

REPORT TO: Executive Board

DATE: 10 January 2008

REPORTING OFFICER: Strategic Director Environment

SUBJECT: Local Authority Carbon Management Programme (LACMP)

WARDS: Borough wide

1. PURPOSE OF THE REPORT

- 1.1 To update Members on progress with the LACMP and to seek approval for a range of measures to be included in the Carbon Strategy and Implementation Plan. The final Strategy and Implementation Plan will be submitted to the Executive Board in March 2008.

2. RECOMMENDED: that

- i. The range of opportunities in Appendix A be endorsed for inclusion in the Council's Carbon Management Plan.
- ii. The Invest to Save bids for Cultural Change Programme and the networking of printers as set out in paragraph 5.4 be approved.
- iii. The Invest to Save Bid for a pilot energy fund be noted and further work be undertaken to assess the potential payback.
- iv. The Council continues to explore further opportunities to reduce its carbon emissions to try to achieve its initial target of 33%.
- v. Subject to budget considerations, the cycle mileage rate be increased to the equivalent of the lowest car mileage essential user rate.

3. SUPPORTING INFORMATION

- 3.1. In May 2007, the Council signed up to the LACMP (EXB 21 refers). The overall aims of the programme are to:
- i. undertake a systematic analysis of the Council's carbon footprint
 - ii. calculate the value at stake and present a case for taking action

- iii. identify opportunities to help manage carbon emissions
 - iv. develop action plans for realising carbon and financial savings and embed carbon management into the authority's day to day business
- 3.2. To date, the Council has already completed steps 1-3 above. This has been achieved within existing staff resources and free consultancy support from the Carbon Trust. The Council in 2007/08 established an Invest to Save budget of £1m which has been accessed for carbon reduction activities.
- 3.3. The final Strategy and Implementation Plan will cover a five year period (2008/2013) and also set a target for reducing the Council's carbon emissions. The Council set a provisional target for a 33% reduction over the five year period. The work to date has identified potential carbon savings of around 15% with some quantification still to be determined.

4. **CURRENT RELEVANT POLICIES AND CARBON MANAGEMENT DRIVERS**

- 4.1. The Council has already recognised carbon management/sustainability as a key objective through its Community and Corporate Strategies and has signed the following declarations:
- Nottingham Declaration (November 2006)
 - North West Regional Climate Change Strategy (June 2006)
 - Adopted a Local Agenda 21 Strategy and working towards the development of a Climate Change Strategy (2001)
- 4.2. The above declarations include pledges for the Council to actively tackle carbon emissions in the Borough by developing plans to address the causes and impact of high emissions. Signing up to the LACMP and developing an action plan for implementation supports the Council's ambitions.
- 4.3. Nationally, there is an increasing pressure on local authorities to play its part in the wider agenda to combat climate change and subsequently lead its community.
- 4.4. Current policies and drivers include:
- i. Climate Change Bill - UK commitment to cut emissions by 60% by 2050 and create a low carbon economy - LAs seen as a key player in meeting this objective
 - ii. The Government has established a target for reducing carbon emissions nationally by 20% by 2010. Local targets are yet to

be established.

- iii. Carbon emissions trading - Government intention to introduce a scheme by 2012
- iv. the new performance framework for LAA(s) includes national indicators for reducing CO² from LA operations and there is likely to be a strong push for these to be included in the final agreement.
- v. CPA and Audit Commission - increasingly the Council's approach to Carbon Management will be examined as part of these inspection regimes. The Audit Commission has stated its intention to build sustainable development principles into their regulatory work and the new CAA will include measures on sustainable development.
- vi. Ongoing legislation (Energy Performance of Buildings Directive, Buildings Regulations)

5. **CURRENT APPROACH TO CARBON MANAGEMENT**

5.1. The initial Project Plan for the LACMP identified many examples of existing good practice including:

- master switch in Municipal Building to turn lights off
- pooled bikes for employees
- car sharing scheme
- switching from CRT monitors to TFTs
- purchase of recycled paper
- CHP Plant in Kingsway Leisure Centre
- Use Renewable Energy for Street Lighting
- Energy Efficiency measures installed on refurbishment projects where possible
- procurement of fuel efficient vehicles
- procurement of environmental friendly stationery

5.2. However, an assessment of the Council's current status compared with the Carbon Trust's matrix indicates that as a whole, whilst there is evidence of good practice/policies being pursued further advancements need to be made. The Council is currently between Level 2-3 but higher for some aspects the LACPM will help to improve the Council's position in the coming years (see table overleaf). The matrix is only a guide to assess the Council's position.

5.3. The development of an Action Plan will help to extend the current good practice and will include:-

- Installing powerfactories in Council buildings
- Stobarts stadium halton (improving heating and lighting controls)

- Introduce energy efficiency measures Runcorn town hall refurbishment
- Introduce bio-fuels into fleet vehicles
- Review car mileage and car leasing schemes and link schemes to carbon emission levels
- Purchase of electricity from CHP source
- Cultural change programme to include awareness campaign
- Networking of printers to multi functional devices

5.4. Work has already started to implement the above actions. For example, refurbishment of the Town Hall commenced in September 2007 and is due for completion in July 2008. The fleet vehicles are now using 5% bio-fuel mix and the new electricity contract includes the purchase of electricity and combined heat and power sources. Some of the initiatives will take longer to introduce for example reviewing car schemes will require consultation with staff and the Unions.

