

**Adoption of Carbon Management Plan 2013/14 to 2-15/16****Report by Garry Sheret, Head of Property and Facilities Management****1 Purpose of Report**

This report provides information with regard to the Council's operational Carbon Management Plan. The Plan (included as an Appendix to this report) sets out aims and objectives, provides progress to date and details an implementation plan of carbon reduction measures.

**2 Background**

- 2.1** Midlothian Council's overall target for carbon reduction is 25% by the end of financial year 2015/16 based on a baseline year of 2006/7.
- 2.2** The current Single Midlothian Plan contains a target to reduce territorial CO<sub>2</sub> emissions for which the Midlothian Area is responsible for 4.5 tonnes per capita by 2020. Adoption and implementation of the Carbon Management Plan will assist in the achievement of that target.

**3 Report Implications****3.1 Resource**

The approximate cost of implementing the Plan is in the region of £2.5M and is detailed in the implementation section of the attached plan. Various external funding streams have been utilised to date to achieve targets. The Director, Resources will monitor and review resources annually.

**3.2 Risk**

There is a significant risk that the Council will not meet the objectives under the Single Midlothian Plan and the Council's carbon reduction commitment should the Carbon Management Plan not be adopted.

**3.3 Single Midlothian Plan and Business Transformation**

Themes addressed in this report:

- ☐ Community safety
- ☐ Adult health, care and housing
- ☐ Getting it right for every Midlothian child
- ☐ Improving opportunities in Midlothian
- ☐ Sustainable growth
- ☐ Business transformation and Best Value
- X None of the above

### **3.4 Key Priorities within the Single Midlothian Plan**

The proposals as set out in this report may also be applicable to the Council's Community Planning partners.

### **3.5 Impact on Performance and Outcomes**

The proposals set out in this report do not impact on performance and outcomes.

### **3.6 Adopting a Preventative Approach**

None.

### **3.7 Involving Communities and Other Stakeholders**

This report also involves other key partners and contractors and involves the wider community.

### **3.8 Ensuring Equalities**

An Equality Impact Assessment is not required.

### **3.9 Supporting Sustainable Development**

The proposals set out in the plan will enable the Council to reduce territorial CO<sub>2</sub> emissions.

### **3.10 IT Issues**

There are no IT issues arising from this report.

## **4 Recommendations**

The Council is recommended to adopt the Carbon Management Plan 2013/14-2015/16 with a view to implementing the carbon reduction measures contained in the plan to achieve targets.

**13 March 2014**

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#### **Background Papers:**

**Midlothian Council Carbon Management Plan CMP 2013-2016**



# MIDLOTHIAN COUNCIL CARBON MANAGEMENT PLAN

CMP 2013 - 2016

Date:	February 2014
Version number:	v0.3 DRAFT
Owner:	Colin Quinn
Approval route:	Midlothian Council Cabinet
Approval status:	DRAFT
Next revision due:	July 2016



## **Foreword from Chief Executive**

Midlothian Council is committed to becoming more efficient in its use of energy. Energy costs are rising and society is using fossil fuels such as gas, oil and coal, which have been our primary sources of energy, at an unsustainable rate. Moreover, the Council is a signatory to Scotland's Climate Change Declaration which commits it to producing a plan to achieve a significant reduction in greenhouse gas emissions, from its operations, including travel and transportation and energy consumption in all its operations and services to combat climate change. The aim of this Plan is to promote projects which will improve energy efficiency, reduce energy consumption and harmful emissions, monitor energy consumption and costs in all our operational buildings, and improve staff awareness of energy related issues. The Council is also committed to responsible energy management under the Home Energy Conservation Act to address the problems of fuel poverty by providing affordable, energy efficient housing.

Adoption of this Plan will contribute to realising greenhouse gas reduction targets with our partners in the Single Midlothian Plan.

Kenneth Lawrie

Chief Executive



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## INTRODUCTION

This Carbon Management Plan (CMP) for Midlothian Council sets out a three-year plan for the reduction of carbon emissions arising from the Council's own operations.

This CMP will underpin future service plans, and the Single Midlothian Plan. Overall responsibility for delivery of the CMP will lie with the Head of Property and Facilities Management. He will be supported on a day-to-day basis by Midlothian's Carbon Management Team, which includes representatives from across various Directorates. Progress towards the CMP's aims and objectives will be reviewed quarterly by the Performance Review and Scrutiny Committee and more regularly by the Carbon Management Team.

### Structure of the Plan

The Carbon Management Plan is split into three separate sections:

- **Background and Context:** This section sets out the aims and objectives of the CMP, the drivers behind the CMP, Midlothian's governance structure in relation to operational carbon management, the original baseline carbon footprint for Midlothian, and reduction targets.
- **Progress Review:** This section provides an ongoing review of actual progress towards target carbon emissions.
- **Implementation Plan:** This section provides a list of planned carbon reduction projects, with details of project ownership, estimated reductions and progress.

### Overall Target

Midlothian Council's overall target for carbon reduction is **25%** by the end of financial year **2015/16** (based on a baseline year of 2006/7) This equates to a reduction of around **8,800 tonnes CO<sub>2e</sub>**.

## 1 BACKGROUND AND CONTEXT

### 1.1 Our Low Carbon Vision

The current Single Midlothian Plan contains a target to reduce territorial CO<sub>2</sub> emissions for which the Midlothian area is responsible to 4.5 tonnes per capita by 2020.

Adoption and implementation of this Carbon Management Plan (CMP) will assist in the achievement of that target.

### 1.2 Context and Drivers

This section outlines the main drivers of operational activity in the Council.

