REPORT TO: **CITY DEVELOPMENT COMMITTEE - 24 MARCH 2014**

REPORT ON: **STREET LIGHTING PARTNERSHIP**

REPORT BY: **DIRECTOR OF CITY DEVELOPMENT**

REPORT NO: **93-2014**

1 PURPOSE OF REPORT

1.1 This report provides an update on progress and performance of the Street Lighting Partnership with Tayside Contracts on the delivery of the Street Lighting Services within Dundee City Council to 31 March 2013.

2 RECOMMENDATION

2.1 It is recommended that the Committee notes the content of this report and agree that the Director of City Development continues to report back annually to the Committee with the ongoing progress of the Partnership.

3 FINANCIAL IMPLICATIONS

3.1 There are no direct financial implications arising from this report.

4 BACKGROUND

4.1 Reference is made to Article I of the City Development Committee of 27 February 2012 (Report 53-2012 refers) when approval was given to extend the Street Lighting Partnership with Perth & Kinross Council and Tayside Contracts by a further 3 years to 31 March 2015.

4.2 An Executive group comprising two senior officers from each Council and Tayside Contracts meet three times a year to review performance of the Partnership against a number of agreed criteria. The Partnership continues to perform well.

4.3 The Street Lighting Partnership is fully committed to the Roads Asset Management Planning framework. All street lighting inspections, repairs, inventory and records are held and updated electronically. The Asset report contained in Appendix 1 provides information on the annual status and performance of the Councils street lighting assets as of the 31 March 2013.

4.4 Complementing Audit Scotland recommendations, the report also contains benchmarking information taken from the SCOTS/APSE (Society of Chief Officers Transport Scotland/Association of Public Service Excellence) benchmarking exercise 2012/13 which collects and compares the annual performance of all 32 Scottish Councils against agreed key service performance indicators. Dundee City Council forms part of the SCOTS Cities family grouping of Councils and is compared against Aberdeen, Edinburgh and Glasgow. Scottish averages are also referred to where appropriate. Year on year figures are contained within the report to give an internal annual comparison and an indication of trends.

4.5 The highlights from the comparison and benchmarking exercise for 2012/13 are listed below:

Scottish Cities Comparison

- Dundee City Council consumes the least amount of electricity annually per street light and has the lowest carbon footprint of any Scottish City.
- The costs for repairing a routine fault is lower than any other Scottish City
- The City has the most reliable street lights averaging almost 6 years between repairs.

Scottish Council Comparison

- Dundee City Council has the highest percentage of street lights operating correctly on any one evening than any other Council in Scotland.
- To assist with recognition and reduce the fear of crime, Dundee City Council has the highest percentage of modern white light sources of any Scottish Council.
- As a percentage of street lights, Dundee City Council receives the fewest number of calls from the public reporting faults due to its proactive night inspection measures and speed of repair.

4.6 In National recognition for the Service standards provided as part of the APSE/SCOTS performance data submitted for 2012/13, Dundee City Council was shortlisted for a UK National Award 'Best and Most Improved Performer' for the delivery of Street Lighting for 2012/13.

4.7 The report in Appendix 1 provides financial information on value of the street lighting asset and its annual depreciation in accordance with CIPFA guidelines and the Whole of Government Account (WGA) returns. The report notes the increasing price of electricity and identifies the ongoing initiatives within the Street Lighting Partnership to mitigate these increases and the spend to save strategy which has reduced the Council's electricity consumption and costs. As a result of this work, it is projected that the annual electricity cost will reduce by £198,000 in 2013/14 compared to expenditure in 2012/13 and this is largely due to the proactive approach to take advantage of the developing lighting technology to reduce electricity consumption and reduce maintenance costs.

