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## **CARBON MANAGEMENT PERFORMANCE UPDATE**

### **Overview and Scrutiny 26<sup>th</sup> March 2013**

#### **1.0 SUMMARY**

- 1.1 This report provides an update on the Council's Carbon Management programme and includes up to date information on our requirements to report on the Carbon Reduction Commitment, Greenhouse Gas emissions and related activity in the Borough to tackle Climate Change.

#### **2.0 MATTERS FOR CONSIDERATION/RECOMMENDATION**

- 2.1 For information only - A carbon management performance report was last presented to Internal Scrutiny in October 2011 and it was agreed that an annual report would be presented to Overview and Scrutiny to demonstrate our commitment to carbon reduction.

#### **3.0 BACKGROUND INFORMATION**

- 3.1 The Climate Change Act 2008 sets the basis for the UK's action to tackle climate change for the long term future. One of the main provisions of the act is to set a legally binding target of at least an 80% cut in greenhouse emissions by 2050 and also an interim target to cut emissions by at least 20% by 2020. Both targets are based on a 1990 baseline. With these targets in mind the Government encourages Councils to reduce their carbon emissions and to use their influence to encourage the wider community to decrease their own carbon footprint. Bury Council are active participants in the development of the Greater Manchester Climate Change Strategy and its delivery plan which aims to reduce the region's carbon emissions by 50% by 2020 from a 1990 baseline

#### **4.0 CARBON REDUCTION COMMITMENT ENERGY EFFICIENCY SCHEME (CRCEES)**

- 4.1 Under this carbon trading scheme large public and private sector organisations which use over 6,000MW of electricity are required to report on their carbon emissions from non transport sources – mainly buildings, including schools. These organisations will then have to pay £12 for every tonne of carbon they emit. Bury Council are required to take part in the CRCEES and this was the second year of its operation. At the end of July we reported that our relevant emissions in 2011/12 were 18,156 tonnes and therefore we paid £217,872 for carbon allowances. From 2010/11 to 2011/12 our CRCEES emissions have reduced by 23% from 23,548 to 18,156 tonnes. The recently published CRCEES Performance league table placed Bury 307<sup>th</sup> out of 2098 companies. In relation to the 9 other AGMA councils we were 5<sup>th</sup> below Manchester, Salford, Bolton and Stockport.

4.2 After consultation the Government have now simplified the scheme and Councils in phase 2 will no longer be required to report on carbon emissions from state aided schools or street lighting. This means that some Local Authorities will no longer need to be participants. 2012-13 is the qualification year for phase 2 and early indications are that Bury Council may still exceed the 6,000MW limit and it is likely we will continue to be required to participate in CRCEES. The price per tonne for carbon will rise to £16 in 2014. There are indications that Schools may be required to report separately on their carbon footprint to the Department for Education

## 5.0 BURY'S CARBON MANAGEMENT PLAN

5.1 In May 2009 Bury Council joined the Carbon Trust's Local Authority Carbon Management Programme. We set up a cross departmental Carbon Management team which is mainly virtual but meets quarterly to monitor the Council's progress to embed Carbon Management throughout the organisation.

5.2 Under this programme we produced our Carbon Management Plan which was published in March 2010. This plan described the actions we would take to reduce our carbon emissions and how we would embed carbon management into our policies and day to day procedures. We also set an aspirational target to reduce our emissions by 35% on a 2008/09 baseline by 2014.

### 5.3 Greenhouse gas emissions

To assess progress we have been monitoring our total emissions of carbon dioxide since 2008/09. The table below shows Bury Council's performance in relation to greenhouse gas emissions from 2008/09 to 2010/11.

<b>Greenhouse Gas Emissions 2008/0 to 2011/12</b>				
	<b>Tonnes of CO2e</b>			
	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
<b>Total Emissions</b>	<b>30019</b>	<b>30507</b>	<b>29813</b>	<b>27331</b>

Please note that these emissions include transport emissions and are therefore different from the emissions reported under the CRCEES mentioned above.

