

## Street Lighting Service 5 Year plan

Derbyshire County Council currently maintain approx. 90,000 street lighting assets, 1,850 illuminated bollards, 280 refuge beacons and 4,200 illuminated signs with a further 880 sign plate attachments, such as double aspect signs.

In December 2016, the council commenced an Invest to Save Project to replace 68,000 sodium street lights with LED technology, mainly on residential roads. Funding was secured in 2015 to convert a further 20,000 street lights to LED that are located on taller lighting columns on the resilient network and wide link roads.

For the purpose of this report, columns detailed as being on the residential network consist of up to and including 6m mounting height. Columns identified as being on the strategic/resilient network consist of lighting columns between 8m and 12m mounting heights.

### 2019-20

Repair of sodium street lights to continue where cost effective. Street lights requiring repair that are not economically viable to be repaired to be converted to LED sooner than planned. Continued roll out of LED technology primarily on the 5m and 6m high columns on residential and link roads. Estimated LED installs on residential network, 23,000.

Structural survey of 8m, 10m and 12m columns to commence in February 2019. Where structural tests identify corrosion or structural weakness, further investigation, electrical tests and columns to be replaced. DCC owned cable networks to be inspected and tested and replaced where necessary to meet current British standard. Where columns are identified as structurally sound, LED conversion to be arranged. Estimated LED installs on resilient/strategic network, 4,300.

### 2020-21

LED roll out to focus on 8m, 10m and 12m high columns and DCC owned cable network. Structural testing to identify columns requiring replacement and further investigation and electrical testing to be carried out. DCC owned cable networks to be inspected and tested and replaced where necessary to meet current British standard. Where columns are identified as structurally sound, LED conversion to be arranged. Estimated LED installs on resilient/strategic network, 4,300.

Approx. 850 cast iron columns not converted to LED as part of the wider project to be identified and solution agreed.

Lighting assets mounted to Electricity North West assets to be identified (approx. 560) and solution agreed. ENW have requested the removal of third party assets from their equipment.

Invest to Save Project to rationalise the illuminated sign assets across the county. Only signs that are legally required to be lit to retain illumination with the lowest legally required level of illumination to be provided by LED luminaires.

### 2021-22

Last 8m, 10m and 12m street lights to be converted to LED technology, approx. 4,300. Structural testing programme of resilient network to conclude, all 8m, 10m and 12m columns will have had a structural inspection by this point. Electrical testing of DCC owned cable networks to continue to ensure compliance with electrical regulations. Columns identified as having structural weakness to be replaced.

Expected failure of drivers on early LED installs, mainly trial sites installed 2011/12, up to 20 assets. This will be on an ad-hoc basis and not cyclic replacement. Cost analysis will be

needed closer to the time to ascertain whether driver replacement is cost effective against a replacement lantern.

#### 2022-23

LED driver replacements or lantern replacements based on cost benefit analysis of driver replacement against new lantern cost, up to 100 assets.

Cyclic programme of structural inspections to commence based on the outcome of previous inspection. Confirm report to detail columns due for repeat inspection. Columns identified as structurally unsafe to be replaced.

#### 2023-24

LED driver replacements or lantern replacements based on cost benefit analysis of driver replacement against new lantern cost. Up to 250 assets.

Cyclic programme of structural inspections to commence based on the outcome of previous inspection. Confirm report to detail columns due for repeat inspection. Columns identified as structurally unsafe to be replaced.