

LED Lighting Upgrades & Salix Funding - FAQs



1. Why should we improve our lighting efficiency?

- The benefits of proceeding include:
 - lower electricity bills.
 - improved lighting quality and working / learning environment.
 - reduced maintenance – LED lights do not need their lamps changing as often.
- The alternative is to leave your lighting as it is and continue to pay your electricity bills as they are rather than making savings on those and using that saving to pay off the interest free loan.
- This is entirely your decision so take all the time that you need and please ask as many questions as you like.

2. Is there any upfront cost to the school?

- No. ESCC has already paid for the lighting survey. Should the works proceed, all capital costs will be paid in full out of our Salix funding pot. Your school then repays the Salix Loan using the energy bill savings from the project. In other words you take the money you would otherwise have spent on energy bills and instead use that to repay the Salix Loan.
- Invoices for the costs associated with the works come directly to our team and we pay them off in full once your school has confirmed that you are happy with the completed works and our maintenance officers have done QC checks on the quality of the installation works.

3. How can we afford to make the loan repayments with budgets so tight?

- The loan repayments will be made from your revenue budget and are based on the estimated savings on your energy bills. This means that you will take ££ you would continue to spend on electricity, if you didn't upgrade the lighting, and use that to pay off the interest free loan. This should work out cost neutral or in fact give a small saving during the term of the loan as we base the repayments on 80% of the estimated savings. As explained we can also base repayments on 100% of the savings if you wish to pay off the loan as quickly as possible.
- The loan is based on the estimated savings from your energy bills only, we have not factored in any maintenance cost savings on new lamps or labour costs to install those but they will also result from the project as LED lamp life is much longer than Fluorescent lamps – see point 11.

4. What options are there to repay the loan in addition to the standard annual repayments set at 80% of the annual savings?

- Salix is flexible and you can choose to repay at 100% of the annual savings and pay the loan off sooner.
- If you had spare funds in a financial year then you can make early repayments.

5. What happens if the school decides to convert to Academy status during the term of the loan?

- This is not a problem and can easily be dealt with in one of two ways:
 - A clause is added to the Commercial Transfer Agreement stipulating that loan repayments will be honoured. Repayments are then made in the same way as if the school remained LA maintained.
 - If budget permits, the outstanding loan can be paid off prior to conversion to an academy.

6. Is there any point doing a lighting upgrade in an older school building?

- Yes. We have done lighting upgrades for a whole range of different school building types and ages and seen significant year on year savings for every single project. We can provide case study examples.
- In fact as the existing lighting provision can sometimes be worse in older schools than in terms of improving the learning environment then an older school can gain more benefit in that respect, in addition to energy savings.
- Since 2016 we have done over 30 school lighting upgrades and for all of these we have achieved energy savings, improved the lighting in the learning environment and reduced maintenance time and costs.

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7. Asbestos Issues

- For any building constructed before 2000 an Asbestos *Refurbishment* Survey is required ahead of any works, this is different to a *Management* Survey. The latter is a review of your whole building based on a visual inspection plus sampling. A refurbishment survey is targeted only at the areas where works are planned to take place but is more intrusive so samples are taken in any area where ACM material could be disturbed or where there could be possible ACM residue that is not immediately apparent from a Management Survey. A cost allowance for this survey has been made in the project budget.
- If asbestos ceilings or other materials are identified by the Refurbishment Survey the ESCC will obtain costs for the removal of that material and any associated making good e.g. replacement ceilings – this will be done via an additional ESCC contribution to the project over and above the contribution already being made to the lighting efficiency works

8. Emergency Lighting Improvements

- The lighting upgrade specification includes costs for additional emergency lighting to bring your school up to current standards. This does not offer any energy savings but if the general lighting is going to be updated then it make sense to include emergency lighting at the same time. It is the most cost effective and least disruptive way to achieve this.

9. What are the timescales?

- If your school SLT & board of governors decide you wish to proceed with the lighting upgrade then we would ask you to sign and return the loan agreement.
- The next step would be to arrange a pre-project Asbestos Refurbishment survey, this needs to be done during school holidays.
- Once we have the Asbestos Refurbishment Survey findings then we would get costs for dealing with these and then request additional budget approval.
- Works can be phased, we have done this for many schools, so we can go ahead and install lighting in all areas without asbestos issues and then schedule asbestos removal, ceiling reinstatement and lighting upgrades for areas with asbestos materials at a later date.
- Installation dates would be set at mutually convenient dates for your school and the contractors.

10. Project delivery support

- Project management of the works forms part of the lighting programme. ESCC Energy and Maintenance teams work together provide you with all the co-ordination and project management from arranging asbestos surveys and quotes for those works to on-site pre-start meetings, contract management and processing of invoices, checking the quality of the works and signing off at practical completion.

11. What are the benefits of LEDs and how does their lifespan compare to other lamps?

- LED lamps typically use 50% less energy than older style fluorescent tubes. The typical lamp life of an LED lamp is 50,000 hours which is double that even of the relatively recent T5 fluorescent lamps and far longer than the T8/T12 tubes or any incandescent or halogen spotlights. In recent years LEDs have continued to fall in price whilst the quality of light has improved. This, combined with longer lamp life, makes LED the first choice for replacement lamps. Please note that savings on maintenance costs have not been factored into the project payback, only savings on energy costs.

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12. How can we be sure that the predicted cost savings will be made?

- Lighting is one of the easier to prove energy efficiency upgrades, as the actual technology upgrades (new lamps) are rated with a precise wattage and combined with operational hours, the electrical load can be determined. As the reduced kWh consumption from the more efficient lighting is an absolute saving, the reduction in the electricity bills associated with the reduced energy consumption for lighting should be achieved. However, overall electricity costs may of course increase for other reasons e.g. tariff rate increases, changes in operational hours or additional equipment on site, so although in general the actual electricity bills do reduce in line with predicted savings, over time costs may increase for these other reasons. The more efficient lighting will help by lessening the impact of these cost increases.
- To date ESCC has implemented over 40 Salix funded lighting projects including more than 30 school projects, as well as a significant investment in our own office estate and in Street Lighting. The business cases are all checked by the Independent Salix Funding Scheme team and we carry out post project analysis too.
- The lighting programme was specifically designed to avoid the need for schools to fund any upfront capital costs at all and instead to repay the loan from revenue costs, with the added incentive that even in a time of budget cuts, we have been able to secure some top up funding for projects so that anything over the 10 year payback term of the Salix Loan is met by an ESCC Capital fund.

13. The quality of light from LED fittings degrades over time, which is different to the process of tubes suddenly failing. How can the school ensure the quality of light remains satisfactory and are the costs of this process included in the business case analysis?

- All lamps exhibit some reduction in light output over time, including both Fluorescent tubes and LED lamps.
- As part of the conditions of the tender award to the electrical contractors to supply and fit new lighting, ESCC asked for a minimum warranty of 3 years on all LED lamps and fittings. This guarantee covers not only replacements for faulty fittings, but also replacements for fixings and lamps providing less than 70% of their maximum output, this ensures that all of the LED fittings remains outputting the satisfactory lux (illumination) level.
- For the new lighting specification, the lux levels and dimming over the lifetime of the LED lamps is taken into account at the planning stage, to help ensure that the required CIBSE* lighting levels for schools are still being achieved at the end of the stated lifetime of the lamp (usually 50,000 hours). This usually means that the lux levels are exceeded when the lamps are initially installed to factor in the dimming over time. (*Chartered Institution of Building Services Engineers)

Contacts for further information:

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