

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

Report to:	Environmental Scrutiny Committee
Date:	11 March 2016
Subject:	Street Lighting Transformation Project

Summary:

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 save £1.77M annually and reduce emissions by 6,254 tonnes for an approved capital investment of £6.4M. This is an invest to save project with a pay back period of 3.6 years. A presentation of the main features of the scheme will be given at Committee.

Members will recall that such actions have featured regularly in discussions relating to our Carbon Management Plan (CMP). The scheme is a welcome development and will contribute significantly to the Council 2013-8 CMP target to reduce emissions by 22%.

Recommendation(s):

The Committee is invited to consider and comment on the Street Lighting Transformation Project update.

1. Background

- 1.1 Over the last decade, there has been an ongoing programme in Lincolnshire to increase the efficiency of the County's street lighting stock, comprising of 68,000 units, utilising existing budgets and some investment from the internally managed Salix fund. This has had some impact on the sustainability of street lighting, although limited by the budget available to invest.
- 1.2 A capital investment of the size proposed in the Street Lighting Transformation project, in addition to normal budgets, will give the opportunity to significantly reduce energy consumption and the associated revenue costs. This will also support the authority's carbon management

objectives by providing a significant reduction in the carbon footprint of the street lighting asset.

- 1.3 The Street Lighting Transformation project will, starting with an holistic approach to the entire street lighting stock, work through the hierarchy identified in the street lighting policy considering the level of investment available.
- 1.4 Capital investment in both LED technology and photocells for part-night lighting will enable the overall analysis referred to in paragraph 1.3 above, allowing the Council to introduce dimming or part night lighting on individual highway links

Energy Management

- 1.5 Lincolnshire's highway lighting currently consumes approximately 26 million Kwh per annum. Energy prices are notoriously variable, even using the professionally managed energy-purchase scheme operated by ESPO. A significant reduction in energy consumption, estimated at 12.5 million Kwh per annum, through reducing street lighting and investing in LED technology will reduce exposure to variations in energy prices.

Carbon management

- 1.6 In the baseline year of 2011/12, street lighting contributed 16% of the Council's greenhouse gas emissions through energy consumption. Any reduction in energy consumption by street lighting would correspondingly reduce this.

Budgets and finance

- 1.7 Ongoing budget reviews have identified street lighting energy and maintenance as areas where significant revenue budget savings could be made through reducing street lighting and investing in new LED technologies. The proposed capital investment is expected to optimize the balance of revenue savings against service impact.
- 1.8 The combination of changes are 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.
- 1.9 The programme of work is due to commence in April 2016 and be completed by 31 March 2017 – at which point the savings will be realised.
- 1.10 In 2007 Lincolnshire County Council signed the Nottingham Declaration on climate change committing to tackle the causes and effects of a changing climate. In 2013 it signed the successor Climate Local commitment. To fulfil

those commitments and in support of 'Protecting and sustaining the environment' and 'Enablers and support to the Council's outcomes' Commissioning strategies the Council has agreed two Carbon Management Plans. The current Plan covers the period 2013-18 and seeks to reduce our emissions (from 2011-12 baselines) by 22%.

- 1.11 The projects identified in the plan had the potential to reduce our emissions by 13,946 tonnes of CO₂ per annum and would achieve 76% of the targeted reduction measured against the 2011-12 baseline. It was agreed that regular review would take place to identify further opportunities with key stakeholders. This scheme is a very good example of this and achieves 1/3 of the 5 year target of 18,000 tonnes reduction on CO₂ in one scheme.

2. Conclusion

The proposed Street Lighting Transformation project will enable Lincolnshire County Council to ensure that its system of street lighting is more efficient, sustainable and relevant for Lincolnshire.

This invest to save project, with a payback period of 3.6 years, will enable the council to accelerate the savings relating to street lighting both from a financial and carbon management perspective.

3. Consultation

a) Policy Proofing Actions Required

n/a

4. Background Papers

No background papers within Section 100D of the Local Government Act 1972 were used in the preparation of this report.

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