

READING BOROUGH COUNCIL

REPORT BY DIRECTOR OF ENVIRONMENT AND NEIGHBOURHOOD SERVICES

TO:	STRATEGIC ENVIRONMENT, PLANNING AND TRANSPORT COMMITTEE		
DATE:	25 th NOVEMBER 2014	AGENDA ITEM:	10
TITLE:	ANNUAL CARBON FOOTPRINT REPORT, 2013/14		
LEAD COUNCILLOR:	CLLR PAGE	PORTFOLIO:	Strategic Environment, Planning and Transport
SERVICE:	SUSTAINABILITY	WARDS:	ALL
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1. PURPOSE OF REPORT AND EXECUTIVE SUMMARY

- 1.1 In 2008 the Council published its first Climate Change Strategy in which it committed to reduce its emissions of green house gases by 4% per annum and by 50% in total by 2020. Reading Climate Change Partnership's new strategy '*Reading means business on Climate Change*' was developed to further this commitment.
- 1.2 Over the course of the last six years the Council has steadily increased its commitment to reduce its own carbon emissions in order to both meet its promises and to reduce exposure to rising energy costs through various programmes and initiatives.
- 1.3 This report shows that the Council has continued to make reductions of carbon emissions with a 3% reduction in corporate emissions against our 2012/13 levels. When taking into account the gross emissions of the wider influence of the Council, the footprint decreased by just less than 1 %. The full report can be found in Appendix 1.
- 1.4 The 2013/14 carbon footprint for the Council's corporate activities is 31.3 % lower than the baseline emissions in 2008/09, 10 % ahead of target, which is significant progress to meet the 50% reduction target by 2020.
- 1.5 Looking forward, on-going and new initiatives will support further reductions; these include a major energy efficient refurbishment of the new civic offices building which is predicted to reduce the energy consumption by 75% compared to the current civic office building.
- 1.6 Appendix 1 to this report provides the full Reading Borough Council: Greenhouse Gas (GHG) Protocol Report 2013-14. This is a technical document which is required to meet the Government's expectations for performance recording.
- 1.7 2013/14 was the final year that the Council was required to participate in the Carbon Reduction Commitment Energy Efficiency Scheme (CRC) after the Government's simplification of the scheme.

2. RECOMMENDED ACTION

- 2.1 The Committee notes the continued reduction of carbon emission for 2013/14, of over 3 % for the corporate emissions and just under 1 % for the emissions from the wider influence of the Council, against the previous year (2012/13).
- 2.2 The Committee notes that the 2013/14 carbon footprint for the Council's corporate activities is 31.3 % lower than the baseline emissions in 2008/09, 10% ahead of target, with the Council's wider activities (including schools and managed services) being 14.1 % lower than the baseline emissions in 2008/09.
- 2.3 The Committee continues to support the ongoing investment in low carbon technologies and initiatives to reduce energy costs and the carbon footprint of Council operations, to include the significant energy savings from the new civic office building.
- 2.4 That the Committee approves a change to the future reporting of the Council's carbon footprint, to report separately schools and managed services from the corporate activities of the Council.

3. POLICY CONTEXT

The current position:

