



# **ENVIRONMENT AND ECONOMY OVERVIEW AND SCRUTINY PANEL**

## ***Committee Report***

**Public**

**Date of Meeting:** 17 January 2013

**Title:** ENVIRONMENTAL PERFORMANCE OF THE COUNCIL

**Report of:** The Director of Governance

**Report reference:** GD 04/13

### **Summary:**

This document provides the Environment and Economy Overview and Scrutiny Panel with a progress report on the environmental performance of Carlisle City Council. The report includes updates on the environmental performance indicators, current energy use within directly controlled City Council buildings and CO<sub>2</sub> reduction from local authority operations. It also provides an update on work that has taken place within the Council to reduce our energy use.

### **Recommendations:**

The Environment and Economy Overview and Scrutiny Panel consider and comment on the content of the report.

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Note: in compliance with section 100d of the Local Government (Access to Information) Act 1985 the report has been prepared in part from the following papers: None

## 1.0 BACKGROUND INFORMATION

1.1 In line with the latest Council protocol the Environmental Policy Statement was reviewed and updated in June 2012 to reflect the new political structure.

## 2.0 CLIMATE CHANGE STRATEGY PROGRESS UPDATES

2.1 Carlisle's Climate Change Strategy outlines the aims and objectives for the City Council to tackle climate change through its operations, service delivery and work with partners and communities it serves. The following information updates progress in line with the NI185 National Indicator to date.

### ***NI185 data - CO<sub>2</sub> reduction from local authority operations***

The table below includes ALL City Council owned premises including those not directly "controlled" by the Council (e.g. Carlisle Leisure Ltd sites). **Units are emissions of carbon dioxide in tonnes.** Figures are subject to change in accordance with revised conversion factors from DEFRA, and new information coming to light, and as a result may be different from previous reports.

<b>Source of Emissions (October 2010 conversion factors)</b>	<b>2007/08 (Baseline year)</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>Change from baseline year</b>
Buildings (Electricity)	2,559.3	2,538.5	2,543.0	2,441.0	2,202.0	-14.0%
Buildings (Mains Gas)	1,908.2	1,783.7	1,674.9	1,668.9	1,387.4	-27.4%
Buildings (LPG)	5.5	7.8	8.9	7.3	3.8	-31.7%
Buildings (Oil)	38.9	40.1	52.7*	50.1*	31.1	-19.9%
Street Lighting, Floodlighting, Car-parks & CCTV	339.2	314.8	310.4	298.0	294.5	-13.2%
Fleet Transport	1,261.6	1,215.7	1,157.1	1,122.2	1,052.3	-16.6%
Business Travel	126.7	110.5	93.4	93.2	78.4	-26.4%
<b>Total (tonnes of CO<sub>2</sub>)</b>	<b>6,239.4</b>	<b>6,011.1</b>	<b>5,840.3</b>	<b>5,680.4</b>	<b>5,049.6</b>	<b>-19.1%</b>

\* Buildings (Oil) figures from 2009/10 and 2010/11 now revised downwards as a bulk delivery to the Civic Centre has continued to last through 2011/12 and so some of the consumption / emissions have been transferred to this year.

From the table above it can be seen that Carlisle City Council made a large reduction in emissions in 2011-12. The actual reduction achieved is 11.1% from 2010-11. This has moved the organisation further than expected towards our 2012-13 target of a 25% reduction on baseline. The target of reducing our emissions by a quarter in just 5 years is

no longer just an “aspiration” but it has become achievable, and is now just one step away from being met. In comparison to the 2007/08 baseline total, the output of 5,049.6 tonnes in 2011/12 represented a decrease of 19.1%. Reductions of more than 10% have been achieved in every sector, with the biggest reductions being seen in terms of gas consumption and business travel.

### 3.0 ENERGY USE IN DIRECTLY CONTROLLED CITY COUNCIL BUILDINGS

#### 3.1 Gas consumption (kW/h):

Since 2007/08 (baseline year) gas use has reduced at three out of our four main sites. Bousteads Grassing has achieved the most success with more than a 56% reduction in consumption, with the Civic Centre and Tullie House achieving over 35%. The halving of gas consumption at Bousteads Grassing in a single year reflects the decrease following the relocation of staff in the main building to the Civic Centre, and the demolition of the same building. The sites in the table below have contributed to an overall reduction across the City Council buildings of more than a quarter in the same four year period:

