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**Report of the : Chief Officer Corporate Property Management**

**Report to: Scrutiny Board City Development**

**Date: 6<sup>th</sup> April 2010**

**Subject: Reducing CO<sub>2</sub> Emissions in Council Buildings**

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<b>Electoral Wards Affected:</b>

<b>Specific Implications For:</b>
Ethnic minorities <input type="checkbox"/>
Women <input type="checkbox"/>
Disabled people <input type="checkbox"/>
Narrowing the Gap <input type="checkbox"/>

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**Executive Summary**

Following consideration of a report from the Director of City Development on “Climate Change – LZC technology delivery and in our estate” Scrutiny Board requested a further report on the reduction of CO<sub>2</sub> emissions in relation to the Council’s buildings.

This report provides background to the Council’s action on reducing emissions and refers to the national performance indicator NI 185 which is used for targeting and monitoring progress. It refers to the NI 185 Strategy Group and Action Plan which is in place and summarises the results for 2008/9 (the baseline year) and 2009/10 to date.

A summary of the actions relating to buildings is provided (section 4) together a brief outline of the main challenges and risks (section 5).

The report asks Scrutiny Board to note the content of the report.

**1. Purpose of Report**

- 1.1 At the meeting of 9<sup>th</sup> March 2010 Scrutiny Board received a report from the Director of City Development on “Climate Change – LZC technology delivery and in our estate”. The Board requested a further report on the reduction of CO<sub>2</sub> emissions in relation to the Council’s buildings
- 1.2 This report provides a brief summary of the actions being taken to reduce carbon emissions across the council’s buildings.

## 2. Background

- 2.1 The Leeds Climate Change Action Plan sets targets of reducing CO<sub>2</sub> emissions by 40% by 2020/21 and also sets out an aspiration to make the Council's estate carbon neutral by 2026.
- 2.2 Both the Council's Strategic Plan and Business Plan make reference to a commitment to reduce carbon emissions from our buildings vehicles and operations
- 2.3 CO<sub>2</sub> emissions are measured and monitored in tonnes of CO<sub>2</sub> produced. In 2008/9 the government introduced a national performance indicator, NI185, which measures the percentage reduction in CO<sub>2</sub> emissions from local authority operations.
- 2.4 The NI 185 Strategy Group was established to develop an action plan and monitor the Council's performance against the targets. The Group is chaired by the Chief Officer Corporate Property Management and has representatives from the services which have the main impact on the Council's CO<sub>2</sub> emissions.

## 3 NI 185 Performance to Date

- 3.1 To give some context for the statistics, it is estimated that the carbon emissions for the whole of Leeds is 6.1 million tonnes of CO<sub>2</sub> (tCO<sub>2</sub>). In 2008/9 the Council produced 141699 tCO<sub>2</sub> (2.3% of the total for the city).
- 3.2 From the NI 185 data the 2008/9 emissions can be broken down as follows:

	2008/9				Total	%
	Q1	Q2	Q3	Q4		
Streetlights	4418	4974	7015	7613	24020	17%
Buildings	24772	15711	29589	31812	101884	72%
Business Travel	670	709	759	665	2803	2%
Fleet	3129	3026	3462	3375	12992	9%
Total tCO <sub>2</sub>	32989	24420	40825	43465	141699	100%

Of the buildings total schools accounted for approximately 30%

- 3.3 The current targets for NI 185 are to reduce CO<sub>2</sub> emissions by 3.2% between 2008/9 and 2010/11 and by 3% thereafter generating a 33.4% reduction by 2021.
- 3.4 The 2009/10 performance is on line to achieve the target

	2009/10				Total	Predicted
	Q1	Q2	Q3	Q4		
Streetlights	4454	5024	7835		17313	24751
Buildings	22250	16090	27237		65577	96657
Business Travel	734	710	745		2189	2839
Fleet	3184	2871	2885		8940	12237
Total tCO <sub>2</sub>	30622	24695	38702	0	94019	136484

Subject to the performance in the last quarter, the estimated total for 2010/11 would be a 3.6% reduction beating the 2.1% target set for 2009/10. Buildings are predicted to achieve a 5.1% reduction on last year.

#### 4. **The NI 185 Action Plan**

4.1 The NI 185 Action Plan draws together the various actions which are being progressed to meet the Council's NI 185 targets. As can be seen from the results above, buildings contribute the largest part of the Council's emissions and actions relating to buildings form a major part of the plan.

4.2 The actions relating to buildings fall in to five key themes:

- Energy procurement and monitoring
- Supply side management
- Demand side management
- Changing the Workplace
- Behaviour and education activities

Actions under each of these key themes is summarised below.

