# C.OM Energy Solutions Limited Lighting \& Grid 

# STAFFORDSHIRE COUNTY COUNCIL HIGHWAY LIGHTING PRIVATE FINANCE INITIATIVE CONTRACT 

ANNUAL SERVICE REPORT FOR PERIOD
$19^{\text {TH }}$ MAY 2022 TO $18{ }^{\text {TH }}$ MAY 2023



## Introduction

This report is prepared by the Service Provider, E.ON Energy Solutions Limited, in accordance with its obligations contained under Schedule 4, Part B.

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### 1.0 Introduction by Staffordshire County Council

Prior to the commencement of the Street Lighting Private Finance Initiative (PFI) contract Staffordshire County Council was responsible for 99,000 units of street lighting equipment. With an average design life for a streetlight of 25-30 years and with 24 \% of streetlights age expired, there was significant risk to the public from street lighting column failure. The annual investment budget fell considerably short of providing an acceptable solution to a rapidly degrading lighting stock and hence a longer-term solution was developed in the form of a PFI. In May 2003 Lighting for Staffordshire commenced a programme of renewal and maintenance works for the 25 -year term PFI contract. This would ensure the condition of the county's road lighting stock would be maintained at the appropriate level for the foreseeable future.

The Project will therefore provide a continuous investment programme that will halt and reverse equipment degradation through the provision of a modern standard of road lighting which is and will continue to be designed to provide an economic and effective level of lighting whilst protecting and enhancing the environment.

The PFI project forms an integral part of Staffordshire County Council's priority outcomes and aims by the provision of good lighting and an efficient lighting service to support our Vision - An innovative, ambitious, and sustainable county, where everyone has the opportunity to prosper, be healthy and happy.

The invest to save programme has been and will continue to be a major benefit to us at Staffordshire County Council (SCC). Considering the current energy crisis, the reduction in energy costs is already advantageous, and the reduction in greenhouse gases, will contribute to the organisation's objective of tackling climate change.

## Cllr David Williams

### 2.0 Project Overview

The Staffordshire Highway Lighting PFI project launched in May 2003 as a partnership between Staffordshire County Council and Lighting for Staffordshire. The project ensures there are structured maintenance and replacement regimes to target the $99,000+$ streetlights, illuminated signs and bollards in the county.

Maintenance activities, including timely lamp changes, lantern and bollard cleaning, periodic electrical and structural inspections, keep the assets in good working order whilst assets reaching the end of their maintainable life are programmed for replacement.

Coverage is provided 24 hours a day, 365 days a year to ensure that unforeseen emergency events that could cause harm to residents or property are dealt with quickly and professionally to reduce risks.

Performance monitoring of the services provided is ongoing and continuous by Lighting for Staffordshire, Staffordshire County Council and Government appointed National Auditors.

This report concentrates on the targets and achievements of year 20 of the Annual Apparatus Renewal Programme (AARP), 19 May 2022 to 18 May 2023 as well as a look ahead to our future plans and aspirations.

The Contract experienced a reduction in the number of asset renewal points obtained each month, which resulted in the programme starting this reporting period behind the operational target. However, the overall performance against the Cumulative Anticipated Points Earned (CAPE) trigger remained ahead of target. Due to the difficulties that have been experienced, the points achieved each month receive close attention and careful planning to ensure the deficit is recovered.

## Paul Slade

Regional Operations Manager
C.On Lighting and Grid, UK Solutions

### 3.0 Introduction to E.ON

E.ON are one of the UK's leading power and gas companies - generating electricity, and retailing power and gas. As part of the E.ON group, we are the world's largest investor- owned energy service provider employing over 8,000 people in the UK and almost 70,000 worldwide.

Our core focus is to provide green and interconnected solutions that address the needs of our customers and the environment. We aim to lead the global shift towards new technology by working with customers, companies and across communities to make energy simpler, smarter and more sustainable.


