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| Carbon Management Plan (CM Plan) 20XX/XX |
| Organisation Name |

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|  | Created by: Organisation NamePrepared by: Author Name and Date |

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# Executive Summary

In the previous Carbon Management Plan (CM Plan) published in 20XX, XXX stated its aspiration to achieve a reduction target of XX%, based on the 20XX carbon footprint baseline, by 20XX. A number of factors have made this a challenging target including: the complexity of the carbon management process; demands for new skills within, and time from, existing staff in the identification, planning, resourcing and tracking of carbon reduction projects/initiatives; a changing legislative and policy framework, and the changing nature of estate and building use increasing energy intensiveness of the building stock.

These factors combined to suggest that a review and revision of the original Carbon Management Plan, including reduction targets, would help XXX move forward constructively.

This Carbon Management Plan (CM Plan) sets out our ambitions for XXX, and a roadmap for progress. Reducing carbon emissions is not just about our commitment to the environment. The same processes we use to identify carbon emissions reduction will also identify and realise financial savings through improved efficiency in the procurement and operation of our buildings and transport. The actions outlined within this Plan form part of our efficiency plan to reduce consumption and provide value for money.

The 20XX carbon footprint was calculated to be xx tonnes of carbon dioxide equivalent (tCO2e) and covered electricity, gas and gas oil consumption, transport (fleet), water and wastewater consumption, and waste disposal to landfill.

XXX has therefore decided to set a target to reduce its total annual carbon footprint by xx tCO2e by the end of financial year 20XX; this continues the aspiration of a XX% reduction but based upon the 20XX footprint and to be delivered by 20XX.

 **By 20XX, XX will have reduced it’s carbon emissions by XX% on a baseline of 20XX. This equates to a figure of XX tonnes CO2e in 20XX**

The following graphs detail XX’s 2013/14 baseline carbon footprint and related expenditure:

**Graph showing XX baseline Carbon footprint**

**Graph showing XX baseline Carbon footprint cost**

Reductions will be achieved through a range of projects including energy, fleet and awareness raising initiatives. XXX has capital funding of £xM approved by the Finance Committee for carbon management projects; these funds were released at the start 20XX. In addition, the XX fund has contributed a further £xx to date.

If all identifiable carbon saving projects were to be implemented, the potential cumulative **financial savings** (avoided costs) to the organisation are in the region of **£XX** over the period 20XX to 20XX.

The Project Sponsor for this CM Plan is the [title/ role], who will be assisted in its delivery by XX. XXX has introduced X Green Champions to enhance communication and awareness-raising by actively promoting and monitoring environmental projects both locally and among wider stakeholders.

This CM Plan is viewed as a ‘live’ document and it is envisaged that there may be changes on an annual basis as XX’s estate changes and planning assumptions become a reality. To ensure that it remains ‘fit for purpose’ to deliver targeted carbon savings, this document will be reviewed on an annual basis. This process will be overseen by the Carbon Management Committee (CMC) and coordinated by the Carbon and Energy Manager.

# Foreword from the Project Sponsor

# Foreword from Resource Efficient Scotland

# Introduction

## Background to the Organisation

General description of the organisation stating when established, size/scale, current practices. Description of the estate, number and type of buildings.

## XX’s Performance on Carbon Management to date

Although XXX began their Carbon Management Programme in 20XX, they have been implementing energy saving measures since the early XXXX s. With the organisation’s reporting obligations through the CRC Energy Efficiency Scheme and XX, there is already a reasonably well established process for measuring and monitoring carbon emissions and project list to achieve carbon savings.

The key issues facing the organisation comprise the changes to the built estate, staff/patient/service user/etc throughput and increasing energy consuming equipment and facilities all of which will have significant impacts on future carbon emissions. XX’s Carbon Management Committee will continue to take measures to adapt the CM Plan to any potentially significant impacts on achieving Carbon Management Plan targets.

