

WIRRAL COUNCIL

CABINET - 22 FEBRUARY 2010

REPORT OF THE DIRECTOR OF TECHNICAL SERVICES

CARBON BUDGET 2010-11

EXECUTIVE SUMMARY

This report provides details for setting the Council's first Carbon Budget, as requested by Members in a Resolution which was approved by Council on the 14 December 2009, (Minute 77 refers). Members are asked to note and endorse the actions to develop a Carbon Budget across the Council.

1.0 BACKGROUND TO THE CARBON BUDGET

1.1 Climate change is now at the top of the political agenda and Local Authorities have a crucial role to play in responding to the challenge posed. Tackling climate change requires that we reduce our emissions of Greenhouse Gases and adapt to the changes in climate that will occur.

1.2 The Council has made significant progress over the last four years to significantly reduce its carbon footprint. Achievements to date include :

- February 2006 saw the renewal of a commitment to the Nottingham Declaration in a Council Motion.
- The Nottingham Declaration Working Group was set up in April 2006 comprising officers from key areas across the Council
- October 2006, Cabinet Members endorsed the development of a Climate Change Strategy for Wirral by Councillors and Officers.
- Nottingham Declaration Seminar & Workshops took place in October 2006 and 2007 in Birkenhead Park Pavilion, with key representatives from the Energy Saving Trust's Local Energy Support Programme team, GONW and Environment Agency, Consultants 'Practical Help', Council Members and key officers delivering presentations and workshops.
- June 2007, Cabinet Members agreed the Council's Climate Change Strategy and Action Plan which is consistent with, and supports a number of key National, Northwest, and Merseyside Climate Change and Sustainability strategies.
- As part of the Climate change Strategy, a Council-wide Investment in Energy Efficiency Programme (IEEP) has been developed since 2006, with phase 1 completed, and phases 2, 3 and 4 ongoing (for further details please refer to section 2 Ongoing Projects).
- Wirral's Carbon Reduction Programme comprises a series of Energy Efficiency investment schemes which have begun to reduce Council CO₂ emissions and improving energy efficiency, reducing energy needs and improving overall environmental performance.

- The previous target of a 20% CO² reduction by 2010 was achieved at the end of 2007. This target has now been replaced with the CRed target of a 60% reduction by 2025 and the Council will work with residents, communities, the public and private sectors to help them achieve their own reductions. This will require an annual reduction of 5.25% to ensure that the Council reduces its own emissions from the 2007 level of approximately 42,000 tonnes to less than 17,000 tonnes per annum by 2025.
- To enable us to work more closely with our LSP partners, the CLASP Workshop on Climate Change took place on the 7th September. The subject of the workshop was “Getting Started on NI186” which will enable us to work with our partners to actively manage our borough wide emissions.
- The Wirral Climate Change Group (WCCG), which replaced the Nottingham Declaration Working Group, has now met twice since Sep 2009. Working with existing and new strategic LSP members the Wirral Wide Strategic Climate Change Action Plan has been developed. This is also the LSP Delivery Plan which will help to address NI186. The WCCG includes Council officers and Members together with partners from Wirral NHS, Cheshire and Wirral NHS Foundation Trust, Merseytravel, Merseyside Fire & Rescue, Merseyside Police, VCAW, Forum Housing Association, Groundwork Merseyside and Transition Town West Kirby
- The Council’s Sustainability Unit has now been formed, consisting of the existing Energy Conservation Team and the newly appointed Climate Change and Sustainability (CRed) Liaison officers. The new Unit will actively manage a sustainable approach to climate change through the implementation of our Climate Change Strategy and Carbon Reduction Programme
- “Wirral CRed” the Community Carbon Reduction Programme being operated in partnership with Wirral NHS, Cheshire & Wirral Partnership NHS Trust and the University of East Anglia, has been developed and the Wirral CRed website was officially launched in November 2009.