**Climate Change (Scotland) Act (2009)** – The Scottish Government has set an overall target of at least an 80% reduction in Scotland's carbon emissions by 2050, with an interim target of at least a 42% reduction by 2020. The Climate Change (Scotland) Act 2009 places new statutory duties on the Council to contribute to the delivery of national greenhouse gas emissions reduction targets, through reducing our greenhouse gas emissions both within the Council and promoting the same in the wider community. The Scottish Government produced a Climate Change Delivery Plan in June 2009 to guide the national effort to meet the climate change targets and this will influence the Council's policy priorities in this area.

**EU Energy Performance of Buildings Directive (2002, revised 2009)** - Midlothian Council was required to produce Energy Performance Certificates with respect to a number of buildings following implementation of EU Directive 2002/91/EC through the Building (Scotland) Act 2003. There is also a requirement to deliver ongoing annual inspections of large scale boiler and air handling units under the terms of the Directive.

**Carbon Reduction Commitment Energy Efficiency Scheme (CRC EES) (2010)** – The Council is mandated to participate in this scheme, introduced in April 2010. Under the present terms of the scheme annual energy consumption from stationary fixed sources must be monitored and reported on with the purchase of carbon allowances to match annual emissions each year. While these allowances are presently purchased at a fixed price subsequent years of the scheme will involve a bid auction process thereby increasing the potential financial liability to the Council.

**Single Outcome Agreement (2013-2018)** – The current Single Midlothian Plan contains a target to reduce territorial CO<sub>2</sub> emissions for which the Midlothian area is responsible to 4.5 tonnes per capita by 2020. Clearly the CMP provides a crucial step in supporting its achievement.

**Scotland's Climate Change Declaration (2007)** - Along with all other Scottish local authorities, Midlothian Council signed Scotland's Climate Change Declaration in January 2007. One of the Declaration's seven commitments is to produce and publicly prepare a plan with targets and milestones to achieve a significant reduction in greenhouse gases from the Council's own operations. Production of this CMP fulfils that commitment.

### **1.3 Revised Carbon Management Plan**

With the assistance of the Carbon Trust in Scotland, the Council has undertaken a review of progress to date against the targets set out in the original 2008 CMP. This has included analysis of ongoing efforts to reduce carbon emissions across Council activities, development of a revised target and development of this revised CMP. In formulating the revised target the Council has looked ahead to 2020 and considered in what areas it can most effectively contribute to fulfilling its public duties as outlined in the Climate Change (Scotland) Act 2009.

### **1.4 Aims and Objectives**

The long-term aim of this revised CMP is to contribute to the overall UK and Scottish Government target of at least an 80% reduction in carbon dioxide equivalent emissions by 2050 (against a 1990 baseline). In doing so the objective is to establish a Carbon Management Programme within Midlothian Council that will:

- Provide a strong business case for making physical environmental improvements and changing behaviour;
- Contribute to embedding principles of environmental sustainability within the Council's procedures and practices, consistent with its Sustainable Development Policy Statement;
- Enable implementation of actions required to meet the stated milestone target for carbon emissions reduction.

The strategic objectives for the Carbon Management Plan are aligned to a number of objectives in the Council's current Service Plans which state that we will:

- Continue management of the Carbon Reduction Commitment.
- Implement projects associated with the Carbon Management Plan and monitor results.
- Progress a continuous review of industry developments regarding environmentally friendly, low-emission vehicles.
- Progress development of improved fleet management and operating systems using vehicle tracking to provide improved management information.
- Increase volume of waste recycled and diverted from landfill in order to achieve Scottish Government targets.

### **1.5 Carbon Management Governance and Reporting**

In order to achieve effective communications throughout the lifetime of the CMP it is fundamental to actively engage with key stakeholders. This is required not only to secure approval for new/revised projects but to embed carbon management into the culture of Midlothian Council.

All of the stakeholders identified in Table 1 hold the key to the success of this CMP. Without their support and commitment there is a danger that the project as a whole may fail. It is therefore essential to engage with these stakeholders throughout the term of the CMP.

**Table 1 Stakeholder Group Mapping**



Stakeholder Group	Role within Programme	Method of Communication
Council Elected Members	<ul style="list-style-type: none"> <li>Maintain awareness of programme and its importance</li> <li>Integrate vision of carbon emission reduction into all activities</li> </ul>	<ul style="list-style-type: none"> <li>Briefings to Council members from project leader</li> </ul>
Chief Executive & Divisional Directors	<ul style="list-style-type: none"> <li>Maintain awareness of programme and its importance</li> <li>Advertise any savings made through measures associated with the programme</li> <li>Provide oversight of the programme and its development</li> </ul>	<ul style="list-style-type: none"> <li>Bi-annual progress report from project leader</li> </ul>
Operational Managers	<ul style="list-style-type: none"> <li>Maintain awareness of programme and its importance</li> <li>Leadership of programme</li> <li>Provide initiative for further changes</li> </ul>	<ul style="list-style-type: none"> <li>Project leader to assign targets to departments</li> <li>Gather data and compare performance of departments</li> <li>Provide feedback (simple posters / assessment against KPIs) on a regular basis</li> </ul>
All Council Staff	<ul style="list-style-type: none"> <li>Develop everyday behaviour that minimises energy consumption and associated carbon emissions</li> <li>Assess their roles within the Council and provide insight into how they could improve carbon efficiency</li> </ul>	<ul style="list-style-type: none"> <li>Council wide awareness campaign</li> <li>Implement energy champions in various departments</li> </ul>

The key individuals involved in the delivery of the CMP are outlined in Table 2.

