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ENVIRONMENT, CULTURE AND COMMUNITIES OVERVIEW & SCRUTINY PANEL

03 JULY 2018

SUPPLEMENTARY PAPERS

**TO: ALL MEMBERS OF THE ENVIRONMENT, CULTURE AND COMMUNITIES
OVERVIEW & SCRUTINY PANEL**

The following presentation was received at the above meeting.

This was not available for publication with the rest of the agenda.

Alison Sanders
Director of Resources

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8. LED PROJECT REVIEW	3 - 10
Members are asked to consider the update report and Appendix 1 about the LED Project. Steve Loudon, Chief Officer for Environment & Public Protection and Osmond Faleiro, Engineer, Street Lighting, will be in attendance to present the report.	

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The LED project

‘an overview of the approved
scheme’

Background

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- Scheme approved to commence post April 2016 – 2 year roll out
- Value of project - £7.3m
- Funded by savings – electricity costs, reduced maintenance costs and night scouting needs
- Scheme included for the linking of all 14,500 units to a computer management system (CMS)
- Scheme also included for the replacement of all remaining concrete columns
- Replacement of lamps on light brackets – with columns
- Replacement of strip lights in underpasses

Some key principles to achieve savings

- Dimming -

Time Programme	06:00-20:00	20:00	22:00	05:00	06:00
C1 100	100%	70%	50%	70%	100%
C2 90	90%	63%	45%	63%	90%
C3 80	80%	56%	40%	56%	80%
C4 70	70%	49%	35%	49%	70%
C5 60	60%	42%	30%	42%	60%

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- All lights are set to light up automatically according to the daylight levels
- Whilst the Council could turn lights off between set hours (trimming), as councils have done, this option is not being used

Some key design principles

- The scheme is based on the replacement of the 'best available' design option to light the road space from existing columns
- This means that in some instances that has to be compromise
- Where a design solution is not possible then where there is an agreed safety need the potential for additional measures will be explored subject to funding and as part of the final phase of the scheme
- Heritage lights – concept to be preserved

Progress so far and predictions

- Original business case – predicted a 71% reduction in kW per hour
- Achieved so far – 81.2%
- Former energy consumption 5.5m kW per hour
- Final projection circa 1.5m kW per hour
- Projected annual savings circa £350k pa

Risks

- Public attitude to change, not all are valid relative to the Council's obligations n.b. the Council has no legal obligation to light a highway
- Estate issues – garage blocks
- Compromise will increase project and running costs making the invest to save debt 'unaffordable'

Benefits

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- Reduced greenhouse emissions due to energy consumption – circa 1500t to date of CO2
- Reduced night sky pollution
- Savings in expenditure – will increase as prices rise
- Ability to control and manage the stock remotely
- A substantial investment for the future
- Removal of concrete columns/lamps on private properties

Project end

- The main street lighting programme will be complete by the end of the year
- The intention then will be to deal with the street signage - and they will be lit according to current regulations
- We will also be revisiting all of those areas where we have identified highway related needs looking for practical solutions