1.3 All of these achievements and activities, including the Wirral Carbon Reduction Programme are reported to Members, on a biannual basis. The NI186 actions through the implementation of the Wirral-wide Strategic Climate Change Delivery Plan (which was adopted at the end of January 2010) will also be reported to the LSP via the Living and Working Environment Partnership Group. The Wirral Carbon Reduction Programme is also regularly monitored by the Strategic Management Team within the Technical Services Department.

1.4 In 2008 four climate change related national indicators were introduced to monitor our performance to mitigate the causes and adapt to the effects of climate change. These include :

- NI185 which measures the Councils CO₂ emission reduction progress and requires the Council to set reduction targets. Systems are now being put in place to collect this data which includes the Automatic Meter Reading system which will also provide a benefit when the

Carbon Reduction Commitment (see below) is introduced by the Government in April 2010.

- NI186 which measures the whole borough's emissions performance, which also requires us to actively work with our partners in the LSP and them to work actively with us.
- NI194 is effectively a sub set of NI185 using the same primary data to identify emissions of NOx (oxides of nitrogen) and PM10 (airborne particulate matter less than 10 micrometers in diameter) from building heating systems and our transport fleet.
- NI188 which identifies how successful we are in planning to adapt to climate change. The first year requires us to set baselines by which to measure future performance.

1.5 As has previously been reported to Cabinet, April 2010 sees the start of the Government's CRC Energy Efficiency Scheme (CRCEES) [formerly known as the Carbon Reduction Commitment] a new regulatory incentive to improve energy efficiency in large public and private sector organisations. The Council will also be responsible for administering the scheme on behalf of Wirral Schools and the Merseyside Pension Fund (MPF). A particular issue arises over the Council being the administering body for the MPF. The fund owns property and as such is treated by the regulations as being part of the Council's CO₂ emissions and management. The impact and circumstances concerning MPF property is not yet fully explored but will be built into the Carbon Budget when the details are established.

2.0 ONGOING PROJECTS

2.1 Monitoring & reporting CO₂ emissions from Energy use in Buildings, Transport Fleet & Business Mileage.

2.2 Phase 1 of the IEEP is complete this included the corporate Building Energy Management System. Installation of Burner Management Units. Leisure Services Heat Recovery Scheme. Water Reduction Scheme together with the ongoing schemes which includes the Boiler Replacement Programme.

2.3 Phases 2,3 & 4 are ongoing and include:

- Building Insulation Programme
- Electrical Energy Efficiency Scheme
- Awareness Raising Programme
- Automatic Meter Reading System
- Street Lighting Energy Efficiency Improvements
- Combined Heat & Power Invest to Save Scheme
- Solar Water Heating Schemes
- Photovoltaic Scheme at Cheshire Line Building
- Develop a bio-mass fuel contract for Floral Pavilion
- Develop & Implement a Biomass boiler installation policy
- Develop & Implement an Intelligent Luminaires policy

2.4 Ongoing work also includes the CRCEES, Display Energy Certificates, The

development and promotion of the Wirral CRed scheme together with our partners the Wirral NHS and Cheshire & Wirral Hospital NHS Trust, Hi-Tech Building designs including - High efficiency M&E design and Biomass Boiler, High levels of insulation & thermal mass, Rainwater harvesting for WC's. Passive solar design and High efficiency M&E design, High recycled content materials.

- 2.5 Other projects within Technical Services which contribute to the reduction of CO₂ emissions include: Waste and Recycling Projects, Business Mileage Reduction, Sustainable Highways & Engineering Services, Transport Fleet.

3.0 DEVELOPING A CARBON BUDGET

- 3.1 Members resolved in the Council Motion on 14 December 2009, (Minute 77 refers) to :

- Establish the Council's carbon footprint and quantify the number of tonnes of CO₂ released as a direct result of Council operations for 2010 onwards, and to bring forward proposals for quantifying CO₂ emissions as part of the procurement process for new council contracts and other spend from April 2011,
- Prepare carbon budgets detailing carbon emissions and carbon efficiency targets for each department to be presented at Budget Cabinet and Council alongside the Council's financial budget,
- And to report to Cabinet on progress made regarding the carbon budget. This report to include measures and projects to reduce carbon emissions, including an analysis to show progress being made by department and key service areas.