**Table 2 Carbon Management Plan Delivery Team**

Role in Carbon Management Programme	Name	Position
<b>Overall Responsibility</b>	Kenneth Lawrie	Chief Executive
<b>Project Board: Project Sponsor</b>	John Blair	Director, Resources
<b>Project Board: Project Leader</b>	Garry Sheret	Head of Property and Facilities Management
<b>Project Board</b>	Eibhlin McHugh	Director, Health and Social Care
<b>Project Board</b>	Mary Smith	Director, Education, Communities and Economy
<b>Carbon Management Team</b>	Colin Quinn	Lead Officer, Senior Engineer, Property and Facilities Management
	Ian Baird	Energy Officer, Property and Facilities Management
	Phil Riddell	Business Manager, Waste Management Services
	Trevor Doherty	Business Manager, Travel Team
	Keith Slight	Lighting Manager, Road Services
	Margaret Black	Senior Accountant, Resources
	Brian Forsyth	Senior Planning Policy & Sustainability Officer

### **1.5.1 Project Board**

The Project Board will meet on a half yearly basis. Its remit will include:

- Review of progress against individual projects underway, savings generated and how this impacts on overall achievement of milestone emissions reduction targets;
- Review of newly identified, planned and/or funded individual projects as well as amendments to previously identified projects;
- Preparation of half yearly report to Corporate Management Team (CMT).

### **1.5.2 Carbon Management Team**

The Carbon Management Team will meet quarterly. Its responsibilities will include:

- Review and update of the CMP on an annual basis;
- Monitoring and reporting progress against plan;
- Monitoring and reporting emissions performance;
- Identification of projects for inclusion in the CMP; and
- Internal and external communications.

## **1.6 Monitoring and Reporting**

In order to gauge the success of the CMP it is essential that the Council's performance is monitored effectively. The Council will continue to gather relevant data on an annual basis in order to monitor how carbon emissions are progressing.

Responsible managers will ensure that the data necessary to monitor the effectiveness of individual projects is available to the Carbon Management Team on a minimum quarterly basis.

The Carbon Management Team will be responsible for provision of data reporting and analysis to facilitate various reporting requirements, specifically:

- Quarterly progress reports for review by the Carbon Management Team;
- Half-yearly progress reports for review by the Project Board (and ultimately submitted to the Corporate Management Team);
- Annual progress report for presentation to Elected Members;
- Annual Scotland's Climate Change Declaration report.

### **1.6.1 Progress Communication**

Communication of targets and progress is key to developing ownership, maintaining focus and delivering targets. It is proposed that each annual progress report will not only be presented to elected members but also published on the Council website to allow local communities to monitor progress. Media releases will be used to inform the general public of progress and targets (as applicable).



Among Council employees, individual project updates will be submitted to staff publications in order to keep all staff informed of wider progress and implementation of the CMP.

## 1.7 Risk Management

Risks to the project will come from many sources both internal and external to the Council. The Carbon Management Team will meet regularly to discuss these issues and will report back through the Project Board any issues which cannot be resolved at Carbon Management Team level. Issues on individual projects will be managed by the responsible team member to ensure risk is managed at the lowest level possible and within the shortest timescale.

## 1.8 Emissions Baseline and Projections

This section provides details of the Council's carbon emissions baseline and projections through to 2015/16. There are two scenarios used in the projections:

- **Business as Usual (BAU).** This scenario assumes no additional actions are taken to reduce carbon emissions and shows the amount of carbon emitted by the Council through to 2015/16;
- **Reduced Emissions Scenario (RES).** This scenario assumes that all actions outlined in this CMP are carried out to reduce carbon emissions.

## 1.9 Scope

The scope of the baseline estimates was established as being the following areas:

- Council Buildings – electricity use and heating across the Council's portfolio of non-domestic buildings (including schools and leisure facilities);
- Municipal Solid Waste (MSW) – waste arisings collected by the Council's waste services in the baseline year and landfilled;
- Fleet Transport – recorded fuel use and annual distance travelled by fleet vehicles in carrying out Council activities;
- Street lighting – energy consumption associated with operation of street lights.

The emissions categories can be classified into direct and indirect emissions, with the former being directly related to Council activities over which a significant degree of control can be exerted. The latter are classified as indirect as the Council has some (but not complete) control over behaviour and therefore emission quantities.

Council Buildings – electricity use and heating	Direct
Fleet Transport – Road and non-road	Direct
Street lighting	Direct
Municipal Solid Waste	Indirect

In terms of direct emissions staff business travel (ie. non-fleet vehicles) and commuting is excluded from the baseline. This is due to the lack of robust data to facilitate ongoing reporting.

Work is ongoing to improve reporting systems and data capture in order to enable reporting of these emissions going forward as well as commitment in respect of goods and services procurement.

It is the intention of the Council to minimise the energy consumption of the housing portfolio. However, the Council has a limited ability to influence the occupiers' energy use and does not have right of access to utility bills in order to accurately report associated carbon emissions. For these reasons, emissions from housing are not included in the baseline.