4.8 From the report it can be seen that the Street Lighting Partnership is already leading the rest of Scotland in many of these new technologies such as the use of energy efficient white light sources and part night dimming. LED lanterns are now becoming more affordable and becoming more attractive as spend to save solutions. As of the 31 March 2013, Dundee City had 617 LED street lights. This figure was the third highest number in Scotland. This number has since increased and latest figure show that the City now has 1,259 LED street lights in operation throughout the city and this number is expected to increase significantly in the coming years. The Street Lighting Partnership has taken advantage of Scottish Government supported funding through Salix provided at 0% interest. In 2013/14, loans of £226,000 have already been granted through this route for conversion of the City's existing 135w SOX lanterns to LED. This investment project involves the conversion of 519 street lights and based on electricity savings alone will deliver an under eight year payback on investment. The project will save 267,934kWhrs annually and over the 20 year life of the lanterns save 2,591 tonnes of CO2.

4.9 The Street Lighting Partnership Manager is presently seconded one day a week to assist with technical input to the Scottish Government led Scottish Futures Trust project aimed at accelerating the implementation of energy efficiency measures in street lighting throughout Scotland. This project has a number of work strands which has brought additional benefits to Dundee City Council and Perth & Kinross Council. As a direct result of this work, a £2million condition survey grant has been awarded to Councils in Scotland to assess the LED readiness of their existing lighting stock. Dundee and Perth & Kinross Councils are to receive £55,000 and £53,000 respectively. In addition, both Councils have been participating in Resource Efficient Scotland's eight Council pilot programme and are each to receive an additional £40,000 of consultancy support which is being used to further assess the electrical and structural condition of existing street lights. The Scottish Futures Trust has also agreed to part fund (£16k contribution) the first street lighting apprenticeship scheme to be run in Scotland. The course will be run in Dundee as a joint venture between Tayside Contracts and Oldham College.

4.10 The Lighting Partnership has introduced a trial Central Management System (CMS) in the City Square which also controls the Christmas lights. The system can adapt the lighting levels of the street lights remotely using RF signal communication. This CMS technology has

also been extended to operating the City's 20mph warning signs around schools and ensures that annual term times and operating hours can be instantly changed remotely without the need to visit each site.

4.11 The present Street Lighting Partnering arrangement meets the Scottish Government's objectives in increased partnership working in line with the Efficient Government Agenda and the street services model set by the Regional Transport Partnership.

5 POLICY IMPLICATIONS

5.1 This Report has been screened for any policy implications in respect of Sustainability, Anti-Poverty and Risk Management and no major issues have been identified. A Strategic Environmental Assessment and Equality Impact Assessment were deemed not to be required.

6 CONSULATIONS

6.1 The Chief Executive, the Director of Corporate Services and Head of Democratic and Legal Services have been consulted and are in agreement with the contents of this report.

7 BACKGROUND PAPERS

7.1 None.

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Director of City Development

Fergus Wilson
City Engineer

FW/LMcG/EH
Dundee City Council
Dundee House
Dundee

14 March 2014

Appendix 1

Highway/Road Asset

Annual Status & Performance

Report

Street Lighting

2013

1 INTRODUCTION

This report presents a summary of the Council's lighting assets as at 1 April 2013. The report complements the Road Asset Management Plan (RAMP). It provides information to enable choices about future levels of investment in the lighting asset.

Status Report

The status of the lighting asset is reported in terms of condition, the outputs delivered, the standards achieved and an indication of customer satisfaction.

Service Standards

This section details the existing service standards which are being delivered against the exiting budgets and expenditure.

Asset Performance and Benchmarking

The report provides an overview of the operational and financial performance for street lighting both in terms of yearly trends and also using the data from the annual APSE/SCOTS performance report 2012/13. Dundee City is in the SCOTS Cities family group and comparisons are made with the performances of Aberdeen, Edinburgh and Glasgow. Average performance figures for all 32 Councils is also provided where available for an overall comparison across Scotland.

Energy

The report considers the following:

Energy Efficiency and Spend to Save Initiatives

(a) Changing from Passive Half Hourly Metering to Dynamic Half Hourly Metering
(b) Restructuring of the way Distribution Use of System is Calculated
(c) Installation of more Energy Efficient Street Lighting

Routine and Reactive maintenance

Inspection and Testing

2 STATUS REPORT

Asset Group: Street Lighting

The Asset

Statistics

Material Type	Total No.
Non Galvanised Steel	5,598
Galvanised Steel	8,344
Concrete	4,131
Aluminium (pre 2000)	1,281
Aluminium (post 2000)	3,679
Cast Iron	150
Total	**23,183**

