Clackmannanshire Council

Services to Communities

Roads and Transportation

Street Lighting Policy

Revised August 2012

Clackmannanshire Council

Street Lighting Policy

1. INTRODUCTION

Provision of Street Lighting by Roads Authorities

Street Lighting in Clackmannanshire is provided in accordance with the provision of section 35 of the Roads (Scotland) Act 1984 which states in
subsection (1): A local roads authority shall provide and maintain lighting for roads, or proposed roads, which are, or will be, maintained by them and which in their opinion ought to be lit.

In addition, subsection (4) provides that: A local roads authority may, within their area, provide and maintain lighting for any road, or proposed road, which in their opinion ought to be lit and as regards which no duty is imposed on them by subsection (1) above.

The Need for Street Lighting

"*Well maintained lighting can change our communities, make the night time environment a safer place to be, encourage regeneration and investment, leading to an improved local economy and at the same time contributing to a more inclusive society*." (Well-lit Highways - A Code of Practice for Highway Lighting Maintenance - November 2004)

Clackmannanshire Council supports this statement and is also aware that over-obtrusive lighting in inappropriate areas can have a negative effect on community well-being. Further, environmental considerations will be taken into account when selecting appropriate lighting wherever possible, bearing in mind the Council's overall goal of reducing its carbon footprint.

While Roads authorities have a general duty of care to the road user, this does not imply any duty on the Roads Authority to keep the public lighting lit. However, an authority should be able to demonstrate that systems are in place to maintain the lighting in a safe condition. Clackmannanshire Council recognises the value of good street lighting and will utilise the available resources to ensure that appropriate maintenance performance standards are attained.

2. BACKGROUND – THE STREET LIGHTING NETWORK

Our most current inventory for 2011/12 reveals that there are 8602 street lights in Clackmannanshire and approximately 467 lit traffic signs and bollards.

The rapid development of new housing throughout Clackmannanshire in recent years has seen the number of street lights rise from around 7900 in 2006/07 to its current level, an increase of 9% in five years.

For many years, street lighting professionals in local authorities have had to derive reactive street lighting maintenance policies where the basic street lighting infrastructure was in decline. In an innovative move in 2001/02, the Service sought, and successfully achieved, Council permission to enter into a street lighting lease contract with a private sector investment company, to begin to address what was an aging lighting stock. As a result, during 2002 and 2003, approximately 1000 new lighting columns were erected, replacing around 850 old columns and improving light levels in areas where previously column spacing and old levels of lighting were below the levels acceptable in the current British Standard for street lighting. This meant approximately 12% of the council lighting equipment was upgraded in this short period.

The cost of this investment was £1,000,000, repayable over 20 years. This resulted in a fixed annual payment of £93,360 from the Roads and Transportation revenue budget. A proposal to repeat this level of external funding in 2004 was rejected. Since then, smaller capital investment has allowed the Council to continue to replace lighting equipment which has reached the end of its design life with new equipment, but current funding still means that demand is out-stripping the available resource. Currently, the annual capital investment is £225,000 meaning that approximately 150 to 180 columns and lanterns can be replaced per year. This equates to a 2% annual rate of replacement.