### 1.10 Baseline Footprint

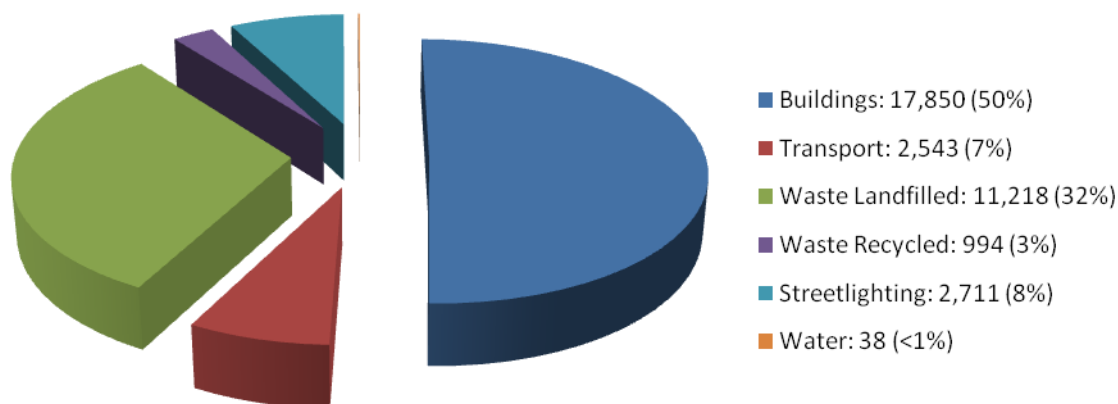
The baseline year is 2006/07. Total carbon emissions amount to 35,354 tCO<sub>2e</sub>.

Since the CMP was originally drafted in 2008, the Council has undergone significant restructuring. This combined with staff changes in key roles associated with Carbon Management has resulted in the Council's Carbon Management Team lead officer collating historical data for each year back to the baseline to accurately update the plan. This included resetting the baseline and our carbon footprint has been restated for all years in order to account for material changes to the conversion factors provided by DEFRA for reporting purposes. A breakdown of these emissions by category is provided here.

**Table 3 Carbon Baseline 2006/07 by Emission Category**

Category	Total Carbon Emissions (tCO <sub>2e</sub> )	% Contribution to Total
Buildings <i>of which:</i>	17,850	50%
<i>Electricity</i>	<b>6,865</b>	<b>(19%)</b>
<i>Fossil Fuel</i>	<b>10,985</b>	<b>(31%)</b>
Transport <i>of which:</i>	2,543	7%
<i>Fleet Fuel</i>	<b>2,543</b>	<b>(7%)</b>
Municipal Waste <i>of which:</i>	12,212	35%
<i>Landfilled</i>	<b>11,218</b>	<b>(32%)</b>
<i>Recycled</i>	<b>994</b>	<b>(3%)</b>
Streetlighting	2,711	8%
Water	38	0%
<b>TOTAL</b>	<b>35,354</b>	<b>100%</b>

**Figure 1 Carbon Baseline 2006/07 (All Figures in tCO<sub>2e</sub>)**



### 1.10.1 Buildings

Emissions from across the Council's buildings portfolio accounts for 50% of the total baseline.

Facilities and Engineering within Midlothian Council are responsible for approximately 230 operational buildings. All buildings where the energy consumption is under the direct control of the Council have been included in the scope of the CMP. This includes Council offices, schools, community centres, libraries, museums, depots, warehouses and special residential units.

The Energy Management Team holds energy consumption data in a database covering 100% of the Council's operational buildings. Reliable energy consumption data is available for all buildings, and the data quality is based on the accuracy of imported billing invoices from the utility companies.

A programme of smart meter installation at sites with the highest consumption has enhanced existing reporting capacity, enabling closer scrutiny of monthly billing information.

Under the terms of the CRC EES utility suppliers are obligated to provide an accurate annual record of utility consumption across all serviced supplies. This will assist the Council in its ongoing reporting in minimising the number of estimated readings within overall reporting of energy consumption.

### 1.10.2 Waste

As part of mandatory annual reporting to SEPA, figures are collated for the amount of waste being recycled and the amount being sent to landfill. For the purposes of reporting here the waste to landfill and recycled tonnage is used in the baseline figure from which carbon emissions are calculated. These emissions make up 32% and 3% respectively of the carbon baseline total.

### 1.10.3 Street lighting

Emissions from street lighting account for 8% of total emissions.

### 1.10.4 Transport

Transport emissions account for 7% of total emissions. The CO<sub>2e</sub> emissions for the fleet used for the 2006/07 baseline are based on accurate details from the fuel management system 'Fortress' detailing fuel used by each vehicle.

### 1.10.5 Water

Water consumption across Council activities is continually monitored on an ongoing basis. While related emissions provide a minimal contribution to the overall baseline, wider resource conservation and financial drivers maintain a focus on overall water consumption.

## 1.11 Projected Emissions and Value at Stake

Projected CO<sub>2e</sub> emissions for the Business as Usual (BAU) scenario have been calculated. The BAU scenario assumes that the Council does nothing to reduce the increasing trends in energy use within the Council and incorporates only existing measures already underway i.e. no additional actions carried out. Conversely the Reduced Emissions Scenario (RES) assumes that all actions identified in this CMP are carried out. The Value at Stake (VAS) is the difference between the two scenarios.

Carbon emissions are predicted in the BAU scenario to rise from 27,162 tCO<sub>2e</sub> in 2012/13 to 29,560 tCO<sub>2e</sub> in 2015/16. Implementing the actions in this CMP through the RES over the same period will reduce the carbon emissions to around 27,000 tCO<sub>2e</sub>. The accumulated carbon savings of the CMP are shown in Table 4. By implementing the CMP the Council will save an aggregate total of around 4,175 tCO<sub>2e</sub> through to the end of 2015/16.