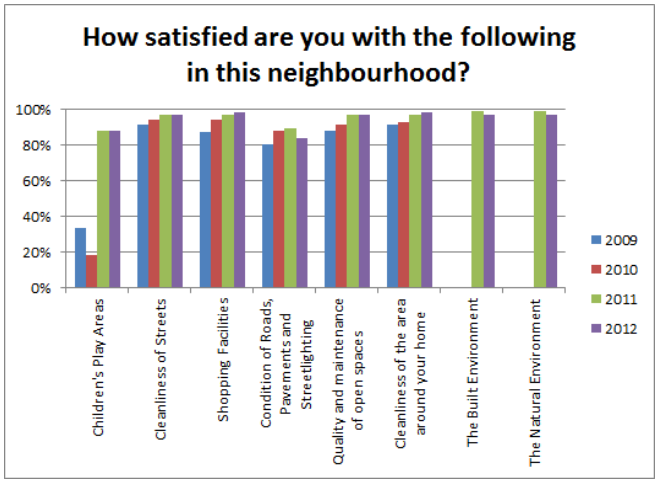
Lantern Types	Total No.
CDOTT	295
HPIT	0
LED	617
PLL	10,355
PLT	3,009
SON	6,956
SON (Dimmed)	1,007
SOX	2,352
Total	**24,591**

Cable Location	Total (m)
Carriageway	0
Footway	747,440 (estimate)
Verge	0
Total	**747,440**

Commentary

- The accuracy of street lighting inventory is good. It is stored in the WDM Asset Management System.
- Over the last 5 years there has been an increase of 1,518 columns, an average growth rate of 1.4% per annum.

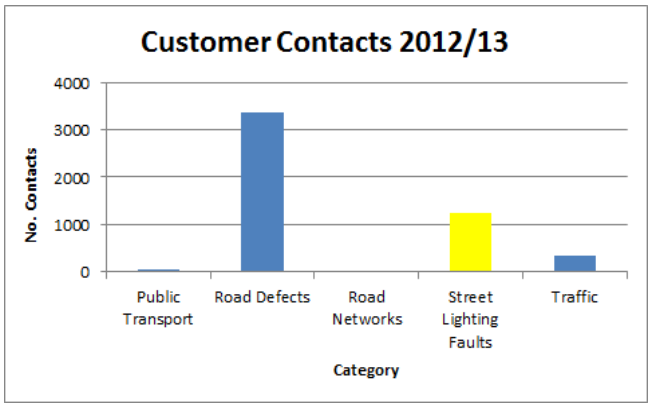
Customer Expectations



- Dundee City Council undertakes an Annual Citizens Survey.
- The chart to the left shows that satisfaction with the condition of roads, pavements and street lighting has dropped in 2012.
- It is considered that this may not be a true reflection of street lighting customer satisfaction and in future a separate street lighting question will be included in the Annual Citizen Survey.

