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**Report of the Acting Director of City Development**

**Executive Board**

**Date: 30<sup>th</sup> March 2011**

**Subject: Carbon and Water Management Plan 2011-2021**

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**Electoral Wards Affected:**

All

Ward Members consulted  
(referred to in report)

**Specific Implications For:**

Equality and Diversity

Community Cohesion

Narrowing the Gap

Eligible for Call In

Not Eligible for Call In

(Details contained in the report)

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**EXECUTIVE SUMMARY**

The plan outlines the Council's proposed approach to the management of carbon dioxide emissions, and energy and water consumption in its buildings (excluding social housing) and operational activities over the next ten years, within the context of Leeds City Council's sustainable development objectives.

It proposes annual reduction targets for carbon dioxide, energy, water and financial costs over the period, and shows the amounts that consumption reduction activity and renewable energy generation would contribute to the Council's aim of 40% carbon reduction and associated cost efficiencies, from its own operations, by the end of 2020/21

A delivery plan is proposed for implementation of a range of measures over the period.

## **1.0 Purpose Of This Report**

- 1.1 The purpose of this report is to outline the Council's proposed approach to reducing operational energy and water consumption and costs, together with associated carbon dioxide emissions over the next decade.

## **2.0 Background Information**

- 2.1 The Carbon and Water Management Plan 2011-2021 builds on the Council's carbon, water and energy reductions achieved over a period of 20 years from 1991. It takes into account recent changes in legislation and the changing energy market. It then quantifies the Council's aim of reducing carbon dioxide emissions by 40% by 2020/21, based on its emissions in 2008/09.
- 2.2 Energy costs will inevitably rise as fossil energy availability reduces in the next decade – the so-called “Peak Oil” and “Peak Gas scenarios”. The proposed reduction of energy consumption, with generation of renewable electricity and heat where possible, as set out in the Plan will reduce LCC's exposure to some of these price pressures.
- 2.3 In December 2009 the Council established a 40% carbon emissions reductions target from its own operations and from the City as a whole by the end of 2020/21.
- 2.4 As part of the 2011/12 budget which has been approved by the Council, a target of £1m reduction in energy costs has been planned for the forthcoming financial year.
- 2.5 In October 2010, the Government changed the Carbon Reduction Commitment (CRC) Energy Efficiency Scheme, from a revenue-neutral scheme to an energy levy, which it is estimated will cost LCC an additional £1.44 million in 2012/13. The sector taxed by the CRC will now face higher energy taxes than any other sector. Schools operated by the Council, and academies recently converted from local authority control, would be taxed more heavily than previously independent schools and academies. It is proposed to make representations to the Department for Energy & Climate Change to highlight the inequalities in the planned system and reduce the Council's overall CRC costs

## **3.0 Main Issues**

- 3.1 The long term aims of the plan are to reduce CO2 emissions by 40% over the next ten years, reducing energy consumption and generating renewable energy in support of that target. Water consumption should be reduced by 10% over the same period. Financial savings will be generated as a result of these savings.
- 3.2 The objectives that would deliver these savings, are set out in Table 1 below:-

Table 1	
<b>Summary of long term objectives to 2021</b>	
<b>Objective</b>	<b>Outcomes</b>
To reduce revenue expenditure on energy and water at levels proportional to CO <sub>2</sub> reductions based on summer 2010 prices.	Revenue cost savings of £6.0M per annum at 2010/11 prices.
To reduce CO <sub>2</sub> emissions by a minimum of 40% by April 2021	A reduction of 54781 Tonnes of CO <sub>2</sub> emitted per annum from 2021
To reduce energy consumption from fossil fuel to support reduction in CO <sub>2</sub> emissions	A reduction of 213,470MWh of energy per annum taken from the fossil fuel sources from 2021
To produce renewable energy, replacing fossil fuel to support reduction in CO <sub>2</sub> emissions	An increase in renewable energy production to 14,320MWh from 2021
To Maintain level of investment in carbon reduction projects to ensure competitive positioning in CRC league tables	Ensure that the financial penalty from CRC is minimised
To halt the recent increase in water consumption and effect a reduction of a minimum of 10% by April 2021	A reduction of 96055 m <sup>3</sup> of water per annum from 2021