**Table 4 Projected Carbon Value at Stake**

	<i>UOM</i>	<i>2012/13</i>	<i>2013/14</i>	<i>2014/15</i>	<i>2015/16</i>
BAU Emissions	tCO <sub>2e</sub>	27,162	29,150	29,354	29,560
Reduced Emissions Scenario	tCO <sub>2e</sub>	27,736	29,022	27,277	27,016
Value at Stake	tCO <sub>2e</sub>	-574	128	2,077	2,544
Cumulative Value at Stake	tCO <sub>2e</sub>	-574	-446	1,631	4,175

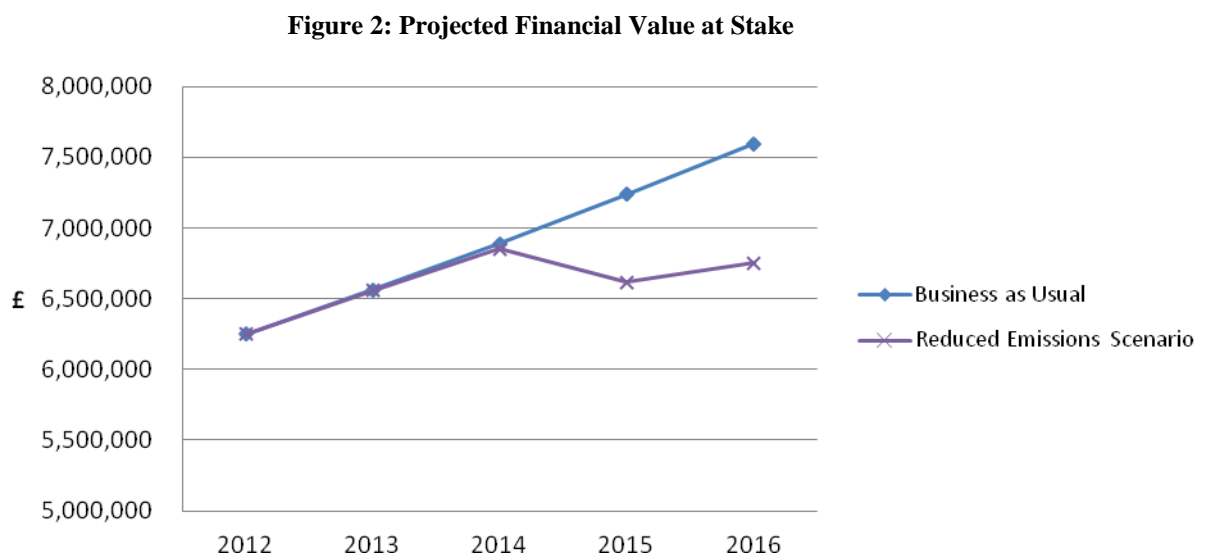
#### Notes for Table 4

1. In the BAU Scenario an annual growth in emissions of 0.7% per annum is assumed in the case of buildings, transport and street lighting emissions
2. In the BAU Scenario no net change in Waste emissions is assumed based on continued kerbside/household recycling initiatives
3. In the BAU Scenario no net increase in water emissions is assumed

In addition to the carbon savings, there are also associated financial savings. These financial savings (shown by the gap between the BAU and RES scenarios) are made up of a number of sources, specifically:

- Energy Consumption – Reduced utility costs (including reduced exposure to price inflation), reduced liability under the terms of the CRC EES and reduced climate change levy;
- Transport – Reduced fuel costs (including reduced exposure to price inflation);
- Waste – Reduced costs of landfill (landfill tax and gate fees).

Figure 2 shows the two scenarios – the BAU and the RES in terms of the financial costs to the Council and is discussed in more detail in Section 3.



## 2 PROGRESS REVIEW

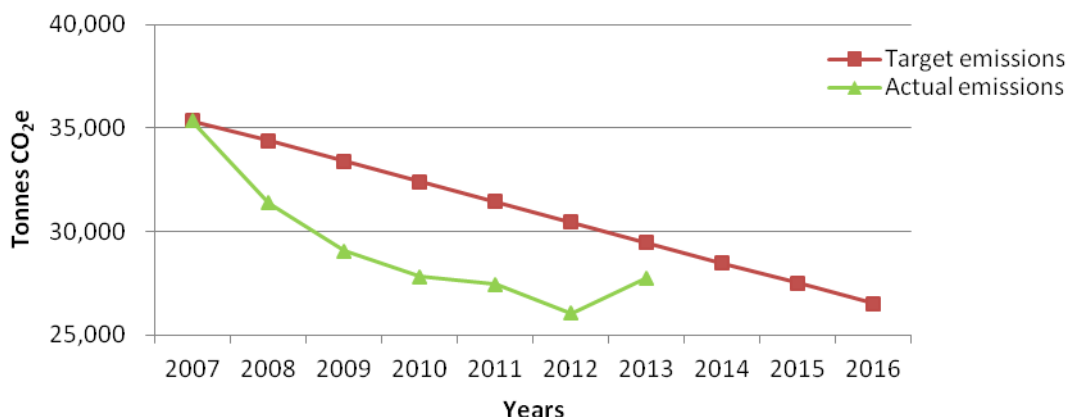
This progress report includes information on actual CO<sub>2e</sub> emissions for Midlothian Council through to end March 2013.