- 3.1 In 2008, following the adoption on the first climate change legislation anywhere in the world in the UK, the Climate Change Act 2008, the Council launched its climate change strategy, '*Stepping Forward for Climate Change*'. A key commitment in this document was to reduce its carbon footprint by 50% by 2020. This has been superseded by the Reading Climate Change Strategy 2013-20, '*Reading Means Business on Climate Change*' a collaborative strategy with business, community and public sector which invites other organisations to join in a shared ambition to reduce their emissions by 7% per annum.
- 3.2 Over the course of the last six years, the Council has steadily increased its commitment to reduce its own emissions in order to both lead by example and to reduce exposure to rising energy costs. The following details the activity to reduce carbon emissions over this period.
 - In 2008, the Council implemented a government backed scheme called SALIX, which provided a revolving investment fund to invest-to-save in low carbon technologies that reduce the carbon emissions of the authority and the costs associated with energy. By the end of 2013/14 the Council had invested just under £1m, in almost 40 individual projects. The programme has continued to progress with a further 29 projects to date.
 - In 2012, the Council invested in its first substantial solar panel project, installing 46 systems comprising over 2,500 panels on 40 council, community and school buildings. The scheme provides renewable electricity to power the buildings and generates income from the Feed in Tariff scheme, which pays for each unit of electricity generated. In 2013/14 these systems produced renewable energy equivalent of 2.8 % of the electricity used corporately and earned income for the Council through renewable energy subsidy payments. Excess energy not used on site is also sold to the National Grid.
 - Reading Transport Ltd (RTL) have continued to invest in their bus fleet. These investments include electric hybrid vehicles and, most recently, a fleet of

renewably sourced, compressed natural gas (CNG) fuelled buses. This investment included new infrastructure at the Great Knolly Street depot to fuel the buses with CNG. The fuel has also been made available to external fleet operators, including Reading's taxi operators in conjunction with the Council's Cleaner Vehicle CNG conversion grant scheme. RTL have plans for 24 Euro VI double deck buses this year (eight have already entered service) which will replace Euro IV vehicles in the fleet. In addition to the latest low emission engines, these new vehicles are substantially lighter than their predecessors. This substantial investment in the bus fleet has reduced the fuel consumption and associated carbon emissions of the fleet and helped to improve the air quality of the Borough. The depot building also hosts a large solar panel array that was installed by the Council under phase 1 of its solar programme.

- 3.3 There has been a 3% reduction in corporate emissions against our 2012/13 levels. When taking into account the gross emissions of the wider influence of the Council, the footprint decreased by just less than 1 %. The full report can be found in Appendix 1.
- 3.4 The 2013/14 carbon footprint for the Council's corporate activities is now 31.3% lower than the baseline emissions in 2008/09, 10% ahead of target, which is significant progress to meet the 50% reduction target by 2020.
- 3.5 The 2013/14 carbon footprint for the Council's wider activities (including schools and managed services) is 14.1% lower than the baseline emissions in 2008/09. This excludes emissions from Reading Transport Ltd buses and other vehicles.
- 3.6 In 2009/10 the Council was required to participate in Phase 1 of the mandatory national Carbon Reduction Commitment Energy Efficiency Scheme (CRC). This scheme involves the purchase of allowances equivalent to the carbon emissions generated by the registered organisation. The CRC scheme does not include emissions from housing, transport, travel or street lighting.

Looking forward:

- 3.7 Whilst the implementation of schemes already mentioned has led to reductions in carbon emissions, a new programme of projects is currently being implemented. These projects are designed to further reduce the Councils energy costs and carbon emissions in future years. A new 3-year investment programme was initiated in 2013, investing £6.9 m into a range of energy efficiency and renewable energy generation equipment.
- 3.8 In 2013, the Council invested in an initial street-lighting upgrade, comprising 1,300 LED lamps. LED (Light Emitting Diode) technology is capable of reducing energy use from the lamps by over 70%. A wider street lighting upgrade is currently being considered, to garner significant energy savings and carbon emissions reductions in future years.
- 3.9 In 2013, a project to install photovoltaic solar panels onto 500 Council houses was instigated. The project is designed to select the best houses capable of generating the maximum amount of electricity. Tenants will benefit from free electricity from the panels and the Council will receive payment from the Feed in Tariff and export of electricity to the National Grid. The carbon emissions reductions will start to be realised in 2014/15.
- 3.10 By the time of the Strategic Environment Planning and Transport Committee, the Council will have commenced its relocation to a newly refurbished civic office building. The investments into energy efficiency are projected to reduce the energy consumption within the building by 75% compared to the current building. In addition

the Council has installed its largest single solar panel system, to date, on the roof of the new building. This is predicted to be capable of providing 10% of the electricity needs of the new headquarters. The carbon emissions reductions from this energy efficient refurbishment, combined with the savings from vacating the current Civic Offices will be achieved in 2015/16.

