

**Open Report on behalf of Richard Wills  
Executive Director for Environment and Economy**

Report to:	<b>Environmental Scrutiny Committee</b>
Date:	<b>14 October 2016</b>
Subject:	<b>Carbon Management Plan 2015-16 progress report</b>

**Summary:**

In April 2013 Lincolnshire County Council adopted its second Carbon Management Plan to cover the period from 2013-18. The Plan agreed a target to reduce emissions by 22% over that period through a range of projects across the authority.

Recent government announcements (on reforming the energy tax landscape and in the Housing and Planning Act) include statutory requirements to report on and reduce consumption. Consultation on the tax is expected soon but will be based on consumption and current estimates are that it could increase council tax liabilities by £350,000 annually.

This annual review details progress in the last financial year. Over that time there has been a 4.2% decrease in emissions. Since the original baseline year (2011/12) emissions have decreased by 13.5%. These figures are marginally above the trajectory required to meet the target. That will reduce energy costs by £2,000,000 per year.

In order to maintain progress and in light of government legislation identified above it is recommended that a third Carbon Management Plan is essential and preparation should start in 2017.

**Actions Required:**

Members of the Environmental Scrutiny Committee are invited to –

- Consider and comment on the report and highlight any recommendations or further actions for consideration.
- Note the satisfactory progress towards the target and supports the continued work to monitor, report on and reduce consumption and emissions.
- Support preparation of a third Carbon Management Plan with work commencing in 2017.

**1. Background**

All councils within England have a duty to work towards reducing carbon emissions in line with statutory requirements in the Climate Change Act 2008 to reduce UK emissions by 34% by 2020 and by 80% by 2050. In all Climate and Energy policy documents published by the Government, energy efficiency and increased use of renewable energy are seen as central to achieving carbon emissions reduction aims.

Two recent announcements emphasise the continued importance Government places on reducing emissions;

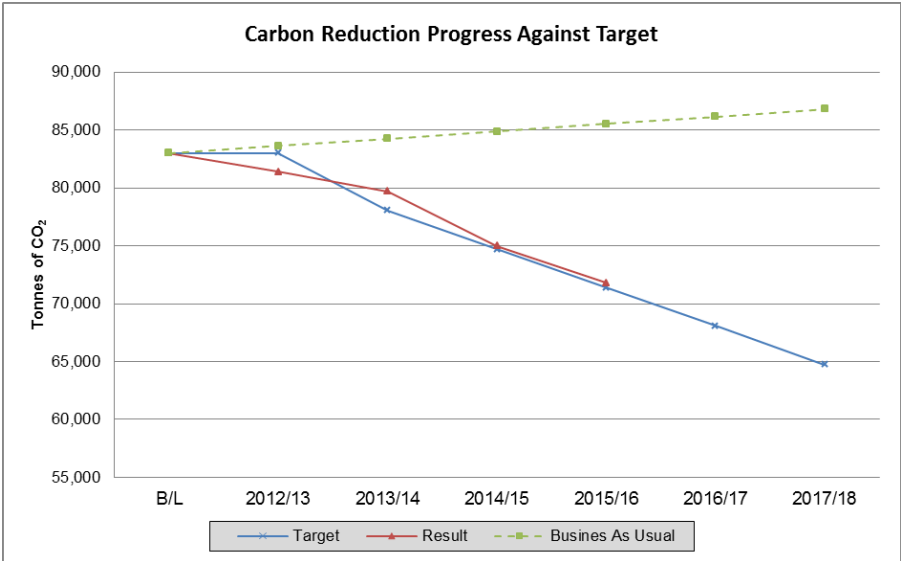
- Reforming Energy Tax; following the consultation in autumn 2015 the Government announced significant changes to the energy tax landscape in Budget 2016. Their aim is to create an integrated approach to energy efficiency, carbon taxation and emissions reporting. It proposes to consult on the details this summer.
- Housing and Planning Act 2016 has a requirement for local authorities to prepare a report (starting in 2017) on improving efficiency and sustainability of buildings owned by local authorities. It also has a requirement ensuring that buildings that become part of the authority’s estate fall within the top quartile of energy performance. Again we expect a consultation in the near future.

A briefing note is included as Appendix A on what we know at the minute.

Lincolnshire County Council (LCC) needs, therefore, to continue its progress to date and to lead by example by working to reduce carbon emissions from its own properties and services. The council remains a major consumer of energy and must, as a community and business leader, continue to set a good example and take a leading role in contributing to the achievement of reduction targets. In times of decreasing budgets it becomes more important to reduce costs wherever possible.

LCC is a signatory of Climate Local which makes public the Council’s commitment towards actively addressing climate change. LCC has placed tackling the causes and effects of climate change as one of its core priorities. LCC signed up to the Carbon Management Revisited programme and set itself a 22% carbon reduction target in its 2011/12 baseline by 2018. This underpins potential financial savings to the organisation of over £2 million per year by that date. This annual report highlights progress and identifies areas of concern.

In 2015/6 there has been a 4.2% decrease in overall emissions to 71,810 tonnes of CO<sub>2</sub>. This equates to an overall 13.5% decrease from the 2011/12 baseline year and Graph 1 below shows progress to date.



Graph 1 – Progress Against 22% Target by 2018

A more detailed report is in preparation and will be published in due course.

## **2015/6 progress**

### **Property and ICT**

Members expressed concerns last year at the lack of progress on the Property and ICT schemes identified in the original plan. On the ICT front I am happy to report that some progress has been made. The remote storage solution has been implemented and we are awaiting performance data from the supplier. It is expected that this will show reduced emissions. In addition it has been agreed that a Service Plan will be prepared establishing ICT energy baselines and proposing schemes to reduce emissions.

