

Street Lighting Frequently Asked Questions

1) Do we need to replace all the columns?

No, only those columns which are assessed to be in a poor structural condition and cannot accept the weight and windage of the new replacement lanterns will require to be replaced.

2) Do they need to be closer together or further apart?

The optical designs within modern lanterns can normally utilise existing column spacing.

3) Will residents notice?

The residents will notice that the new lighting will have better colour rendering qualities (ability to distinguish different colours) and will be more accurately controlled to avoid light spillage into gardens and onto house frontages/windows. New street lights have found favour with the public. For example following the installation of white lighting in the four pilot areas in Edinburgh, an extensive door to door public consultation exercise was carried out on behalf of the City of Edinburgh Council. The results of that consultation showed that of those that took part 89% were satisfied with the new lights and 78% agreed that the new lighting is better than the old lighting

4) Do LED streetlights cause more accidents?

LED's are defined as a white light source which improves visual clarity and the ability to judge distances. Research has concluded that under white light sources, driver's reaction time can increase by up to 50% which improves road safety.

5) What will the SL maintenance team do if there are no lamps to replace?

LEDs are not the only technical solution to reduce energy consumption and it is anticipated that Councils will phase the implementation of an upgrade to LEDs. There are other technical solutions which are more cost effective in certain circumstances where there is a lantern architecture which still requires the lamps to be changed. Councils also have a significant number of lanterns which are relatively new and still have residual operational life and value and it may not make financial sense to replace these in the short term. Although LED lanterns are likely to require less maintenance and be replaced less often resulting in possible cost savings, street lighting maintenance teams will still be required to repair random electronic component failures such as LED drivers and photocells or new CMS equipment and to carry out routine maintenance activities such as statutory electrical inspection and testing.

6) Do I need to procure these through OJEU?

No Scotland Excel have recently put in place a street lighting equipment framework contract which includes the supply of LED lanterns and Councils can use this framework without the need to go through OJEU.

7) Do we have to do a pilot or can we go straight to implementation?

A number of Councils have already carried out pilots and the SFT have collated a number of case studies to assist Councils to go straight to the implementation stage which usually starts with a condition survey of existing columns.

8) Will SG fund these projects? ...links into the financial FAQ's

Street lighting projects are a matter for each individual the Local Authority. A strong spend to save case has been developed by the SFT to support the implementation of LED street lighting and this should be a key consideration.

The SG provided an additional £2million in March 2014 to support each Local Authorities undertake condition surveys, prepare business cases etc. for the implementation street lighting projects.

In 2013/14 the Scottish Government expanded the eligibility criteria of Salix's remit to include the wider public sector, subject to any borrowing restrictions.

This expansion spurred a successful, rapid increase in LED street lighting projects being delivered across Scottish local authorities. Priority for any available Salix funds in 2014/15 will be for new projects that involve technologies which will accelerate demonstrations of use within the public sector.

9) How long do LED lamps last...are they reliable...do they come with a warranty...who can I pursue if they don't work.

Under the the Scotland Excel Street Lighting Equipment framework contract a LED Lantern warranty of around 10 years or more in some cases is offered by established distributors and manufacturers. Additional warranties may also be available. The LED driver contains electronic components which is the overriding factor in limiting the overall reliability of the lantern. Replacing the LED driver if they fail is a relatively simple process and would be a practical, cost effective measure to extend the life of the LED Lantern. The LED semi conductor chips themselves will operate in excess of 100,000hrs. The guarantee terms and conditions are the responsibility of the lantern supplier.

10) Can I do all my Council lamps as one project? What is the maximum size of project I can do? What is the minimum size of project?

For reasons mentioned earlier it is recommended that the Councils assess their present lighting stock both in terms of existing light source and age of existing lanterns to establish a replacement strategy and best value options. To date a phased approach to replacement over a few years has been the preferred approach to ensure continuity of existing labour and supply resources and to reduce the risk of missing out on technology advances for certain technical solutions.

11) If I change them all at once, will they all need replaced at the same time in 20 years?

Future replacement programmes will be dependent on the expected service life of the new lanterns which is typically 20 years. However, rising energy prices and advances in technology may make it economically viable to replace the lanterns earlier if there is a good business case for upgrading or replacing the lantern.

12) How quickly can I set up the project?

As soon as the necessary Council approvals are in place

13) Can I use data from other LA's and reduce my spend on consultancy?