- 3.11 Building on the SALIX programme, the Council is in the process of investigating energy performance contracting approaches, such as the RE-Fit programme developed by the London Energy Partnership, to invest in whole building approaches with guaranteed energy savings.
- 3.12 Investment into managed service buildings will be considered and currently a project to improve the energy efficiency of the Rivermead building, currently managed by Greenwich Leisure Ltd is underway.

Reporting and Monitoring arrangements

- 3.13 An important aspect of reducing the Council's carbon emissions and energy consumption is a robust system of monitoring. The annual reporting of Reading Borough Council's greenhouse gas emissions has been required by government since 2008/9, originally through National Indicator 185. In 2010/11 the Department of Environment, Farming and Rural Affairs (DEFRA) published comprehensive guidelines on reporting emissions. Since this date the Council has reported its carbon emissions (or equivalent), following the Greenhouse Gas (GHG) Protocol Corporate Standard.
- 3.14 Going forward, the Council will aim to incorporate the vehicle emissions from Reading Transport in the wider emissions reporting including previous years, where data is available.
- 3.15 As part of the annual data review process for carbon footprint reporting, the data collation and reporting methodology has been refined. To follow Government Guidelines (DEFRA, 2013) more closely, it is recommended that the carbon footprint report will now state emissions from sources which are controlled (corporate) separately from those which can only be influenced (schools and managed services).
- 3.16 Appendix 1 to this report provides the full Reading Borough Council: Greenhouse Gas (GHG) Protocol Report 2013-14. This is a technical document which is required to meet the Government's expectations for performance recording.

4. THE CARBON FOOTPRINT

- 4.1 The Council's carbon emissions for its controlled (corporate) operations in 2013/14 was 13,584 tCO₂, down 3.4 % against 2012/13 emissions (472 tCO₂). Renewably generated electricity, exported to the grid, or sold to third parties increased by 24 %, accounting for 2.8 % of the electricity used corporately.
- 4.2 The absolute carbon emissions of the organisation's wider activities, including emissions from schools and managed services, were 24,139 tCO₂ (gross) for 2013/14, down 0.7 % compared to 2012/13 figures.
- 4.3 The GHG carbon footprint figures for 2013/14 are illustrated in Table 1 below, compared against 2012/13 data.

	New BASELINE	
YEAR	2012/13	2013/14
	tCO ₂	tCO ₂
SCOPE 1 - Corporate		
	5,463	4,819
SCOPE 2 - Corporate		
	7,706	7,842
SCOPE 3		
CORPORATE	887	923
SCHOOLS	7,651	7,778
MANAGED ASSETS/SERVICES	2,580	2,777
GROSS EMISSIONS - Scope 1, 2, 3 - CORPORATE	14,056	13,584
GROSS EMISSIONS - ALL	24,287	24,139
ELECTRICITY EXPORTED/SOLD TO GRID/OTHERS	158	186
NET EMISSIONS - Scope 1, 2, 3 - CORPORATE	13,898	13,398
NET EMISSIONS - ALL	24,128	23,953

Table 1: Reading Borough Council GHG Emissions 2013/14, compared to 2012/13 figures.

- 4.4 The carbon reductions targets set out in Reading's Climate Change Strategy 2008-2013, and the subsequent Reading's Climate Change Strategy 2013-2020, amount to 20% by 2013/14, against the 2008/09 baseline. Figure 1, below, illustrates the Council's corporate emissions reductions (Figure 1 a), and Council's wider carbon footprint (Figure 1 b) compared against the annual reduction targets. The graphs show that, to date, the work on carbon reduction corporately for the Council is ahead of the reduction target, whilst the emissions from the wider activity of the Council (including schools and managed services) have reduced compared to baseline levels. It should be noted that the pupil numbers in Reading's schools over the period of reporting have increased significantly.