Step 2 Tool A2: Carbon Management Matrix

The matrix can be used to establish the status of carbon management in your LA. For each category determine which level you are at.

	POLICY	ORGANISATION	INFORMATION AND DATA	COMMUNICATION AND TRAINING	FINANCE	MONITORING & EVALUATION
5	Specific climate change policy with targets signed off and implemented + Action plan with clear goals and regular reviews to confirm actions undertaken and targets achieved/being progressed	Climate change/carbon management is a full-time responsibility of an individual + Climate change responsibilities integrated into responsibilities of senior managers in different departments + Political support from the highest level in the council.	CO ₂ emissions compiled for all main LA sources for a baseline year and regular collation of annual emissions data + Data externally verified	Formalised communication and training plan for all staff on carbon and energy related matters, including integration in induction and other normal training processes +Communication on carbon and energy related matters with the community and other key business partners	Well defined and effective internal financing mechanisms for carbon/energy saving projects + Extensive use of external finance sources as appropriate + Good internal resources for management/coordination tasks	Management Review of carbon management process by senior management. + Regular reviews by core team on progress with carbon management
4	Specific climate change policy with targets developed and signed off, but not implemented	Climate change/carbon management is a <u>full</u> -time responsibility of an individual + Climate change responsibilities integrated into responsibilities of senior managers in different departments	CO ₂ emissions compiled for all main LA sources for a baseline year (i.e. buildings, streetlighting, transport (fleet and commuting) and waste if relevant) + Data internally reviewed	Formalised communication and training plan for all staff on carbon and energy related matters, including integration in induction and other normal training processes	Internal & external funding on a regular basis for carbon/energy saving projects + Sufficient internal resources for management/coordination tasks	Regular reviews by core team on progress with carbon management (e.g. review of actions, check against emissions profile and targets, addition of new opportunities etc.)
3	Climate change included in wider policy documents	Climate change/carbon management is a <u>part</u> -time responsibility of an individual + Climate change responsibilities integrated into responsibilities of people in different departments	CO ₂ emissions data compiled for some sources for a baseline year (e.g. buildings and streetlighting) and source data available for other sources (e.g. transport)	Ad hoc communication and training delivered to all staff on carbon and energy related matters	Internal & external funding on an ad hoc basis for carbon/energy saving projects + Limited internal resources for management/coordination tasks	Ad hoc assessment of all aspects of carbon/energy policies/strategies, targets and action plans
2	Climate change as an aspiration in non-policy documents	Climate change/carbon management is a <u>part</u> -time responsibility of an individual	No CO ₂ emissions data compiled for any sources but energy data compiled on a regular basis	Communication and training to specific groups in the Council (e.g. energy team) on carbon or energy related matters	Some internal financing on an ad hoc basis for carbon and/or energy efficiency related projects + Limited internal resources for management/coordination tasks	Ad hoc reviews of specific aspects of carbon/energy policies/strategies, targets and action plans
1	No climate change policy or strategy and no mention of climate change in policy/strategy documents	No individual with responsibility for climate change issues	No CO ₂ emissions data compiled for any sources and energy data not compiled on a regular basis	No communication or training to staff on carbon or energy related matters	No internal financing or funding for carbon and/or energy efficiency related projects	No monitoring of carbon/energy policies/strategies, targets and action plans

- 5.5. The Council's approach has been to try and embed carbon management into the day to day operations of Council business and ensure managers and staff take more responsibility. If this is to be achieved successfully, greater education, empowerment and support of the workforce will be required with the key aim to focus on reducing/minimising consumption.
- 5.6. We will explore other external funding opportunities particularly in respect of supporting local business in their endeavours to reduce their carbon emissions.
- 5.7. Recently, two Invest to Save bids have been approved for the installation of powerperfectors in buildings and for a programme of works to improve lighting and heating controls at Stobarts Stadium Halton. Approval is now sought for two further bids. The first is for £10,000 to support a culture change programme in the Council's buildings similar to the work that has already gone on at Stobarts Stadium Halton. It is estimated that if the Council can reduce its consumption by 10% this will reduce energy costs by £100,000 per annum based on current prices. The second is for £60,000 to support the networking of printers to multifunctional devices and thus greatly reduce the number of desktop printers within the organisation. Savings in the region of £200,000 over the next few years are estimated based on the reduction in replacement costs of printers, toner costs, freed up IT staff time and reduced paper consumption.
- 5.8. A third bid to create a ring-fenced energy efficiency budget is pending subject to further quantification of measures. The fund will require approximately £250,000 but can attract match funding from Salix to increase funds to £500,000. Salix is an organisation linked to the Carbon Trust that provides interest free funding to enable Councils to establish energy efficiency budgets.

6. **EMISSIONS BASELINE AND FORECASTS**

6.1. **Method & Sources**

The Council used the Carbon Trust's Toolkit to establish its emissions baseline.