The table shows that since our baseline we have achieved a 2688 tonne reduction on our total emissions which represents a 9% decrease. This is a major step towards our aspirational target to reduce our emissions by 35% by 2014.

## 6.0 BURY COUNCIL'S CARBON REDUCTION PROJECTS

6.1 Since our baseline year we have implemented 80 projects which are calculated to save 3000 tonnes of carbon and £500,000 per year. We will continue to implement measures with the aim of driving down our emissions total. Some of our main areas of activity are described below:

### 6.1.1 **Salix Projects**

In 2012 £51,000 of interest-free loan funding from Salix was secured to deliver energy efficiency measures in Bury schools. This funding was used to install cavity wall insulation at 7 of our primary schools namely:- Chapelfield, Holcombe brook, All Saints, Lowercroft, Peel Brow, St Johns with St Marks and Wesley Methodist. A new boiler, low energy lighting and improved insulation was installed at Greenmount Primary School.

All of these projects were completed by the end of August 2012 and are predicted to save £2,000 per year on energy bills, and 13 tonnes of carbon per year<sup>1</sup>.

For 2013 we have secured £21,000 of Salix interest free loan funding for cavity wall insulation, a new boiler and a building energy management system to be installed as part of the refurbishment at Elmhurst Elderly Persons home. These projects are predicted to save 34 tonnes of carbon and £6000 per year.

### 6.1.2 **Employee Awareness Raising Campaign**

In February 2011 we launched our **Carbon Cost Challenge** campaign which aims to ensure that everyone at the Council plays their part in reducing our energy consumption, our energy bills and also our carbon footprint. The Carbon Trust have calculated that by changing people's behaviour we can achieve savings of between 5-10%. So far Carbon Cost Challenge activity has included the following:-

- Poster campaign
- Switch off /turn it down stickers distributed in buildings
- E-zines and electronic bulletins
- Climate Change e-learning package
- Winter and Summer "Switch off fortnight"
- The recruitment of a network of 50 Green Champions to help embed carbon reduction activity across the council.
- Monthly articles in Bury Times
- Food recycling in main buildings
- Climate Week 2013 activities

### 6.1.3 **Schools Carbon Reduction**

Our work on carbon management has shown that our biggest source of carbon is our school buildings. In February 2011 we employed a full-time Schools Carbon Reduction Officer to engage with schools and work closely with them to improve energy efficiency, save money and reduce their carbon footprint. This officer's role has now been widened to cover all of the council's sustainability issues (Carbon Reduction and Sustainability Officer -CRSO) but there is still a substantial amount of activity in schools includes the following:-

**Energy audits** are being carried out and an energy self assessment questionnaire has been developed to allow schools to assess their own performance. These activities are helping to identify areas where schools can improve their energy efficiency. In addition the SCRO is looking in more depth at 3 primary and 2 secondary schools. These are pilot schools for a "whole school" approach to carbon Management. Work is being carried out to engage teachers and pupils directly to

embed carbon management, energy efficiency and recycling into day to day school operations and activities.

**Awareness raising** - Bury's Carbon Cost Challenge has been extended to the schools and has included e-zines electronic bulletins, schools pack and posters, energy walk-rounds with pupils and staff and presentations to head teachers, staff, school councils etc. We have produced a communication plan to continue and develop this campaign.

**Schools Energy Efficiency Finance Scheme** - to help to fund energy efficiency measures Children's Services have set up a finance scheme which offers interest free loans to carry out energy efficiency measures. Schools will then be able to payback the loan from the savings made.

**Voltage Optimisation** - in 2012 Parrenthorn High School installed a voltage optimisation unit which should reduce electricity use saving £4000 and 23 tonnes of carbon per year. We are also looking at the potential for further similar installations at our other secondary schools.