Asset Group: Street Lighting

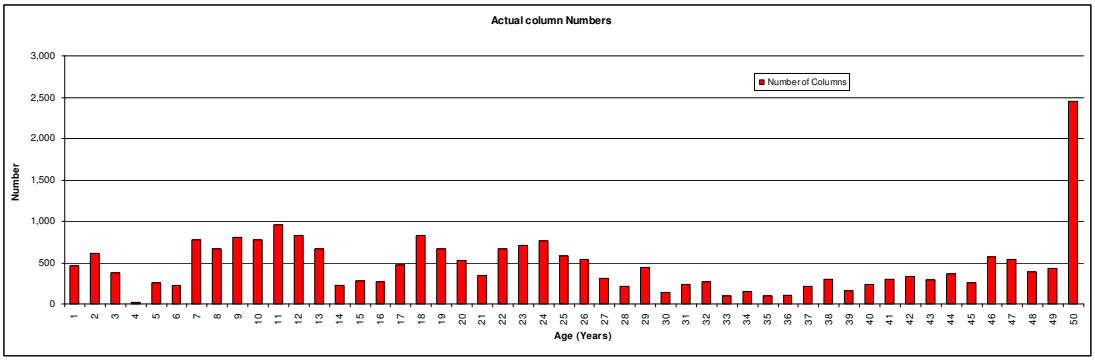
Statistics



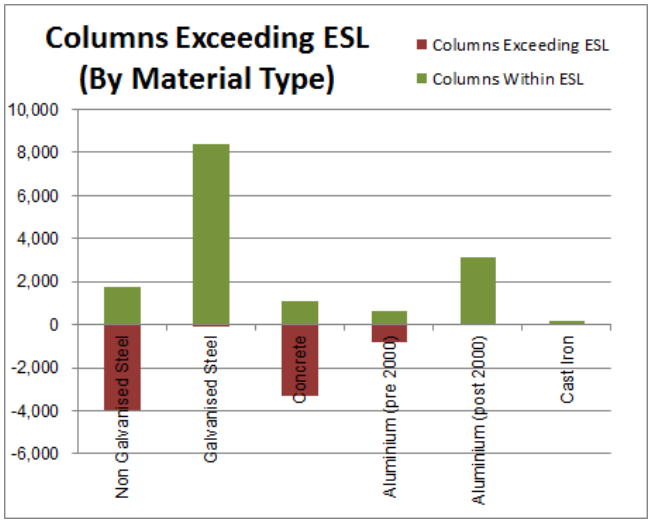
Commentary

- Dundee City Council Customer Services received 1,280 street lighting fault reports from customers in 2012/13.
- This was the second most common category behind road defects which had 3,363 contacts.
- In 2002/03 Customer Services received 2252 street lighting fault reports from customers.

Age (Columns)



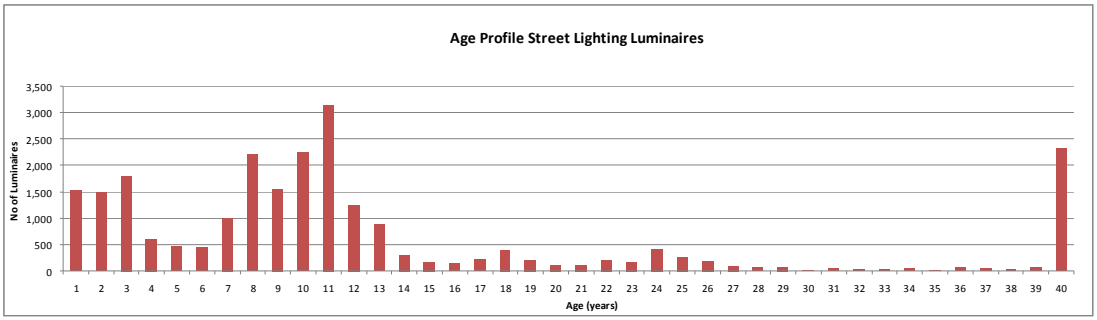
Columns Exceeding ESL (by Material)



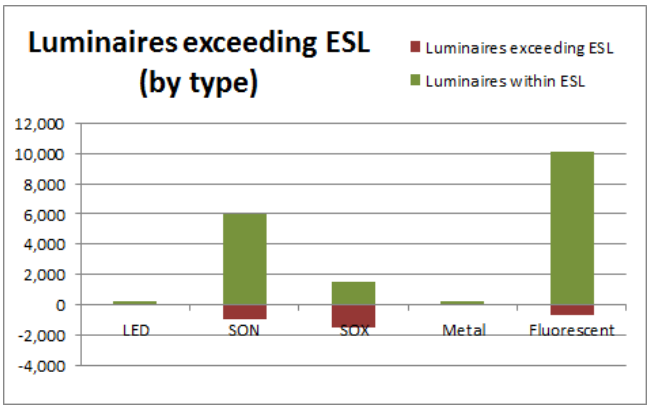
- In 2012/13, 37.04% of columns exceeded their Expected Service Life (ESL).
- The chart shows that a high proportion of non galvanised steel and concrete columns have exceeded their ESL.
- These column types have a high priority rating in the column replacement forward programme.