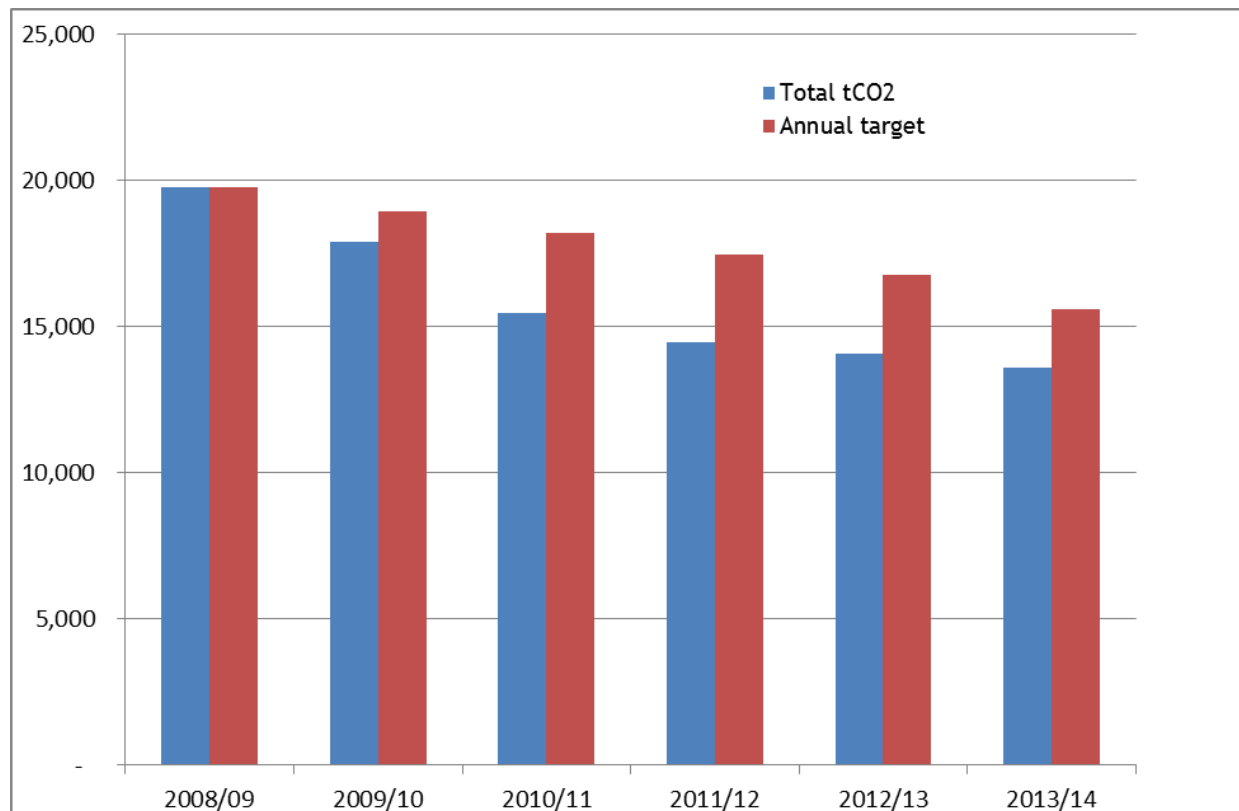


Figure 1 a): Reading Borough Council's corporate GHG emission performance against annual 4% target from the Baseline year (2008/9) through to 2013/14