**Eco Schools** - The CRSO is trained as an Eco schools assessor and is encouraging schools to register or to continue progressing on the Eco Schools programme to achieve the coveted "Green Flag" status. Eco Schools is the largest sustainable schools programme in the world and involves taking action to reduce energy use, improve recycling in addition to other actions to put sustainability at the heart of school life. 48 schools have registered with Eco-Schools of which 38 are Primary and 9 Secondary plus The Ark. Levels achieved so far are: 32 Bronze Certificates, 20 Silver standard and 5 have Green Flag status

**The Pod-EDF Energy's Programme for Greener Schools** -52 schools are now registered to this interactive online resource for teachers of Key Stages 1, 2 and 3 children. All activities are specifically designed to help schools progress through the Eco-Schools programme and to help schools make real and measurable improvement to their energy use and carbon output.

In addition 13 Schools took part in our Switch off Fortnight (SOF) in 2012 and 11 schools have signed up to Waste Week so far.

#### 6.1.4 **Building Rationalisation**

The Council are continually looking at ways to rationalise our occupation of buildings. The move from Craig and Lester House into 3 Knowsley Place has been calculated to save 110 tonnes of carbon per year and £14,000 per year on our energy bills.

We have also recently vacated the following buildings: Hilton House, part of Connexions building Broad Street, Redcliffe Youth Centre 'Y' Zone now let to a charitable organisation, 150 Willow Street, Howarth Close, Whittaker House EPH, Radcliffe Hostel Hilton Lane.

Millwood school has relocated to a new building which features a whole range of carbon saving measures including solar hot water, ground source heat pumps, water harvesting, combined heat and power (CHP), sustainable drainage (SUDS) and maximised natural ventilation and lighting.

The next major phase of building rationalisation involves moving employees out of Athenaeum House and Castle Buildings and into 3 Knowsley Place, Bury Town Hall and other existing buildings. This is calculated to save 200tonnes of carbon and £33,500 per year.

#### 6.1.5 **Renewable Energy**

**Solar hot water systems** have been installed at Heaton Park Primary School and also the new Millwood School.

**Solar Electricity generation – Photovoltaic Cells (PV)** -Generating electricity from solar power reduces carbon emissions and allows us to benefit from The “Feed In Tariff”. In December 2011 we installed a 4kWp solar generation system on the roof of the Villa on Bradley Fold Trading Estate. In its first year this system saved 1.8 tonnes of carbon, generated £1500 of income and saved £150 from our electricity bill. We have comprehensive feasibility reports looking at the potential for solar electricity generation at 5 of our buildings namely: Bury Town Hall, Bury Market Hall, Bradley Fold Depot, 37–40 Bradley Court and 41-42 Bradley Court. The best of these schemes are likely to pay for themselves in 10 – 13 years and we are currently considering which schemes may be worth progressing via invest to save capital funding.

**District Heating Network** -The Council are looking at the feasibility of creating a district heating network in Bury Town Centre. The initial proposal was to take waste heat from the electricity generating process at the Pilsworth landfill site and pipe this into the centre of Bury where it could serve the heating needs of a variety of town centre buildings including our Council offices, schools colleges, leisure centres. Unfortunately the supply of landfill gas from the Viridor site may not be as long term as was first predicted and therefore we may need to consider alternatives

**Hydro- electricity** - Bury Council are also interested in the potential for hydro electricity generation and in June 2011 we commissioned a feasibility study to look at the potential of the weir on the River Irwell at Chamberhall near Bury Town Centre. Indications suggest that this project could save approximately 159 tonnes of carbon per year and earn £45,000 per year from the Feed in Tariff. Other sites are being investigated by private developers and the Council will support such development in line with the LDF policy.

Bury Council are currently working with colleagues in neighbouring Greater Manchester Councils with similar projects to share knowledge, experience and develop the business cases for such schemes. Progress on any of the above schemes will be dependent on a sound business case being accepted.

#### 6.1.6 **Recycling and Waste Collections**

In October 2011 we changed the way we collect household waste. The changes were designed to help residents recycle more and reduce the amount of sent to landfill. The changes included emptying rubbish bins once every two weeks, the introduction of a green bin for recycling paper

and cardboard, the introduction of food waste recycling and recycling from flats.

As a result of these service changes recycling performance has improved from circa 28% to circa 45% (the 3<sup>rd</sup> best in GM) and savings in excess of £1m in waste collection and disposal have been achieved.