The boundaries set for the baseline included Council buildings, schools, street lighting, waste and transport (business miles and fleet). Procurement was seen as having a key impact on the Council's emissions but data collection was excluded given the complexity of collection. Commuting was also excluded as obtaining sound data was problematic.

- 6.2. Data sources were fragmented. Whilst some data can be treated with a high degree of confidence (electricity, gas, fuel used by fleet, business miles), the data around waste, business miles by car type, number of

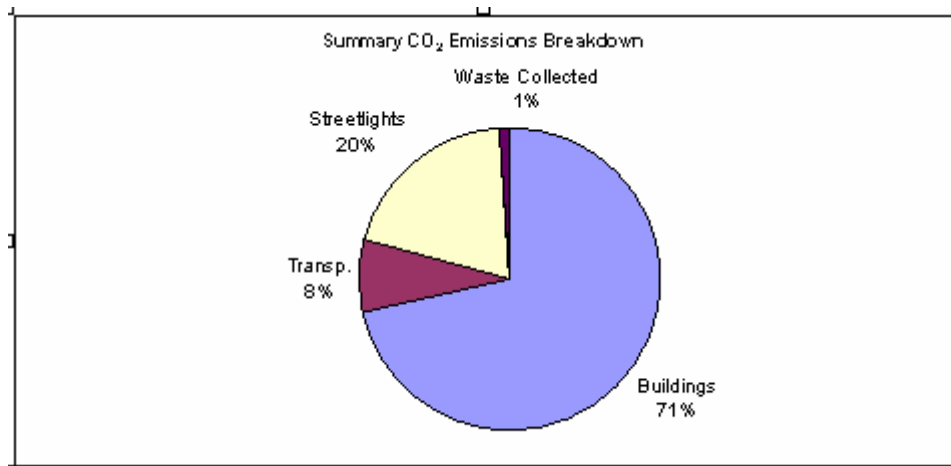
cars using petrol/diesel is less reliable and some assumptions were built in.

- 6.3. To estimate carbon emissions, CO² conversion factors were built in based on Carbon Trust guidelines.

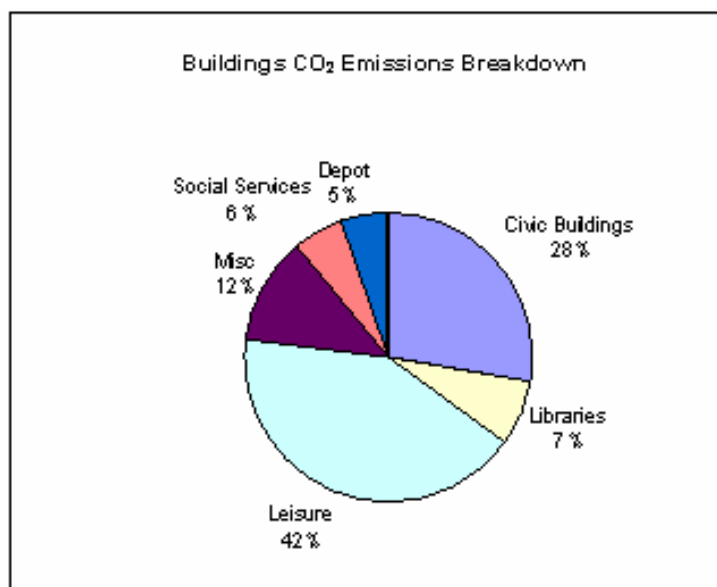
7. BASE YEAR & EMISSIONS

- 7.1. The base year chosen was 2006/07.

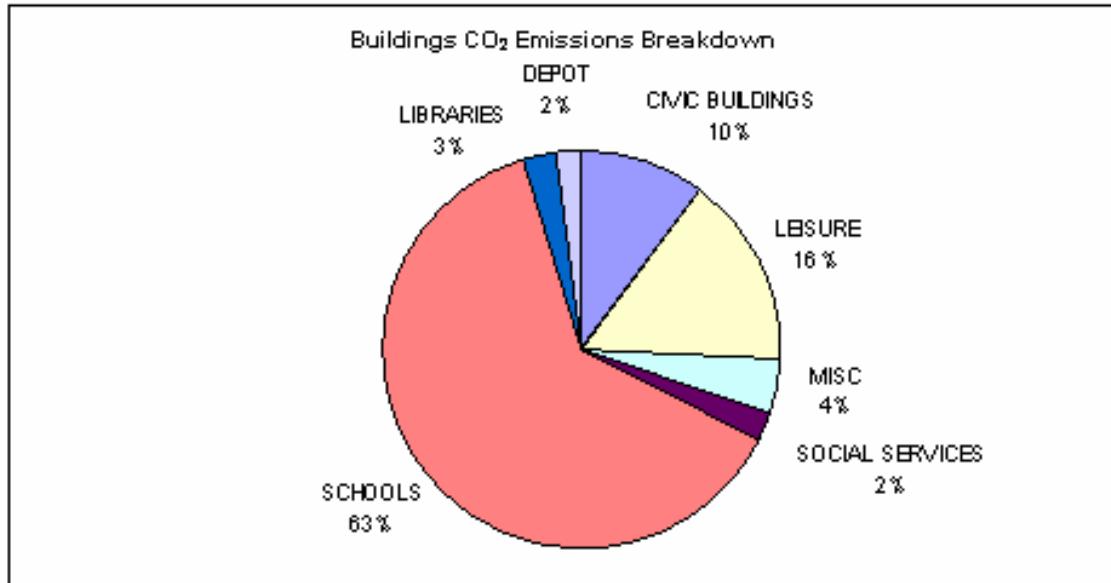
- 7.2. Emissions by Source 2006/07 - total including schools. The Council's overall emissions are estimated at 24,000 tonnes of CO². Buildings account for 71% of the emissions, Street Lighting 20% and Transport 8%. In terms of building emissions, schools account for 63% of emissions.