A further challenge which is beginning to impact on the organisation is the future of the CRC Energy Efficiency Scheme (CRC EES); this Scheme currently results in additional costs (estimated at over £xx in 20XX) associated with the organisation’s carbon emissions. Implementation of this CM Plan aims to deliver year-on-year benefits by realising cost savings and minimising future CRC exposure.

In the previous Carbon Management Plan published in 20XX, the organisation set a reduction target of x% based on a 20XX carbon footprint baseline of xx tCO2e; this equated to a target footprint of xx tCO2e and an overall cumulative reduction of xx tCO2e across the 5 year period to 20XX. The 20XX footprint included emissions from: electricity, gas and oil consumption; transport (fleet and business, including air travel); waste to landfill, and water consumption.

A number of factors have made this a challenging target. In common with their peers and many other public sector organisations at that time, the complexities associated with delivering a comprehensive carbon management programme were new and not fully understood. Despite the organisation’s good history of implementing energy efficiency measures, the increasing demands on staff associated with the identification, planning, resourcing and tracking of carbon reduction projects/initiatives have meant that they were effectively developing new skill sets and increasing their knowledge-base whilst still continuing to perform existing duties.

Furthermore, the changing legislative and policy framework has meant that the drive to meet the stated CM Plan carbon reduction target has often been overshadowed. Finally, energy intensiveness within buildings is increasing, estate is changing and there is a constant drive to increase service delivery.

These factors have combined to suggest that a review and revision of the original Carbon Management Plan, including targets, would help the organisation move forward constructively.

# Carbon Management Strategy

## Context and Drivers for Carbon Management

The organisation faces a complex set of drivers which set the context for carbon management. Crucially, the organisation recognises that these cannot and should not be viewed in isolation from each other or the principle goal of continuously minimising its environmental impact whilst maximising its contribution to society and the economy.

Ultimately, a strong performance with respect to carbon emission reduction should deliver financial benefits to the XX by mitigating the risks associated with e.g. increases in energy tariffs and levies such as the CRC EES.

The following represent the key carbon drivers for XXX:

* Scottish Government targets
* UK & European targets
* Climate of reducing financial allocations
* Rising energy costs
* Principle that investments in carbon reduction are generally associated with commensurate reductions in future expenditure
* The need to eliminate waste of resources and to increase efficiency
* The organisation’s own carbon management targets
* Depletion of the world’s finite resources
* It’s the right thing to do

###  Legislative drivers for carbon management

Over the past 20 years there have been many pieces of legislation enacted at an increasing rate in the UK and Scottish Parliaments which aim to address the issue of climate change, carbon dioxide and greenhouse gas emissions, and sustainability. Many of these stem from European Union Directives which in turn were developed in order to meet the obligations of the Kyoto Protocol, adopted in December 1997 and enforced in 2005. Under Kyoto, ratifying countries agreed to commit to reductions in their carbon emissions by, on average, 5.2% below 1990 levels by 2008-12.

The Agreement was supported in the UK by the findings of the Stern Review[[1]](#footnote-1) on the Economics of Climate Change, published in October 2006, which provides compelling economic reasons to address climate change.

The UK share of the collective Kyoto target assumed by the European Union under the Protocol is a 12.5% reduction in emissions below 1990 levels by 2012. Subsequently the UK Climate Change Programme (launched in 2000) set a target of 20% reduction by 2010 and 60% reduction by 2050. The Climate Change (Scotland) Act 2009 pledges to reduce Scotland’s greenhouse gas (GHG) emissions by 42% by the year 2020 and by 80% by the year 2050. Scottish Ministers are also committed to the promotion of renewable energy in Scotland. They set a target that 80% of the the electricity generated in Scotland (as a proportion of gross consumption) should come from renewable sources by 2020, with an interim target of 31% by 2011.

The UK Government has placed an emphasis on the public sector setting a leading example. Public sector leadership will be critical to the achievement of the Government’s climate change objectives.