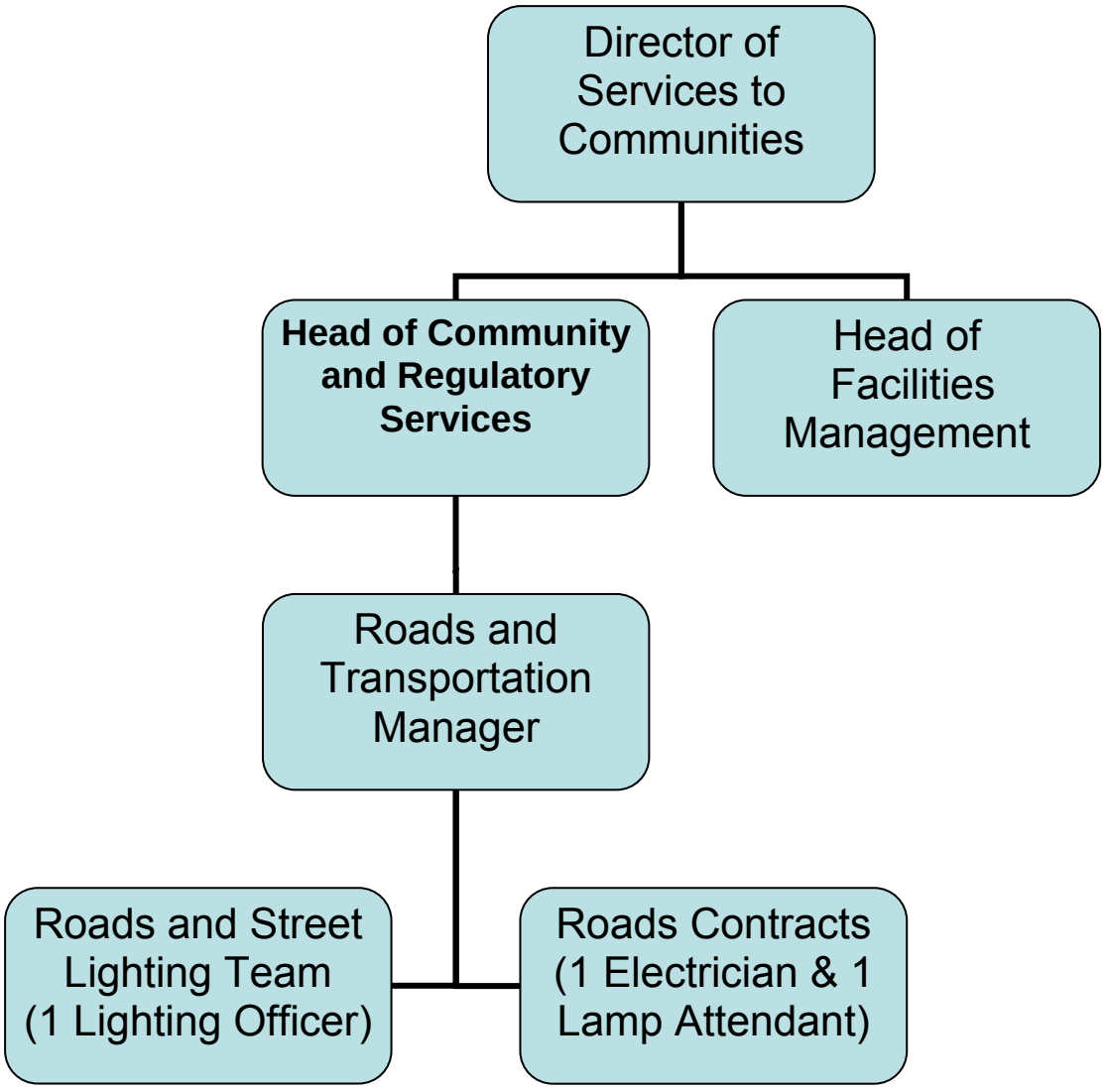
Typically, street lighting columns have an average design life of 25 years, although the majority are safe and economically serviceable for 30 years. With a high percentage of lighting installation being over 30 years old (around 30%), there is an visible deterioration of the street lighting system and an accompanying public concern, expressed through requests for improved lighting, particularly in residential areas. Although the percentage of columns over 30 years old has been decreasing year on year, this must be taken into context with the increasing number of installations now in place.

Revenue finances have been concentrated on repairing lights that are out, rather than preventative maintenance and, in particular, renewal of the columns and cable networks. An increase in investment is therefore required if the future deterioration of the overall network is to be to addressed.

3. MANAGING THE STREET LIGHTING NETWORK

Resources for managing and maintaining the street lighting network

Within the Directorate of Service to Communities, the street lighting management and maintenance service is delivered through the Roads and Street Lighting Team and the Roads DLO.



