

Lighting efficiency champion offers illuminating thoughts

UK Lighting Board chair Lindsay McGregor stands down from his role this summer. Here he sets out his vision for further promoting energy efficient solutions and reflects on recent progress made, in conversation with Justin Ward.

England's £120M annual bill for road pothole repairs could be paid for by accelerating the switch over of street lighting to LEDs according to Lindsay McGregor, who is about to step down as chair of the UK Lighting Board.

Lindsay is widely recognised for his work in making street lighting more energy efficient in Scotland and is passionately committed to helping local authorities achieve budget and energy savings by converting their street lighting to LEDs.

Through his work, he has helped to win one CIHT Award and been highly commended for another.

Prior to launching his own consultancy called Streetlighting Advisory Services, Lindsay's role at the Scottish Futures Trust saw him support a rapid uptake of LEDs for street lighting in Scotland.

Four years ago there were only about 10,000 LED streetlights north of the border: about 1% of the total estate in Scotland. Today around 40% of street lights in Scotland are LEDs: saving 100,000 tonnes of CO2 and £40M over the same period. As Lindsay summarises: "The Scottish Government has seen a significant return on its funding support investment."

Lindsay says that potential savings in England from using LED lighting are huge, as there are 10 times as many streetlights south of the border than in Scotland.

He explains: "I did a little bit of analysis and funnily enough the possible savings do tie up with the ongoing public concerns regarding the condition of roads and potholes."

"If England was to continue the trajectory it is on now – of changing its



↑ Lindsay McGregor (centre) has been a strong advocate of councils switching to LEDs



"Scottish Government has seen a significant return on its investment."

Lindsay McGregor

street lighting to LEDs at a rate of 5% per year – over the next 10 years its electricity bill would amount to £3.43Bn. But if there was support to councils and all street lights were converted to LEDs over a shorter four year period, then that cost for electricity could reduce to £2.34Bn, saving £1.1Bn."

He adds: "If you average that over the 10 years it is about £110M per year. I read somewhere that councils spend £120M annually repairing on average 2.2M potholes, so if you were to accelerate the conversion of all your street lights to LEDs you would have enough to repair all your potholes."

"It's a bit ironic that street lighting – which historically has been known as the Cinderella service due to years of under investment – finds itself in a position that it can offer a solution to one of the major funding issues around roads."

Lindsay graduated as a chartered

electrical engineer and after working initially on microprocessor fire detection systems, worked as a programme manager developing submarine periscope technology.

He moved to Tayside Regional Council and subsequently took a position as street lighting partnership manager at Dundee City Council.

When a role came up at the Scottish Futures Trust – an infrastructure delivery company owned by the Scottish Government that works with public and private sector partners – he took the leap to work on a nationwide programme.

The Trust has a remit for helping to secure new ways to fund essential infrastructure, so it saw a big opportunity in helping the public sector take advantage of LED technology. It was felt this new approach could reduce the energy and maintenance costs for local authority street lighting operations

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↑ Huge financial savings can be realised from installing the latest lighting

and help meet some of the challenging carbon reduction targets set by the Scottish Government.

Lindsay helped to develop a toolkit, business cases and procurement frameworks to support local authorities in upgrading their lighting stocks.

He joined the lighting industry in 1990 at a time when 'SON' and high pressure sodium lights were starting to find favour. Before this in the 1970s there was the 'SOX' orange lighting that gave a single monochromatic colour rendering. Some councils are still using SOX lamps but struggle to find replacements, showing that the lighting industry is still at different points in its evolution.

Having been a member of the UK Lighting Board for over 10 years, Lindsay has seen the benefits of the client side coming together and the UKRLG has played a key role with producing guidance for the sector.

More recently the UKRLG has implemented a number of recent research proposals, the output of which has been valuable for the industry. But progress in some areas has been slow.

Lindsay said: "One disappointment is that I won't now be able to take forward work the UK Lighting Board started on illuminated sign research guidance, looking at a less prescriptive approach. The work is still under way, but I am quite confident that we will get to a resolution soon."

Lindsay has been pushing for more of a risk based approach to underpin lighting choices, thereby allowing councils to make decisions such as whether signs are directly illuminated or whether existing ambient light is sufficient enough for drivers to observe the information from the signs.

After he stands down as UK Lighting Board chair in July, Lindsay plans to continue promoting the benefits to local authorities of switching to LEDs in his role as a consultant.

He says: "It would be a shame if other councils across the UK didn't benefit from the knowledge and experience built up on the Scottish programme, particularly in relation to the opportunity to make significant financial savings and carbon emission reductions."



↑ Representatives from Scotland's street lighting energy efficiency programme won a CIHT Sustainability Award two years ago

Well managed workshops to be announced soon

Workshops will be hosted shortly by UKRLG, Atkins and the Department for Transport to help the highways sector better understand the 'Well-Managed Highway Infrastructure' code of practice that was published in October 2016.

Local authorities have until this autumn to implement the new code before previous codes are withdrawn. Details of the workshops will appear on the UKRLG website and be tweeted from @ukrlg as soon as dates are finalised.

Hosting of the workshops follows a survey of local authorities in England, the devolved administrations and the Northern Ireland Roads Service to confirm progress with implementation of the new code, seek good practice and identify areas where further support may be needed.

Key findings reveal that there is a very good awareness of the code among local authorities, but that some local authorities do not have the resources or skills to implement it.

It was found that most authorities are reviewing services and processes, asset inventory and data collection as they implement the code and there was a call for training to be provided, including e-learning, events and courses.

It was also found that there is a good level of engagement between neighbouring authorities to implement the code, but that a lack of engagement with legal, insurance, emergency planning and corporate risk management teams is a concern.

The review of the code of practice was designed to incorporate recommendations from the Potholes Review and align with and build upon principles and recommendations in subsequent asset management publications and guidance.

It was also hoped that the code would reflect current practice – particularly departures from the standards in 'Well Maintained Highways' to reflect local needs and priorities – adopt a more consistent style for all assets and encourage a more risk based approach to managing assets.

Changes afoot in sub group



Stuart Giddings (pictured) is standing down as chair of the Footways & Cycletrack Management Group and is being replaced by Dave Kinsey, head of highways and grounds maintenance at Derby City Council.

Research programme update

UKRLG has been working up its research programme following the confirmation of £500,000 of funding for 2018/19 from the Department for Transport. A number of proposals have been selected and are subject to final project management and procurement leads.

These span across a number of the Boards covering Asset Management, Bridges, Lighting and Roads – and once confirmed details will be updated on the website: ukroadsliasongroup.org