In addition to the EU’s Emissions Trading System (EU ETS), a number of legislative instruments such as the Climate Change Levy (CCL) and Carbon Reduction Commitment – Energy Efficiency Scheme (CRC EES) have been introduced by the UK Government, designed to encourage organisations to reduce emissions. The CRC EES introduces carbon trading to energy intensive organisations not part of the EU ETS. The EU Energy Performance of Buildings Directive (EPBD) was transposed into Scottish law in 2008 and has placed an obligation to evaluate energy usage for inclusion in Energy Performance Certificates to be displayed in all public buildings meeting certain criteria. The 2010 recast Directive also includes provisions include nearly zero energy requirements for new public buildings within 8 years or less while Scottish and UK Sustainable Construction strategies aim for zero energy buildings in the same time-frame. This, allied to recent changes in Buildings Regulations, will require the organisation to be proactive in terms of building design, construction and use.

Legislative drivers for carbon management can take the form of targets (e.g. from UK or Scottish Government), incentive systems, charging schemes, or regulatory compliance requirements. Figure XX (below) shows a timeline of the current and future policy framework showing the main legislative drivers relevant to this project.

In addition, XXX is a member of XXX which commits the organisation to…

This present strategy document will aid the delivery of key sustainability and estate management programmes in a carbon efficient and sustainable manner.

Some of the main legislative drivers affecting the organisation are set out in Appendix XX; however, the list is not definitive.

### Other drivers for carbon management

While reducing the financial and legal risks posed by various legislative requirements is a significant driver behind the XX’s carbon management programme there are other factors supporting the need for improving energy efficiency and reducing carbon emissions.

* **Cost saving**: The case for carbon reduction is strengthened by current financial constraints requiring reduced operating costs whilst maintaining effective service delivery. This provides a strong incentive to cut resource consumption to release this money for frontline services.
* **Reputational benefit**: By delivery of sustained carbon reductions, XX will be viewed as an exemplar enhancing the organisations broader sustainability credentials.
* **Improved staff satisfaction**: Studies have identified a correlation between an organisation with strong environmental performance and high staff satisfaction.
* **Improved engagement with key stakeholders**: Key stakeholders of the XX, including the local community, are increasingly focusing on sustainability. XX’s engagement and enhanced commitment will enhance the relationship with these stakeholders.

# Emissions Baseline and Projections

## Carbon Footprint Baseline, Cost and Projections

This section covers the establishment of the XX’s carbon footprint, associated cost and ‘Business As Usual’ (BAU) cost projections.

## Scope and Boundaries of the Carbon Footprint

The resources to be included in a carbon footprint are defined in relation to two boundaries, the organisational and the operational boundary.

Definition of the boundaries is determined by the extent of the estate, goods and services over which XX has operational control, and the availability of good quality data.

## Organisational Boundary

Organisation boundary: sets out which assets are to be included in the footprint and is shown in the “category” column in Table XX below.

## Operational Boundary

Operational boundary: essentially sets out the emission sources included in the footprint and is shown in the “emissions” column in Table XX below.

In keeping with the Greenhouse Gas Protocol[[2]](#footnote-2) (WRI 2004), the operational boundary should include all Scope 1 and Scope 2 emissions (e.g. on-site fuel combustion, company owned vehicles and purchased electricity consumption). Scope 3 emissions (e.g. waste, water, commuting and business travel) are considered discretionary but are included where data is available. No train or air miles have been included.

Table XX: XX Carbon Footprint Boundaries

|  |  |  |
| --- | --- | --- |
| **Category**  | **Function Examples**  | **Emissions Source** |
| Offices |  | Electricity, gas, water, waste |
| Workshops |  | Electricity, gas, water, waste |
| etc |  | Electricity, gas, water, waste |
| etc |  | Electricity, gas, oil, water, waste |
| Fleet |  | Fuel and Business Miles |
|  |  |

Excluded Emission Sources include:

* Contaminated waste e.g. medical
* Confidential waste
* Specialist waste e.g. media
* Air mileage/train travel
* Home-to-office mileage
* Residential properties
* Utility sources not directly billed (e.g. included within a service charge)