Asset Group: Street Lighting

Age (Luminaires)



Luminaires Exceeding ESL (by Type)



- In 2012/13, 17.67% of lanterns exceeded their Expected Service Life (Note: ESL is assumed to be 20 years for all luminaire types)
- The chart shows that 50% of the remaining SOX luminaires have exceeded their ESL.
- Replacement of SOX luminaries is a high priority in forward work programmes due to their high running costs.

Valuation

Gross Replacement Cost	£64,916,828
Depreciated Replacement Cost	£30,941,201
Annualised Depreciation Cost	£1,849,361

- The annualised depreciation (AD) was £1.85m which represents the average amount by which the asset will depreciate in one year if there is no investment in renewal of the asset.

Asset Group: Street Lighting

	Statistics	Commentary
2012/13 Investment and Output		

Cost Category	Investment £3,781,991	Output
Planned Maintenance - Preventative	£34,986	721 No. columns corrosion protected (£34,986)
Planned Maintenance - Corrective (Renewals)	£1,172,844	Tarring and reinstatements (£32,844) Capital Renewal (£1,140,000)
Routine Cyclic Maintenance	£22,181	2079 No. Group Lamp Replacement (£22,181)
Reactive Maintenance (Emergency)	£99,266	Emergency Attendance / Repairs (£31,046) Emergency Attendance / Repairs (out of Hours) (£25,559) Vandalism (£1,899) 52 No. Unplanned Dangerous Column Replacement (£40,762)
Reactive Maintenance (non-safety related)	£391,144	1,419 No. Daytime Routine Repairs (£54,983) 2,606 No. Night time Routine Repairs (£105,490) 61 No. Cable Faults (£62,241) 546 No. Unserviceable Lantern Replacement (£158,276) Ancillary Materials (fuses etc) (£9,581) Tree Trimming (£573)
Inspections & Survey	£34,983	1,472 No. Electrical Test and Inspection (£19,426) 24 Scouts, Nightshift Scout and Inspection (£3,391) Inventory updates and numbering (£12,166)
Operating Costs	£1,428,106	Workshop and Recycling (£15,379) 11,358,179kWhrs Electricity Consumption (all street Furniture) (£1,412,727)
Staff Costs	£254,274	Staff Costs (£254,274)
Overheads*	£510,401	Office Rent (£10,562) Software Licences & Odds (£5,055) Transport Costs (£11,408) Support Services (£82,000) Capital Charges (£401,376)
Income	-£166,194	Rechargeable works and shared services

2 SERVICE STANDARDS

Reactive Maintenance Services

The Council is responsible for providing and maintaining good quality street lighting across Dundee making our communities feel safer, extending the leisure and working day and reducing the fear of crime.

Maintenance activities are prioritised within the limits of available budgets as follows:

1. Ensure the safety of existing equipment
2. Keep existing lights working
3. Improve reliability of existing lighting
4. Upgrade lighting standards in areas already lit
5. Provide lighting in unlit areas (only if funded by others)

Repair/Response Times

- Repairs above ground to street lighting, signs and bollards are to be completed within 7 calendar days.
- Performance on repairs is measured and the target is set at 95% completed within 7 calendar days
- Repairs to underground cable faults, which are Dundee City Council responsibility to be completed within 28 days. If the cables are the responsibility of Scottish & Southern the faults will be reported to Scottish & Southern and a regular monitor of the situation kept until resolution of the fault
- Provide an effective emergency response within 4 hours.
- Evaluate and respond to written enquiries within 5 working days from receipt.

Evening Inspections of Lights (Scouting)

- Street lights, illuminated signs and bollards are inspected for illumination after dark every two weeks Monday to Friday
- To expedite repairs and reduce the administration costs of processing public defect reports, a repair team work in conjunction with a Night Inspector to repair faults as they are identified.
- Observed defects and repairs are entered into the fault management system the next working day.
- This policy applies to all areas, including remote paths and underpasses.
- The public are encouraged to report faults by phone on the Councils free phone customer care number 0800 23 23 23 between 9am and 5pm Monday to Friday.

Emergencies

Emergencies are responded to within 4 hours and cover the following

- Lighting column, control pillar, lit sign pole damaged by vehicles
- Loose lanterns brackets, signs likely to fall and endanger the public
- Damage to lighting cables or overhead lines
- Lighting column or control pillar door missing and wiring disturbed
- Groups of lights and single lights out are not normally classed as emergencies and will be passed for repair the next working day.

