

**PROJECT UPDATE: STREET LIGHTING AND HIGHWAY  
SIGNS PFI CONTRACT**

**JOINT REPORT OF THE EXECUTIVE DIRECTOR OF CITY SERVICES  
AND AURORA (SUNDERLAND STREET LIGHTING LTD)**

**Strategic Priorities: Attractive and Inclusive City, Prosperous City and  
Safe City**

**Corporate Priorities: CIO1: Delivering Customer Focused Services, CIO4:  
Improving partnership working to deliver 'One City'**

**1.0 PURPOSE OF THE REPORT**

**1.1** The reason why the report has been brought to Committee is that progress on the Street Lighting and Highway Signs PFI is included on the Committee's 2012-2013 work programme.

**2.0 PART A: INTRODUCTION SUNDERLAND CITY COUNCIL**

**2.1** Street lighting continues to be rated by the city's residents as one of the most important services provided by the council.

**2.2** The Street Lighting and Highway Signs PFI contract commenced in 2003, has duration of 25 years and is worth over £5m per annum. In the first five years of the contract Aurora invested over £30m in providing the city with nearly 31,000 lighting units and 4000 highway signs. Since the completion of this work, Aurora has focused their resources on the operation and maintenance aspects of the service as well as assessing the requirement, based on risk, for a future replacement programme.

**2.3** The contract is one based on performance with payments being made on achieving the contractual standards.

**2.4** The council's role in the delivery of the street lighting service is that of contract monitor; assessing Aurora's performance against the five relevant performance standards within the contract and applying deductions where necessary on a monthly basis. The standards are set out in Aurora's report (Part B).

**2.5** Its pleasing that Aurora's performance continued to improve during the last year with the level of deductions being reduced to reflect this.

**2.6** Whilst Aurora's report highlights its performance against the contractual standards, there is more focus on innovation and the examination of more

energy efficient technology which if adopted will assist in reducing the city's carbon footprint and energy costs.

- 2.7 Representatives from Aurora, Phil Jordan (PFI General Manager) and Neil Bailey (Design Manager), will be attending the meeting to present their update report and answer any questions raised by members.

### **3.0 PART B: PROGRESS REPORT –AURORA (SUNDERLAND STREET LIGHTING LTD)**

- 3.1 2011 was the 8th year of the 25 year P.F.I. project, and the annual maintenance programme continues to be delivered following the completion of the Core Investment Programme (CIP) in August 2008. The 2011 annual service report has been submitted, using information obtained from the eighth year of operation, and supplementary information provided by our partner Sunderland City Council.

- 3.2 **Performance Standard 1-** related to installations of new columns during the Core Investment Period (Applicable years 1 to 5 of the project). There is therefore no requirement to measure performance against this standard.

#### **3.3 Performance Standard 2- Lighting Performance and Planned Maintenance**

- 3.3.1 Maintenance undertaken in 2011 in accordance with this standard included; electrical testing, structural inspections, bulk lamp replacements, painting, cleaning, and routine monitoring using night time patrols. In all 55,150 planned maintenance operations were completed in 2011, which is in keeping with the rolling four year maintenance cycle. Planned maintenance also includes highway signs and illuminated traffic bollards, and each sign has received at least one maintenance visit within the year, Traffic bollards have 7no visits, 1no in summer and the remainder throughout the winter months.

- 3.3.2 The lighting standard required in the contract is that 98% of units shall be lit during their hours of operation. An average of 99.35% was achieved throughout 2011. The 2011 yearly average equates to 305 units from a total of approximately 47,000 units being inoperative at any one time.

- 3.3.3 A visual inspection has also been carried out as part of each planned maintenance operation in line with national guidance.

- 3.3.4 There were no deductions made against this standard during 2011.

#### **3.4 Performance Standard 3-Operational Responsiveness and Reactive Maintenance**

- 3.4.1 Within the contract Aurora has 7 calendar days to respond to faults on its

apparatus. The average time taken to repair a non emergency fault in 2011 was 4.96 calendar days, representing a 10% improvement on 2010 response times and well within the contract requirement.

- 3.4.2 There were 134 reported column knockdowns as a result of Road Traffic Accidents (RTAs) which were attended to in 2011, the majority of which were replaced within the contract requirement time of 15 working days. The exceptions being columns located on a High Speed Road, which were replaced within planned road closures.
- 3.4.3 There were 192 reports of vandalism to street furniture in the year, which is the same as the reported figures for 2010. These were also dealt with in the prescribed rectification period set down in this standard. Only 4 reports of vandalism to subways were received, a further reduction on previous years figures.
- 3.4.4 Members will recollect from Aurora's previous annual reports and the presentation given by NEDL, on request of the Scrutiny Committee in 2010, that an area of concern was the response to lighting faults caused by electrical supply failure which is the responsibility of Northern Powergrid (formerly NEDL). Aurora is pleased to report that the response time performance of Northern Powergrid in 2011 has improved 26%, averaging 17 calendar days as opposed to 22 days previously. This is a result of improved communications and reporting processes involving all parties. However, when it is likely that permanent repairs will not be carried out by Northern Powergrid in a reasonable time, Aurora continues to be committed to installing temporary overhead supplies in sensitive and high risk areas.
- 3.4.5 There were no deductions made against this standard during 2011.