## 2.3 Data Sources

The data sources used in our CM Plan are based on robust data provided by both internal and external partners. The main streams of data (consumption and costs) input are as follows:-

i) Stationary Sources

* Electricity - XX Energy Management, historical AMR data, utility provider billing
* Gas - XX Energy Management, historical AMR data, utility provider billing

ii) Water

* Business Stream water reports, historical data logger records

iii) Waste

* XX

iv) Transport

* XXFleet Operations

v) Others

* XX

Data was then collated and converted to a CO2e tonnage equivalent using DEFRA factors for Company Reporting[[3]](#footnote-3). The chosen Reporting Year was 20XX which constitutes the majority of fiscal year 20XX/XX.

Conversion factors were taken for Scopes 1, 2 and 3 which relate to total direct emissions and are therefore in keeping with the methodology employed to determine previous Carbon footprints. As such, no ‘Well to Tank’ or ‘Outside Scope’ factors have been used.

## Carbon Footprint Baseline and Cost

XX overall Carbon Footprint for the Baseline year of 20XX/XX was XX tonnesCO2e.

Graph XX below shows that electricity constitutes XX% of the 20XX/XX Carbon Footprint with gas (XX%) and Fleet Ops – Diesel (XX%) representing the two next largest contributors.

**Graph showing XX baseline Carbon footprint**

XX overall cost of the Carbon Footprint for the Baseline year of 20XX/XX was £XX.

Graph XX below reveals that Fleet Ops (Diesel) constitutes the largest cost at over £XX. Electricity and gas have a relatively smaller impact on overall cost than the carbon footprint. Significantly, water and waste take on a larger impact on the overall cost (XX% and XX% resp) when compared with the carbon footprint.

**Graph showing XX baseline Carbon footprint cost**

Appendix B provides a table detailing the individual consumptions and costs for each element of the footprint.

## Business As Usual (BAU)

Analysis of projected emissions and the expected impact of BAU allows an evaluation of how the organisation’s carbon emissions will change over time in terms of tCO2e emitted and cost.

The results of the BAU analysis help to explain what is happening in the short and long term, what is happening to different parts of the footprint e.g. gas and electricity, and the current importance of the grid emission factor forecast, including the level of uncertainty in relation to this beyond a certain point.

Within the next 5 years, the organisation will potentially see xx changes in the 20XX period, with the associated partial or complete closure of a number of buildings; however some of these closures will fall into the CM Plan period.

Graphs XX and XX below shows the expected BAU (carbon and cost) from 20XX against an ongoing target reduction of x% over 5 years (to 20XX).

Graph showing XX BAU projections (carbon)

Graph showing XX BAU projections (cost)

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# Carbon Management Projects

## Introduction

In order to continue achieving emissions reductions and avoiding financial exposure, XX is committed to identifying and implementing carbon saving projects.

XX recognises that successful attainment of its carbon reduction targets is contingent upon the following key elements being in place:

* An organisational framework within the organisation that is sufficiently robust to support the financing, delivery and monitoring of carbon reduction projects.
* Clearly identified responsibility and accountability for delivery against carbon reduction targets from the CM Plan outset.
* Identification of a realistic suite of carbon reduction projects across a range of areas relevant to the carbon footprint; this list must be regularly reviewed and flexible to adapt to emerging needs and opportunities for funding.
* A data collection and collation system that is integrated sufficiently to inform both an annual progress update on the CM Plan and other Government and associated returns (Section XX).

## Existing Projects

The following initiatives and projects have already been completed or implemented since 20XX. The carbon emission savings achieved by these schemes will therefore have already contributed towards XX’s carbon reductions and corresponding savings will therefore included in the baseline carbon footprint for 20XX.

* Condensing boiler installations;
* PIR lighting controls;
* etc

## Planned Future Projects

The projects identified below are a sample of those that have been selected for implementation within the period 20XX to 20XX because they either generally provide the largest proportion of savings or were already planned for delivery as part of an ongoing programme of works. In relation to projects that have had their associated potential carbon savings quantified, the sum predicted to be saved over the five year lifespan of the CM Plan amounts to xx tCO2e.

