

Carbon Management Plan

2012 update



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1. Introduction/Summary

South Lanarkshire Council's first Carbon Management Plan (CMP) was published in July 2008. It was the outcome of the Council's participation in the Carbon Trust's local authority carbon management programme and its signing of Scotland's Climate Change Declaration in 2006.

This document provides an update of South Lanarkshire Council's progress so far against the carbon reduction targets set within the CMP 2006-2011 and sets out an action plan for two years as well as long term targets.

The original high level outcome set for the original CMP was to achieve a 5% reduction in emissions relative to a 2005/06 baseline by the end of March 2011. The target was included in all of the following plans:

- South Lanarkshire Council Sustainable Development Strategy
- Community Resources Annual Plan
- Connect, the Council Plan
- South Lanarkshire Single Outcome Agreement

The overall target was achieved by March 2009. This document details the changes in each separate source of emissions since 2005-6, and the reasons for these where known.

New issues which will impact on the Council's future approach to carbon management are considered in the plan including two new areas of legislation: The Climate Change (Scotland) Act 2009, bringing into force new public sector climate change duties in January 2011, and the Carbon Reduction Commitment Energy Efficiency Scheme (CRC) which brings the Council within the scope of an emissions allowance scheme from April 2011.

The Council's vision for carbon management remains as before: to become a low carbon Council. However, predicting future emissions is complex as there are many variables to consider. The Council wishes to maintain a downward trajectory in its emissions and the plan sets a new target to reduce emissions by 2% on average each year for the next four years.

Progress will be kept under review by the carbon management group and will be reported to the Council's Executive Committee on an annual basis.



2. Changes in carbon emissions since the baseline year

The baseline emissions in figure 1 below show the carbon emissions by source from the baseline year to 2010-11.

Figure 1 Carbon emissions by source 2005-2011

Emissions source	Year (emissions in tonnes CO ₂ equivalent)					
	2005-6 Baseline	2006-7	2007-8	2008-9	2009-10	2010-11
Buildings (electricity, gas, oil)	69,427	66,480	67,573	67,691	69,512	67,914
Waste (municipal)	61,320	60,015	57,824	54,876	50,711	48,928
Fleet	10,418	10,290	10,210	9,710	10,039	10,032
Street lighting	13,005	13,155	13,957	13,564	12,932	12,962
Employee travel	1,795	1,941	1,772	1,783	1,638	1,428
Totals	155,965	151,882	151,337	147,623	144,832	141,265
Variation against baseline	n/a	-2.6%	-3.0%	-5.3%	-7.1%	-9.4%

As the table above shows the Council has exceeded its initial carbon management target of a 5% reduction with a 9.4% overall reduction having been achieved by the end of financial year 2010-11.



3. How have the emissions from different sources changed?

Buildings

Since the baseline year, carbon emissions from buildings have remained relatively static with an average annual trend of a 0.4% decrease since the baseline year. The schools modernisation programme has led to the most significant change in the Council's building stock. The new schools that have been built are more efficient in terms of their thermal properties however many are larger and they contain more electrical equipment and many schools often open for longer hours due to increased community use. The fuel consumption figures for 09/10 increased slightly due to the excessively low temperatures experienced during the winter period, but there have been measurable impacts in terms of more active energy management.

In terms of other Council buildings, the central energy efficiency fund (CEEF) programme is having an effect, and wide ranging-action has been taken over recent years with the installation of voltage optimisers, automatic meter readers and alternative heating systems.

Waste

At the end of March 2010, the Council reached a key milestone by achieving a recycling rate for municipal waste of 40.2%, just exceeding the national target set for councils in the Scottish Government's Zero Waste Plan and previous policy documents. Emissions resulting from the land filling of municipal waste have reduced by an average of 4.4% per year since 2005-6 as a result of new and improved recycling services being provided. The previous annual growth in the tonnage of waste produced by South Lanarkshire households has also now been reversed and this has contributed to the reduced level of landfill. This may in part be due to the recent down turn in the economy reducing the consumption of consumer goods.

Fleet

Carbon emissions associated with fleet fuel use were reducing by an average of 2.3% per year since the baseline year mainly due to improved efficiency of vehicles and more stringent fuel control procedures. An increase in emissions during 2009-10 is accounted for by significantly increased road gritting operations over the very prolonged and hard winter of 2009-10. This has reduced the average annual trend to a 0.7% decrease since the baseline year.