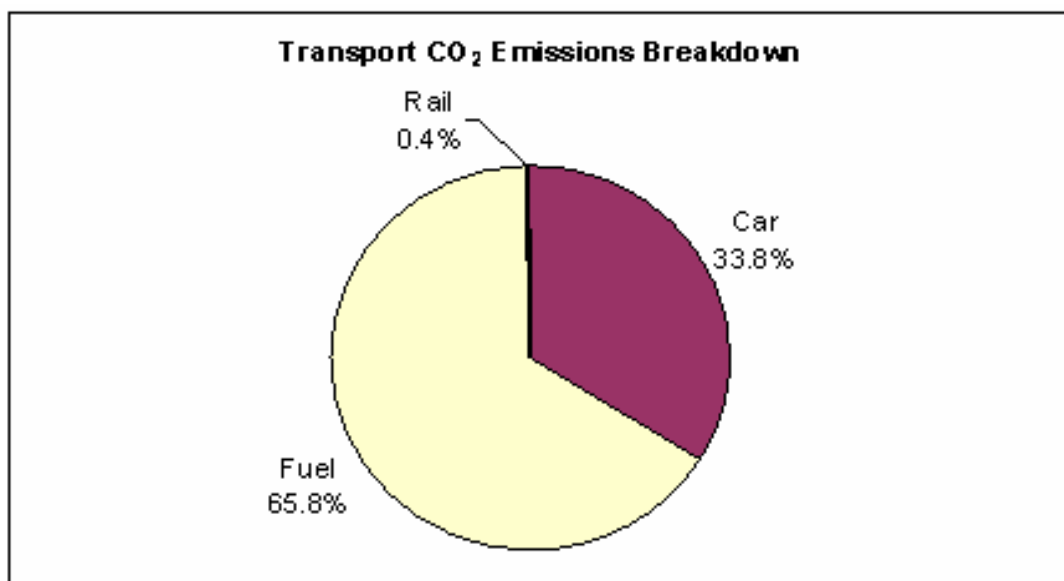
Buildings Emissions - Council Buildings only



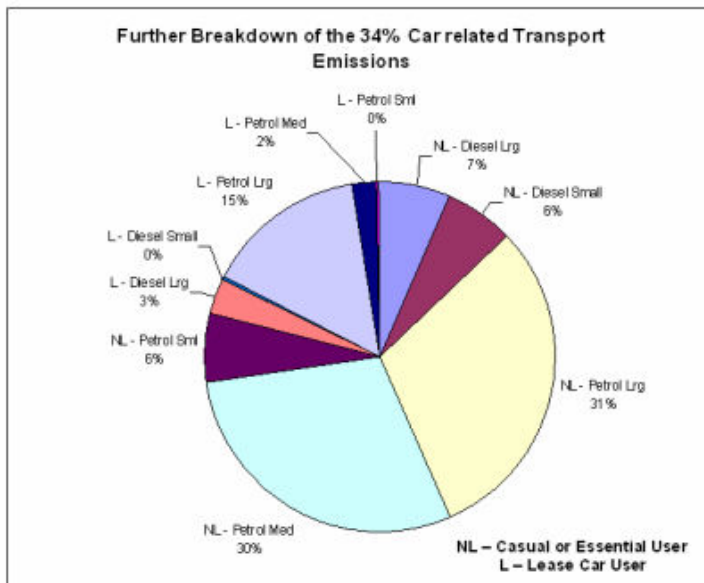
CO² Emissions Buildings Including Schools



CO² Emissions Business Miles & Fleet (excluding commuting) (fuel relates to vehicle fleet)



CO² Emissions Business Miles by Car Type



8. BASELINE CONCLUSIONS

- 8.1. The Council currently purchases none of its electricity for buildings from renewable sources. However, the new electricity contract provides for the purchase of electricity and combined heating power sources.

Energy consumption at the majority of the Council's buildings and schools are in many cases well in excess of the Carbon Trust's typical/good practice standards. Whilst this may be expected given the age/design of many buildings, many are significantly above the typical standards. The Council has 66 sites of which approximately 70% are above typical standards. Of the 69 school sites over 90% are above typical standards.