Out of Hours Emergencies

AN OUT OF OFFICE HOURS AND WEEKEND EMERGENCY CALLOUT SERVICE IS IN PLACE 365 DAYS A YEAR TO DEAL WITH THE EMERGENCIES LISTED ABOVE.

- THE COUNCIL OUT OF HOURS CONTACT CENTRE WILL RECORD AND PROCESS ALL CALLS RECEIVED FROM THE POLICE AND THE PUBLIC.
- Any issues identified are either rectified immediately if public safety is involved or programmed for upgrading at a later date.
- In cases of direct Public Safety, the Standby Operative will be called by the Contact Centre to investigate and decide on the appropriate action to be taken.
- On the first working day after any holiday shut down, all non-urgent requests will be dealt with speedily.

A comprehensive listing of all types of call and their respective priority rating is shown on in Table below. Responses are classified into 2 categories as follows:

PRIORITY 1 – EMERGENCY (matters that require immediate attention)

PRIORITY 2 – ROUTINE (matters that require to be notified to the Street Lighting Office at the start of the next working day)

STREET LIGHTING				
ACTIVITY	**PRIORITY**	**SERVICE REQUEST**	**PASS TO**	**COMMENTS**
Roads Street Lighting	1	Lighting column, control pillar or lit sign pole damaged by vehicles.	Standby Operative called out to attend	
	1	Loose lanterns brackets, signs likely to fall and endanger the public.	Standby Operative called out to attend	
	1	Damage to lighting cables or overhead Lines	Standby Operative called out to attend	
	1	Lighting column or control pillar or lit sign pole door off/ missing and wiring disturbed.	Standby Operative called out to attend	
	1	Groups or single lights out reported by the Police	Standby Operative called out to attend	Only at the request of the Police
	1	Reports of Columns corroded, likely to fall and endanger the public	Standby Operative called out to attend	
	2	Equipment loose/ bracket swung round but unlikely to fall or endanger public	The Street Lighting Partnership Depot Office next working day	Refer to procedure on Roads Lighting
	2	Groups or single lights out reported by the Public		
	2	Mandatory lit signs and bollards		
	2	Lighting continuously on		
Illuminated Traffic Bollards	1	Bollard base unit damaged / Uprooted and wires exposed	Standby Operative called out to attend	
	2	Bollard shell missing	The Street Lighting Partnership Depot Office next working day	

3 ASSET PERFORMANCE AND BENCHMARKING

Asset performance is measured using a suitable suite APSE (Association for Public Service Excellence) and SCOTS (Society Chief Officers Transportation Scotland) Performance Indicators (PIs). These PIs grouped under applicable categories are shown in the table below with our council's results over the last four years.

- Indicators: Mandatory Indicator; - all authorities should provide this data
- Statistic: Other Important asset performance data that authorities should also consider collecting