Street lighting

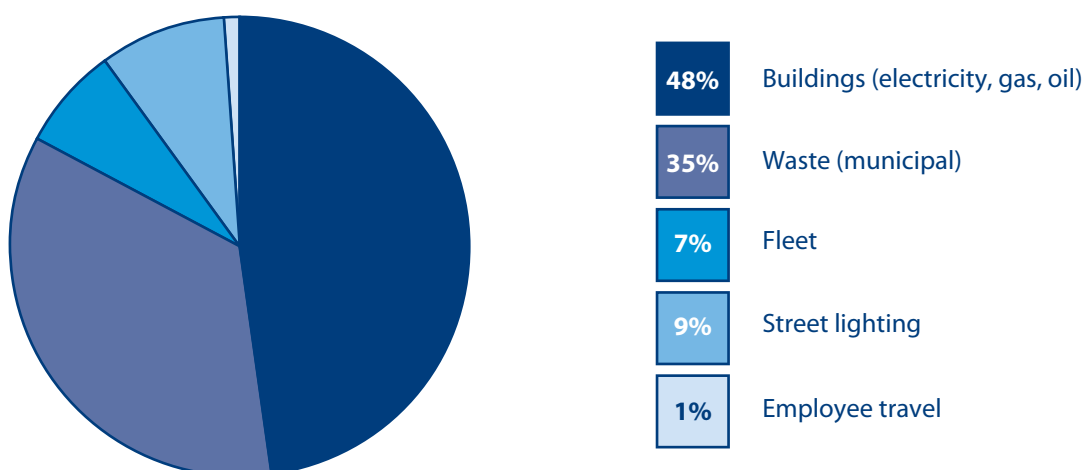
Carbon emissions from electricity use for street lights remained relatively static since the baseline year. Investment in low wattage festive lights has led to some reduction, but the street lighting network continues to expand in South Lanarkshire due to the construction of new housing. Having the emissions remain static is therefore considered a positive outcome.

Employee travel

Carbon emissions from employee travel have reduced since the baseline year by an average of 4.2% per year. This is due to a general reduction in mileage claims, a gradual improvement in the efficiency of employees' own vehicles and the Council wide roll out of a pool car scheme in late 2010/11.

Figure 2 below shows the breakdown of each of the sources of carbon emissions as highlighted above in 2010/11.

Figure 2 Sources of carbon emissions 2010/11



Excluded sources

The previous CMP excluded emissions arising from staff commuting as it was considered impractical to obtain useful data on this. Actions on staff travel are however included in the Council's sustainable development strategy. Emissions arising from water use were also excluded from the original base line because of the poor quality data available at that time. We are progressing towards the development of a system to establish baseline figures and measure and reduce water use.

Projects tracker

Progress against the projects listed in the 2008 Carbon Management Plan are monitored within a Projects Tracker. Each year additional projects are added and progressed by members of the Carbon Management Group.



4. Emerging issues

Since the Council's first Carbon Management Plan in 2008 the context for carbon management has changed significantly;

New legislation

- The Climate Change (Scotland) Act 2009 creates a statutory framework for greenhouse gas emissions reductions in Scotland by setting an interim 42% reduction target for 2020, and an 80% reduction target for 2050. Part 4 of the Act places climate change duties on Scottish public bodies. The duties came into effect on 1 January 2011 and statutory guidance has been published on how they should be implemented. Public sector bodies are now expected to 'act in a way best calculated to contribute to the delivery' of the national targets set out in the Act. The guidance makes clear that these are national targets and do not apply specifically to local authorities or other specific sectors of the economy. However, all Scottish councils are specifically mentioned as having a key role to play in carbon reduction because of the size of their operations and estates and their scope to influence others.
- The Carbon Reduction Commitment Energy Efficiency Scheme (CRC) was designed as a mandatory emissions cap and trade scheme for small and medium sized commercial and public sector organisations. From April 2012 the Council will have to purchase carbon allowances for at least 90% of its emissions from energy use in buildings for the preceding financial year. Initially this will be at a fixed cost, but eventually the overall number of allowances available to participants may be capped to enable their cost to be determined by market forces.
- Significant changes in the CRC were announced in the Government's spending review in October 2010. Revenue from the scheme was originally to be 'recycled' to participants at a level dependent on their performance in the league table. However, the Government has now announced that it will retain all of the income generated by the scheme. This change effectively increases the cost of emitting CO₂ by £12 per tonne, roughly equivalent to an 8% increase in the cost of fossil fuels. The CRC carbon price will be set each year by the UK Budget process and is expected to rise each year at least until it is decided whether a cap and trade mechanism is to be introduced.



- Extensive reporting and verification procedures need to be followed under the CRC and participants' performance is made public in a national league table. The first league table (based on early action metrics) was published in September 2011. It placed South Lanarkshire Council 8th out of 27 participating Scottish Councils and 284th out of 2,102 participating organisations nationally. Future league table positions will depend on the Council's performance in reducing in emissions relative to other participants.
- An electricity generation 'Feed in Tariff' (FIT) scheme became available in the UK from April 2010. This requires energy suppliers to make payments to householders, communities or local authorities that generate electricity from renewable technologies such as solar electricity panels or wind turbines up to an installation size of five mega watts. The potential to generate on-site renewable electricity and receive an income will influence the Council's future energy strategy. The FIT payments were initially created to give an eight to ten year payback on capital invested in the relevant technologies. The recent spending review included an announcement that FIT would be reviewed to favour the most cost-effective technologies. The UK government also announced a review of tariff payments in December 2011 and these are expected to be reduced significantly.
- A Renewable Heat Incentive (RHI) has also now been developed to meet the 2020 UK's target of generating 15% of energy demand, including heat demand, from renewable sources. The scheme will take effect from November 2011 and is anticipated to provide strong financial incentives for the use of biomass and other forms of renewable heat.

Best value requirements

- Since the last CMP, the Council was the subject of an audit of best value and community planning by Audit Scotland. The audit included a recommendation that the Council should continue to take action on sustainable development issues to enable it to demonstrate tangible progress on this aspect of best value. A subsequent annual review by Audit Scotland (and other external inspection bodies) found no significant outstanding risks but recommended that the CMP be reviewed in the light of the statutory guidance on the Climate Change (Scotland) Act 2009 public sector duties.