### Energy

* Fans – air handling unit, variable speed drives, continued roll out across the estate
* etc

### Travel/Transport

* Fleet replacements must be speed limitable
* etc

### Waste

* Continued awareness raising and provision of facilities for recyclable materials

### Water

* Implementation of water conservation measures identified through XX

In addition there are some “enabling” projects which while not directly leading to carbon savings, will “enable” further savings to be achieved through subsequent outcomes/actions. These will also require funding to be identified and allocated.

Carbon savings will be achieved through a range of projects, which are as summarised in Appendix XX. These cover energy, vehicle fuel, water and the generation of waste. For details of project funding, refer to the next section of this CM Plan. Table XX below shows the capital cost and savings in future years.

Table XX: Summary of Project capital costs and savings

**Graph XX showing XX Project carbon savings**

**Graph XX showing XX Project cost savings**

## Financing Carbon Saving Projects

The approved Capital Plan in 20XX/XX has funding that will reduce energy/fuel costs:-

* Property - Of the £XX allocation, approximately £XX is being spent on Minor Works/Carbon Management Schemes which will reduce emissions in the estate
* ICT - £XX
* Fleet - £XX
* etc

If all identifiable carbon saving projects were to be implemented, the potential cumulative **financial savings** (avoided costs) to the organisation are in the region of £XX over the period 2013/14 to 2019/20.

It is assumed that similar levels of Capital Funding will be provided from the Capital Programme in future years.

Opportunities will be taken to maximise any other funding streams from the Scottish Government and other sources for Invest to Save Initiatives.

## Value At Stake

The table below provides a breakdown of the Value At Stake. This is the cost to XX if no action is taken to invest in carbon saving measures.

**Table XX: Summary of Value at Stake**

For XX, the equivalent financial Value at Stake equates to £xx over the 5 year lifetime of this CM Plan (Graph XX).

Graph XX showing XX Value at Stake - carbon emissions

Graph XX showing XX Value at Stake - cost of carbon emissions

It is predicted that, if all carbon reduction projects are implemented as planned, in 20XX, the organisation will potentially see a reduction in their carbon footprint to xxtCO2e, xx tCO2e marginally in excess of their target of xx tCO2e. Projects included in the project register will account for the majority of this along with BAU factors such as Estate changes. Costs are predicted to in/decrease from £xxM in 20XX to £xxM by 20XX.

## Target Setting

The analysis shows that, with the current projects in place and the anticipated BAU, carbon emissions will decrease throughout the duration of the CM Plan to reach xx tCO2e by 20XX.

Based on this analysis, XX therefore commit to a target of xx tCO2e (x%) reduction on the 20XX carbon footprint by 20XX.

 **By 20XX, XX will have reduced it’s carbon emissions by XX% on a baseline of 20XX. This equates to a figure of XX tonnes CO2e in 20XX**

XX would be likely to achieve their emission reduction target if all projects were to be implemented in accordance with the intended timescales. In fact the organisation could potentially marginally exceed its savings targets by xx tCO2e.

There are proposed potential major estate changes that will impact on the XX’s ability to achieve its carbon reduction target if, as is possible, these are brought forward to begin within the remit of this current CM Plan. However, the strategy going forward is to develop a long term plan for XX’s infrastructure, including heating, cooling, power and water, which focuses on a centralised approach; this is likely to result in rationalisation of estate which will contribute to carbon emission reductions.

Some carbon reduction projects within the Project List do not as yet have any carbon savings quantified; the majority of XX’s significant proposed projects do, however, have a quantified carbon reduction value, thus it is likely that these few projects remaining un-quantified will not significantly alter the outcomes of this CM Plan.

The associated cost will de/increase. Although XX has no control over utility, petrol, waste and water costs (limited through procurement choices), it can control the amount of each used. In order to reduce the VAS financial burden, XX must reduce the amount of carbon emissions.