- 8.2 Council staff travelled 2.7million km at a cost of £800,000 with approximately 40% of journeys completed in cars 2000cc and above.
- 8.3 The Council's total energy costs for buildings was £2.3m (1.1m excluding schools) in 2006/07.
- 8.4 The costs of energy for streetlights and highway signs was approximately £1m in 2006/07.

9. VALUE AT STAKE (VAS)

- 9.1. The VAS analysis is defined as the difference between doing nothing (a business as usual approach (BAU)), and taking an active approach to carbon management as part of a systematic CO² emissions reduction programme.

9.2. The VAS calculation presented below shows that the projected emissions and costs of a BAU approach using the standard Carbon Trust's assumptions of a year on a year increase in energy consumption and prices and energy prices at today's date.

9.3. The following assumptions have been used

Price

Electricity, Gas and Street lighting 3.5%
Climate Change Levy 2%
Petrol/ Diesel 3.6%

Energy Consumption

Electricity, Gas 0.7%
Fleet/Business miles 1.8%

As the past year has shown energy costs are extremely volatile. Increases were far greater than the assumptions used. For example, Street Lighting prices increased by 60% and Gas prices increased by 30%. Electricity reduced by 18%.

9.4. **Business as usual scenario - standard Carbon Trust Scenario**

The following table and chart below shows the predicted effect on energy costs if no action is taken to control carbon emissions.

The VAS represent the total savings in energy and carbon related costs that can be obtained through adopting a Carbon Management.

Energy related costs (£'000):

Value-at-Stake costs

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Total BAU	3679	3819	3964	4115	4272	4435	4605	4781	4965	5155
Total RES	3679	3514	3357	3208	3066	2931	2802	2679	2563	2451
VAS per year	0	305	607	907	1206	1504	1803	2102	2402	2704
VAS aggregated savings			911	1818	3024	4528	6331	8433	10834	13538

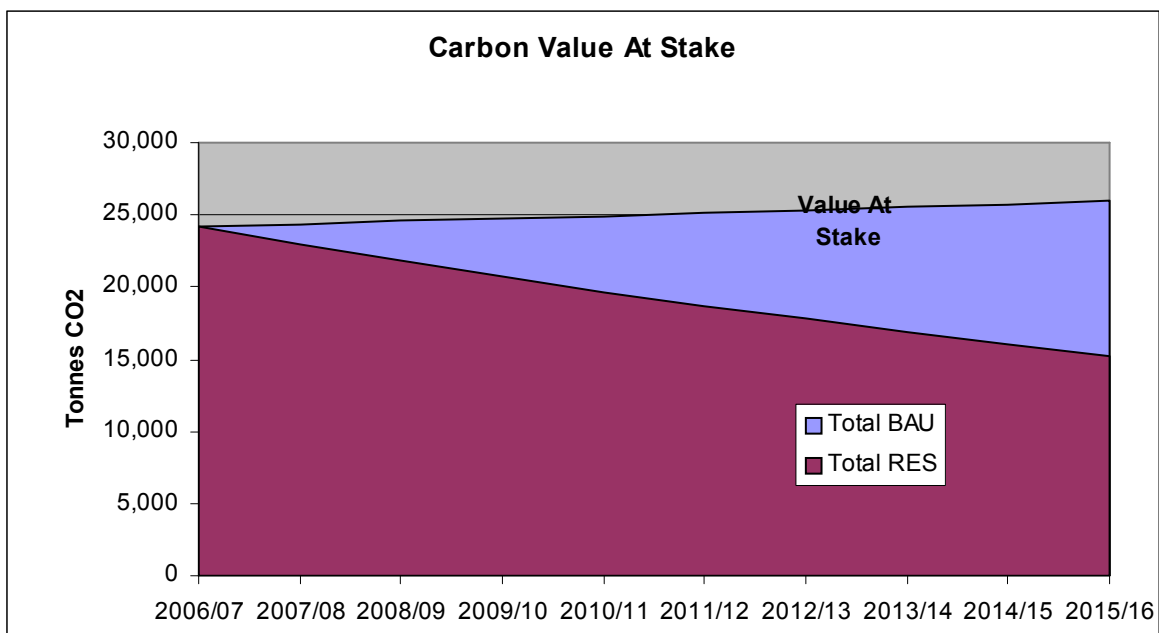
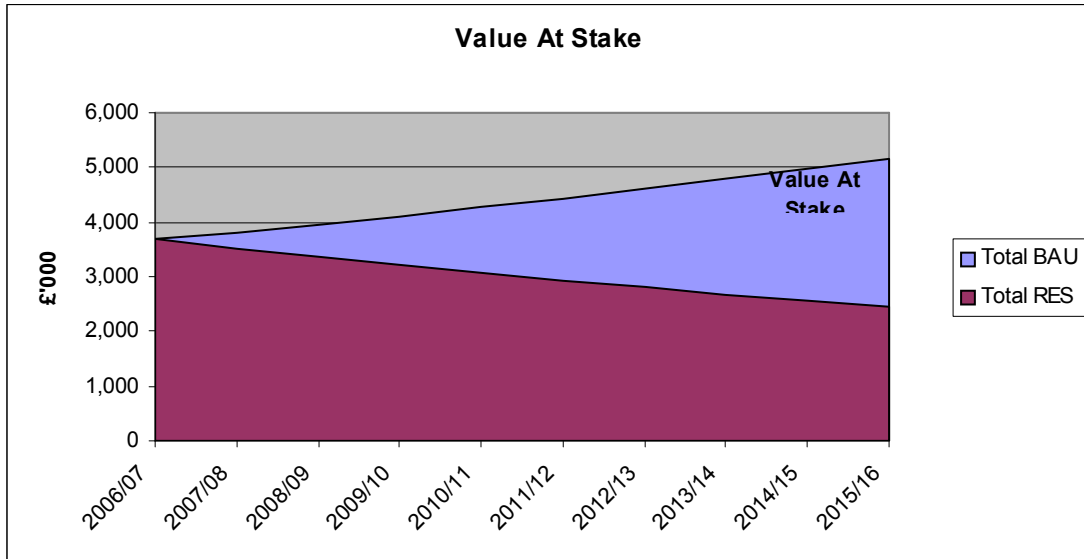
Energy related carbon (tCO2):