Over 5 million households in the UK, and 50 million worldwide, choose E-on, making us one of the leading energy companies in the UK. Our business mirrors the major energy changes - an increasing demand for innovative solutions, global growth of renewables to tackle climate change and transformation to a smarter energy system.

We believe in a sustainable future and our electricity is backed by $100 \%$ renewable sources including wind, biomass and solar. Electricity sourced from E.ON's renewable generation assets, supply agreements with independent UK wind generators and the purchase of renewable electricity certificates.

Wind is now the second largest renewable energy source and we built our first wind farm on Anglesey in 1992 and were a partner in the first UK offshore wind farm at Blyth in 2000. We now have wind farms covering the whole of the UK, north to south and east to west.


Biomass is the third largest source of renewable energy, and Blackburn Meadows is our biomassfuelled combined heat and power plant. It uses recycled waste wood from the UK to generate power for up to 69,000 homes and businesses in the South Yorkshire region. It also reduces carbon emissions by up to $65 \%$ when compared to natural gas.

Currently we generate enough renewable energy at our 5 offshore and 24 onshore wind farms alongside our 3 biofuel sites in the UK to supply almost 1.7 million homes.

We have committed to achieving Net Zero emissions by 2050 and support households to improve sustainability through a variety of measures including having a sustainable diet, through making eco-friendly living choices to cost effective energy saving measures.

Our approach to combatting climate change and air pollution is to create sustainability in cities and communities across the world. From our eco-friendly city developments in Malmo, to Citigen powering the heart of London, we've been working with local governments to create smart cities and sustainable communities powered by renewable energy with state- of-the-art infrastructure and enhanced economic sustainability.


Electric Vehicle charging is at the heart of E.ON's strategy to be partner of choice for sustainable energy and mobility solutions, and as part of this vision are focussed on delivering electric vehicle infrastructure. We are a charge point operator for over 3,500 public charge points across Europe with a plan to grow this by 1,000 charge points per year.

Another community focus is our Lighting \& Grid team, who have extensive experience in the external lighting market.

We provide a one-stop-shop from design, consultancy and construction through to connection and long-term maintenance for street lighting, as well as EV and small development connections.


To support sustainable growth, we have expanded our geographic boundaries and the solutions we can offer to customers. With the advent of 'smart city' technologies, the humble streetlight plays an important part as the most strategically placed asset to assist in the upgrading and development of the infrastructure in the new age.


Our training provider accreditation for our Apprenticeship Programme, coupled with our positive mentoring scheme, ensures our Apprentices receive the very best training and support throughout their development. Since 2012, we have registered 37 Apprentices to work on the Staffordshire PFI and 18 have successfully completed their programme.

### 4.0 Progress Report

### 4.1 Asset Renewal Progress Update

Our asset renewal teams review the condition of every lamppost within the County considering their age profile to make sure that they continue to be structurally safe, economically viable to maintain and not likely to become structurally defective through age degradation or environmental factors. Those units failing any of the categories are programmed, using an additional assessment of risk, for replacement either as single units or as complete schemes where most of the lampposts in the road are affected and require replacement.

Every road throughout the County has a designated classification, which is not simply dependent upon a road being an $A$ or B road, but also considers usage, location, speed, traffic flows, and the like. This classification is what ultimately determines the appropriate level of lighting required for that road and it is from this information that the lighting design can be determined.


Furthermore, we can determine where we can implement dimming strategies to reduce night-time light levels and with that, the energy consumed. When considering new schemes and any alterations required to meet this, existing locations are considered to reduce unnecessary disturbance to the footpaths and ultimately the community. Where this is not possible, new locations are selected as sympathetically as possible within the existing road layout but this may mean new positions where street lights have not previously been.


Staffordshire remains the only operational PFI with an asset replacement programme spanning the 25 -year contract term. This method of contract delivery provides a smoother, more sustainable and affordable replacement programme when the new assets require review again in approximately 40 years.