# Management and Delivery of the Carbon Management Plan

## Introduction

In order to ensure that there is effective and ongoing ownership of the Carbon Management Plan, it is important to have a fully defined governance structure. XX will continue to adopt the following structure for management accountability.

## The Carbon Management Committee

The Carbon Management Committee (CMC) has responsibility for the strategic direction and implementation of the CM Plan. Minutes of the CMC meetings are reported to the Estates Committee which provides feedback as appropriate. The Estates Committee subsequently reports to the Senior Management Group (SMG) convened by the XX. The SMG advises the XX on matters arising through the CMC.

The CMC is convened by the [title/ role] and meets XX times a year. Meetings are scheduled to take place prior to the Estates Committee (EC) meetings to allow the Minutes to be disseminated at the EC meetings.

The composition of the CMC is listed in the Table XX below and comprises a wide range of operational managers and senior technical staff who are committed to driving the carbon reduction agenda forward.

Graph XX showing XX Carbon Management Committee membership

The remit of the CMC includes:

* developing policies for consideration by the Estates Committee
* ensuring effective communication of the organisation's policies to staff and students
* monitoring the organisation's built environment performance against its carbon management targets, and
* raising the profile of built environment carbon management in the community and promoting environmentally sustainable behaviour by staff and visitors.

## Operational Roles and Responsibilities

**Carbon Management Plan/Project Sponsor**

The [title/role] will champion the project and have ultimate responsibility for strategic direction and for agreeing budgets outside those already available to Estates.

**Director of Estates and Buildings**

The Director of Estates and Buildings will oversee the strategic implementation plan, have strategic input into its development, and review progress.

**Carbon and Energy Manager**

The Carbon and Energy Manager will coordinate the implementation of the CM Plan and report on its progress to the Project Sponsor. Responsibilities of the Carbon and Energy Manager will also include the incorporation of progress into the organisation’s existing sustainable development governance.

**Carbon Management Team**

Estates Operations Team including Building Services, Building Fabric and Building Surveying Teams will work closely with project leaders and manage the technical aspects of projects. The Carbon and Energy Manager will be responsible for data collection and reporting.

**Green Champions**

The Green Champions will work closely with the Carbon and Energy Manager to collect and collate carbon data, raise awareness and engage staff to promote more environmentally conscious behaviour.

## Resourcing and Ownership

The Carbon Management Plan and carbonsaving target will be approved by the XX, providing endorsement and a clear commitment at the highest level, reinforcing the need for action across the organisation. The specific objectives of the CM Plan will be included in the organisation’s strategic plan and other high level plans. XX approval will continue to provide long-term organisational momentum for embedding the CM Plan and carbon savings across the organisation. This will primarily be delivered through the governance structure for carbon management described in this Section.

Key stakeholders at all levels of management will provide overall support for promoting a culture of carbon reduction throughout faculties and buildings.

The CM Plan will be published online, and in pdf format, with a limited number of printed copies available for key stakeholders, thus leading by example and saving paper and distribution costs.

The key to success of this updated CM Plan is effective engagement with staff and the local communities. Everyone has a role to play in embedding and delivering the CM Plan and collaborative working is essential to deliver the desired carbon savings.

The key stakeholders in the organisation who will continue to shape and change culture and awareness are:

* Principal
* Senior management
* Heads of services and officers including (Finance, Communications, Estates and Buildings, Procurement, Energy, Waste, Transport, Hospitality etc)
* All staff (key staff including chief technicians, administrators, grounds staff, janitors, cleaners, and security)
* etc

## The Internal Delivery Model

Green Champions have been appointed by XX and will be members of the Carbon Management Committee (CMC). Their task is to encourage good environmental practices amongst colleagues by setting an example in their own work places. They will receive training so that they can answer basic questions about issues such as climate change, energy efficiency and building performance.