The number case studies and "off the shelf" technical solutions available are increasing. There is free consultancy support available from SFT to progress to an outline business case in a relatively short period of time.

14) Do we need a consultancy team, or can you (SG / SFT / SGIP) do this for us?

There is free consultancy support for business case development available from SFT. Depending on the availability of internal resources your Council may require additional support to undertake condition surveys of the street lights, lighting design consultancy and installation. These areas can be supported by RES on a co-funded basis.

15) Is there a local / Scottish based manufacturer / supplier / contractor that we can use?

There is presently no street lighting lantern manufacture based in Scotland, however there is an extensive local supplier/distributor network operating to service both Councils' and independent local private lighting contractors' material needs.

16) Can we fit these lamps ourselves with our own labour?

Yes, Councils will be able to use their own in house Direct Labour Organisations to install LED lanterns.

17) Do they really save energy....what level of savings will we yield?

From street lighting energy efficiency projects carried out to date, saving in energy/cost range between 40-70%.

18) Does the spend to save equation really work, or will this cost us money?

Replacement programmes carried out to date have shown between a 2 to 8 year payback on investment depending on the technical solution.

19) Can we keep some of the savings and extend the repayment period?

This is an internal decision for each Council

20) Is there money available to help us do the condition survey / consultancy / financial analysis?

Your Council has been awarded a share of £2m provided by Scottish Government for this purpose. Table below set out the allocations which were calculated based on urban lane length

ROAD LIGHTING 2012-15 LGF Settlement

	Primary Indicator Urban Lane Length 2011	Grant Aided Expenditure Share	Grant Aided Expenditure Allocation (£000s)	Energy Efficient Street Lighting allocation (£)
Aberdeen City	1,670	4.2%	2,526	84,000
Aberdeenshire	1,607	4.1%	2,431	81,000
Angus	828	2.1%	1,253	42,000
Argyll & Bute	860	2.2%	1,302	43,000
Clackmannanshire	419	1.1%	635	21,000
Dumfries & Galloway	1,226	3.1%	1,855	62,000
Dundee City	1,097	2.8%	1,660	55,000
East Ayrshire	881	2.2%	1,333	44,000
East Dunbartonshire	820	2.1%	1,241	41,000
East Lothian	659	1.7%	997	33,000
East Renfrewshire	743	1.9%	1,124	38,000
Edinburgh, City of	2,709	6.8%	4,098	137,000
Eilean Siar	327	0.8%	495	17,000
Falkirk	1,394	3.5%	2,109	70,000
Fife	2,872	7.2%	4,346	145,000
Glasgow City	4,447	11.2%	6,728	224,000
Highland	2,054	5.2%	3,107	104,000
Inverclyde	561	1.4%	849	28,000
Midlothian	665	1.7%	1,006	34,000
Moray	796	2.0%	1,204	40,000
North Ayrshire	1,116	2.8%	1,689	56,000
North Lanarkshire	2,551	6.4%	3,860	129,000
Orkney Islands	235	0.6%	355	12,000
Perth & Kinross	1,046	2.6%	1,582	53,000
Renfrewshire	1,280	3.2%	1,937	65,000
Scottish Borders	731	1.8%	1,105	37,000
Shetland Islands	245	0.6%	370	12,000
South Ayrshire	841	2.1%	1,272	42,000
South Lanarkshire	2,321	5.9%	3,511	117,000
Stirling	746	1.9%	1,129	38,000
West Dunbartonshire	643	1.6%	972	32,000
West Lothian	1,273	3.2%	1,926	64,000
SCOTLAND	39,660	100.0%	60,008	2,000,000

RES and Scotland Excel have framework contracts in place which can be accessed by Councils to have this work done.

21) Are we not best to wait for new technology to mature?

No, technology is well advanced and the luminous efficacy (lm/W) possible from LED chips is now beginning to flatten out following sharp increase in efficacy over previous years.

22) Will we save more money if we wait a few years till even more efficient LED tech comes to the market?

LED technology will continue to improve but probably not at the rate seen previously. As an example, LED main road lanterns prices are now typically within 30% of the cost of traditional street lighting lanterns due to increased competition and increased use of LEDs worldwide. There is now a sound business reason to implement efficiency projects to mitigate ongoing energy price increases. Delaying the process will lead to Councils having to meet increasing energy costs now.