- 3.2 The development of a Carbon Budget for the Council will be introduced in the next financial year (2010-11). Further to the significant progress made to date as highlighted above at item 1.2, Carbon budgeting is the next logical step to further reduce the Council's carbon footprint

- 3.3 A Carbon Budget is similar to a financial budget whereby each Council service is given an allowance of CO₂ in which to operate and deliver their services. Each service's carbon budget is expected to decrease annually by its target figure with the aim that as time progresses the Council will be able to continue to deliver services to the borough whilst decreasing its carbon emissions.

- 3.4 Previous schemes to reduce the Council's CO₂ emissions have all taken place at a corporate level, however the proposed carbon budgets will enable service managers to plan for CO₂ reductions at a Departmental and operational level.

- 3.5 Whilst the Council's CO₂ emissions have significantly reduced since 2005, setting an annual carbon budget for each department will provide a clear picture of the environmental impact of the Council's spending and will help us achieve both local and national carbon reduction targets.

- 3.6 There are financial savings to be made through procurement of energy efficient and low carbon contracts, goods and services, however strong departmental leadership will be needed to ensure that financial and carbon budgeting is fully integrated into mainstream financial management and business planning activity.

- 3.7 There are also new statutory requirements that we will need to comply with:

- a) The CRC Energy Efficiency Scheme (CRCEES), a mandatory emissions trading scheme affecting large local authorities with an annual electricity bill of more than £500,000, will come into force from April 2010.
- b) The introduction of National Indicators NI185 and 194:
- c) The launch in April 2009 of the Government's Carbon Budget, linking greenhouse gas emissions with the environmental impact of total government spending.
- d) The publication by DECC in July 2009 of the UK Low Carbon Transition Plan, setting out how the UK will meet the 34% cut in emissions on 1990 levels by 2020, set out in The Budget.
- e) The publication by DCLG in July 2009 of the 'Strengthening Local Democracy Consultation', which proposes that local authorities could have a much greater role to play in tackling climate change through local carbon budgets.

4.0 SETTING A CARBON BASELINE AND APPROPRIATE TARGETS

- 4.1 The baseline and 2010-11 target for each department's CO₂ emissions has been established using the 2008-09 energy data matched to the asset management register (refer to Appendix A). A full list of the 300+ sites detailing their individual targets is available on the Council's Virtual Library.
- 4.2 By adopting the CRed reduction target of 60% by 2025 the Council requires on average a 5.25% per annum decrease in CO₂ emissions for all services, this would represent a total saving in 2010-11 of 2,388 tonnes of CO₂. However, as 3 year Departmental Business Plans are already in place it is unrealistic to expect service managers to immediately make reductions on this scale, therefore the system will work on a three year budget cycle so that service managers have time to plan and ensure that greater savings are achieved. It is expected that initial savings of 2% to 3% can be achieved but it must be ensured that the carbon budget for 2011-12 will have a cumulative saving of 10.5% and year three would see the full 15.75% saving achieved.
- 4.3 Carbon Dioxide is a by-product of the activities we undertake, emitted either directly or in-directly. The following emissions are included within the proposed Carbon Budget :
 - From the operation of Council buildings and premises
 - Electricity & stationary consumption of fuels including gas, solid fuel and heating oils).
- 4.4 Further work is required to enable emissions from the Council's fleet of vehicles and the mileage claimed by employees to be identified by each department.
- 4.5 Aside from regularity requirements detailed in this report, Council resolved on the 14 December 2009 for the Director of Finance to bring forward proposals for quantifying CO₂ emissions as part of the procurement process for new council contracts and other spend from April 2011. An appropriate CO₂ evaluation model has yet to be agreed, but it will become part of the existing environmental evaluation process in place for procuring goods and services. Careful consideration will be given to the choice of CO₂ evaluation

model to ensure that it complies with the relevant procurement regulations and enables future selection panels to undertake a like for like evaluation of CO₂ emissions from differing bids.