The continuous cycle of replacement has enabled us to consider new technologies as they emerge. When new products or wholesale technological advancements become available, we can consider benefits such as reductions in ongoing maintenance costs, improved lighting abilities that may reduce the number of assets requiring to be installed, reduced power consumption which reduces energy costs alongside other factors that may detrimentally affect how we deliver quality into the lighting stock.


LED (Light Emitting Diode) technology has been one of the fastest growing and most beneficial advancements to the industry since the external lighting market commenced.

We initially introduced the new lanterns into residential areas of Staffordshire for two reasons this represented a higher proportion of the assets and provided the same type of technology we were already using. After considering the energy savings that could be made alongside potential maintenance reductions, this became a viable solution.


Although we initially held off using this technology to meet our primary, higher classification road lighting solutions, the technology progression and reduction in costs provided us with a solution that could be rolled out as standard throughout replacement programmes.

LED lanterns offer a versatile light output whilst significantly reducing energy consumption. The SOX lamps used in 2003 consumed 59 watts of energy to generate 26 -watt lighting. Following this, compact fluorescent lighting (PLL) was used, and the improved 36 -watt light output consumed the same 59 watts of energy. However, the improved output of light represented a $38 \%$ energy saving for each lamp. Compare this with the LED equivalent, which produces the same 26 -watt output of light but consumes less than 22 watts per hour - a saving of $38 \%$ against PLL and over $62 \%$ compared to the original SOX lamps. Further benefits of LED technology are the ability to apply dimming and improved optical distribution, which means we can utilise more of the existing column positions to mitigate any growth in the number of assets a road needs to illuminate it to the standards required.

Our delivery objective has always been to ensure that our replacement programme is distributed throughout the county over each period as opposed to concentrating solely in one district or area. This allows the benefits the new lighting brings to be displayed regionally and reduces prolonged disruption in any area.

The following activity report shows the districts across the region that have benefited from new column installation in the last year;


To date we have replaced more than 55,000 street lighting Columns and the graphs below indicate the number of columns replaced each month during the 2022/2023 period along with the overall street lighting replacement progress since contract commencement.

Asset Replacement Progress by Month 2022/23


Asset Replacement Progress By Year


### 4.2 Programme Delivery

Our planned delivery programme is updated every three months and to ensure this is visible and readily available, it is shared with Staffordshire County Council, and other district and borough councils within the county.

Columns are primarily selected for replacement in accordance with their age, but we also understand that some columns are more resilient than others and plan our anticipated working patterns by using data collected over previous years, information collected by the Authority prior to project commencement, and our extensive industry knowledge.

The decorative appearance of the assets can play an important part in making the street scene look clean and attractive. Most new lampposts carry an industrial appearance due to the galvanised finish, which is applied to help prevent rust and limit environmental damage, but they quickly become part of the landscape.

Any units we identify that fail to meet the strict criteria that surrounds the decorative condition, but are still otherwise serviceable, may be painted to restore a good appearance and provide a protective finish. Painting, except in certain conservation areas where it is purely provided as a decorative finish, is only applied as an aid against the aging process. The paint systems used are selected because of their high durability, anti- graffiti coating, long lasting anti-fade properties, and anti-rusting agents, which help to not only prevent premature ageing but, in some cases, can also help to slow down any rusting that has commenced.

We have completed a full programme review to determine a general programme of commencement for each road up until the contract conclusion in 2028. Whilst this may be subject to small changes through accelerated deterioration, planning in line with other county developments and the like, we can now provide better information for any interested party regarding our whereabouts for the remainder of the project.

A summary of the data is also accessible by all members of the public and any other interested parties via our dedicated website. The website also includes an overview of our contract activities, answers to Frequently Asked Questions and links to Staffordshire County Council and E.ON websites.

### 4.3 Maintenance Progress Update

Well planned, well managed and suitably invested cyclic maintenance regimes are, to us, the most important part of the project. Our dedicated teams ensure that all streetlights, illuminated signs and bollards remain lit and in a good condition - safe and operationally.

