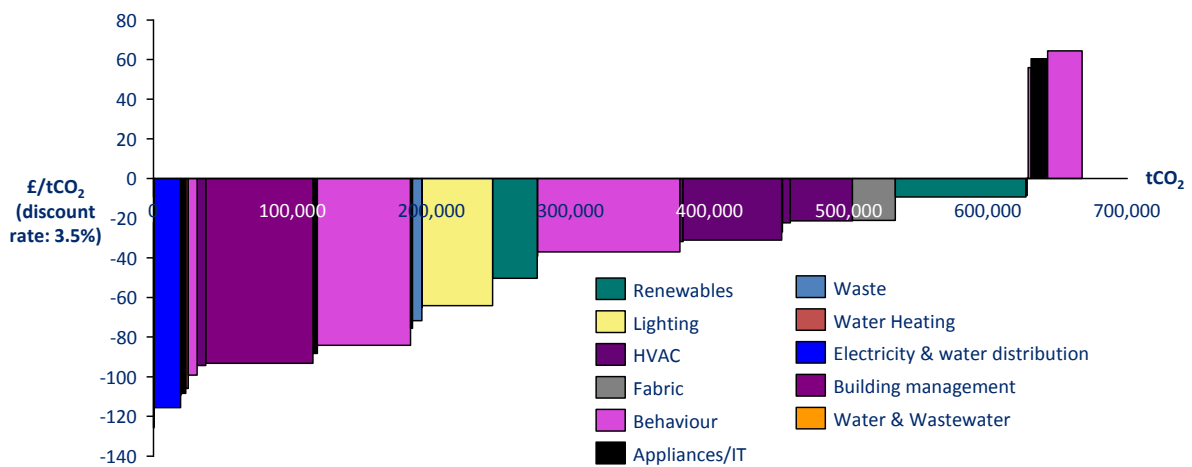
Source: Close Out database and Carbon Trust analysis

The extra data included in Close Out, especially the lifetime financial savings information, enables the creation of marginal abatement cost curves (MACCs) for the public sector estate. These can be used to identify large areas of cost-effective abatement potential. Figure 6 shows a MACC for annual abatement including all measures (Combined). Future savings were discounted at a rate of 3.5% and in over 90% of cases the lifetime savings exceed the initial capital outlay required. Behaviour change and building management offer large amounts of cost-effective abatement. Fully labelled versions (including lifetime and RPP2 only versions) are included in the accompanying PowerPoint document, which features an appendix of 15 category level MACCs for the Combined and RPP2 baselines.

Estimation approach

Because Close Out contains records for 130 of the Scottish PSBs, less extrapolation was required to estimate abatement potential across the whole public sector baseline. As with the CMP method, measures were classified at the sub-category level to exclude those that impact emissions covered elsewhere in the RPP2 process. Baseline information from the CMPs was used to calculate the % reduction against the relevant emissions baseline (Close Out does not contain baseline information). Figure 7 shows the results of the Close Out method.

Figure 6: Annual Abatement Marginal Abatement Cost Curve (Combined)



Source: Close Out database and Carbon Trust analysis

Figure 7: Abatement Potential vs RPP2 Baseline by Category and Sector (Close Out method)

	Central Govt.	Further Ed.	Higher Ed.	LAs	NHS	Emerg. Svcs.	Total
Appliances/ IT	0.1%	0.9%	0.1%	0.3%	0.2%	0.2%	0.2%
Behaviour	3.6%	8.5%	6.2%	10.4%	2.3%	3.0%	8.4%
Build. shell	8.2%	4.7%	5.1%	4.4%	4.5%	6.6%	4.8%
HVAC	7.7%	16.3%	16.7%	5.6%	8.2%	8.5%	7.5%
Renewables	3.2%	4.1%	3.4%	8.3%	13.9%	0.2%	7.8%
Water heat.	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.1%
Total	23.0%	34.5%	31.4%	29.2%	29.3%	18.4%	28.9%
Baseline (kt)	51	21	112	621	121	34	959
Savings (kt)	12	7	35	181	35	6	277

Source: Close Out database and Carbon Trust analysis

The weighted average reduction vs baseline across the whole public sector from the Close Out method is 29%, compared to 39% derived from the CMP method. This can be used as a high-low range for abatement potential. It is not surprising that the Close Out method yields on average a lower result, because the CMP process is a more comprehensive assessment of abatement potential than some of the engagements that generate the records in Close Out (some organisations may have received a light touch or specifically targeted engagement). As with the CMP method, behaviour change offers the most identified reduction potential, though HVAC and renewables are also important areas.