Financial climate

- The current financial crisis is expected to lead to a significant reduction in local authority budgets. Between April 2011 and March 2013 South Lanarkshire Council has to make savings of over £37m. This will inevitably lead to a reduction in services provided leading to some reduction in emissions although at this stage it is not possible to quantify by how much.



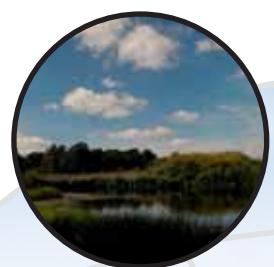
Carbon Trust Review

- In 2009-10 a review of the Council's carbon management progress was undertaken by SKM, a consultant working on behalf of the Carbon Trust. Their assessment involved reviewing the outcome of projects detailed within the previous plan, and obtaining feedback from those individuals responsible for the delivery of carbon reduction projects. The consultant's findings and recommendations were as follows;
 - The Council has a well-developed short-term projects register with good current visibility of financial support for 75% of projects
 - The Council now has the second highest central energy efficiency fund (CEEF fund) among the 32 Scottish councils (£690,000)
 - A robust governance and accountability framework currently exists for carbon management - further enhanced by the implementation of reporting and review of systems necessary to gain Carbon Trust Standard accreditation
 - The Council's longer term vision and strategic direction will need to take account of future national carbon reduction targets
 - Future carbon reduction opportunities should be linked to the Council's building asset management plan
 - Ongoing consideration required of most effective measures to embed carbon management at all levels throughout the organisation
- The report recommended firmly linking the Carbon Management Plan (CMP) to the Council's asset management plan so that the emissions implications of asset management decisions are fully understood. It also recommended that a programme of energy awareness training be rolled out to all Council staff.
- Using a Carbon Management Matrix Tool (CMAT), a joint assessment was made by the consultant and members of the carbon management group to determine the maturity of the Council's approach to carbon management. The assessment was based on a range of measures including policy, information and data and monitoring and evaluation and was used to determine where gaps exist. The matrix is shown in Appendix 1 and indicates the Carbon Trust's assessment of maturity level across each of the assessment criteria.

Current scores were:	
Vision and strategic direction	40%
Performance management and improvement	40%
Governance and accountability	50%
Embedded within organisation	30%
Use of resources	30%
Short term projects register	55%
Combined score	40%

Achievement of the Carbon Trust Standard

- The Council achieved Carbon Trust Standard for financial years 2009-10 and 2010-11. This demonstrates that the Council has measured, managed and genuinely reduced its carbon footprint and is committed to making further reductions year on year. The standard is due for renewal in 2011/12. However following changes to the CRC announced in the spending review a decision was made through the CRC board not to apply for renewal as there is no longer a financial benefit of having this accreditation.



5. Emissions forecast 2010 - 2014

There are many variables affecting how each source of emissions will perform in future years. Some of the factors involved are considered below:

Energy use in buildings

Investment in energy efficient equipment, closure of older inefficient properties and the building of newer, better insulated and heated facilities are forecast to reduce overall energy consumption from buildings in the coming years.

In October of 2010, Scottish Building Standards were changed to introduce a requirement for the design of all new buildings over 500m² to achieve a 30% reduction in expected emissions compared to 2007 levels. In discussion with its design partners, the Council has determined that this in effect requires the installation of renewable technologies.

The Council was selected to participate in a study funded by the Glasgow and Clyde Valley Green Network Partnership to examine the business case for biomass heating in larger Council buildings, and to assess the potential for local biomass production. Through this funding a feasibility study for biomass installations was undertaken at a number of different sized primary schools, leisure centres and office buildings using anticipated Renewable Heat Incentive (RHI) rates at approximately 10 sites.

In September 2010 the Corporate Management Team made a commitment to support improved energy efficiency within Council buildings. Corporate standards for energy consumption has been confirmed for each operational property (kwh/m²/annum) and benchmarks agreed.

New energy management software installed during 2009 now supports regular energy consumption reporting to building managers across the Council. The system has significantly enhanced the ability of the Council to monitor energy use at an individual building level and to target energy management interventions. It is the main source for producing reports for the CRC compliance evidence and a member of staff from each Council Resource has been trained to access the system.

The Council's high level of energy efficiency investment will be maintained. In 2010-11 £560,000 was spent leading to an estimated reduction in carbon emissions of 718 tonnes. A review of assets in 2010 identified properties extending to 10% of current floorspace which are capable of being closed. The timescale for completion is 2013/14 and an update review is due to report in March 2012. It is not yet possible to quantify the potential impact in terms of carbon emissions.



As noted in the Carbon Trust's carbon management revisited programme, it was recognised that there is a need to improve monitoring, targeting and benchmarking. This has been developed with the Council's new energy management software. Energy teams are underway in secondary schools, staff energy efficiency training has taken place and Resource energy teams have been established across the Council. Quarterly energy reports are being issued to Resource champions and formal structured energy team meetings are being held on a scheduled basis.

Monthly reviews of energy savings resulting from major energy efficiency investments over the first 12 months of an investment being completed are now in place.

The Council's ICT Strategy now contains a Green ICT plan which considers the impacts from the manufacture, use and disposal of ICT equipment.

Together these measures are forecast to realise a 10% reduction in energy consumption in our buildings by 2013/14.