This involves a strict programme of lantern cleaning, lamp changes, electrical and structural inspections as well as night patrols and illuminance checks to make sure that each asset continues to perform as designed and required. The project includes a specific performance target to maintain the number of lights that are lit across the County; above a threshold of $98 \%$ which, when you consider that we currently maintain over 108,300 units within the County, this is no small achievement.

The following chart shows the progress since contract commencement against the target requirements and with a yearly average of $99.32 \%$ lights lit, it is an excellent achievement and demonstrates our year-on-year commitments.


Although streetlights are designed to be robust to endure the environmental impacts of day-to-day operation, it is not surprising that faults occur when we factor in the stresses caused by temperature shifts ranging from -200 C to +300 C , driving rain, heavy winds and snowfall. Members of the public can report faults by telephone, email or the Staffordshire County Council Report It tool. We also gather information from our maintenance teams, supervisors, engineers, and managers who report issues they find and our night patrols, which look at every streetlight and lit sign once a month to check whether they are operating effectively.

Each fault received is recorded within the Asset Management System to ensure the details are recorded to create a detailed history for each individual asset. This provides data that can be reviewed to identify trends, support strategic plans, and assist external agencies, such as the Police when investigating road traffic incidents or other criminal investigations.

Due to the investment in equipment, increase in maintenance inspections and robust work programming (such as clean and change schedules), we have observed a general decrease in the number of reactive faults that are reported. The chart below shows the percentage split of where fault reports are generated from, with almost one third of reports coming from the public and external partners.


\author{

- Night Patrol <br> - Telephone, Email, Website, In Person <br> - Supervisor <br> - Cyclic Maintenance <br> - Clipper Replacement <br> - Operative \& Subcontractor <br> - Testing <br> - Other <br> - Engineering Certifier <br> - Local Authority, Emergency Services
}

Fault repairs have specific timescales and targets for completion, such as 5 working days to attend and rectify an out of light fault. This timescale commences when we become aware of the issue and financial penalties are applied when the timescales are not met. Of the 348,207 fault reports received since project commencement, we have completed 1003 of these outside of the target response time, which equates to only $0.14 \%$.

Where streetlights are fed directly from the underground electrical network owned and operated by National Grid, the Distribution License Holder (DLH) for the region, any necessary power failures caused by cable faults and the like can only be repaired by them. Each regional DLH is regulated by OFGEM for their response and duties to attend all kinds of electrical faults. Whilst this takes a little longer than our normal 5-day response times we still continue to monitor attendance times and ensure work is completed quickly and efficiently.

Where we identify equipment that does not meet our standard, we will complete rectification work with the aim of minimising loss of service to the public and preventing a system failure. For the purpose of this report, such work has been excluded from the data to provide a clearer indication of the actual failures rather than internally monitored works.

The following indicates the total number of faults we have attended to each year since project commencement.


The following chart indicates the type of faults we have attended to over the year, and by maintaining this level of data we are able to spot trends year on year which help us plan future works and strategies;


- Out of Light
- Additional Commentary
- No Supply
- Fit new Lantern (Planned Replacement)
- New Installation Required
- Day Buming
- Emergency Response
- Consecutive lights out
- Flickering/Flashing
- Pruning
- Permanent Removal
- Confirmation
- Painting
- Replace cutout
- Rebuild Foundations
- Intermittent
- Dim
- Plate Twisted
- Bollard Damage
- Lantern Missing
- Renumber
- Lantern Damaged
- Removal of graffiti
- Re-Align
| Reports value below 10
- Reports value below 10

Emergency events are those that have the potential to cause serious harm or damage to members of the public or property. Our permitted response time to attend and make events of this nature safe is limited to two hours. Our teams are available 24 hours a day, 365 days a year and out of the 536 reported emergency events in this period, all were attended to within these timescales. Of the 18,303 emergency events that have been reported since project commencement, only 12 were attended to outside the target ( $0.065 \%$ ).