5.0 SERVICE DELIVERY

- 5.1 Service managers can plan to meet their Carbon Budgets by complying with the Corporate Objective to reduce the Council's Carbon Footprint. Departments can develop and incorporate CO₂ emissions management into service level decision making. They will include carbon management in their Service Delivery Plans, setting out how they aim to operate within their agreed carbon budget.
- 5.2 Department managers must ensure that they deliver services within their agreed carbon budget across buildings, fleet, and business mileage emissions. Service managers must complete a mitigation plan under the Environmental Management System ISO14001. The top three or four significant impacts identified for each service will be included in an Environmental Impact Statement within the Departmental Business Plan.
- 5.3 Service managers must provide exemptions\justification where they know they will not meet the budget during the three year cycle due to a growth area, expansion of the business or unexpected legislation. Service managers will be required to justify their Carbon Budget at the same time as they justify their Financial Budgets.
- 5.4 The carbon budget process will require regular auditing to provide evidence of compliance and to identify strengths and weaknesses in the system. It will also ensure repeatability in the system, providing support for any assumptions required in calculating emissions and validity before a public statement. This can be achieved by using the data from the CRCEES evidence pack which will be available for audit by the Environment Agency.

6.0 EQUAL OPPORTUNITIES IMPLICATIONS

- 6.1 There are no equal opportunities implications in this report.

7.0 PLANNING AND ANTI-POVERTY IMPLICATIONS

- 7.1 There are no planning and anti-poverty implications in this report.

8.0 COMMUNITY SAFETY IMPLICATIONS

- 8.1 There are no community safety implications in this report.

9.0 HUMAN RIGHTS IMPLICATIONS

- 9.1 There are no local human rights implications arising from this report.

10.0 ENVIRONMENTAL SUSTAINABILITY IMPLICATIONS

- 10.1 This will significantly help to break down the corporate target to constituent services and help to reduce emissions whilst increasing service delivery. It will also aid in preparations for the introduction of the CRCEES and help to achieve National Indicator 185 & 194 targets.

10.2 This section in future reports could be used by departments to describe the positive or negative environmental implications associated with their carbon emissions resulting from the implementation of carbon budgets by Services at an operational level.

11.0 ACCESS TO INFORMATION ACT

11.1 There are no implications under this heading.

12.0 LOCAL MEMBER SUPPORT IMPLICATIONS

12.1 There are local Member implications for all Wards arising from this report.

13.0 FINANCIAL AND STAFFING IMPLICATIONS

13.1 Relevance of 1 tonne of CO₂

1 tonne CO₂ = 1,912 kWh of grid electricity or £162 of purchased electricity
 1 tonne CO₂ = 5405 kWh of natural gas or £101 of purchased natural gas
 1 tonne CO₂ = 3984 kWh of heating oil or £177 of purchased heating oil
 1 tonne CO₂ = £12 stake in CRCEEC

13.2 Annual Utility Costs

Activity	Expenditure
Electricity	£ 5.64 million
Gas	£ 2.72 million
Oil	£ 0.52 Million
Business Mileage (car mileage only)	£ 1.44 million
<u>Operating the fleet (fuel only)</u>	<u>£ 0.48 million</u>
Total	£ 10.8 million

All figures are taken from the 2008/09 financial year

13.3 Carbon Budget, Financial Targets - Excluding Fleet and Business Mileage

Responsible Department	2008-09 Carbon Dioxide Cost (£)	2010-11 Carbon Dioxide Cost Target (£)	2010-11 Saving (£)
CORPORATE SERVICES	9,731	9,220	511
CYPD (Schools)	224,041	212,279	11,762
CYPD (Buildings)	21,768	20,626	1,143
FINANCE (General)	13,048	12,363	685
FINANCE (MPF)	PLEASE REFER TO SECTION 1.5		
LHR & AM	32,607	30,895	1,712
REGENERATION	118,577	112,351	6,225
TECH. SERVICES (General)	12,518	11,861	657
TECH. SERVICES (Street Ltg)	106,071	100,503	5,569
UNALLOCATED	6,668	6,318	350
SOLD (Part Year)	720	682	38
TOTAL	545,751	517,099	28,652