Waste

The Council has been progressing a new waste management contract which will provide long term alternatives to landfill and meet the targets set by the Scottish Government's Zero Waste Plan.

In the medium-term it is forecast that emissions from land-filled waste will continue to be driven down by legislative and fiscal policy drivers. New generation waste management will significantly reduce waste sent to landfill sites and its associated carbon emissions. However, in the short term emissions will remain more or less at 2009-10 levels.

Fleet

Fuel use was forecast to remain at 2009-10 levels in 2010-11 due to an increase in the overall fleet size partly due to the introduction of an employee pool car scheme. In 2011-12 the use of pool cars is forecast to increase emissions from this source, but should lead to an even greater decrease in emissions from employee mileage. As well as using the latest low emissions petrol and diesel models, during 2011, 12 electric pool cars were added to the fleet funded by Transport Scotland. A further round of funding is currently underway and it is hoped to now pilot electric sweeping machines. The early indications are that careful deployment of electric vehicles will help reduce fleet emissions.

Employee mileage

Carbon emissions associated with employee business travel are forecast to gradually decrease over time due to the further development of the Council's pool car scheme, the use of low carbon pool cars, and an increase in alternatives to travelling such as online training.



Street lighting

It is forecast that carbon emissions from this source will increase in the long-term due to the requirement in South Lanarkshire for additional streets to be lit. Although development is currently much slower than expected due to the recession, the Greater Glasgow and Clyde Valley Structure Plan envisages significant private sector housing growth in South Lanarkshire over the next 15 years. Energy efficient lamps and equipment will continue to be specified to developers, i.e. to allow for dimming of light levels in the future.

Areas where sections of lighting installations can be de-energised before dawn will continue to be investigated, as well as undertaking reviews of new technology and control mechanisms which would enable a reduction of energy consumption, however this has proved difficult with LED technology, as currently the cost of the equipment outweighs any benefit in energy savings. Lower energy alternatives for street lighting and festive lighting installations, as well as switching off sections of lighting at certain times, will also be progressed by the street lighting team over the course of the next carbon management plan.



6. Carbon management vision and action plan

The emissions reduction achieved by the Council so far demonstrates that the first carbon management plan was worthwhile. It created a focus for a wide range of actions needed to reverse what had previously been a steadily increasing trend in emissions. The initial target was lower than that set by most other councils that participated in the Carbon Trust local authority carbon management programme, however many of these targets set were not achieved. This suggests that the Council's strategy of achieving incremental change is the right one for South Lanarkshire.

The CMP vision that South Lanarkshire will become a low carbon council is even more relevant today that it was when the first plan was developed. More incentives for carbon reduction are in now place, and more are in the pipeline. A combination of financial, regulatory and reputational drivers makes a gradual transition to low carbon provision of Council service a necessary strategy. Careful planning is needed to ensure that the transformation happens in a cost-effective manner.

Carbon Reduction Target

Despite the uncertainties about current trends it is considered that an annual average carbon reduction target of 2% in overall emissions is achievable. The target is considered to be consistent with the Council's new public sector duties under the Climate Change (Scotland) Act 2009, and will help ensure a favourable position for the Council within the CRC scheme. The target exceeds the 1.9% annual average carbon reduction achieved since the baseline year of 2005/6, and will require continued focus through a refreshed action plan.

Scope

No changes to the scope of emissions covered by the plan are proposed. However, the action plan includes a commitment to review the quality of data available on water consumption as this has improved to some extent since the first CMP.

Carbon Management Maturity and Improvement

The Council's carbon management maturity level will continue to be assessed on an annual basis, with a goal of achieving level four in terms of the Carbon Trust's maturity matrix (CMAT). Over the course of the new CMP we will seek to improve our self-assessed maturity score from 40% to 50% averaged across the six CMAT criteria.



Governance and reporting

It is planned that the governance and delivery of the actions within the CMP will continue as before, specifically using the Carbon Management Group to co-ordinate, deliver and report on carbon reduction. The Council's overall level of emissions is a key Council Plan indicator and will continue to be reported at least annually to Executive Committee. Council emissions will continue to be published in the annual report on action taken in relation to Scotland's Climate Change Declaration.

Carbon reduction projects

The Council will have to continue to invest in making reductions across all sources. This includes energy efficiency improvements across its buildings through CEEF, the new waste contract, and development of the pool car scheme. The Carbon Management Group maintains a register of carbon reduction projects which is updated on a regular basis. As of November 2011 over 50 projects were being progressed spread across all carbon sources.

Carbon Management Action Plan

The action plan attached at Appendix 2 is intended to cover the main areas of change required to maintain carbon management progress. The actions take account of the new issues outlined in section 4 that have emerged since the first CMP.

Risk

Carbon management plan is designed to respond to a key risk identified in the Council's high level risk register, i.e. 'ineffective energy management leads to under-achievement of legislative targets especially carbon emissions'.