Moving forward, the Council has set itself a 50% recycling rate. To meet this ambitious target work is being done to maximise recycling from all Council buildings and schools including food waste recycling and also to promote commercial waste recycling. So far food recycling is established in 21 school kitchens and 11 council buildings.

#### 6.1.7 **Libraries and Adult Learning**

ALAL support the council's agile working initiative in a number of ways. Officers in the field can use toilet/staffroom facilities and computers at any of the borough's libraries. In addition most of the outlets offer a range of recycling facilities for both staff and customers. More unusual items which can be recycled include batteries, light bulbs, used stamps, files, carrier bags, book swaps, printer cartridges, cooking oil, bottle tops. Other initiatives include:

- In the last couple of years the service has reduced the number of overdue reminders sent by post. We now send only one paper reminder per overdue item and 100s more email reminders for those people with an email address.
- Potential for reduction in print-outs sent to the Archives printer by offering digital photography and saving to USB stick options. Charged for service but means reduction in energy usage of printer, and print consumables.
- General awareness-raising of energy saving and recycling through involvement in 3 SOF campaigns, particularly Summer 2012 when 12 of 17 libraries were involved with the energy saving audits and submitted meter readings for the Summer campaign.
- Offering 12 information resources online (9 of which can be accessed from home/outside the library network) such as Britannica, Oxford English Dictionary etc (full list at <http://www.bury.gov.uk/index.aspx?articleid=6305>)
- In relation to Adult learning, Ofsted Inspections expect low-carbon thinking to be embedded across curriculum areas so Adult learning are progressing this.

#### 6.1.8 **Planning**

Bury Council's Draft Core Strategy, which forms part of our emerging Local Development Framework, seeks to reduce carbon emissions from new and existing development in accordance with the national timetable for achieving zero carbon buildings. Where possible the Strategy seeks to enhance these targets to achieve greater carbon reductions. This will impact on future carbon emissions in both public and private sector developments.

The Core Strategy also identifies a number of locations within the Borough which offer a variety of opportunities for decentralised low and

zero carbon energy infrastructure and which will act as a catalyst for reducing carbon emissions throughout the Borough.

#### 6.1.9 **Transport**

**Cycle Routes** Transport for Greater Manchester has been awarded significant funding (£34m + £5m) from the Local Sustainable Transport Fund to encourage low carbon journeys to work. This will involve cycle training, promotion and support to cycle-friendly employers. Specifically in Bury it also includes the provision of secure, covered cycle parking at Bury Interchange, the signing of cycle routes to Bury town centre, the construction of a cycle path through Chamberhall business park and the upgrading of the off-road National Cycle Route 6 from Radcliffe towards Manchester.

**Electric vehicles** - During 2012 we purchased a new electric road sweeper to replace an existing diesel vehicle. The new sweeper is quiet in operation and is predicted to save £5,638 and 12.7tonnes of carbon per year. The Council is also participating in the GM 'Plug in Places' initiative and has identified 7 car parks which will have electric vehicle charging points installed by the end of June 2013 using funding from the Organisation for Low Emissions Vehicles

### 7.0 **COMMUNITY LOW CARBON AND ENERGY INITIATIVES**

- 7.1 **Green Deal** was launched on January 28<sup>th</sup> 2013, with the supporting Energy Company Obligation (ECO) subsidy in place from October last year. On November 30<sup>th</sup> 2012, the GMCA approved the GM Green Deal Business Case, agreeing to proceed immediately with the development of a 3 year GM Green Deal programme and procurement of a panel of Green Deal delivery partners, likely to commence installations from January 2014.
- 7.2 **Toasty** - Current programmes under GM 'Toasty' brand come to an end on 1<sup>st</sup> April 2013. Figures to the end of December state that this promotion has resulted in a fantastic achievement of **1055** insulation installs in Bury. As the GM Green Deal Programme, described above, will not commence until January 2014, Chief Officers agreed in November 2012 that GM should procure a 'panel' of ECO partners to work in GM during the interim period in 2013/14.
- 7.3 **Energy Switching** – Auction 1 in January 2013 was a success with over 35,000 registrations, just under 9000 of which were from Bury. The full details regarding conversion rates (i.e. proportion of those registering switching) is not yet available. The average projected annual saving was £122 with some people saving up to £900. We also got a deal for those on pre-payment meters which is a first for these projects. Auction 2 is to be held on 9<sup>th</sup> April and we launched the campaign on 4<sup>th</sup> March.
- 7.4 **Warm Healthy Homes Project** – as a result of a successful funding bid to the Department of Health we secured £81,000 for our Healthy Homes Project. We have distributed 556 winter warmth packs to Bury residents (who are over the age of 75 or have children under the age of 5) at 5 events across the borough. A further 262 will be delivered to those unable to attend the events within the next few weeks.