The following chart shows the average number of emergency callouts our teams have attended to each year since the project began. It is good to see that well-targeted asset investment has also helped to reduce these events since contract commencement.

Emergency Faults


### 5.0 Customer Service Satisfaction Survey - Summary of Results

Staffordshire is home to over 900,000 people and covers a geographically diverse area of 1,047 square miles. It is therefore important that as a project team we apply a consistent, practical and even approach to all concerns, enquiries and complaints received. Ensuring that there is a balance between the requirements of the individual, the community and any statutory or contractual duties placed upon us can, at times, be difficult and challenging. Every concern is considered on its own merits and where possible we try to put ourselves in the position of the complainant, however there are sometimes concerns that cannot be resolved to everyone's satisfaction.

Our customer care process starts at the design stages of any scheme, with consideration being given to the planned locations and positioning of the lampposts. In considering how to proceed we must balance the final locations required to meet the design with the existing positions, the potential aesthetic impact, and of course the overall safety impact for highway users. However, where customer relocation requests do not meet with our priority factors of reducing energy consumption and street clutter, they will not be considered.

We do appreciate that the final positioning of some units can be unpopular at an individual level. However, this is often due to alternative solutions carrying high economic and environmental impact, such as the net increase of the number of units in a street - which in turn increases energy and maintenance costs unreasonably. We also look at the benefits to the community and throughout the county when considering our outcome.

The team respond to each concern or complaint raised individually either in person, by telephone, letter or e-mail. In some cases where an agreement cannot initially be reached, Staffordshire County Council mediate by reviewing the concern and recommendations proposed before deciding upon a solution.

We also monitor customer satisfaction with maintenance activities we have carried out. We contact individuals who have reported a fault within the month and complete a survey, which consists of a series of questions designed to provide feedback on how easy it was to make contact with us, how easy it was to report the fault and how quickly we completed the repair.

The chart below indicates the level of customer satisfaction throughout the year against the baseline target. November 2022, January 2023, February 2023 and April 2023 received no responses to the 10 surveys issued and so feature no score in the chart. In all months where feedback was received, this level was higher than the 64\% target.


Owing to the difficulties being experienced in gaining responses from customers, we will review the process. This will involve a trial of alternative mechanisms to establish the most effective way in gaining customer satisfaction and feedback.

By working closely with local authorities, parish councils and law enforcement agencies as part of our planning and day to day activities we aim to deliver an acceptable scheme. In conservation areas and Areas of Special Interest the level of consultation and agreement via the local Conservation Officers and Local Authorities enables us to secure approval and, where necessary, additional funding to enhance the aesthetics of a new lighting system.

Our website, www.lightingforstaffordshire.net, contains links to report faulty lights, documents our Customer Care Charter and Customer Concerns procedure, Frequently Asked Questions, and an updated list of roads to be included within asset renewal programme.

### 6.0 Crime and Safety Improvement Plan

With more vehicles on the road each year, coupled with investment in primary road networks, it is important to consider safety.

Studies are undertaken every year to establish the best way of doing something, and whilst some often appear conflicting it is important to consider that each must be taken in context for the situation, which will naturally differ depending on the road type, speed and general usage. It is unlikely that any single strategy will eliminate all incidents and road traffic collisions but combinations of different strategies being sensibly delivered will make improvements over time.

Whilst there is clear evidence to show that traffic calming measures such as speed humps will have an immediate impact on vehicle speed and therefore reduce incidents, the same cannot be said for new lighting schemes. It is documented that white light technology enhances colour at night leading to an increase in object definition, and therefore the ability to better judge distance and speed and the recognise hazards and obstacles, makes a significant difference to road safety.

The streetlights installed combine with other highway strategies and initiatives to help provide a safer network and environment for residents, pedestrians and drivers as well as a deterrent for criminal activity. Studies continue to maintain that well-lit streets lead to a reduction in the fear of crime as communities are more inclined to venture out after the hours of darkness; and the resultant increase and confidence in people traffic can deter criminals from their activities.