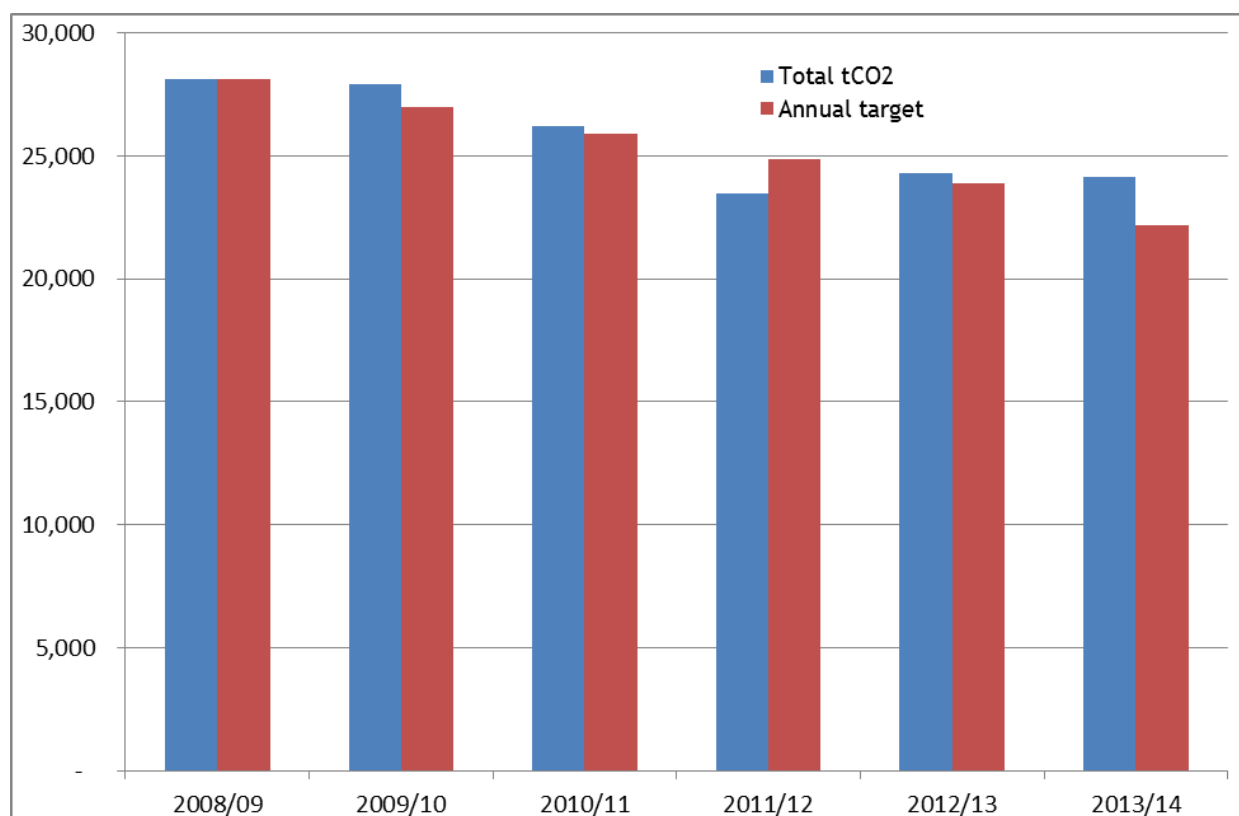


Figure 1 b): Reading Borough Council's wider GHG emission performance against annual 4% target, from the Baseline year (2008/9) through to 2013/14 (including schools and managed services)

- 4.5 Table 2 below provides the annual corporate carbon footprint figures, compared against the target. The 2013/14 carbon footprint is 31.13 % lower than the 2008/09 baseline, a significant achievement, being 10% ahead of the target emissions. These emissions reductions provide a sound foundation for further emissions reductions to meet the 2020 reduction target of 50 %.
- 4.6 The 2013/14 carbon footprint for the Council's wider activities (including schools and managed services) is 14.1 % lower than the baseline emissions in 2008/09, as illustrated in Table 2.