Site	2007-08 (Baseline year)	2008-09	2009-10	2010-11	2011-12	Change from baseline year
<b>Bousteads Grassing</b>	410,435	405,414	393,491	408,066	179,953	- 56.2%
<b>Civic Centre</b>	840,404	826,238	780,776	858,022	544,529	-35.2%
<b>Crematorium</b>	1,038,105	1,123,939	995,045	969,136	1,152,019	+11.0%
<b>Tullie House</b>	1,684,257	1,693,065	1,512,199	1,474,511	1,082,474	-35.7%
<b>City Council Total *</b>	<b>10,322,955</b>	<b>9,649,390</b>	<b>9,061,121</b>	<b>9,028,562</b>	<b>7,490,343</b>	<b>-27.4%</b>

\* Figures may be different from previous reports due to Mains Gas and LPG now being shown separately. Some estimated figures have also been superseded by actual figures.

### 3.2 Electricity consumption (kW/h):

Since 2007/08 (baseline year) electricity use has been cut at Bousteads Grassing, the Civic Centre and Tullie House, but has risen at the Crematorium. The huge decrease at Bousteads Grassing mirrors the decrease in gas consumption at the same site and for the same reasons. The Civic Centre usage is now below the baseline figure for the first time. These compare with an overall reduction across the City Council buildings of -14% in the four year period.

Site	2007-08 (Baseline year)	2008-09	2009-10	2010-11	2011-12	Change from baseline year
<b>Bousteads</b>	268,762	267,314	225,645	219,524	105,991	- 60.6%
<b>Civic</b>	1,053,105	1,112,637	1,123,072	1,082,152	1,012,385	-3.9%
<b>Crematorium</b>	50,463	60,693	66,976	67,803	73,716	+ 46.1%
<b>Tullie House</b>	1,155,269	1,098,884	1,121,054	995,419	899,205	-22.2%
<b>Total *</b>	<b>4,726,814</b>	<b>4,687,093</b>	<b>4,695,435</b>	<b>4,506,941</b>	<b>4,065,766</b>	<b>-14.0%</b>

### 4.0 GREEN TRAVEL PLAN

The Green Travel Plan was approved in April 2008, and the following are highlights from the financial year 2011/12.

4.1 Business Travel dropped from 280,038 miles in 2010/11 to 235,504 miles in 2011/12 (a reduction of 16%). The overall reduction from the 2007/08 baseline year (385,459 miles) was just under 150,000 miles or 39%. The reduction over this period is equivalent to a journey round the circumference of the earth six times over.

4.2 In 2011/12 (compared with the previous year - 2010/11) there was another slight reduction in carbon dioxide emissions in diesel used (in fleet vehicles) of 3.5% and in petrol used of 1.9%. Diesel consumption has been reduced by over 10% since the baseline year, and Petrol over 23%. The overall emissions reduction in 2011/12 was 16.6%.

Overall fleet vehicle carbon dioxide emissions is calculated after factoring in the rounds undertaken on our behalf by "FCC Environment" (previously Cumbria Waste Recycling), and deducting the emissions associated with Garden Waste rounds undertaken by Carlisle City Council for Eden District Council.

## Transport CO2 emissions (tonnes):

Source of Emissions (2010 Conversion Factors)	2007-08 (Baseline year)	2008-09	2009-10	2010-11	2011-12	Change from baseline year
Diesel	1,105.6	1,067.3	1,056.2	1,026.3	990.3	-10.4%
Petrol	32.1	29.0	27.6	25.1	24.6	-23.4%
Gas oil	103.8	94.2	66.5	77.5	70.6	-32.0%
Vehicle hire *	2.5	2.5	1.6	1.1	1.1	-57.9%
CWR / FCC Environment Rounds	119.5	124.7	119.8	113.6	102.0	-14.6%
Eden Rounds	-102.0	-102.0	-114.7	-121.3	-136.2	33.6%
<b>Total</b>	<b>1,261.6</b>	<b>1,215.7</b>	<b>1,157.1</b>	<b>1,122.2</b>	<b>1,052.3</b>	<b>-16.6%</b>

\* *Vehicle Hire is “missing emissions” for fuel purchased for hire vehicles when a fuel card wasn’t used. It is therefore not captured in the totals for diesel and petrol, and so has to added as a separate item. This figure was not recorded until 2008/09 so the 2007/08 (baseline) figure has been estimated the same as 2008/09.*

## 5.0 ENVIRONMENTAL AWARDS

5.1 The City Council retained the Gold level of the Cumbria Business Environment Network (CBEN) Awards in January 2012. The Safety, Health and Environmental team continues to update annual environmental performance plans. These plans ensure compliance with environmental legislation and that actions are in place to address the issues of waste, energy, procurement etc. CBEN have now changed the way they structure their awards. The main difference is the differentiation between large corporate organisations / Public bodies and Small and Medium Enterprises (SME`s). The Safety, Health and Environmental team will be working with CBEN in January 2013 with an aim to understanding how we can embrace these changes and continue to work with CBEN. Next year the City Council will look to engage with their new “Green Heart Scheme”. The Green at Heart scheme is a new addition to the CBEN awards and has been developed as an option for businesses seeking certification in recognition of their environmental awareness and practices.

