

**DERBYSHIRE COUNTY COUNCIL**  
**CABINET MEMBER MEETING FOR**  
**COUNCIL SERVICES**

**11 July 2016**

**Report of the Strategic Director Corporate Resources**

**Carbon Reduction Initiative Fund – Phase 2 Bus Shelter LED**  
**Lighting Replacement**

**1. Purpose of the Report**

Approval is sought to make additional funds available from the Carbon Reduction Initiative Fund for a second phase of LED lighting installations at bus shelters across the county.

**2. Information and Analysis**

At their meeting on 3 July 2012, Cabinet approved a £500,000 invest to save fund for energy efficiency and carbon reduction projects. To date, £230,000 has been allocated to a range of energy efficiency projects including LED lighting, a wind turbine and evaporative cooling of the data centre. This includes the use of £75,510, which was approved by Cabinet on 31 January 2013, to install efficient LED lighting in bus shelters across the county. Coupled with maintenance savings, the plan to replace over 1,000 fluorescent tubes in nearly 380 bus shelters aimed to save nearly £24,000 each year and reduce CO<sub>2</sub> emissions by approximately 50 tonnes. This work has been completed and a subsequent feasibility has been undertaken to identify remaining bus shelters lit by inefficient lighting across the county.

A further 293 bus shelters with in excess of 600 inefficient fluorescent tubes have now been identified, which if replaced with fewer LED lights would complete the installations across the entire lit bus shelter stock.

This second phase of lighting replacements will cost £58,010 which will result in annual electricity and maintenance cost reductions of £12,000 and reduce CO<sub>2</sub> emissions by 12 tonnes a year as detailed in the Appendix.

**3. Financial Considerations**

There is an underspend of £11,130 from the first phase of the bus shelter lighting replacement programme. It is therefore requested that a further £46,880 is released from the Carbon Reduction Initiative Fund to invest in the

completion of the bus shelter replacement lighting programme. The investment will have a simple payback period of 4.8 years, or using a Discounted Cash Flow will be cash positive from year 6. This will leave the Carbon Reduction Initiative Fund with a remaining balance of £220,000.

#### **4. Environmental Considerations**

This proposal will make positive contributions to the reduction of CO<sub>2</sub> emissions from the Council's estate and its operations.

#### **5. Transport Considerations**

This proposal will complete the lighting infrastructure improvements of the entire bus shelter portfolio.

#### **6. Prevention Of Crime And Disorder Considerations**

As with the first phase of the lighting replacement programme, the lighting at bus shelters will be on permanently during the hours of darkness, which has reduced the frequency of vandalism to bus shelters. The LED tubes are also securely fitted in tamper-proof casing and are physically stronger than their fluorescent alternatives and so less susceptible to impacts.

#### **7. Other Considerations**

In preparing this report the relevance of the following factors has been considered; legal, equality and diversity, human resources and health considerations.

#### **8. Background Papers**

Technology and Recycling Cabinet Member report: Carbon Reduction Initiative Fund – LED Bus Shelter Lighting; 31 January 2013.

#### **9. Key Decision**

**NO**

#### **10. Call-in**

Is it required that call-in be waived for any decision on this report? **NO**

**11. Officer Recommendation**

That approval be given to the use of £11,130 underspend and the additional funding of £46,880 from the Carbon Reduction Initiative Fund to invest in a second phase of LED lighting replacements in bus shelters.

JUDITH GREENHALGH  
Strategic Director Corporate Resources

## Appendix

### Summary of phase 2 Bus Shelter LED lighting replacement programme

	Existing	Proposed	Savings
<b>No. bus shelters</b>	293	293	0
<b>No. of tubes</b>	633	345	288
<b>Annual consumption (kWh)</b>	31,759 kWh	7,860 kWh	23,899 kWh
<b>Annual CO<sub>2</sub> emissions (t)</b>	15.8t	3.9t	12t
<b>Annual electricity costs</b>	£3,430	£849	£2,581
<b>Annual lamp maintenance costs</b>	£9,495	£0	£9,495
<b>Total annual cost savings</b>			£12,076
<b>Cost of LED replacement lamps</b>			£15,525
<b>Cost of replacement labour</b>			£42,485
<b>TOTAL COST</b>			£58,010
<b>Payback</b>			4.8 years