Value-at-Stake

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Total BAU	24182.36	24372.54	24564.43	24758.04	24953.40	25150.52	25349.43	25550.14	25752.68	25957.06
Total RES	24182.36	22973.24	21824.58	20733.35	19696.68	18711.85	17776.26	16887.44	16043.07	15240.92
VAS per year	0.00	1399.30	2739.85	4024.69	5256.72	6438.68	7573.18	8662.70	9709.61	10716.14
VAS aggregated savings			4139.15	8163.84	13420.56	19859.23	27432.41	36095.11	45804.72	56520.86

9.5. Reduced CO² Emissions Scenario

The table and charts below show the effect upon both energy costs and CO² emissions if a Carbon Management programme based on a 33% reduction was implemented.

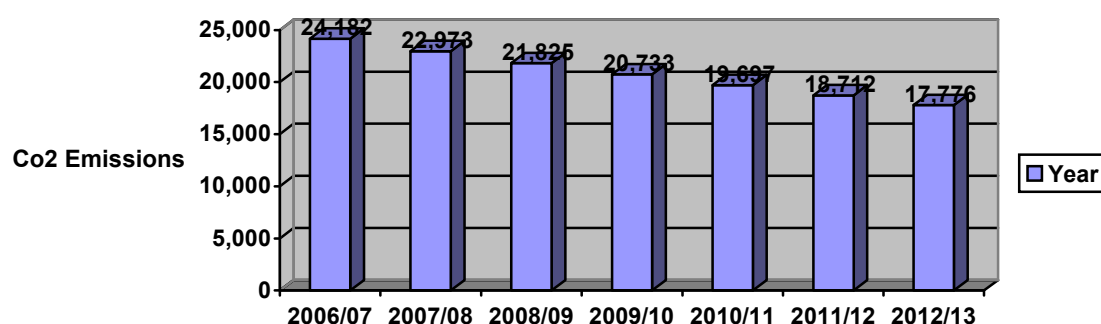


9.6. Value at Stake

If the Council achieves its 33% reduction target potentially savings of £2.7m per annum may be achievable (see value at stake graph 9.4). This is based on a 33% reduction in the predicted energy spend to 2015. There would also be a projected reduction in CO² emissions from 26,000 tonnes per year to 15,241 per year.

10. TARGET REDUCTION

Based on a 33% reduction over five years the Council would need to plan to reduce emissions as follows:



11. STRATEGIC APPROACH

The Corporate vision agreed in the LACMP Project Plan is to minimise the impact of the Council's activities on the environment and demonstrate its commitment to carbon management and its employees and the wider community. The approach through the LACMP has been to follow the following objectives

Corporate

- to deliver long term cost savings from managing carbon emissions
- to examine a way to embed and involve staff in the implementation of Carbon Management actions and initiatives
- to demonstrate and promote its commitment to carbon management to the wider community
- to promote carbon management with the Council's partners and stakeholders

Property

- to improve the energy efficiency of current Council buildings and schools
- to integrate carbon reduction into future building design/refurbishments

Transport

- to investigate possible options for reducing carbon emissions from staff and business travel
- to reduce the total number of miles travelled
- to reduce emission from journeys travelled
- to reduce emission from the vehicle fleet

Procurement

- to explore opportunities for prompting sustainability through procurement

Street Lighting

- To reduce emissions from street lighting but maintain the balance between emissions and community safety.

12. POLICY IMPLICATIONS

- 12.1. The Council has, through its corporate commitments pledged to actively tackle carbon emissions. The development of a Carbon Management Strategy and Implementation Plan will help the Council achieve its corporate commitments. A comprehensive Climate Change Strategy is due to go out to public consultation in February 2008 which will incorporate the LACMP.

13. OTHER IMPLICATIONS

- 13.1. The successful implementation of the Plan will deliver substantial savings for the Council. The baseline work has estimated that if the Council could achieve its initial 33% target over the five years of the Plan savings in excess of £2m may be possible. Actively tackling carbon emissions will lead to substantial savings that can be used to free up resources for frontline services. The key aim is to reduce consumption levels. To date, the LACMP has been completed within existing staff resources.