Green Champions implement energy saving activities within their area, from educating and encouraging staff to monitoring and evaluating energy usage and identifying opportunities for reduction. The scope covers carbon reduction, energy saving, recycling, travel reduction, and climate impacts. The Carbon Management Team engages with Green Champions on awareness-raising initiatives. These key staff will be given a printed copy of the updated Carbon Management Plan, to serve as their roadmap towards achieving tangible carbon savings across the organisation.

## Data Collection and Management

XX’s present data collection system affords reasonable data analyses using Energy Management Software. This is used to monitor all energy costs and consumption from invoice data and a selected number of building electricity sub-meters. The organisation intends to make a significant investment in smart metering technology over the next XX financial years. This investment will greatly improve data collection and create the opportunity to carry out a more detailed monitoring of building energy performance and identify carbon saving projects.

Performance data will be communicated to staff to raise their awareness of the implications of their energy use to their unit. This will be done regularly through the Green Champions. There are also plans to exploit existing facilities within the proprietary Energy Management Software to disseminate this information through web-based ‘dash boards’ which will monitor monthly progress in addition to providing data for key performance indicators. The Energy Management Software has the facility to generate energy management reports, invoice management – missing invoices, external reports, internal reports providing feedback to users and Green Champions.

Energy budget performance is reported on a monthly basis. Energy reports are issued to departments on an ad hoc basis. Exception reports are produced when required and follow up action taken if necessary. The system will be required to disseminate usage and costs reports in a variety of methods, including, paper printed copies, web page/computer network and by email.

## Communication and Training

Knowledge transfer is a key performance indicator for XX.

The expansion of Green Champions must be associated with the provision of management information on carbon consumption at department level. This management information would be important to ensuring that the Green Champion role was given sufficient status within the Service Department.

The Corporate Communications team have developed a planned approach to raising carbon reduction awareness through the development of a robust communications and awareness strategy. The Carbon Management Team, based in Estates and Buildings, and the network of Green Champions, will provide support in delivering the low carbon message.

There are many avenues of communication available and these will be fully utilised in promoting the carbon reduction message to all staff and visitors. Effective communication and engagement is the key to success. It is recognised that substantial cultural change will take time to deliver.

Initiatives for building awareness include:

* XX
* XX

The Carbon Management Team will regularly monitor progress and formally report to the CMC as described above (see above) ensuring that all major stakeholders are kept informed.

# Progress Reporting

## Yearly Updates to the Carbon Management Plan

The Carbon Management Plan is viewed as a ‘live’ document and it is envisaged this will change on an annual basis as the organisation’s estate changes and planning assumptions become reality. To ensure that the CM Plan remains ‘fit for purpose’ to deliver targeted carbon savings, the document will be reviewed on an annual basis. This process will be overseen by the CMC and coordinated by the Carbon and Energy Manager.

Specifically, the following areas of the CM Plan will be subject to annual review:

* Progress towards overall carbon reduction target including CO2e savings against target and quantifiable benefits
* Progress with identified carbon reduction projects (will also be reported separately to the Carbon Management Committee on a quarterly basis)
* Financial savings achieved as a result of carbon reduction projects
* Costs of the programme
* Wider benefits
* Stakeholder engagement, and
* Risk Register

The review will be presented to the SMG through the CMC. The SMG will in turn present this to the XX.

The annual progress review will be placed on the intranet.

## Data Collection and Management

Data measuring the progress of the CM Plan will be collected quarterly and presented to the various relevant levels of governance.

The data collected will include:

* Progress on specific projects
* Details of the performance of the variables contributing to the emissions in the quarter such as utilities, water, fuel, waste generated.

As noted above, an Annual Carbon Management Plan Review will be completed and presented to the SMG (section XX).

## Other Reporting Requirements

XX will continue to fulfil requirements to report on environmental performance through a range of other mechanisms.

**CRC Registry:** The organisation has a mandatory requirement to submit fossil fuel energy consumption to the CRC Registry by the end of XX each year. This requires the collation of invoices from all sites for which the organisation is the bill payer. This data is currently collected using Energy Management software.