As can be seen from the above chart, the operational resources available within the Council to keep our street lights working, are dependent upon 3 individuals who hold the specific skills required.

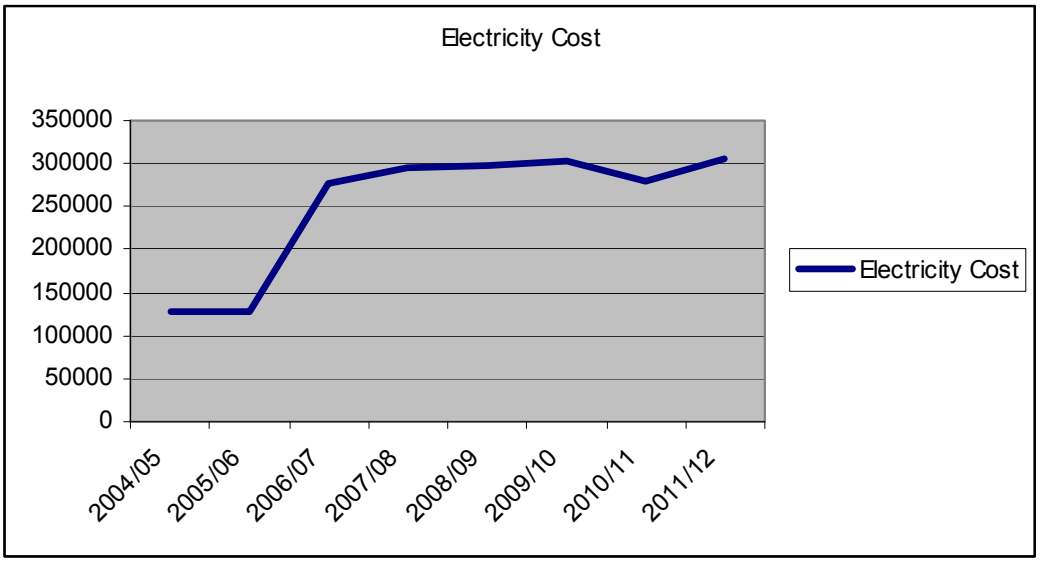
That said, the Council operates a joint stand-by "Out of Hours Service" with Falkirk Council. Faults reported between 1700 and 0800 hours are dealt with as follows:

1. Single outage: Out of hours service reports to relevant local authority to be dealt with during normal working hours;

2. Column knockdown or failure: Stand by electrician attends immediately (within 2 hours) along with stand by team for relevant local authority to make safe.

3. Multiple outages: Stand by electrician attends to determine if repair is possible, carries out repair or refers to Street Lighting Officer if repair is not possible. In this second situation, the fault is generally due to a supply failure and is reported to electricity supplier the following day.

Our current Electricity supplier is Scottish Power for the full Council area except Muckhart, where power is supplied by Scottish Hydro. The electricity supply contract is tendered regularly and all the Council's needs are banded together to secure best value. The cost for the supply of electricity for street lighting in 2011/12 was approximately £305,000. The following graph shows the trends in electricity prices over the last 10 years. The stability over the last 3 years is due to the contract arrangements in place for the Council. It is difficult to accurately estimate costs for future years bearing in mind the instability in the energy market.



There is a Service Level Agreement (SLA) between Scottish Ministers and Scottish Power Energy Retail Limited for the power supply framework agreement to which Clackmannanshire is a party. No separate SLA exists with our electricity provider specifically for street lighting.

Purchasing of Equipment

Street lighting equipment is purchased via a competitively tendered contract, issued in accordance with the Council's Contract Standing Orders.

Fault Reporting and Inspection

Faults can be reported by the public directly to the Contact Centre via our freephone line or through the Clacksweb website. When these are received, they are transmitted electronically to the Street Lighting Officer who issues an instruction for the installation to be checked and repaired. For non-supply related faults, the authority has a target time of 7 days to complete a repair. Where there is a danger to the general public, the fault should be made safe within 2 hours and repaired as soon as possible.