Assessment Matrix (CMAT 1) – Vision and Strategic Direction

Level ↓ ↓ ↓	Reduction targets	Management plans	Carbon reduction contributions	Near term planning	Communications strategy
4	Organisation has a clear view of its desired long term (2050) and interim (2020 and 2030) carbon footprint, and how it will deliver its share of national reduction targets through strategic decision making	Organisation has a long term management plans that quantify and schedule carbon reduction implications / opportunities arising from 100% of its carbon footprint ¹ linking to carbon management plan and long term targets	Organisation understands the relative contribution of energy efficiency and on-site renewables and has calculated the potential carbon reduction from each to help meet interim and long term carbon reduction targets and has factored in implications of decarbonised energy supplies ²	Organisation has quantified and funded (with sign off by finance manager and corporate management team) 1 and 2 year plans within the overall short term plan (5 years) which contains sufficient projects to deliver 125% of the stated reduction target	Organisation has a robust carbon reduction communication’s strategy, for all parts of the organisation and the wider area, which has components to enable the effectiveness of awareness raising measures and communications to be quantified
3	Organisation has a clear view of its desired interim (2020 and 2030) carbon footprint, and how it will deliver its share of national reduction targets through strategic decision making	Organisation has a long term management plans that quantify and schedule carbon reduction implications / opportunities arising from 75% of its carbon footprint ¹	Organisation understands the relative contribution of energy efficiency and on-site renewables and has calculated the carbon reduction gains potential from each to meet interim and long term carbon reduction targets	Organisation has quantified and funded 1 and 2 year plans within the overall short term plan (4 -5 years) which has sufficient projects to deliver 100% of the stated reduction target	Organisation has a robust carbon reduction communication’s strategy, for all parts of the organisation which has components to enable the effectiveness of awareness raising measures and communications to be quantified
2	Organisation has a clear view of its desired carbon footprint, over the next 10 years and how it will deliver its share of national reduction targets through strategic decision making	Organisation has a long term asset management plan that quantifies and schedules carbon reduction implications / opportunities arising from renewal and refurbishment of buildings.	Organisation understands the relative contribution of energy efficiency and on-site renewables but has not calculated the carbon reduction potential from each to meet interim and long term carbon reduction targets	Organisation has quantified and funded short term plan (4 -5 years) that has sufficient projects to deliver over 75% of the stated reduction target	Organisation has a robust carbon reduction communication’s strategy but no formal measure of effectiveness is undertaken
1	Organisation has 5 year carbon reduction target but has not considered how it will deliver its share of national reduction targets.	Organisation has a long term building asset management plan without quantified carbon reduction implications / opportunities.	Organisation has plans to assess the relative contribution of energy efficiency and on-site renewables and calculate the carbon reduction potential from each	Organisation has short term plan (4 -5 years) that has sufficient projects to deliver over 75% of the stated reduction target but lacks detail and not quantified.	Organisation communicates carbon reduction issues to employees but this is done on an ad hoc basis.
0	Organisation has no carbon reduction target	Organisation has no long term asset (building) management plan	Organisation has not considered the relative contribution of energy efficiency and on-site renewables	Organisations short term plan has insufficient projects to meet 50% of started target.	Organisation has no an ad hoc system for communication of carbon reduction issues

Assessment Matrix (CMAT 2) – Performance Management and Improvement

Level ↓ ↓ ↓	Emission data collection	Emissions reporting	Operational management	Performance Reporting	Improvement
4	Organisation has externally verifiable data collection regime that allows 'best practice' collation ¹ of 100% (including scope 3, embedded and outsourced) of organisations carbon emissions on a monthly basis	Organisation issues detailed individual monitoring reports covering 100% (energy, waste and transport) of carbon footprint to all Departments and Lead Carbon Sources ² on a monthly basis.	Service Directors and Operational Managers have designated carbon reduction targets relating to their operational area as one of their key performance indicators with documented evidence of ongoing actions being taken to ensure short term carbon reduction targets are met.	Carbon Management performance report with detailed emission data and project updates reported to: Full Council - Annually Staff/Stakeholders - Half yearly SMT ³ - Quarterly	Carbon Manager or equivalent reviews carbon performance against CO ₂ reduction targets and following consultation with specialist agencies develops a carbon management improvement programme of actions supported and signed off by Corporate Management Team
3	Organisation has externally verifiable data collection regime that allows routine 'best practice' collation ¹ of 100% of organisation's carbon emissions quarterly.	Organisation issues detailed individual monitoring reports on energy use in buildings to all Departments and Lead Carbon Sources on a monthly basis.	Service Directors and Operational Managers have designated carbon reduction targets relating to their operational area as one of their key performance indicators	Carbon Management performance report with detailed emission data and project updates reported to: Staff/Stakeholders - Annually SMT ³ - Half yearly	Carbon Manager or equivalent reviews carbon performance against CO ₂ reduction targets develops a carbon management improvement programme of actions supported and signed off by Corporate Management Team
2	Organisation has data collection regime that allows quarterly collation of 75% of organisation's in scope carbon emissions on a monthly basis	Organisation issues detailed individual monitoring reports on energy use in buildings to all Departments on a bi-monthly basis.	Service Directors have designated energy reduction targets relating to their operational area.	Carbon Management performance report and project updates reported at least annually to senior management, staff and stakeholders.	Carbon Manager or equivalent reviews carbon performance against CO ₂ reduction targets develops a carbon management improvement programme of actions
1	Organisation has data collection regime that allows quarterly collation of 75% of organisation's in scope carbon emissions	Organisation issues detailed individual monitoring reports on energy use in buildings to all Departments on a quarterly basis.	Organisation has a documented energy reduction target	Carbon Management performance report with emission data and project updates reported to on an ad hoc basis	Carbon Manager or equivalent reviews carbon performance against CO ₂ reduction targets takes actions to improve performance on an ad hoc basis
0	Emission data produced and available on an ad hoc basis	Detailed monitoring report issued annually.	Organisation has no documented energy reduction target	Carbon Management Reports produced on an ad hoc basis	No review of performance against targets take place