**Table 5: Midlothian Council Reported Carbon Emissions (all figures in tCO<sub>2e</sub>)**

Category	Financial Year										
	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	
Building Energy Consumption	17,850	14,876	12,912	13,978	14,240	13,141	14,445				
Waste (Landfill)	11,218	10,226	9,784	8,222	7,561	8,052	7,755				
Waste (Recycled)	994	1,085	1,114	418	432	470	455				
Streetlights	2,711	2,449	2,610	2,609	2,645	2,332	2,817				
Transport	2,543	2,702	2,600	2,532	2,523	2,008	2,245				
Water	38	41	44	50	40	45	45				
<b>TOTAL</b>	<b>35,354</b>	<b>31,379</b>	<b>29,064</b>	<b>27,809</b>	<b>27,441</b>	<b>26,048</b>	<b>27,762</b>				
Target Emissions	35,354	34,372	33,390	32,408	31,426	30,444	29,462	28,480	27,498	26,516	
<b>Variance</b>	<b>0</b>	<b>-2,993</b>	<b>-4,326</b>	<b>-4,599</b>	<b>-3,985</b>	<b>-4,396</b>	<b>-1,700</b>				
% Change from baseline		-11.2	-17.8	-21.3	-22.4	-26.3	-21.5				
% Annual Change		-8.1	-7.4	-4.3	-1.3	-5.1	+6.6				
% Annual Change (by category)											
Building Energy Consumption		-16.7	-13.2	+8.2	+1.9	-7.7	+10.0				
Waste (Landfill)		-8.8	-4.3	-16.0	-8.0	+6.5	-3.7				
Streetlights		-9.7	+6.6	0	+1.4	-11.8	+20.8				
Transport		+6.2	-3.8	-2.6	-0.3	-20.4	+11.8				
Water		+7.9	+7.3	+13.6	-20.0	+12.5	0				



**Figure 3: Midlothian Council Carbon Emissions**



### **Commentary**

**Building Energy** – Energy consumption across the entire buildings portfolio continues to be monitored on a monthly basis. Accurate monitoring capacity has been enhanced over the past 12 months due to an extension in the number of automatic read meters installed and improvements in data capture enabling remote monitoring of the meter readings by the Council’s Energy Team. Further smart meters, capturing gas supplies in a number of buildings has been progressed, and more are planned for the year ahead.

Major insulation and building fabric improvements have been undertaken at a number of sites alongside improvements to boiler control systems and replacement of older boiler units with more modern efficient units.

**Waste** – The Council operates kerbside recycling collections, incorporating paper, card, plastic bottles, glass bottles/jars and food/drink cans. In addition there are two community recycling centres available for disposal of a wide range of items. The combination of these services has assisted in reducing the amount of material being sent to landfill (the recycling rate for 2012/13 was 45% compared to 32% in baseline year 2006/7). The Council is committed to achieving the targets set out by the Scottish Government in Scotland’s Zero Waste Plan. To that end present services are being reviewed to determine the most effective means of meeting these targets. Ongoing work in collaboration with City of Edinburgh Council is developing a potential site for receipt of both food and residual waste; implementation of this scheme would ensure that the Council meets its zero waste targets.

**Street lighting** – The operation of street lighting across Midlothian is subject to constant monitoring, maintenance and upgrade. The potential for replacement of older lamps with more energy efficient alternatives is continually assessed during ongoing maintenance and refurbishment programmes. The Council is also monitoring emerging technologies, such as LED lighting, to determine its viability in larger schemes. All lighting improvements are required to meet existing British Standards.

**Transport** – Fleet fuel monitoring software continues to assist the Council in maximising the efficiency of its fleet vehicles in operation. The size of the fleet remains under review, ensuring that the number of vehicles in operation is matched with service



requirements. Ongoing cycles of fleet vehicle replacement include consideration of environmental credentials and compliance with Euro engine standards.

### ***Summary***

Midlothian Council has exceeded its interim target of 17% reduction (5892 tonnes CO<sub>2e</sub>) by 2012/13 to 21.5% (7593 tonnes CO<sub>2e</sub>) based on the 2006/7 baseline, but the trend in table 5 above shows some increases in the past year.

Energy consumption in buildings has increased in the last year by 10% primarily due to cooler temperatures in spring 2013 combined with heating and building management issues at major sites. The plant issues have been addressed through maintenance and the delivery of the New Lasswade Centre.

The increased street lighting electrical consumption of almost 21% in 2012/13 is due to additional adopted sites from the house building portfolio.

Transportation emissions indicate 11.8% rise primarily due to increased use of gas oil in 2012/13. This is a result of increased road repairs further to poor winter weather the previous year and an extended grass cutting season implemented by land services.

**Date of next progress report:** July 2014

### 3 IMPLEMENTATION PLAN

#### 3.1 Projected Emissions

In 2012 Midlothian Council worked in conjunction with the Carbon Trust in Scotland using the support of accredited consultants to utilise the Carbon Trust's Carbon Management Project Register reporting tool (CMPR).

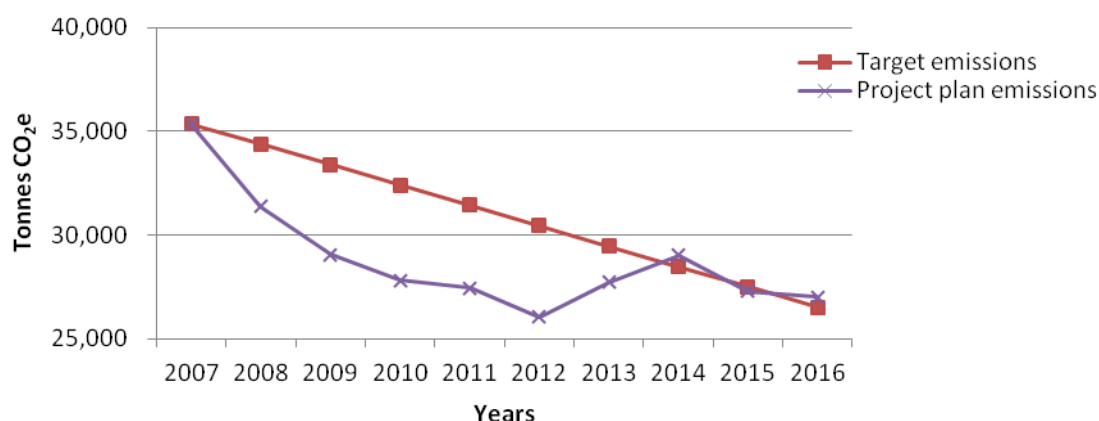
The CMPR is a spreadsheet tool for the purposes of recording carbon reduction project data, calculation, and the analysis and reporting of progress against an organisation's carbon reduction target.