Details of our performance in meeting this target are shown in section 5 of this policy: Prioritisation - Investment and Performance Management.

When a fault is identified as an electricity supply failure, this is reported to the supply company by the Street Lighting Officer. In the absence of a SLA with the electricity supplier, target repair times for these faults remains problematic. There is an expectation that they will be investigated within 7 working days and, depending on nature of the fault, repair will be instantaneous or programmed by the supplier. Where a fault affects more than the street lighting network, i.e. houses or industrial premises, the supply company's priority of repair is increased.

Inspection

Lamp Outages: From October to March, a scouting patrol checks for outages on a fortnightly basis. These outages are passed to the Street Lighting Officer daily and are subject to the same repair targets as faults reported by the public.

From April to September, there is no night inspection of our street lights. This is considered to be reasonable bearing in mind the cost of carrying out the survey and the limited effect of single outages during the summer. Reports from the public regarding lights out in a whole street or community are responded to via our out of hours service.

Electrical and Condition Inspection: All new lighting installations are checked prior to adoption by the Council. Historically periodic inspections of the asset group were carried out on a limited basis using existing resources.

This is considered to be an unsatisfactory method of inspection. Therefore from 2011/12 this Service has introduce a programme of formal inspections, bearing in mind the recommendations of the current code of practice, "*Well Lit Highways - A*

Code of Practice for Highway Lighting Maintenance". This Code recommends cyclical inspections are programmed at an agreed time interval. While visual defects are picked up during routine inspection, it is intended that formal electrical and condition tests are carried out at 6 yearly intervals.

To meet this target, this Service has employed an external contractor to undertake both electrical and condition testing in accordance with the Code. The expenditure on street lighting maintenance will be examined to see how the costs for formal inspection can be accommodated within the current budget and what areas of work may receive less priority in the future. Bidding for funding in future years will be considered.

Asset Management

Street lighting installations are a valuable asset for the Council. At current values the replacement cost of the street lighting in Clackmannanshire is in the region of £26.9 million.

To manage such a valuable asset, a complete and regularly updated inventory of our street lighting network is required. Since local government reorganisation, the Service has held an inventory database of its street lighting equipment. This inventory is currently being updated and will include the technical details for each column as well as the date of installation and the dates of inspection. The new database will give ready access to this information and new attributes will be added as required. By the end of December 2011, around 98% of our street lighting assets had been included in the new database, providing information for asset management. By the end of 2012/13, the database should have all the essential information included and be capable of expansion in the future.

Street lighting forms an important part of the Council's Road Asset Management Plan (RAMP). The implementation of an asset management approach is being developed as part of a joint project with Scotland's other 31 local authorities. The project will continue until at least 2014 but the Service had its initial RAMP approved by Council in November 2010. This Street Lighting Policy forms part of the RAMP.

4. SUSTAINABILITY - CARBON MANAGEMENT IMPLICATIONS

Carbon Management

As with all local authorities, Clackmannanshire Council must account for and manage our carbon emissions. As a Service, we will comply with Clackmannanshire's "Sustainability and Climate Change Strategy - Consultation Draft September 2008" and the Council's "Annual Statement on Scotland's Climate Change Declaration".

The desire to improve the level of street lighting within the council area has to be matched against the need to manage carbon emissions.

The 2006 Government Research Office's population projection reports that Clackmannanshire is Scotland's third fastest growing community, with the number of households growing by 27% by 2031. Each year the number of street lights will increase by around 2%. These lights are located in new housing or industrial developments, or are replacement lights where the column spacing required to be altered. Everyone is looking for a perceivably brighter white light with the old orange sodium lamps being phased out. As a result there is a desire for lamps with a higher output and, potentially, greater carbon usage.

Clackmannanshire Council is committed to looking at new products and innovative techniques to offset the potentially damaging increase to the carbon output.

Currently, we are replacing inefficient sodium lamps with "white light" sources, which have a small increase in electricity usage at the lower end of the market and large decrease at the higher end. These lamps are however considerably more expensive to purchase and, consequently, initial costs are greater. In addition, theses lamps do not have a significantly longer life than the ones they are replacing.