Assessment Matrix (CMAT 3) – Governance and Accountability

Level ↓ ↓ ↓	Political Commitment	Chief Executive Accountability	Senior Management Accountability	Devolution of responsibility	Scrutiny and Audit
4	Elected Members have placed emission reduction at the core of the organisations key objectives and hold officials to account for carbon reductions against stated targets in Council Plan, Departmental Service Plans and specific Key Performance Indicators of managers	Chief Executive accepts overall accountability for carbon reduction targets in the organisation and chairs quarterly meeting to review progress against targets, project updates and future plans	Service Directors accept overall accountability for carbon reduction targets in their department and chairs quarterly meeting on data review, projects update and future plans of their department to show clear commitment / leadership to employees	Carbon budgets are devolved to Departmental Directors, Group Managers and Team Leaders. All have designated emission reduction responsibilities and control over the emissions in their operational area / network	Carbon Management performance reports detailing progress against target formally audited by an external qualified body and reviewed by the organisation's Executive Committee quarterly
3	Elected Members have placed emission reduction at the core of the organisations key objectives and hold officials to account for carbon reductions against stated targets in Council Service Plan and Departmental Service Plans	Chief Executive accepts overall accountability for carbon reduction targets in the organisation and twice annually chairs meeting to review progress against targets, project updates and future plans	Service Directors accepts overall accountability for carbon reduction targets in their department and twice annually chairs meeting on data review, projects update and future plans of their department to show clear commitment / leadership to employees	Carbon budgets are devolved to Departmental Directors and Group Managers who have designated emission reduction responsibilities and control over emissions in their operational area / network	Carbon Management performance reports detailing progress against target formally audited by an external qualified body and reviewed by the organisation's Executive Committee twice a year
2	Elected Members have placed emission reduction at the core of the organisations key objectives and hold officials to account for carbon reductions against stated targets in Council Plan	Chief Executive has overall accountability for carbon reduction targets and has signed climate change declaration	Service Directors accepts overall accountability for energy / carbon reduction targets in their department and data review, and projects update are covered at management tram meetings	Carbon / energy budgets are devolved to Departmental Directors and Group Managers who have designated emission reduction responsibilities but limited opportunities to actually control these emissions.	Carbon Management performance reports detailing progress against target formally scrutinised by the appropriate scrutiny committee/s of the organisation at least annually.
1	Elected Members have placed emission reduction at the core of the organisations key objectives	Chief Executive has formally committed to carbon reduction through signing climate change declaration	Service Directors accepts overall accountability for energy / carbon reduction targets in their department	Plans are in place to estimate individual departments carbon / energy budgets and to devolve these to Service Directors	Carbon Management performance reports detailing progress against target scrutinised on an ad hoc basis.
0	Elected members have not placed emissions at the core of the organisations objectives	Chief Executive has not engaged in any way with carbon management.	Service Directors not accountability for energy / carbon reduction targets	No plans to devolve Carbon budgets	No formal scrutiny or audit takes place

Assessment Matrix (CMAT 4) – Embedded within Organisation

Level ↓ ↓ ↓	Carbon Appraisal	Procurement	Embedded in outcome commitments	Embedded in strategies, policies and procedures	Staff competencies
4	100% of projects that are subject to financial appraisal are subject to carbon appraisal - including whole life costing and consideration of alternative low carbon methods of project delivery	Consideration of both embedded and ongoing operational CO ₂ emissions is standard practice during procurement processes for 100% of goods, services and contracts ¹ through whole life costing and consideration of alternatives	Carbon reduction targets and actions are contained in the Community Plan, Single Outcome Agreement, the Council Plan, Departmental Service Plans and Group Work Plans show clear vision and strategic direction throughout the organisation.	All new plans, policies, procedures strategies and committee reports are checked for compliance with carbon management plans by qualified specialist to assess any potential impact on both short and long term CO ₂ reduction targets	CO ₂ reduction part of competency requirements of 100% of employees job descriptions with specific responsibilities designated to staff appropriate to the carbon intensity of their job function
3	75% of projects that are subject to financial appraisal are subject to carbon appraisal - including whole life costing and consideration of alternative low carbon methods of project delivery	Consideration of both embedded and ongoing operational CO ₂ emissions is standard practice during procurement processes for 75% of goods/services through whole life costing and consideration of alternatives	Carbon reduction targets and actions are contained in the Community Plan, Single Outcome Agreement, the Council Plan and Departmental Service Plans	All committee reports are routinely scrutinised for compliance with carbon management strategies and plans by qualified specialist to assess any potential impact on both short and long term CO ₂ targets	CO ₂ reduction part of competency requirements of 75% of employees job descriptions with specific responsibilities designated to staff appropriate to the carbon intensity of their job function
2	Selected capital projects contain an assessment of carbon emissions associated with the project. Plans in place to introduce more robust whole life costing	Whole life costing and / or consideration of low carbon alternatives for selected goods and service that are determined to have high carbon impact / implications	Carbon reduction targets and actions are contained in the Community Plan and the Council Plan.	All committee reports contain an requirement to consider environmental implications of new proposals but reviewers have limited knowledge of carbon / environmental management issues	Formal plans are in place to introduce CO ₂ reduction as part of competency requirements for selected staff with high carbon intensity job function
1	Carbon assessment only carried out for large building projects with no plans to introduce more robust whole life costing	Procurement strategy contains commitment to consider more sustainable options but no documented evidence of being action actually being taken	Carbon reduction targets and actions are contained in the Council Plan.	Selected committee reports consider environmental implications of new proposals but this is done on an informal and ad hoc basis	Informal plans are in place to introduce CO ₂ reduction as part of competency requirements for selected staff with high carbon intensity job function
0	No carbon assessment takes place	No consideration of low carbon options / alternatives	CO ₂ reduction objectives not contained in the Council Plan.	Committee reports do not cover environmental considerations	CO ₂ reduction not determined to be appropriate for competencies