		2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
CORPORATE	Total tCO ₂	19,761	17,919	15,475	14,487	14,056	13,584
	Annual target	19,761	18,971	18,212	17,484	16,784	15,609
SCHOOLS	Total tCO ₂	5,216*	7,203	7,877	6,882	7,651	7,778
	Annual target	5,216	5,007	4,807	4,615	4,430	4,120
MANAGED SERVICES	Total tCO ₂	3,125	2,806	2,838	2,128	2,580	2,777
	Annual target	3,125	3,000	2,880	2,765	2,654	2,468
TOTAL	Total tCO ₂	28,102	27,928	26,190	23,497	24,287	24,139
	Annual target	28,102	26,978	25,899	24,864	23,868	22,197

Table 2: Annual RBC corporate, schools and managed services carbon emissions, compared against annual reduction targets. Note: early data from the schools sector was variable in quality and coverage. Data provided was the best available at the time.*

- 4.7 The Council participated in its final year of the Carbon Reduction Commitment Energy Efficiency Scheme (CRC). The CRC carbon footprint for 2013/14 was 14,731 tCO₂, with emissions from corporate buildings and schools. The CRC scheme does not include emissions from housing, transport, travel or street lighting. The Council purchased over £164 k worth of carbon credits, and surrendered 14,731 credits. The Council does not qualify for Phase 2 of the CRC, so will not participate in future years.

5. CONTRIBUTION TO STRATEGIC AIMS

- 5.1 The work on carbon reduction directly contributes to the Council's strategic aim to 'Develop Reading as a Green City with a sustainable environment and economy at the heart of the Thames Valley'.
- 5.2 This work also contributes to the sustainable development of Reading, helping to reduce our impact on the environment and reduce costs now, to support Reading for the future.

6. COMMUNITY ENGAGEMENT AND INFORMATION

- 6.1 As required by the government Department for Energy and Climate Change (DECC) the Reading Borough Council Greenhouse Gas (GHG) Report: 2013-14 is published on the Reading Borough Council website.

7. EQUALITY IMPACT ASSESSMENT

- 7.1 An Equality Impact Assessment (EIA) is not required for the Carbon Footprint report.

8. LEGAL IMPLICATIONS

- 8.1 Nationally, legal obligations in respect of climate change are incorporated into legislation through a range of regulations set out under the Climate Change Act 2008. The Reading Climate Change Strategy does not set out any specific binding actions in relation to these regulations but offers a multi-organisation framework which constitutes the proposals for the Borough to assist in meeting the national carbon budgets.
- 8.2 As a local authority, Reading Borough Council is required to report annual carbon footprint figures to the Department of Energy and Climate Change (DECC). This reporting is done through a return to government and publication of the carbon footprint report on the Council's website.
- 8.3 As a participant in Phase 1 of the Carbon Reduction Commitment (CRC) Energy Efficiency Reduction scheme, the Council was mandated to report carbon emissions from applicable activities. In addition, since 2011/12, the Council has been required to purchase carbon credits, at £12/tCO₂, equivalent to these carbon emissions. Phase 1 of the CRC has come to a close, with reporting on 2013/14 carbon emissions being the final year. The Council does not qualify for Phase 2 of the CRC, so will no longer be required to participate in this scheme.

9. FINANCIAL IMPLICATIONS

- 9.1 The Council's actions in relation to carbon reduction form a key element of the financial savings programme of the Council. Annual energy bills amount to around £2m. This annual revenue expenditure is predicted to rise beyond inflation and therefore it is important to maintain investment and operational control on energy and fuel to enable significant reductions in energy consumption.
- 9.2 With the Council no longer being required to participate in the CRC, it will not be necessary to purchase carbon credits on an annual basis, which previously had been around £165 k. It has been proposed by Government, however, that Local Authorities will receive a reduction in funding through the local government finance settlement for the 2015/16 year to compensate for the loss of tax revenue to the Exchequer.

10. BACKGROUND PAPERS

Environmental Reporting Guidelines: Including mandatory greenhouse gas emissions reporting, June 2013, Department for Environment, Food and Rural Affairs

Reading's Climate Change Strategy 2008-2013. Stepping forward for Climate Change

Reading's Climate Change Strategy 2013-2020; *Reading Means Business on Climate Change*

Reading's Local Authority Carbon Management Plan (LACM) 2007

Sustainable Community Strategy, 2011. Levers for change.