5.2 In 2012/13 the City Council retained / achieved eight Green Flag Awards for the Tullie House garden, Bitts Park, Hammonds Pond, Richardson Street Cemetery and the Crematorium, Kingmoor Nature Reserve, St Michaels Churchyard Stanwix, and Talkin

Tarn Country Park and Chances Park. The Green Flag Awards key criteria include environmental sustainability and conservation.

## **6.0 INVEST TO SAVE PROGRAMMES**

### **6.1 Solar PV installation at the Civic Centre and the Sands Centre.**

In March 2012 the work to install Solar Panels on the Civic Centre and the Sand Centre was completed.

At the Civic Centre in financial terms this cost £63,000. The anticipated energy production from the Solar Panels has already been exceeded by 5%. The funds currently being generated from these installations are approximately £18,000 per annum. This equate to a capital payback well within 5 years giving a rate of return of 15%.

This project is scheduled to run for 25 years generating the Council potential revenue in excess of £360,000 based on current rates of return. Apart from the financial return it also ensures that we are on course to reduce our carbon emissions by our ambitious 25% target by April 2013 against the baseline figures of 2007/08.

#### Future Projects

Although the feed in tariff rate has dropped by a significant amount, the cost of the solar panels has also reduced and the business case for further investment remains strong. The initial feasibility study identified other suitable buildings in the Council's portfolio and these could further benefit carbon reduction and revenue income as well as assisting the building users with locally generated electricity.

### **6.2 Tullie House environmental investment continues to reduce energy usage.**

Over an 18 months role out programme as part of the renewals process and with invest to save in mind Tullie House has had a large amount of investment which was completed in April 2012. This included:

- Boiler replacements.
- Chiller replacement.
- Installation of heat recovery run-around-coil to recycle waste heat.
- Installation of variable speed fan motors.
- Reduction of heat loss by changing the external automatic doors.
- Reducing unnecessary air conditioning in the ground floor shop / atrium area.
- Improving insulation levels.

- Draught proofing doors.
- Upgrade lighting and install controls.

In financial terms this cost approximately £180,000. The energy savings currently being achieved from these installations are equivalent to £30,000 per annum. This equate to a capital payback of 6 years after which the investment will provide year on year savings.

## 7.0 CONCLUSIONS

The difficult economic times has meant that Local Authorities are under new pressure to make financial savings across all services. Whilst this may make environmental improvements a lower priority, the savings made through the rationalising of buildings and their use and the “invest to save schemes” (the majority funded through ongoing renewals budgets) have almost certainly speeded up our reductions in energy consumption and carbon dioxide emissions.

Carlisle City Council’s carbon dioxide emissions were 6,354 tonnes in the baseline year 2007-08 and 5,050 tonnes in 2011-12. The target of a 25% reduction by 2012-13 equates to an output in emissions of 4,765 tonnes. This means that a further reduction in 2012-13 of 285 tonnes (5.6%) is required in order for the target to be met. This will be challenging given the savings already been made, but if it is achieved then this will reflect a huge amount of effort undertaken in the last few years to monitor and reduce our energy consumption and hence carbon dioxide emissions.

### *The next step*

With the governments Energy Bill eventually receiving Royal Assent (18<sup>th</sup> October 2011) and becoming the recognised Energy Act 2011 it remains to be seen what opportunities this may afford the Council.

This Act introduces the long awaited **Green Deal**. This is a new financing framework to enable the provision of fixed improvements to the energy efficiency of households and **non-domestic properties**, funded by a charge on energy bills that avoids the need for consumers to pay upfront costs.

The fine detail is still being provided on what benefits can be obtained and the Safety, Health and Environmental Team will ensure that it works with key officers in the other Directorates to take advantage of any possible funding available.

Our facilities team will continue to identify opportunities to invest money in environmental infrastructure through invest to save scheme opportunities. A further examination of potential sites and returns for more Solar Panels will be reviewed early in 2013.