Assessment Matrix (CMAT 5) – Use of Resources

Level ↓ ↓ ↓	Low Carbon Funding Policy	Designated Responsibility	Energy management capability	Site champions	Employee Training
4	Additional funding is routinely made available and embedded as business as usual policy for low carbon building specifications and carbon reduction projects through linkage of capital costs and longer term running costs	Organisations has a designated carbon manager to monitor, and recommend, CO ₂ reduction measures who is supported by a network of departmental and technical champions who have adequate time available to provide support across the organisation	Minimum of one full time Energy Manager / Officer per 2 million pounds spent annually on energy to provide technical support and advice across the organisation.	Site / network champions appointed at all large premises (with half hourly data) or service delivery networks and given sufficient time, training and control to disseminate / embed low carbon policies and practices across their own site and nearby smaller premises / networks.	100% of staff training / induction packages reviewed to consider CO ₂ implications and where these are identified (building / fleet managers, janitors etc) training is provided to enable emission reduction projects to be delivered and info' disseminated to others
3	Additional funding is made available for low carbon specifications and carbon reduction projects but only those with 10 year financial paybacks	Organisations has a designated carbon manager to monitor, and recommend, CO ₂ reduction measures who is supported by a network technical champions who have adequate time available to provide support across the organisation	Minimum of one full time Energy Manager / Officer per 4 million pounds spent annually on energy to provide technical support and advice across the organisation.	Site / network champions appointed at all large premises (with half hourly data) or service delivery networks and given sufficient time, training and control to disseminate / embed low carbon policies and practices. across their site or operation.	50% of staff training packages reviewed to consider CO ₂ implications and where these are identified (building / fleet managers, janitors etc) training is provided to enable emission reduction projects to be delivered and info' disseminated to others
2	Additional funding is occasionally made available for low carbon specifications and carbon reduction projects but only those with 5 year financial paybacks	Nominated senior manager in charge of emission reduction across organisation with an identified team to provide support but with limited authority and time.	Minimum of one full time Energy Manager / Officer per 6 million pounds spent annually on energy to provide technical support and advice across the organisation.	Informal group of site / network champions exists for most large premises (with half hourly data) but limited by time and training to disseminate / embed low carbon policies and practices	Selected staff training packages reviewed to consider CO ₂ implications and appropriate CO ₂ reduction awareness training has been introduced
1	Additional funding is only made available for low carbon specifications where 5 year paybacks	Nominated officer in charge of emission reduction across organisation with ad hoc support and limited authority and time available	Minimum of one full time Energy Manager / Officer per 8 million pounds spent annually on energy to provide technical support and advice across the organisation.	Plans to establish site / network champions at all large premises (with half hourly data) or service delivery networks to disseminate / embed low carbon policies and practices	Staff Induction contains information of energy reduction measures but no other formal training packages cover energy / fuel reduction.
0	No linkage of capital and review budgets	No nominated officer in charge of carbon management across organisation	Insufficient energy management expertise available to provide technical advice across the organisation.	No plans to establish site / network champions to disseminate / embed low carbon policies and practices	No staff training packages include information or guidance on energy use or carbon reduction