Light Emitting Diodes (LEDs) look to offer a potential improvement in the future, with long life and low maintenance being among their most attractive features. No street lighting LEDs have been proved in the market place but the Service will continue to monitor developments in this field. Initial purchase costs will be high until this product establishes itself through high volume production and distribution.

Recycling

All used lamps and columns are, and will continue to be, fully recycled. The cost for recycling old lamps, including collection is included in the purchase cost of the product.

5 PRIORITISATION - INVESTMENT AND PERFORMANCE MANAGEMENT

Prioritising Investment

With current funding levels, the areas to be targeted must be prioritised. After balancing column condition with lighting output, the current treatment for lighting improvements concentrates on column age and condition. This is seen as practical as the risk of serious injury caused by a column collapsing or disintegrating is measurably greater than the perceived risks associated with a light being out. Fatalities and serious injuries have been caused in other Council areas through the collapse of lighting columns.

Over the last few years the Service has been focusing on replacing 8 and 10 metre concrete columns which are still in position beyond their design life (or had identified difficulties. The majority of these units have now been replaced. Results of the initial round of electrical and condition testing (described above) have resulted in an amended works programme.

Our new priorities, in order of importance are therefore as follows:-

1. Replacing columns found to be dangerous by the inspection regimes;
2. Replace any remaining 8 and 10 metre columns which are still in position beyond their design life or have identified problems;
3. Replacing 5 metre concrete columns which are still in position beyond their design life;
4. Replacing 5 and 6 metre steel columns at the end of their design life.

A number of street lights are attached to buildings or wooden telegraph (or electricity board) posts. Accommodation to replace these when the structure on which they are located is to be replaced, removed or changed, will be included within the capital improvement priorities, as required.

As stated above, while the condition of a column is the prime factor when considering improvements, it is anticipated that a limited number of schemes, where light output is inadequate by today's expectations, will be included in our general workload to ensure continuous improvement.

Finance

The Council is committed to obtaining best value solutions for the works it commissions and the products it buys. We will continue to do this for capital projects, electricity and equipment purchases through adherence to Contract Standing Orders. We will also benchmark our maintenance costs against other local authorities or contractors.

The Council will aim to increase the annual provision for street lighting maintenance at a rate equal to the growth of households within Clackmannanshire.

In addition, we will work with our finance colleagues to improve the recovery of debts, normally for accidental damage to lighting columns and associated electrical equipment, for which payment to the Council remains outstanding. Recovery of debts for these rechargeable works will follow the following procedure and timescales:

1. Identify urgency of repair and instruct works;

2. Identify responsible parties and send notice indicating intention to recharge and estimated costs within seven days of identification;

3. Prepare account to be rendered (or invoice) to responsible party within 30 days of completion of works;

4. Revenue Services to follow agreed timescales for reminders, final notices and proceeding to legal action;

5. Roads and Transportation Services to provide additional information as required by Revenue Services to their timescale.

Performance Reporting

There are now no reportable Statutory Performance Indicators (SPI) relating to street lighting, but we will continue to collect the former SPI to allow internal performance management as, follows:

- The number and proportion of street light failures completed within 7 days

The Society of Chief Officers for Transport in Scotland (SCOTS), are currently developing a suite of performance indicators (PI's) for all aspects of roads & lighting maintenance. These PI's will be published within the RAMP.

All indicators will be recorded on the Council's internal Covalent system, in order that the management team can monitor performance against targets, providing an opportunity to take any preventative action if required.

The Future

We will continue to procure the most efficient works and equipment while giving due recognition to the carbon emission targets.

We will utilise modern technology, where viable, to decrease costs and increase efficiency through extending the use of electronic data collection and fault reporting equipment, together with modern workflow management systems.

We will investigate joint working and procurement with neighbouring local authorities to utilise our strengths and theirs to provide best value solutions.

Roads and Street Lighting
August 2012