14. **IMPLICATIONS FOR THE COUNCIL PRIORITIES**

14.1. **Children & Young People**

Leadership shown by the Council can promote an awareness of climate change and energy efficiency issues amongst young people.

14.2. **Employment, Learning and Skills in Halton**

By following the example of the Council, local businesses would affect savings in energy making them more competitive and potentially enabling additional resources to be directed for business investment and training.

14.3. **A Healthy Halton**

Reducing car journeys will have a small beneficial effect in the overall air quality an encourage healthy lifestyles through walking, cycling and using more public transport.

14.4. **A Safer Halton**

A reduction in the dependency in car travel can help reduce road traffic accidents.

14.5. **Halton's Urban Renewal**

An opportunity can be taken through the planning process to encourage greater sustainability across the built environment.

15. **RISK ANALYSIS**

- 15.1. In the long term, failure to actively manage carbon emissions could lead to financial penalties if the Government proceeds with its proposals for a mandatory capping scheme.

CARBON REDUCTION OPPORTUNITIES FOR STRATEGY AND IMPLEMENTATION PLAN - APPENDIX A

INSTALL POWERPERFACTORS IN COUNCIL BUILDINGS

Costs	Financial Savings	Carbon Savings	Lead Officer	Contribution to overall 33% saving	Comments
£137,000 already agreed from Invest to Save Budget	Saving of 10% on electricity consumption but could be up to 20%	206 tonnes CO ² tonnes per annum	John Hughes	0.8%	
	£40,000 per annum				

STOBART STADIUM HALTON

Costs	Financial Savings	Carbon Savings	Lead Officer	Contribution to overall 33% saving	Comments
£49,000 Agreed as part of Invest to Save	£18,000 per annum	To be determined	Chris Patino	TBC	Programme of works to improve lighting, heating and water controls.

INTRODUCE ENERGY EFFICIENCY MEASURES RUNCORN TOWN HALL REFURBISHMENT

Costs	Financial Savings	Carbon Savings	Lead Officer	Contribution to overall 33% saving	Comments
Included in refurbishment costs	TBC	TBC	John Hughes	TBC	Programme of works to improve heating, lighting controls and fit photovoltaic tiles

INTRODUCE 5% BIO FUELS IN THE COUNCIL FLEET

Costs	Financial Savings	Carbon Savings	Lead Officer	Contribution to overall 33% saving	Comments
Nil	Nil	36 Tonnes CO ² per annum	Geoff Hazlehurst	0.15	The bio mix can be sourced at the current price of diesel but as it has lower emissions will reduce carbon impact. Can only introduce at this level at present due to warranties. Will review as technology allows.

CARBON REDUCTION OPPORTUNITIES FOR STRATEGY AND IMPLEMENTATION PLAN - APPENDIX A

PURCHASE OF ELECTRICITY FROM CHP SOURCE

Costs	Financial Savings	Carbon Savings	Lead Officer	Contribution to overall 33% saving	Comments
Now purchase as part of energy contract	Nil	50% reduction on various buildings 1430 tonnes CO ²	John Hughes	8.1%	

CULTURAL CHANGE PROGRAMME TO INCLUDE AWARENESS CAMPAIGN, ENERGY CHAMPIONS, ROLL OUT OF STADIUM ENERGY MODEL IN FIRST INSTANCE TO ALL DIRECTLY MANAGED BUILDINGS. STAFF TO COMPLETE ENERGY WALK ABOUT AUDITS

Costs	Financial Savings	Carbon Savings	Lead Officer	Contribution to overall 33% saving	Comments
£10,000+ (subject to Invest to Save Bid)	£100,000 based on 10% reduction	650 tonnes CO ²	Jim Yates	2.7%	Carbon Trust estimate 5-15% saving in energy costs from good housekeeping. To achieve this need a branded and sustained campaign support by Energy champions/regular walkabout audits/publicity of good practice.
Staff time and Energy Training for all managers from Carbon Trust (may be free as part of LACMP package)					Following Energy Audit at Stadium introduced Energy Committee supported by policy statement/programme of actions. Between April-Aug 07 electricity consumption reduced by 56,500 kwh. Energy costs increased by £12,000 over the same period due to increase in price but increase would have been far higher based on the previous consumption levels. Need to consider how to develop in multi managed buildings ie Municipal Building and Runcorn Town Hall. Commence staff induction in April 2008.