Included in the packs are winter warmth or energy efficiency measures that the applicants have requested themselves from a prescribed list including:

- Thermal clothing (long sleeved top and bottoms)
- Children's thermal clothing (Under the age of 5)
- Thermal socks
- Electric blankets
- Electric fan heaters
- Door draught excluders
- Draught stripping for doors and windows
- Cold alarms
- Carbon monoxide detectors
- Radiator reflector panels
- Advice / information leaflets re keeping warm and lowering bills

## **8.0 AGMA Activity – Environment Commission**

8.1 Bury Council were involved in the drawing up of the Greater Manchester Climate Change Strategy Implementation Plan which supports the GM Climate Change Strategy. Part of the plan is for GM to sign up to memoranda of understanding (MoU) 'Pathfinder agreements' with key government departments:

- Department of Energy and Climate Change (DECC)
- Department for Environmental, Food and Rural affairs (DEFRA)

MoU's with other Government departments such as Department of Transport, DCLG and BIS will also be sought to ensure the GM region is at the forefront in low carbon and sustainable economic growth.

8.2 The structure and governance of the Environment Commissions work has recently changed with the forming of a Low Carbon Hub with thematic subgroups each lead by a director level representative

- Low Carbon Buildings – Manchester
- Energy Infrastructure - Bury MBC
- Natural Capital – Trafford
- Sustainable Consumption and Production – Tameside
- Transport
- Low Carbon Skills – Oldham
- Low Carbon Sector Growth – Stockport

Through these groups we are supporting Greater Manchester's commitment to the creation of a Low Carbon Economic Area and are involved in a number of work plans which take advantage of funding opportunities and economies of scale these include:


- Participation in the GM Green Deal and ECO initiatives to encourage retrofit energy efficiency schemes in homes and businesses
- Energy switch initiative
- Greater Manchester Heat Network development group
- UK Green Investment Bank Joint Venture. Greater Manchester councils are working with the UK Green Investment Bank to set up a funding stream to help pay for large numbers of energy saving projects in council buildings. Bury along with all the Greater Manchester councils have carried out a high level assessment of our buildings to help estimate the potential for energy efficiency projects.
- Carbon Literacy scheme – (behavioural change programme)
- Plugged in Places – promoting the use of Electric Vehicles in Greater Manchester.



- Hydro assessment

Further information about any of the wide range of projects or initiatives mentioned in this report can be provided through the contact officer below

## 9.0 SUPPORTING INFORMATION

- Bury Council's Carbon Management Plan  
<http://www.bury.gov.uk/CHttpHandler.ashx?id=8636&p=0>
- Bury Council's Green house Gas Reporting 2008/09 – 2011/12  
<http://www.bury.gov.uk/CHttpHandler.ashx?id=8637&p=0>
- Bury Town Centre Energy Network Study for Bury Metropolitan Borough Council  
<http://www.bury.gov.uk/index.aspx?articleid=4837>
- CLASP Climate Change briefing packs for Elected members  
<http://www.claspinf.org/news/new-briefings-elected-members>
- GM Climate Change Strategy  
This can be accessed by following the 'GM Climate Change Strategy – Final' link from the agma website – [www.agma.gov.uk](http://www.agma.gov.uk)
- GM Climate Change Strategy Implementation Plan -   
GMClimate Change Implementation plan

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