Achieving this potential would require investment of around £200m in capex and deliver lifetime financial savings of around £260m (neither figure is adjusted or discounted).

The accompanying PowerPoint document contains additional versions of the results table for carbon (for the Combined level and also for traded sources only) as well as for capex cost and lifetime financial savings.

5 Barriers to Implementation

Overview

The methods used to estimate abatement potential make the implicit assumption that 100% of measures are implemented, and that both cost-effective and non-cost effective investments are made. In reality, not all carbon saving recommendations made to organisations are implemented, for a variety of reasons. In the public sector in Scotland, around a third of recommendations made to PSBs have actually been implemented (as tracked in Close Out; this proportion will increase year by year as projects are implemented).

The most cost-effective measures, and those with the shortest payback periods, are most likely to be implemented (though other cultural, political or business barriers may impact this). In order to realise as much of the potential as possible, the right policy and incentive environment needs to be put in place, and the right support provided to public sector organisations.

Informed by the Carbon Trust's experience of working with 3,000 public sector bodies across the UK we identified 5 key barriers hindering the uptake of energy efficiency in the public sector in Scotland. The barriers are as follows (and are covered in turn in the rest of this section):

- Senior leadership and performance management;
- Effective procurement;
- Availability of financing;
- Lack of skilled resources;
- Split incentives, especially in schools and tenanted buildings.

Senior leadership

Several issues can contribute to a lack of senior leadership engagement in carbon reduction. As well as being a major barrier in its own right, lack of engagement from senior figures exacerbates many other barriers, for example it is harder to address resource allocation issues without senior support. The key issues are:

- The financial business case for carbon reduction is not understood at senior levels;
- The low materiality of energy savings in the non-energy intensive public sector means lower visibility of costs and lower priority attached to reduction efforts;
- The systems and governance are not in place to measure and track savings versus targets.

These issues are widespread but there are examples of best practice including organisations where there is clear ownership of the carbon reduction agenda by senior leadership, which raises its priority throughout the organisation and ensures appropriate resources are deployed. Well informed and engaged senior figures understand the financial benefits of carbon reduction and understand that despite energy costs being relatively small compared to other cost items, significant and valuable savings can be made that can be re-directed into frontline services.

Policy interventions that can address senior leadership barriers include the production and dissemination of case-studies that communicate the achievability (and value) of savings to senior leaders; tailored training on the financial, regulatory and climate change related business case for carbon reduction;

and clear government targets for carbon reduction for PSBs, with real incentives for compliance including matched savings, public league tables and financial penalties.

Procurement

A number of procurement related issues hinder public sector carbon reduction including sub-optimal procurement guidance (especially failure to incorporate lifecycle costing for products and infrastructure, and missed opportunities around collaborative buying); inconsistent contract writing skills that can lead to unexpected additional costs or facilities management contracts that do not incentivise efficiency; and a lack of supplier and product footprinting and labelling meaning that embedded carbon is not counted (not in scope for this study but a significant opportunity for the public sector to drive carbon reduction beyond its borders).

Best practice includes enabling buyers and procurement staff to write and enforce contracts that incentivise energy and carbon efficiency; and using the public sector's purchasing power to stimulate new markets for low carbon goods and services.

Supporting policy interventions include the provision of training on lifecycle costing and other procurement good practice; supplier accreditation to increase trust and reward good performance in the energy and carbon supply market; and mandating the use of contracts (e.g. for facilities management) that incentivise energy and carbon efficiency.

Financing

There are well known financing barriers to energy efficiency, principally relating to the lack of capital for energy and carbon saving projects. Even if available to the organisation, capital is seldom allocated to energy efficiency, despite the existence of numerous attractive and cost-effective projects. The availability of private capital is poorly understood and it is often too expensive.

Lack of funding at the project development stage means many good ideas do not get off the ground.

Financing best practice includes the creation of separate budgets for energy efficiency to ensure other demands do not use up all the available internal capital, and the consideration of private capital by informed decision makers for certain projects.

Policy interventions to help address finance related barriers include linking capital budgets and carbon performance (as done by HEFCE); the provision of recoverable grants, cheap public loans or other non-profit financing vehicles; providing enabling finance to bring in private sector capital (e.g. first loss / junior debt); and the allocation of budgets for project development.