CARBON REDUCTION OPPORTUNITIES FOR STRATEGY AND IMPLEMENTATION PLAN - APPENDIX A

EXPLORE THE FEASIBILITY OF CREATING A PILOT PAYBACK FUND FOR CARBON REDUCTION INITIATIVES IN COUNCIL BUILDINGS

Costs	Financial Savings	Carbon Savings	Lead Officer	Contribution to overall 33% saving	Comments
£250,000 (subject to Invest to Save Bid)	Property Services currently evaluating most advantageous schemes. May include insulation, lighting control, heating zones, replacement lights.	to be quantified dependent on schemes			<p>Buildings account for 71% of the Council's emissions and offer the best area for reducing costs and carbon.</p> <p>Opportunity to link the scheme to Salix who will match fund Council contribution. Projects must deliver both CO² and revenue benefits and in line with the Salix business objective must also offer long term CO² savings.</p> <p>To ensure that the fund is used for projects that deliver long term energy and CO² savings, all compliant projects must be prioritised on the basis of their capital cost per tonne of CO² saved on a lifetime basis (£/t CO² LT2). Payback periods are normally no longer than five years.</p>

NETWORKING OF PRINTERS TO MULTI FUNCTIONAL DEVICES

Costs	Financial Savings	Carbon Savings	Lead Officer	Contribution to overall 33% saving	Comments
Provisional figures for servers and software £28,000 to pilot in Runcorn Town Hall plus £28,000 to roll out across the authority. (Subject to Invest to Save Bid)	Reduction in costs of toner currently £95,000 per annum	TBC	Pauline Lowe	TBC	Management Team previously agreed a networking solution in design principles for Runcorn Town Hall Refurbishment.
Cost of providing reduced number of MFDs as yet unknown	Reduction in number of copiers currently 73 Contract cost £250,000 over three years				Photocopier contract due for renewal in Oct 08.

CARBON REDUCTION OPPORTUNITIES FOR STRATEGY AND IMPLEMENTATION PLAN - APPENDIX A

Costs	Financial Savings	Carbon Savings	Lead Officer	Contribution to overall 33% saving	Comments
Staff time Need IT procurement/ printing input	Reduction in number of desktop printers currently in excess of 1,000. Replacement costs over next 2-3 years upwards of £100,000 Reduction in IT Staff time from dealing with printer installation/problems Reduction in printing Costs unknown Reduction in electricity consumption from using less devices unknown				Would require policy to ban purchase of printers

REVIEW LEASE CAR SCHEME AND LINK A REVISED SCHEME TO CO² EMISSIONS

Costs	Financial Savings	Carbon Savings	Lead Officer	Contribution to overall 33% saving	Comments
Staff time	TBC	To be quantified	Personnel	TBC	Linking to 200g/km would still allow a significant choice of cars for employees

CARBON REDUCTION OPPORTUNITIES FOR STRATEGY AND IMPLEMENTATION PLAN - APPENDIX A

IMPROVE ANALYSIS OF FLEET FUEL CONSUMPTION DATA

Costs	Financial Savings	Carbon Savings	Lead Officer	Contribution to overall 33% saving	Comments
Staff time	10% reduction in fuel consumption £35,000 per annum	125 tonnes CO ²	Service Managers	0.5	<p>The Council currently collects data on fuel consumption Monitoring of MPG is responsibility of service areas but there is no formal system to encourage managers to check consumption. Main costs are in the form of staff time.</p> <p>Robust fuel usage and mileage will enable such comparisons and allow the Council to identify if its fleet is performing effectively.</p>

REVIEW CURRENT MILEAGE SCHEME AND LINK SCHEME TO CO² EMISSIONS

Costs	Financial Savings	Carbon Savings	Lead Officer	Contribution to overall 33% saving	Comments
Staff time	Dependent on nature of scheme but based on 10% reduction in mileage £80,000	10% reduction 64 tonnes CO ²	Personnel	0.25	Council's policy incentivise driving 500 miles requirement current mileage rates high in comparison to other authorities may have switched to standard Inland Revenue rate. Would need Personnel/Union involvement to discuss changes to policy.

ENSURE CARBON MANAGEMENT IS CONSIDERED AS PART OF THE BUILDING FOR THE SCHOOLS PROGRAMME

Costs	Financial Savings	Carbon Savings	Lead Officer	Contribution to overall 33% saving	Comments
Unknown	Unknown	Unknown	Ann McIntyre		Schools currently account for 63% of emissions from buildings.

CONSIDER ENERGY EFFICIENCY MEASURES AS PART OF THE SCHOOLS CAPITAL REPAIRS BUDGET

Costs	Financial Savings	Carbon Savings	Lead Officer	Contribution to overall 33% saving	Comments
From existing budget	Dependent on projects implemented	Dependent on projects implemented	Phil Dove		

CARBON REDUCTION OPPORTUNITIES FOR STRATEGY AND IMPLEMENTATION PLAN - APPENDIX A

CULTURAL BEHAVIOUR CHANGE PROGRAMME FOR SCHOOLS

Costs	Financial Savings	Carbon Savings	Lead Officer	Contribution to overall 33% saving	Comments
Would need some dedicated support/training	£130,000 based on a 10% reduction	1096 tonnes CO ²		4.5%	Carbon Trust estimate 5-15% saving in energy costs from good housekeeping. Would need a similar campaign to that proposed for council buildings. Opportunity to involve pupils through Eco Schools scheme and link to curriculum Opportunity for SLA with schools

STREET LIGHTING CHANGE SWITCHING LEVELS ON LIGHTS

Costs	Financial Savings	Carbon Savings	Lead Officer	Contribution to overall 33% saving	Comments
Pilot scheme on Expressway - cost per column £30	£3-5000 per annum	5% reduction in CO ²	Steve Rimmer		Saving could only be realised on contract renewal.