Data concerning the number of road traffic incidents resulting in personal injury within Staffordshire, excluding the city of Stoke on Trent, is shown below.


This shows a clear downward trend in the number of incidents resulting in slight injury, a fluctuating trend in respect of serious injury incidents and a reduction in the number of fatal injury incidents.

### 7.0 Annual Environmental Plan

### 7.1 Project Aims and Progress

E.ON holds social responsibility at the core of all business activities, whether it is delivering clean sustainable energy from wind farms or investment in clean technologies such as battery storage to store renewable energy derived from our district heating plants to be able to release back into the community when needed. As part of our commitment to the environment we ensure that our processes and operations continue to be challenged and externally audited within the strict guidelines of our national accreditation to ISO 14001 Environmental Management standards.

Within the street lighting industry our focus is to ensure that our environmental impact is reduced so far as practicable in terms of the waste that we produce, how we dispose of this waste, our carbon footprint from the energy consumed, and the way that we procure and use new materials and products.

### 7.2 Waste Management

Naturally, removing and replacing faulty or life expired parts creates waste, from lamps and lanterns right through to the soil we dig up to access the underground electrical cable network.

It is a requirement for all waste electrical products to be treated in accordance with the WEEE (Waste Electrical and Electronic Equipment) directives. All waste lamps, of which some may contain potentially environmentally harmful chemicals, gases and coatings, are segregated and collected by specialist carriers and treated to ensure that the chemicals are neutralised, and the glass components are separated from the metal elements for onward recycling and reuse.

Where possible, we reuse good quality lanterns from defective units to be able to maintain some of the more traditional stock throughout the county, which reduces our waste impact at source.

Careful selection and management of our waste contract partners ensures that we do as much as we can to reduce our environmental impact. As part of our initial waste management, we provide separate skips for different waste types such as metal, concrete, WEEE, tarmac and spoil. This means we can reduce follow-up costs by ensuring that secondary segregation at waste transfer stations is minimal and contamination is reduced. In working this way throughout all parts of our highways business we have an impressive record of waste management and control with less than $1 \%$ of our entire waste product streams being sent to landfill.

The increased usage of LED technology will not necessarily improve our recycling statistics, over $99 \%$ would be hard to beat, but the move away from traditional lamp sources will reduce the types of waste and improve the overall environmental impact with chemical waste being removed from the manufacturing and recycling of the product.

### 7.3 Energy Consumption

Since the contract commenced in 2003 the unit cost of energy has soared. This has placed significant strain upon households and businesses alike, including the provisions of public services such as street lighting. Day to day, almost everything we do relies in some part on energy consumption and due to cost increases, we have all had to rethink our personal strategies in the workplace and at home to reduce energy.

Social responsibility comes at a cost, but the interventions and investments reduce loss and wastage at the consumption stage of the chain, which ultimately increases efficiency and lowers cost over the long term.

Energy reduction has always been a driver for the contract operationally. However, the significant increases in energy costs have forced us, and the industry, to rethink our approach to creating, delivering and maintaining sustainable, low energy solutions. Our early intervention to remove mercury tungsten lamps netted initial savings of over $500,000 \mathrm{kWh}$ per year and the asset renewal programme has continued to steadily reduce energy costs through the careful design and lantern selection processes adopted.

The technologies available in 2003 were set to save around $30 \%$ of energy consumption, and, as previously set out, LED based lanterns have far exceeded these expectations. In September 2015 we completed a significant two-year investment programme to retrofit dimmable control gear into existing higher wattage lanterns. The investment package saw sustainable annual savings of over 3.8 million kWh .

Staffordshire County Council have provided additional investment in the last few years for further intervention measures which will have long term advantages. These include the de-illumination of various signs and bollards throughout the region which under changes in the Traffic Signs Regulations no longer need to be lit.