The CMPR links the organisation's carbon reduction targets and baseline footprint to the organisation's Carbon Management Plan (CMP) so that the user can identify whether the organisation will meet its reduction targets and what quantity of identified CO<sub>2</sub>e savings are further required to enable reduction targets to be met. It also provides an overview of the cashflow (capital spend and annual net savings) for the whole project portfolio, as well as project-specific financial information such as simple payback period, internal rate of return and net present value.

The CMPR is designed to be populated initially with existing project register data and then used frequently to enter more projects, enter updates and retrieve reports. It is therefore able to be the single data storage file for an organisation's carbon reduction project register and related analysis. Updated versions will be released by the Carbon Trust (e.g. as carbon factor information is updated), and the CMPR enables swift population from old to new versions, and easy, viable updating of back-end data like carbon factors and technology lifetimes.

Figure 4 below indicates the projected carbon savings based on the projects currently identified.

**Figure 4: Midlothian Council Projected Carbon Emissions**



As stated in the progress review section of this report, the graph indicates that Midlothian Council has exceeded the 2012/13 interim target of 17% reduction in emissions but will not meet the 2016 target of 25% based on the list of projects currently identified.

**Table 6: Shortfall in Target Emissions**

Yr			1	2	3
	UOM	2012/13	2013/14	2014/15	2015/16
<b>Business As Usual</b>	tCO <sub>2e</sub>	<b>27,162</b>	<b>29,150</b>	<b>29,354</b>	<b>29,560</b>
<b>Planned Projects</b>	tCO <sub>2e</sub>	<b>27,736</b>	<b>29,022</b>	<b>27,277</b>	<b>27,016</b>
<b>Target Emissions</b>	tCO <sub>2e</sub>	<b>29,462</b>	<b>28,480</b>	<b>27,498</b>	<b>26,516</b>
<b>Shortfall in Emissions</b>	tCO <sub>2e</sub>	<b>N/A</b>	<b>542</b>	<b>N/A</b>	<b>500</b>

Table 6 summarises the scale of carbon reductions that can be achieved if the current CMP is implemented in full. The summary shows that Midlothian Council will need to identify and implement further carbon reduction projects that will provide annual savings of approximately 500 tCO<sub>2e</sub> by 2016.

The Carbon Management Team will be investigating additional measures and funding streams throughout 2013/14 to recover the shortfall and will report to Council through the Carbon Management Board.

A summary of the current project list is provided in table 7 below.

### 3.2 Planned Projects

**Table 7: Midlothian Council Project Register Summary Table**

Project ID	Project ref	Project name / description	Owner	Progress Status	Capital cost - £	Annual operating cost - £	tCO2e saving (Year1)	Value of tCO2e savings - £	Annual net saving - £	Simple payback years	% of target	Year of first savings
1	BS001	Rosewell PS CHP	Ian Baird	Under Review	0	0	0.0	0.00	0.00		0.0%	2014
2	BS002	Midlothian Hse WC Lighting	Ian Baird	Complete	940	10	1.0	11.95	193.21	4.9	0.0%	2013
3	BS003	Vogrie House Biomass	Ian Baird	Energy savings quantified	80000	200	19.1	228.86	5009.60	16.0	0.2%	2016
4	BS004	Midlothian Hse Controls	Ian Baird	Complete	13000	100	30.3	363.36	5328.00	2.4	0.3%	2014
5	BS005	Esk Place Sheltered Hsg CHP	Ian Baird	Under Review	0	0	0.0	0.00	0.00		0.0%	2015
6	BS006	Newbattle Pool Boiler	John Blake	Identified	40000	200	30.6	367.20	5620.00	7.1	0.3%	2016
7	BS007	Loanhead Pool Cover	Tony Malone	Energy savings quantified	3500	150	17.2	206.86	2832.85	1.2	0.2%	2015
8	BS008	Roslin PS Annexe Boiler	Ian Baird	Energy savings quantified	10000	200	29.8	357.60	7940.00	1.3	0.3%	2016
9	FS001	Electric Cars	Trevor Docherty	Identified	0	0	0.0	0.00	0.00	No fuel savings entered	0.0%	2014
10	FS002	Driver Training Initiatives	Trevor Docherty	In progress <50	0	0	0.0	0.00	0.00	No fuel savings entered	0.0%	2014
11	EM001	Energy Awareness Programme ph1	Ian Baird	Identified	5000	0	266.3	3195.60	55210.00	0.1	2.9%	2015
12	BS009	Penicuik HS lighting upgrade	Ian Baird	Identified	60000	0	64.2	770.64	17446.00	3.4	0.7%	2016
13	SL001	Loanstone Auchendinny LED	Keith Slight	Complete	35000	0	3.7	44.40	830.64	Does not pay back	0.0%	2014
14	SL002	Capital LED ph1	Keith Slight	Complete	1000000	0	51.0	612.48	11458.19	Does not pay back	0.5%	2014
15	SL003	Capital LED ph2	Keith Slight	Energy savings quantified	1000000	0	34.0	408.32	8403.36	Does not pay back	0.4%	2015
16	SL004	General lamp repl Phase 1	Keith Slight	Complete	50000	0	25.9	311.10	4749.44	10.5	0.3%	2013
17	FS003	Fleet tracking and rationalisation	Trevor Docherty	Identified	0	0	0.0	0.00	0.00	No fuel savings entered	0.0%	2014
18	SL005	General lamp repl Phase 2	Keith Slight	Energy savings quantified	50000	0	25.9	311.10	5289.98	9.5	0.3%	2014
19	SL006	General lamp repl Phase 3	Keith Slight	Energy savings quantified	50000	0	25.9	311.10	5820.03	8.6	0.3%	2015
20	SL007	SFT LED ph1	Keith Slight	Energy savings quantified	1200000	0	285.0	3419.49	85141.14	14.1	0.0%	2017
21	AM001	New Lasswade Community School Hub	Garry Sheret	Energy savings quantified	0	0	1344.7	16136.73	235037.00	Immediate	14.4%	2015
22	AM002	New Newbattle Community School Hub	Garry Sheret	Under Review	0	0	0.0	0.00	0.00	Immediate	0.0%	2017
23	AM003	Office Rationalisation Phase 1	Garry Sheret	Energy savings quantified	0	0	243.7	2924.87	50384.82	Immediate	2.6%	2015
24	AM004	Office Rationalisation Phase 2	Garry Sheret	Energy savings quantified	0	0	154.6	1854.73	36418.75	Immediate	1.7%	2016
25	AM005	Office Rationalisation Phase 3	Garry Sheret	Energy savings quantified	0	0	269.8	3237.77	138753.65	Immediate	0.0%	2017
26	EM002	Schools BMS analysis	Colin Quinn	Energy savings quantified	10000	0	169.3	2031.84	29299.00	0.3	1.8%	2015
27	BS010	Beeslack HS lighting upgrade	Ian Baird	Energy savings quantified	42000	0	76.1	912.91	20666.80	2.0	0.8%	2016
28	BS011	Highbank boiler replacement	Colin Quinn	Energy savings quantified	12000	0	28.6	342.72	4942.00	2.4	0.3%	2015
29	EM003	Energy Awareness Programme ph2	Ian Baird	Identified	2000	0	135.3	1623.60	31770.00	0.1	1.5%	2016
Total					3,663,440		3,332	39,985	768,544			