Etc

## Annual Improvement Action Plan

Following each Annual Review, an Annual Improvement Action Plan (AIAP) will be compiled in response ensuring that Carbon Management remains on track. This document will highlight the priorities for the forthcoming year and will become a formal addendum to the CM Plan.

Subsequent Annual Reviews will thereafter require assessing of progress against both the original CM Plan and the AIAP.

**Appendix A**

**Legislative Drivers for Carbon Management**

The figure below provides a snapshot of the key external legislative drivers (covering compliance, incentives and charges) which may impact on XX now and in the near future. The most significant driver, the CRC Energy Efficiency Scheme (CRC EES), may expose XX to a charge of £16/tonneCO2e in 2014/15, increasing with RPI thereafter, approximately £XX p.a.



Key:

CRC EES – Carbon Reduction Energy Efficiency Scheme (www.gov.uk/crc-energy-efficiency-scheme-qualification-and-registration)

CFP – Carbon Floor Price (www.hmrc.gov.uk/climate-change-levy/carbon-pf.htm)

EU ETS – European Union Emissions Trading Scheme (www.gov.uk/government/policies/reducing-the-uk-s-greenhouse-gas-emissions-by-80-by-2050/supporting-pages/eu-emissions-trading-system-eu-ets)

FiT – Feed In Tariff ([www.gov.uk/feed-in-tariffs/overview](http://www.gov.uk/feed-in-tariffs/overview))

CCL- Climate Change Levy (www.hmrc.gov.uk/climate-change-levy/)

ZWS-Zero Waste Scotland (www.zerowastescotland.org.uk/)

ROS – Renewable Obligation Scheme (www.ofgem.gov.uk/environmental-programmes/renewables-obligation-ro

CfD – Contracts for Difference (www.gov.uk/government/publications/electricity-market-reform-contracts-for-difference)

RHI – Renewable Heat Incentive (www.gov.uk/government/policies/increasing-the-use-of-low-carbon-technologies/supporting-pages/renewable-heat-incentive-rhi)

EPBDR – Energy Performance in Buildings Directive ([www.gov.uk/government/policies/improving-the-energy-efficiency-of-buildings-and-using-planning-to-protect-the-environment/supporting-pages/energy-performance-of-buildings](http://www.gov.uk/government/policies/improving-the-energy-efficiency-of-buildings-and-using-planning-to-protect-the-environment/supporting-pages/energy-performance-of-buildings))

**Appendix B**

Detail of the individual consumptions and costs for each element of the 20XX/XX carbon footprint.

|  |  |  |
| --- | --- | --- |
| **Category** | **Carbon Footprint** | **Cost** |
| **Grid Electricity** | XX kgCO2e | £ XX |
| **Natural gas** | XX kgCO2e | £ XX |
| **Gas oil** | XX kgCO2e | £ XX |
| **Diesel (retail station biofuel blend)** | XX kgCO2e | £ XX |
| **Petrol (retail station biofuel blend)** | XX kgCO2e | £ XX |
| **Industrial mobile machinery (gas oil or ‘red diesel’)** | XX kgCO2e | £ XX |
| **Average van up to 3.5 tonne** | XX kgCO2e | £ XX |
| **Large diesel car, over 2.0 litre** | XX kgCO2e | £ XX |
| **Medium petrol car, from 1.4 - 2.0 litres** | XX kgCO2e | £ XX |
| **Waste (black stream domestic landfill)** | XX kgCO2e | £ XX |
| **Water supply** | XX kgCO2e | £ XX |
| **Wastewater supply** | XX kgCO2e | £ XX |

**Appendix C**

Summary of Projects

1. Stern Review Report on the Economics of Climate Change. N Stern, 2006. HM Treasury, London. [↑](#footnote-ref-1)
2. The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard Revised Edition, Worlds Resources Institute; World Business Council for Sustainable Development, 2004. [↑](#footnote-ref-2)
3. http://www.ukconversionfactorscarbonsmart.co.uk/ [↑](#footnote-ref-3)