In relation to Property the new contract with VinciMouchel is in its second year and energy and environmental management is a key requirement. Amongst the work carried out last financial year to reduce emissions were the following

- Boiler replacement programme; over £400,000 invested
- Building Management Systems audit and upgrades
- Heating, Ventilation and air conditioning audit and maintenance
- Energy audits on Crown House, Lincoln and Keily House, Louth; properties acquired as part of LCC rationalisation programme. The audits assessed and costed energy efficiency investment and renewable options
- Programme of delivering Display Energy Certificates (statutory requirement) commenced and is ahead of target. This work provides insight into our portfolio and is important in identifying energy saving work

The strategic investment schemes identified in the original plan (lighting and boiler optimisation and insulation) have not been progressed.

### **Street lighting and traffic signals**

A significant investment of £726,450 in technology upgrades has taken place in our street lighting and traffic signal assets through LCC's Salix Revolving Fund over the past 5 years and this has led to a 9.9% reduction in carbon emissions from the 2014/15 figure.

As a result of evaluating budget reduction options a scheme has been developed to ensure that LCC's system of 68,000 street lights is more efficient, sustainable and relevant for Lincolnshire. This will be achieved through a combination of LED conversions with dimming, part night lighting and some switch offs designed to reduce energy consumption. This invest to save approved project has a capital cost of £6.4M and will lead to a payback period of 3.6 years and contribute significantly to the Councils carbon reduction target of 22% by 2018.

The programme of work commenced in April 2016 and be completed by 31 March 2017 – at which point the savings will be fully realised. Significant savings have already been seen (at 31 August, 2016 the changes made to date had saved the equivalent of £472,000 of annualised savings). The combination of changes is designed to:

- Save £1.7M revenue funding per year
- Reduce LCC's carbon footprint by 6,254 tonnes
- Reduce LCC's electricity consumption by 12.5M Kwh per year.
- Reduce Light Pollution
- Reduce ongoing maintenance needs.

### **Schools Collaboration on Resource Efficiency (SCoRE)**

Schools account for about 65% of Council emissions and (with the support of Children's Services and the Lincolnshire Schools Forum and fully funded from devolved Schools Grant underspend) SCoRE was a four year programme designed to deliver effective carbon reductions across Lincolnshire's schools estate, through informed behaviour and appropriate investment in technology.

SCoRE achieved national recognition in the 2014 Green Apple awards and Marton Primary School won the Sustainable School in the Ashden Awards in 2015. The scheme was also shortlisted in Local Government Chronicle awards. The SCoRE programme delivery has been completed and 260 of Lincolnshire's 360 schools have completed the programme.

The programme for technology investment (in Boiler Optimisation and boiler room insulation) has now been completed with £1,978,552 worth of equipment installed in 343 schools. Data analysis from 151 schools heated by gas has shown that the average savings were 9.1%. The analysis used automated meter readings and was weather corrected so that 'like for like' comparison of a years' worth of data before and after the units were installed could be compared.

The final element of SCoRE was the 'invest to save' phase. Every school action plan contains a 'quick win' behaviour-based actions, and longer-term actions that are likely to require some level of investment to realise the benefits. It is anticipated that schools will make use of a variety of funding mechanisms available to improve the energy efficiency of their school buildings and consequently reduce their energy consumption. To date SCoRE has led to 50 projects valued at £1,180,810 being installed. A breakdown is shown below:

- 36 lighting upgrades to LED valued at £699,386.
- 12 Solar PV installations valued at £455,149.
- 2 ceiling mounted infrared heating panel upgrades to school teaching areas valued at £26,275.

There have been some significant successes stories from schools that have taken joined up action and exploited investment opportunities to the full as previously reported.

### **Salix revolving fund**

The Council's revolving fund continues to provide funds for investment in schemes with less than a five year payback. Projects to improve energy efficiency and lower energy consumption have taken place in buildings across the county council's estate and grant maintained schools (Appendix B details Salix spend in the last financial

year). Best reductions and paybacks have been achieved through voltage optimisation, boiler optimisation, lighting schemes and boiler room insulation. To date, the Salix revolving fund has enabled £1,906,193 of investment and as a result annual energy costs have been reduced by £394,506. In the last financial year £144,257 has been invested and will achieve annual savings of £25,488 (at today's energy prices). Approximately £200,000 is available annually.

There has been a long held desire to increase the use of Salix revolving fund for investment in the Council's own portfolio rather than in schools. Whilst use of the fund for school scheme does contribute to meeting the target the Council derives no direct financial benefit. Where investment is made in the Council's portfolio there is reduction in base costs. As Appendix B shows this is still not happening.

**Lincs2work**

The council has an active Travel Plan and on-going branded campaigns/actions under Lincs2Work. The Plan is regularly reviewed and forms the key document for this strand of action.

**2. Conclusion**

Given the scale of the organisation, its complexity and the significant changes that have, and are, taking place, it is gratifying that progress is being made in line with trajectory required to meet the Council's five year target, reducing base energy costs by £2,000,000.

Given the legislation referred to above and, in the interests of meeting high level commitments and continuing to focus on reducing base costs it is recommended that it would be appropriate to commence work on preparing a third Carbon Management Plan in 2017.

**3. Consultation**

**a) Policy Proofing Actions Required**

N/A

**4. Appendices**

These are listed below and attached at the back of the report	
Appendix A	Reforming the tax landscape briefing
Appendix B	Salix schemes 2015-6

## 5. Background Papers

The following background papers as defined in the Local Government Act 1972 were relied upon in the writing of this report.

Document title	Where the document can be viewed
Carbon Management Plan 2013-18	LCC website

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