### **3.5 Performance Standard 4-Contract Management and Customer Interface.**

- 3.5.1 As stated in paragraph 2.1, street lighting continues to be rated by the city's residents as one of the most important services the council provides. The most recent Ipsos MORI satisfaction survey undertaken on behalf of the council indicated a 92% satisfaction with street lighting, the highest scoring of all the council's services. Aurora will be striving to make further improvements during 2012 and thereafter.
- 3.5.2 The Business Support section of Aurora Street Lighting is constantly monitoring and dealing with customer contacts in accordance with this standard. Complaints and enquiries are logged onto the 'Communication Tracker' which is a Customer Liaison database. The level of complaints and enquiries have dropped significantly since the end of the C.I.P. in 2008 from 167 to 67 in 2011, which was to be expected due to significantly less construction works taking place.

3.5.3 The contract manager has ownership of each enquiry, and is accountable for ensuring response times are in accordance with the standard. The response times set down in the contract are within 5 working days for a council enquiry, all other enquiries within 10 working days. In the year, 87 design and estimate requests were received and all met within target, 44 were 5 working day response times, 43 had 10 day response times.

3.5.4 Additionally a total of 67 'Tracker' service complaints or enquiries concerning lighting levels were dealt with in 2011, 28 of these were from elected members. At the time of compiling this report there were zero outstanding complaints or enquiries. A total of 1765 telephone enquiries regarding street lighting were received from the public in 2011.

3.5.5 Deductions in the sum of £3872.72 were made against performance Standard; this was due to the standard charge agreed with SCC relating to the non provision of 24 hour Contact Centre. It is important to note that since service commencement and through agreement with the council this service has been provided by the council's out of hour's team. The number of reports is minimal averaging only eight faults per week. The agreed charge is £320.91 per month (indexed).

### 3.6 **Performance Standard 5-Best Value Assistance and Reporting**

Performance standard 5 refers to the timely and accurate provision of the monthly and annual service report which includes the following items:

- Performance against local and national performance indicators
- Environmental considerations (waste, energy etc)
- Innovation and service improvement.
- Health and Safety Issues.
- Customer feedback and satisfaction

No penalties have been received under performance standard 5 for the year.

### 3.7 **Performance Standard 6-Working Practices**

Performance Standard 6 monitors the performance of Aurora Street Lighting in dealing with failures of health and safety categorised as Routine, Urgent and Serious.

Failure to deal with incidents of this nature in the timescales set out in the Output Specification/Method Statements results in financial deduction and the accrual of Service Points.

No financial deductions or Service points have been levied in the reporting year. Aurora's accident frequency rate (AFR) was zero in the

year.

#### **4.0 OTHER AREAS OF SERVICE DELIVERY**

- 4.1 Both the Houghton Feast and Christmas Festive Lighting programmes were delivered to specification in 2011/12, including additional City Centre Illuminations. Over 1,600 labour hours were expended on erecting, improving and removing the festive lighting during the period. Feedback from the council's events team is that both programmes proved to be a success and were well received by the public and elected members.
- 4.2 Aurora continue to assist the Council in making communities feel safer by undertaking operations for the Central Security Unit; erecting, re-locating and repairing CCTV cameras.34 jobs were carried out in the year.
- 4.3 The new street lighting and illuminated artwork elements of the Marine Walk Lighting Scheme was successfully completed by Aurora in October 2011. Phase 1 of the Street Lighting element of the Market Square project was also delivered in 2011, with Phase 2 having started in early March 2012.

#### **5.0 INNOVATION, NEW TECHNOLOGY AND DEVELOPMENT WORK**

- 5.1 As the project moves into year 9, solutions are constantly being sought to reduce the city's carbon footprint and its £2.8m annual energy costs. Aurora has, in conjunction with the Council, continued to explore product information and data relating to areas of the contract where savings may be made.
- 5.2 Under the PFI Project, Aurora has takes responsibility for the liability and risk associated with the lighting assets. Their replacement will normally be due to failure, end of life or invest to save opportunities. The main area for invest to save in 2012 is Wessington Way comprising 227 lantern replacements.
- 5.3 In 2011 trialling of innovative products has been introduced to several areas to improve service delivery, and product efficiency. The following are examples:

<b>Brief</b>	Pro-active installation of a more robust Subway Lighting unit.
<b>Benefit</b>	Reduction in vandalism to lighting, improved lighting levels.
<b>Responsibility</b>	R Barnett.
<b>Due Date</b>	Commenced 2010 (ongoing).