(based on the CRCEES price of £12 per tonne)

Using the average costs detailed in section 13.2 a further £70,000 could be saved if the carbon reduction targets are met.

- 13.4 Based on the above projection the Council would have to purchase £545,751 of carbon credits in April 2011. As previously reported any recycled payments as a result of our position in the subsequent league table would be $\pm 10\%$ in the first year rising by $\pm 10\%$ per year over the following four years. As an example, based on current information, that would equate to an increase or decrease in the initial outlay of £54,575 in year one rising to a possible increase or decrease in the initial outlay of £272,875 by year five.

14.0 RECOMMENDATIONS

14.1 Cabinet is requested to endorse the actions and progress set out in this report.

14.2 Further, Cabinet is requested to agree as follows:-

1. To the establishment of the Council's carbon footprint and quantification of the tonnes of CO₂ released as a direct result of Council operations for 2010 onwards, as set out in this report, and
2. That the Director of Finance develops an appropriate evaluation model for quantifying CO₂ emissions as part of the procurement process for new council contracts and other spend from April 2011.
3. That the Director of Technical Services reports regularly to Cabinet on progress made regarding the carbon budget. These reports to include measures and projects implemented to reduce carbon emissions, including an analysis to show progress being made by department and key service areas.

**DAVID GREEN, DIRECTOR
TECHNICAL SERVICES**

APPENDIX A
Carbon Budget Report by Department for 2008-09 and Emissions Targets 2010-11

Responsible Department	2008-09 Energy Consumption (kWh)	2008-09 Carbon Dioxide Emission (kg)	2008-09 Carbon Dioxide Cost (£)	2010-11 Energy Targets (kWh)	2010-11 Energy Savings (kWh)	2010-11 Carbon Dioxide Emission Target (kg)	2010-11 Emissions Saving (kg)	2010-11 Carbon Dioxide Cost Target (£)	2010-11 Financial Saving (£)
CORPORATE SERVICES	2,766,441	810,936	9,731	2,621,203	145,238	768,362	42,574	9,220	511
CYPD (Schools)	66,793,650	18,670,091	224,041	63,286,983	3,506,667	17,689,911	980,180	212,279	11,762
CYPD (Buildings)	6,279,643	1,814,036	21,768	5,949,962	329,681	1,718,799	95,237	20,626	1,143
FINANCE (General)	2,867,154	1,087,342	13,048	2,716,628	150,526	1,030,257	57,085	12,363	685
FINANCE (MPF)	<i>PLEASE REFER TO SECTION 1.16</i>								
LHR & AM	10,633,355	2,717,273	32,607	10,075,104	558,251	2,574,616	142,657	30,895	1,712
REGEN	37,744,497	9,881,378	118,577	35,762,911	1,981,586	9,362,606	518,772	112,351	6,225
TECH. SERVICES (General)	3,070,870	1,043,205	12,518	2,909,649	161,221	988,436	54,768	11,861	657
TECH. SERVICES (Street Ltg)	16,901,167	8,839,277	106,071	16,013,856	887,311	8,375,215	464,062	100,503	5,569
UNALLOCATED	2,011,013	555,690	6,668	1,905,435	105,578	526,517	29,174	6,318	350
SOLD (Part Year)	218,306	59,985	720	206,845	11,461	56,836	3,149	682	38
TOTAL	149,286,096	45,479,212	545,751	141,448,576	7,837,520	43,091,553	2,387,659	517,099	28,652

Prevailing CRCEES Carbon Cost
£12 per Tonne CO2