Please note that 'value of tCO<sub>2</sub>e savings' should not be regarded as a true financial saving to the organisation.

### 3.3 Financing

This section details the costs and benefits associated with implementing the CMP. It should be noted however, that the purpose of the CMP relates to Carbon Savings, the Carbon Data modelling tools used in the production of the plan contain estimated values for financial savings and should not be used for Council budgeting purposes.

Table 8 provides an assessment of costs to the Council relating to building energy consumption, fleet fuel and business travel as well as the costs associated with landfilled waste. These costs amount to around £6.5 million in 2012/13. The CMP aims to reduce carbon emissions by 25% by 2015/16. If this target is achieved then the annual cost savings to the Council in 2015/16 are projected to be of the order of £0.85 million. Table 8 also demonstrates that the aggregated savings to the Council of year on year savings is in the region of £1.5 million through to 2015/16. Clearly the financial benefits to the Council from implementing the CMP are hugely significant and could be more so if energy costs continue to increase.

**Table 8: Midlothian Council Projected Financial Value at Stake**

	<i>UOM</i>	<i>2012/13</i>	<i>2013/14</i>	<i>2014/15</i>	<i>2015/16</i>
BAU	£ m	6.56	6.89	7.24	7.60
Reduced Emissions	£ m	6.56	6.85	6.61	6.75
Value at Stake	£ m		0.04	0.63	0.85
Cumulative Value at Stake	£ m		0.04	0.67	1.52

#### 3.3.1 Financial costs and sources of funding

There are a number of sources of funding that can be considered for funding the CMP including:

- The CEEF fund: This is the Central Energy Efficiency Fund provided by the Scottish Government and allocated to Scottish Councils. Midlothian Council has received funding for a range of energy efficiency projects in Council buildings.
- Capital Funding: The Council has a capital fund for major asset development.
- Spend to Save: The Council has, over several years, ring fenced monies under a Spend to Save approach for projects which can deliver savings.

The combination of funding sources outlined here will provide the means of delivery of the planned carbon reductions. However, the CMP will be subject to annual assessment to ensure that sufficient funding is made available in order to maintain implemented savings.

The current estimated cost of delivering this CMP from 2012/13 to the end of financial year 2014/15 is summarised in Table 9. Please note that the Carbon Management Team have yet to identify projects for the year 2015/16 spend.

This expenditure will be reviewed regularly to ensure that programme retains sufficient funding for delivery.

**Table 9: Midlothian Council Planned Projects Funding Summary**

	<i>UOM</i>	<i>2012/13</i>	<i>2013/14</i>	<i>2014/15</i>	<i>2015/16</i>	<i>Total</i>
Planned Projects	£ m	1.08	0.24	1.20	-	2.52

### **Declaration Box**

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**Title of Report:**

**Meeting Presented to:**

**Author of Report:**

*I confirm that I have undertaken the following actions before submitting this report to the Council Secretariat (Check boxes to confirm):-*

- ☐ *All resource implications have been addressed. Any financial and HR implications have been approved by the Head of Finance and Integrated Service Support.*
- ☐ *All risk implications have been addressed.*
- ☐ *All other report implications have been addressed.*
- ☐ *My Director has endorsed the report for submission to the Council Secretariat.*

*For Cabinet reports, please advise the Council Secretariat if the report has an education interest. This will allow the report to be located on the Cabinet agenda among the items in which the Religious Representatives are entitled to participate.*

*Likewise, please advise the Council Secretariat if any report for Midlothian Council has an education interest. The Religious Representatives are currently entitled to attend meetings of the Council in a non-voting observer capacity, but with the right to speak (but not vote) on any education matter under consideration, subject always to observing the authority of the Chair.*