4.3 The energy procurement and monitoring theme relates to improving the monitoring and ownership of the NI185 targets. A new energy database system is being introduced which will provide better monitoring reports from a corporate level down to individual building levels. It is important to encourage directorates, services, building managers and staff to play their part by providing relevant and up to date reports. In our procurement of energy there are opportunities to engage with suppliers to help with improved monitoring (e.g. automatic metering).

4.4 Supply side management is mainly concerned with introducing renewable energy sources to the Council's estate. The report to the last board provided more detailed information on this area of activity setting out the range of opportunities which are being pursued. The report dealt with small scale renewable energy projects through to large scale opportunities and described the main developing technologies and the potential provided through the recently introduced Clean Energy Cashback Scheme.

4.5 Demand side management is aimed at reducing the energy demand in our current building stock and ensuring that energy efficiency is designed in to any new and refurbished buildings. With regard to current buildings there is a need to survey buildings to identify energy efficiency schemes, develop business cases to justify funding through the energy savings, and procure and implement solutions. Three main initiatives are currently being progressed:

- The Salix Energy Efficiency Scheme
- Carbon Trust Initiative using funding through the Salix Scheme
- Clinton Climate Initiative with other Core Cities

4.6 On new and refurbished buildings a number of actions are being progressed to ensure that the design and procurement of buildings and contracts for works take the opportunity to provide more sustainable accommodation. A sustainable buildings strategy is being developed and the Council has already committed itself to using the BREEAM Excellent standard wherever possible when it is considering new property.

- 4.7 As previously stated the school estate accounts for 30% of the buildings related CO<sub>2</sub> emissions. The Department for Children, Schools and Families has set a target for Zero Carbon schools by 2016. Currently all new build or refurbished schools have to achieve the BREEAM Very Good standard. New designs for BSF Wave 13 schools provide an opportunity for significant progress. A Zero Carbon Schools Group is meeting to develop and oversee actions in this area.
- 4.8 Executive Board approved a report in February on “Changing the Workplace” which outlined Phase 1 of a programme which will deliver significant improvements in the asset portfolio and supportive technology, together with significant productivity and efficiency gains through more focussed and flexible work solutions. The programme refers to a reduction in the space we occupy which will clearly lead to a reduction in the energy consumed. The potential for the use and procurement of more sustainable buildings is also a key part of the programme.
- 4.9 The last key theme for the action plan is Behaviour and Education activities and this theme concentrates on energy awareness campaigns to encourage everybody to play their part in reducing the Council’s energy consumption. The main actions are co-ordinated through the Energy Guardians Group which has representatives from across the Council who act as energy champions in their area of work. The main action recently has been the Big Switch Off campaigns. A series of 4 buildings were targeted in February of 2009 and a further 5 buildings are in the final stages of the campaign which began in February 2010. The campaign involves Energy Guardians visiting buildings out of hours and switching off appliances, advising users and supplying information and publicity on the impact of switching off. The first series of campaigns generated average energy savings of 5.26% over the period of one weekend. The recent campaign generated an average 9% reduction over one weekend and continues to be monitored for a period of seven weeks.

## **5 Main Challenges and Risks**

- 5.1 One of the challenges relating to the NI 185 performance indicator is that it covers such a wide area of the Council’s activities with so many variables. More than 2000 buildings of many different types are included all with differing operational requirements. Other factors, not least the changeable weather, can have an impact on our NI 185 performance. It is difficult to establish, with any confidence, the cause of any changes to the indicator and the effect any initiative have had.
- 5.2 Resources to implement the action plan are a significant problem. The technical resources available to the Council to survey buildings, develop business cases, specify, tender and supervise projects are severely limited. Although in many cases energy efficiency initiatives can be self financing some cases require longer payback periods or up front investment. In addition there is also pressure to reduce energy costs as a cost saving measure meaning that savings can’t be used to fund future development.
- 5.3 The previous report on Low and Zero Carbon technologies indicated that the technologies are evolving rapidly. It is important that when we utilise new renewable sources of energy we are confident that the technology is tried and tested and will meet the assumptions of the business case. We need to be able to demonstrate value for money in all aspects of surveys, design, and implementation of schemes.

5.4 The NI 185 Action Plan is currently being updated and refreshed for the new financial year 2010/11. A key challenge will be to develop the current pilot activities relating to demand management and implementing renewable technologies in to a strategic approach which can be resourced to cover the whole portfolio within a reasonable period of time.

## 6 Recommendations

6.1 That Scrutiny Board note the content of the report

## Background Papers

Climate Change Action Plan (and Eurocities Declaration on Climate Change) – Report to Executive Board 9.12.09

Climate change – LZC technology delivery and in our estate – Report to Scrutiny Board City Development 9.3.10

Changing the Workplace report and business case – Report to Executive Board 12.2.10