<b>Brief</b>	SCC access to elements of the 'Communication Tracker'.
<b>Benefit</b>	Facilitate improved transparency.
<b>Responsibility</b>	Peter Cook/ Paul Stoddart.
<b>Due Date</b>	March 2011 - completed

<b>Brief</b>	Installation of LED Units in Bk.Green Tce/Bk. Hylton Rd.
<b>Benefit</b>	Trial – Reduced energy/maintenance costs.
<b>Responsibility</b>	SCC & Aurora.
<b>Due Date</b>	Ongoing

<b>Brief</b>	Installation of Solar Powered Bollards-several locations.
<b>Benefit</b>	Zero energy costs.
<b>Responsibility</b>	SCC & Aurora.
<b>Due Date</b>	Ongoing.

<b>Brief</b>	Photograph all Traffic Signs held in inventory.
<b>Benefit</b>	Faster sign recognition for replacement/maint. Purposes.
<b>Responsibility</b>	R.Barnett/P.Cook
<b>Due Date</b>	90% complete (ongoing).

<b>Brief</b>	Invest in LED Lamps for % of H/ton Feast Illuminations.
<b>Benefit</b>	Trial - Reduced energy/maintenance costs.
<b>Responsibility</b>	R.Barnett.
<b>Due Date</b>	2011/12 Annual Works Programme (ongoing).

5.4 Light Emitting Diodes (LEDs) energy reducing technology has previously been examined as a replacement option for our existing lamps. These can provide benefits of reduced energy consumption, planned

maintenance and faults with the benefit of improved reliability. Additional benefits include improvements to health and safety and the sustainability of the project. Previously, capital costs proved prohibitive for the investment, however recent advances in the manufacturing processes have significantly reduced these costs. Aurora are examining potential finance opportunities and reworking financial models to establish a business case for their use.

- 5.4.1 As referred to in paragraph 5.2, currently there are issues with having to attend to faults on Wessington Way as we rely on planned closures for access. This results in lights being out for significant periods of time. Work is currently being carried out by Aurora to determine a design solution using LED technology for the replacement of the lanterns on Wessington Way in 2012. Implementation of such a scheme will greatly reduce the frequency of attendance. The aim is to remove the need for lamp changes and reduce energy by an estimated 25%.
- 5.5 Aurora have installed a small number of lighting columns with LED lanterns in two back lanes (Hylton Road and Green Terrace) which are currently being trialled; agreement on performance standards with regard to what constitutes a lamp failure will need to be confirmed with the council.
- 5.6 Methods of trimming (reducing burning hours) have been investigated and an easy option is the use of new photo electric cells (PEC). It is intended that stock will be changed from 70/35 lux switching to new 35/18 lux by July 2012 which provides a change in the lantern switching regime resulting in less burning hours of the lantern. It is estimated this could provide approximately a 2% reduction in burning hours per lantern.
- 5.7 Aurora is currently working on street lighting asset modelling, utilising data from 300,000 assets from across existing Balfour Beatty street lighting PFI business to provide improvements in the management of the assets.
- 5.8 Consideration could be given by the council to the re classification of lighting standards on the road network, whereby introducing new “white light” technology, could allow a reduction in lighting classification levels where appropriate.
- 5.9 In the first half of 2012 the specification for developers will be reviewed, updated and agreed with the council. The proposal is to allow developers to incorporate newer energy reducing technology on new developments within the city. The document will be reviewed annually thereafter.

## **6.0 DEVELOPMENTS UTILISED IN OTHER PFIS**

- 6.1 As stated earlier in the report Aurora is entering the 9th year of the PFI, and since the commencement of this contract our parent company,

Balfour Beatty (Living Places), has been successful in acquiring six other PFI concessions.

It may be helpful for the Committee to be advised of some of the solutions being adopted in these contracts.

6.2 A Central management system (CMS) has been introduced on the complete Coventry PFI inventory. This enables the removal of night patrols, auto reporting of faults, trimming and dimming of the inventory and allows for preventative maintenance of the stock. With innovative design solutions and implementing a CMS a target energy reduction of 38% is forecast.

6.3 The newer PFIs provide options to have a mixed lighting solution depending on the network. These cover the following:

- A non design lighting class solution (1 for 1) with an option to reduce columns within a street and a design class solution on part of the network e.g. high speed roads.
- CMS solution depending on population size.
- De illumination or solar power of highway signs
- Implementation of reflective technologies wherever possible and low energy LED lamps to traffic signs.
- Implementation of fluorescent street lighting technology in Northamptonshire as one measure to significantly reduce energy

## **7.0 RECOMMENDATIONS**

7.1 The committee is recommended to note the contents of this report.

## **8.0 BACKGROUND PAPERS**

8.1 Annual Service Report 2011