Strong Communities – 15th September 2016 – street lighting report - Appendix 2

Member questions (*officer response in italics*):

1) How many lights are there under Monmouthshire's control,

10.696

2) How many lights have been converted to remote switching .?

7,024

3) What was the total cost of the conversions.

The 2 loans amount to £748,500

4) What were the projected savings after conversion and controlled switching.

£140k so pay back is just over 5 years

5) How successful has the switching regime been ,in light of many daylight burners.?

When you look at how many day burners there are compared to how many are working correctly, then it has been very successful, the day burners are being resolved by Harvard

6) Having now received a grant to convert lamps to LED filaments,how many of the lamps will be converted.Within that grant what is the cost of these conversions?

We have changed the high energy users the old SOX Lanterns to the LED lantern. Changing 1700 lanterns at a cost of £433,500. Presently SON lanterns are being replaced and a further loan is being considered to replace a further 2500 SON lanterns.

7) Comparing sodium lamps to LED lamps ,what is the ratio of wattage ? ie is it ,for example 25:1. ?

The highest energy use was through SOX lanterns but these have all been replaced. SON lanterns use 80w and LED typically 28w so the ratio is roughly 4:1.

8) Many LED lamps are continually burning,is it more efficient for them to remain lit 24/7.?

No - because the life span of the LED lantern is 100,000 burning hours, so if on all day it will shorten the live span of the fitting, Harvard now have 3 members of staff working on our system resolving the problems with the day burners

9) Assuming that 24/7 LED burning is more efficient,what is the comparative cost of 24/7 burning,to that of switching sodium lights coming on and off at night.?

The assumption is incorrect but for comparison purposes a SON light illuminated all night costs typically £37 per annum whereas a LED would cost £13.

10) Should this be the case ,will the projected savings be lost against the cost of remote switching conversion : such that by use of the latest technology,the conversion programme was premature and should LED systems have been employed in the first place.

LED lanterns are compatible with remote management so can be dimmed, turned off etc. as required. There is a relationship between remote management installation costs and the energy consumed by each lantern so 'pay back' is extended but remains viable (especially as energy costs are subject to change). Much of the new remote management is provided off branch node technology installed on new housing sites (it being a requirement that the equipment be installed at the time of build). It is also of relevance that the LED equipment has a much reduced maintenance demand so the cost of the maintenance contract reduces as more LED lanterns are installed.