Assessment Matrix (CMAT 6) – Short term Projects Register

Level ↓ ↓ ↓	Project cost	Quantified Emissions	Project implementation date	Project Finance	Regular review of project register
4	Project register has portfolio of practical projects, 100% of which are fully costed through discussion with suppliers / service providers and financial paybacks calculated using best available projections of changes in utility charges and other costs	100% of projects within the project register have firm estimated emission reduction figure using best specialist data available.	100% of projects within the short term carbon management plan have a firm implementation date that has been established through consideration of procurement, staff resourcing and other relevant factors.	100% of required finance has been formally committed and signed off by Finance Manager to allow fulfilment of plan objectives over course of short term (4-5 years) programme.	Short term project register updated every year with review and update approved by Executive Committee and Corporate Management Team. Designated manager / officer identified for each project to ensure accountability
3	Project register has portfolio of practical projects, 75% of which are fully costed through discussion with suppliers / service providers and financial paybacks calculated using best available projections of changes in utility charges and other costs	75% of projects within the project register have firm estimated emission reduction figure using best specialist data available.	75% of projects within the short term carbon management plan have a firm implementation date that has been established through consideration of procurement, staff resourcing and other relevant factors.	75% of required finance has been formally committed and signed off by Finance Manager to allow fulfilment of plan objectives over course of short term (4-5 years) programme.	Short term project register updated every year with review and update approved by Executive Committee and Corporate Management Team.
2	Project register has portfolio of practical projects but these have all been costed through informal review of suppliers / service providers.	50% of projects within the project register have firm estimated emission reduction figure using best specialist data available.	50% of projects within the short term carbon management plan have a firm implementation date that has been established through consideration of procurement and other factors	50% of required finance has been formally committed to allow fulfilment of plan objectives over course of short term (4-5 years) programme.	Current short term project register available with stated intention to develop update and get sign of from Corporate Management Team
1	Short-term carbon management plan has limited portfolio of practical projects with plans to formally cost them in the future and work out exact payback periods	25% of projects within the project register have firm estimated emission reduction figure using best specialist data available.	25% of projects within the short term carbon management plan have a firm implementation date that has been established through consideration of procurement and other factors	25% of required finance has been formally committed to allow fulfilment of plan objectives over course of short term (4-5 years) programme.	Current short term project register available with no firm intention to develop new / updated plan in final year of existing plan
0	Short term plan has portfolio of projects but they have been costed	No emission reduction figures have been calculated using best specialist data available	No projects within the short term carbon management plan have a firm implementation date.	No funding has been formally committed to allow fulfilment of plan objectives.	Current short term project register out of date with no review planned

Appendix 2 - 2010-2014 Carbon Management Action Plan

Overall Objective Achieve a reduction in emissions of 2% per year from 2010-2014			
Action	Outcomes	Measures	Responsibility
Improve the Council's carbon management maturity	Increased organisation capacity to achieve carbon reduction	<ul style="list-style-type: none"> Achieve self-assessed level 3 or 4 in terms of the Carbon Trust's carbon management maturity matrix by March 2014 	Julie Richmond
Implement the Council's energy strategy	A reduction of 10% in building carbon emissions	<ul style="list-style-type: none"> Achieve a 10% reduction in building emissions by March 2014 Carbon impact fully embedded in asset management planning by March 2012 	Gary Roberts John Gordon
Support the council's commitment to the reduction in energy consumption/ carbon emissions from Council operational buildings		<ul style="list-style-type: none"> 3.3% annual reduction in energy consumption (2011-2014) monitored quarterly by RMT Monitor annual consumption of energy per square metre of buildings (MWhrs/m2) 90% AMR coverage for gas and electricity consumption in Council operational buildings by March 2012 	Gary Roberts and all Resource energy champions
Support the requirements of Carbon Reduction Commitment (CRC)	Demonstration of compliance with CRC requirements	<ul style="list-style-type: none"> Annual report to CRC Board on level of credits required by SLC Maintain evidence pack at all times for audit purposes 	Gary Roberts Julie Richmond
Develop a system for monitoring water consumption and costs	Reduction in water consumption and associated costs	<ul style="list-style-type: none"> Baseline information in place by March 2012 Reduction measures identified for high water use Council buildings by March 2012 	Gary Roberts
Engage employees and workplaces to create more sustainable work practices	Whole staff and school community engagement in carbon reduction	<ul style="list-style-type: none"> Functioning energy teams in place in all secondary schools by March 2012 Establish resource energy champions and teams by March 2012 Implement energy efficiency training by March 2012 Formal quarterly energy reports to be developed and issued to resource champions by March 2012 	Ian MacDonald Gary Roberts
Increase the use of renewables in Council buildings	Reduction in emissions by cost effective deployment of appropriate technologies in targeted locations	<ul style="list-style-type: none"> Install biomass heating as first choice technology to all major capital investment works unless a site specific/financial constraint prevents this Consider the installation of photovoltaic panels on common building roofs and integrate into programmed works 	Gary Roberts
Green the Council ICT Strategy	Reduced energy consumption from ICT provision	<ul style="list-style-type: none"> Adopt the principles of the Green ICT plan contained within the Council's ICT Strategy Define and implement as many actions from areas of ICT carbon reduction as are practicable and necessary via the ICT Carbon Reduction Action Plan (timescales included for each project in this plan) Undertake an SEA for ICT by end 2011 	Lindsay Greenock

Overall Objective**Achieve a reduction in emissions of 2% per year from 2010-2014**

Action	Outcomes	Measures	Responsibility
Improve the energy efficiency of street lighting	Reduced emissions from street lighting in South Lanarkshire	<ul style="list-style-type: none">• Investigating feasibility of dimming and de-energising of luminaires on appropriate sections of carriageway and footpaths• Identify car parks and other areas, where sections of lighting installations can be de-energised before dawn, e.g. Park and Ride car parks after the last train has departed.• Investigate the specification and use of dimmable equipment in new housing developments.• Investigate new technology and control mechanisms to enable the reduction of energy consumption in festive lighting installations	Paula Richmond
Implement a new waste management contract to reduce land-filling of domestic waste	Maximise carbon reduction potential of the new waste management contract	<ul style="list-style-type: none">• Work towards the Scottish Government target to diverting 50% of waste from landfill by 2013	Shirley Clelland
Expand the employee car pool, and continue the greening of the fleet	Reduced emissions from Council transport	<ul style="list-style-type: none">• Achieve a reduction in transport emissions (employee mileage and fleet) of 10% from April 2011 to March 2014	Dave Gibson

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