Resources

Energy efficiency and carbon reduction are specialist, often technical subject areas. A number of resource related barriers can hinder public sector efforts, including:

- Lack of expertise: PSBs do not always have the know-how and expertise in-house to identify and develop carbon reduction projects;
- Lack of data: effective carbon reduction requires good quality data to identify the optimal opportunities and to track progress. Absence of such data can lead to poor decision making;
- Lack of capacity: even if the required skills exist within an organisation, key staff members may not have the time to focus on cutting energy use.

Best practice includes the creation of internal processes and methods, either using internal resources or partnering with external experts; and providing all relevant staff with access to specialist technical and project management skills so they can get the support they need.

Policy interventions include the provision of training and the facilitation of best-practice sharing between organisations.

Split incentives

Split incentives are common barriers to energy efficiency, especially in relation to buildings emissions, where the landlord-tenant divide is a substantial barrier. A significant portion of public sector buildings are rented and in many cases landlords have no incentive to improve building efficiency where they do not accrue the benefits (lower bills, which are paid by tenants).

Best practice relates mainly to aligning interests so that the party responsible for emissions is the one best able to reduce them and benefit from that reduction.

Policy interventions include green leases (where both landlords and tenants are obligated to cut emissions); and mandating and / or incentivising landlords and FM providers to improve efficiency.

6 Longer Term Abatement Potential

This study has used two different approaches to estimate the abatement potential of the Scottish public sector. Both of these methods have used real life projects as evidence, and are thus bottom-up estimates rather than top-down assessments of overall abatement potential. Importantly, the processes and engagements that generated those projects are designed to identify near-term, largely cost-effective projects that are more likely to get implemented. They are not designed to identify the deep carbon reduction projects that will be necessary if long term (2050) decarbonisation targets are to be achieved.

Implementing all the projects underpinning these estimates will be challenging and will require a number of significant barriers to be addressed, as outlined in the previous section. It is hard to suggest a time-period over which these projects should be implemented, however, to inform the RPP2 process (which requires an estimate of abatement potential to around 2030) it could be assumed that these projects are all implemented by 2030. A more ambitious approach might be to target the implementation of all currently identified projects (which these by definition are) by 2020, with the focus between 2020 and 2030 moving on to deeper, longer term carbon reduction opportunities.

The measures identified in Carbon Management Plans and Close Out are biased towards short payback projects, which leaves considerable scope for additional carbon reduction from longer term projects, even from areas such as building fabric and renewables which are reasonably well represented in Close Out.

Estimating the potential savings from longer term projects is challenging. There is very little bottom-up evidence, especially from the public sector, to inform estimates of what is possible by way of deep carbon reduction. There are several sources of uncertainty: unknown penetration rates for advanced technologies; limited evidence about the impact of those technologies; uncertainty about what % of projects will really be implemented; and uncertainty about the supporting environment in the future including the strength of government targets and the provision of support.

Some important areas of future opportunity include:

- New ways of using space and delivering services, including better space management, space rationalisation, shared services and provision of remote services;
- Major retrofits including exploration of the opportunities in natural ventilation, waste heat recovery and long payback building fabric measures (re-cladding, glazing etc);
- District heating and decentralised energy;
- Procurement reforms.

The PowerPoint document contains some examples of the level of savings that may be possible in some of these areas.

The Carbon Trust is a world-leading not-for-profit group helping businesses, governments and the public sector to accelerate the move to a low-carbon economy through carbon reduction, energy-saving strategies and commercialising low-carbon technologies. We offer a range of tailored services, designed to meet the needs of businesses, governments and the public sector. By stimulating low-carbon action we contribute to green goals, including the lowering of carbon emissions, the development of low-carbon businesses, increased energy security and job creation.

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- We measure and certify the environmental footprint of organisations, supply chains and products
- We develop and deploy low-carbon technologies and solutions, from energy efficiency to renewable power

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The Carbon Trust is a company limited by guarantee and registered in England and Wales under Company number 4190230 with its Registered Office at: 4th Floor, Dorset House, 27-45 Stamford Street, London SE1 9NT

Published in the UK: November 2012.

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ISBN: 978-1-78256-278-8 (web only)

The Scottish Government
St Andrew's House
Edinburgh
EH1 3DG

Produced for the Scottish Government by APS Group Scotland
DPPAS13702 (12/12)

Published by the Scottish Government, December 2012

w w w . s c o t l a n d . g o v . u k