### 3.3 A Delivery Plan sets out a number of headline measures including:

- Retrofitting energy savings measures into the existing estate of operational buildings;
- 'Changing the Workplace', both in the city centre and across the rest of the city, to use offices more efficiently by introduction of new technology and changing workstyles;
- Continued rationalisation and disposal of surplus of property and combining with other services such as NHS and other partners where efficiency gains can be made;
- Generation of renewable electricity by both large and small-scale systems (e.g. wind turbines, photovoltaic arrays, hydro-power. Generation of renewable heat through biomass boilers, anaerobic digestion of waste, and large scale Combined Heat & Power (CHP);
- Change behaviour of building managers and staff as part of the low-cost / no-cost proposals of the Million Pound Challenge;
- Reduction of street lighting energy through changes to switch-off times, changes to more efficient light fittings, and changes to spacing of lamp standards
- Travel and fleet initiatives, involving journey reductions, better journey planning, vehicle modernizing, and changes of vehicle fuelling

Many of these measures already exist to an extent within the Council's ongoing planning processes. The purpose of the Plan is to set the scale and proposed timetable over which these measures will come together to achieve the overall aim of 40% carbon reduction and energy efficiency benefits.

## Appendix Ai

- 3.4 The requirement to achieve a range of savings from low-cost / no-cost measures during 2011/12 is very urgent in order to support the Council's 2011/12 budget measures. The range of proposals in the 'Million Pound Challenge' focuses priorities for all building managers who have direct responsibilities for heating, lighting and power. This will be combined with voluntary efforts of staff through increased awareness and personal attention to their own use of energy and switching off computers and heating / lighting when not required. Such behavioural or soft techniques offer the opportunity to achieve considerable early savings, but require personal commitment from almost all officers and members of the Council to be constantly aware of the issues and costs involved. For these measures to succeed year-on-year, a change of "hearts and minds" needs to become embedded in the culture of the organization as a matter of corporate and social responsibility.

### **4.0 Implications For Council Policy And Governance**

- 4.1 The report provides a delivery plan for the Council's policy aim to reduce the carbon emissions from its own operations by 40% and from the City as a whole by the end of 2020/21. The Climate Change Action Plan addresses the city-wide aspects of this policy objective, but best practice measures in the Council's own Carbon and Water Management Plan, such as the retrofitting programme, may also influence other large organisations in the city to follow suit.
- 4.2 Accountability for carbon emissions from Council activities currently lies with the Director of Resources and that for the city lies with the Acting Director of City Development. This will be considered as part of a review of energy management resources and responsibilities across the Council.
- 4.3 An Equality, Diversity, Cohesion and Integration screening process has been completed for this Plan from which it has been concluded that both current and proposed measures have given proper consideration to equality, diversity, cohesion and integration and a full impact assessment is not required.

### **5.0 Legal And Resource Implications**

- 5.1 There are no Legal implications in the Plan.
- 5.2 A review of energy management staff resources across the Council will consider the most effective means of delivering this carbon and water management plan.
- 5.3 The plan also considers the use of partnership delivery vehicles to implement energy efficiency schemes.
- 5.4 The report discusses funding options for delivery of the various energy efficiency schemes, based on 'Spend to Save' business cases.

### **6.0 Conclusions**

- 6.1 The achievement of 40% reduction of carbon emissions by 2021 is seen as a stretch target and the cost of the Carbon Reduction Commitment and increasing energy prices are seen as even more challenging. The Carbon and Water Management Plan sets out a range of measures that are designed to deliver that level of carbon reduction and achieve cost savings of the order of £6m per year by 2021(at 2010 prices).

## **7.0 Recommendations**

In order to meet the Council's aim of reducing its carbon emissions by 40% from its own operations by 2021, it is recommended that the Carbon and Water Management Plan 2011 - 2021 is approved.

## **8.0 Background Papers**

- 8.1 Carbon and Water Management Plan 2011-2021
- 8.2 The Million Pound Challenge report, February 2011
- 8.3 Equality, Diversity, Cohesion and Integration Screening Document, March 2011

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