### 7.4 Light Pollution

Although light pollution has been a challenging perception for the last 10 years, technological advancements have combatted this issue.

Upward light spillage has been significantly reduced as new lanterns have an upwards light ratio of less than $1 \%$ compared to $35 \%$ previously, which in turn means that there is more light focussed on the highway.

Whilst it will never be possible to completely stop resident concerns regarding light pollution, our records indicate that there is a reduction.

The maps below from lightpollutionmap.info show the reduction in light pollution across the Staffordshire County area. The red patches are the areas with the highest radiance levels and are found in our towns and darker areas have the lowest levels, areas to the northeast of Leek and around Market Drayton.


Light Pollution Map 2012


Light Pollution Map 2022

### 8.0 Annual Innovation Plan

### 8.1 Project Progress

As previously mentioned, innovation and technological advancement has been significant during the last few years. The industry has been revolutionised by LED solutions, stand- alone dimmable controls and a range of other measures that reduce energy consumption and increase light output. Whilst the momentum of change is set to continue, we have maintained our focus on ensuring products we have invested in are protected rather than being pushed aside by other new developments.

### 8.2 Contract Modernisation

In 2012 we completed the Contract Modernisation Review which looked at the key delivery outputs of the services required under the contract. In doing this we could address some elements of the output requirements to rationalise maintenance regimes and realise savings. The following summarises the ongoing benefits we have seen from this process.

### 8.2.1 Contract Modernisation - Maintenance

Maintenance activities, which account for over $50 \%$ of the contract deliverable cost, have been addressed to make significant savings by changing basic cyclic attendances. We have realigned dates for all maintenance activities to ensure that we complete all activities in one visit therefore improving efficiency and reducing vehicle costs associated with multiple visits. We also reduced the number of night patrols and bollard washes to align winter and summer regimes.

### 8.2.2 Contract Modernisation - Asset Renewal

To embrace the emerging technological advancements and energy saving devices, a full review of design parameters and requirements was undertaken to ensure we continue to be efficient and relevant in meeting the lighting requirements and objectives for Staffordshire.

The full use of LED technology within the residential areas, combined with multistatic dimming features to reduce light output and energy consumption, is providing savings in line with planned forecasts and the more recent inclusion of higher classification roads will now start to show increased benefits.

The energy saving benefits as described earlier in this report will be carefully monitored as we progress, and we fully expect further improvements and enhancements over the coming years.

### 8.3 Current and Future Plans

We have progressed with the Invest to Save LED replacement programme to replace over 47,000 lanterns with LED low wattage replacements that will provide Staffordshire County Council with significant energy savings.

To date we are 26 months into the four-year programme and have fitted almost 30,000 lanterns across the county, which have generated a cumulative energy saving of 5,714,006 kWh.

### 9.0 Summary

The 2022/23 period saw the project deliver a good quality, efficient, cost effective and robust service.

We have continued to provide best value through our chosen technology solutions, annual energy reduction, and combined maintenance regime changes, which have all delivered savings back to the Authority.

Although the asset renewal programme is behind target, there is an intense focus on this to ensure the deficit is recovered within the first half of the next annual reporting period.

Over 1,200 units have been replaced in the period and lights lit have been consistently above the target of $98 \%$ with an annual average of $99.43 \%$. We have attended to almost 17,700 routine fault reports as well as 580 emergency events, carried out routine maintenance checks on over 34,000 assets and continued with night patrols.

If you would like to find out more about the Staffordshire PFI Project or E.ON UK, please visit our websites at www.lightingforstaffordshire.net or www.eon-uk.com or write to us at:
E.ON Energy Solutions Limited

Units 8-10 Sandown Industrial Park
Gosforth Road
Derby DE24
8 HU

If you would like to report a street lighting fault please visit the Lighting for Staffordshire website or use the Report It tool, which can be found on the Staffordshire County Council website.