Table 3.1 APSE/SCOTS Performance Indicators Yearly Trend Comparison

	PI Ref:	SCOTS / APSE PI Description	Base Year 2000/01	Council Results			
				2009/10	2010/11	2011/12	2012/13
Safety	Stat	Total number of street lights	Not dev	22,300	24,129	24,363	24,591
	Stat	Total number of street lighting columns	Not dev	21,841	23,411	23,190	23,183
	39	Percentage of columns with a valid Structural Test Certificate	Not dev	Not dev.	25.38%	17.04%	54.23%
	40	Percentage of street lights with a valid Electrical Test Certificate	Not dev	Not dev.	23.79%	33.44%	46.19%
Condition and Asset Preservation	29a	Faults as a percentage of street lighting stock	41.2%	22.11%	20.00%	18.89%	16.94%
	Stat	Percentage of columns which have exceeded their Expected Service Life	Not dev.	Not dev.	Not dev.	35.06%	37.04%
	Stat	Percentage of lanterns which have exceeded their Expected Service Life	Not dev.	Not dev.	Not dev.	14.13%	17.67%
	29b	Mean time between failures (MTBF) in years	2.43	4.52	5.00	5.30	5.90
	Stat	Percentage of columns replaced	Not dev.	2.71%	1.64%	2.41%	2.01%
	Stat	Percentage of lanterns replaced	Not dev.	7.43%	8.15%	5.77%	6.23%
Customer Service	3	Percentage of repairs within 7 days	Not dev.	95.60%	92.50%	94.31%	96.00%
	20	Average time taken to repair (elapsed days)	Not dev	1.90	2.50	2.83	3.16
	27	Public calls as a percentage of faults	30.8%	28.72%	32.03%	30.28%	30.72%
	28	Public calls as a percentage of street lights	12.8%	6.35%	6.41%	5.72%	5.21%
	Stat	Percentage of street lights modern white light	Not dev.	45.04%	49.42%	49.95%	58.05%
Availability	2b	Percentage of street lights not working as planned on any one evening	Not dev.	0.35%	0.35%	0.34%	0.50%
	Stat	Number of night inspections annually	Not dev.	48	48	48	24
Financial	35	Actual capital investment as a percentage of annual depreciation (from AMP)	Not dev	35.09%	36.85%	49.27%	41.98%
	36	Depreciated Replacement Cost (DRC) as a percentage of Gross Replacement Cost (GRC)	Not dev	64.33%	43.32%	48.70%	47.66%

Table 3.1 APSE/SCOTS Performance Indicators Yearly Trend Comparison							
	PI Ref:	SCOTS / APSE PI Description	Base Year 2000/01	Council Results			
				2009/10	2010/11	2011/12	2012/13
	33	Average cost (client) of repairing routine faults (eg. component replacement)	£37.79	£29.44	£27.12	£27.01	£29.24
	34b	Individual cost of night inspecting a street light per light	Not dev	£0.04	£0.03	£0.03	£0.03
	42	Revenue allocation per street light excluding electricity costs	Not dev	£27.04	£28.68	£25.56	£25.86
	43	Capital allocation per street light - replacement	Not dev	£20.18	£24.04	£23.81	£31.57
	1a	Total investment in infrastructure per street light	Not Dev	£47.22	£52.72	£49.37	£57.42
	Stat	Percentage Capital allocated to previously unlit areas	Not dev.	0.0%	0.0%	0.0%	0.0%
Environmental	18b	Average annual electricity consumption per street light (kWhrs))	Not dev	405.79	424.14	420.07	405.84
	Stat	Average annual CO_2 emissions per street light (kg)	Not dev.	Not dev.	227.76	225.58	218
	Stat	Percentage of street lights Dimmable or Part Night Operation	Not dev.	Not dev.	1.96%	3.33%	4.09%

Table 3.2 Benchmarking Comparison with other Cities and Scottish Averages							
	PI Ref:	SCOTS / APSE PI Description	Scottish Average	Council Results 2012-13			
				Dundee	Council A	Council B	Council C
Safety	Stat	Total number of street lights	28,053	24,591	32,109	71,907	63,363
	Stat	Total number of street lighting columns	26,857	23,183	30,761	68,201	57,712
	39	Percentage of columns with a valid Structural Test Certificate	15.64%	54.23%	0%	No Data	No Data
	40	Percentage of street lights with a valid Electrical Test Certificate	57.81%	46.19%	22.28%	15.54%	No Data
Condition and Asset Preservation	29a	Faults as a percentage of street lighting stock	19.28%	16.94%	25.5%	28.25%	22.15%
	Stat	Percentage of columns which have exceeded their Expected Service Life	32.15%	37.04%	31.09%	52.00%	30.54%
	Stat	Percentage of lanterns which have exceeded their Expected Service Life	32.04%	17.67%	43.03%	No data	48.31%
	29b	Mean time between failures (MTBF) in years	4.3	5.90	3.9	3.5	4.5
	Stat	Percentage of columns replaced	1.49%	2.01%	1.32%	0.68%	0.31%
	Stat	Percentage of lanterns replaced	3.99%	6.23%	2.50%	No data	1.14%
Customer Service	3	Percentage of repairs within 7 days	91.9%	96.00%	85.86%	96.12%	92%
	20	Average time taken to repair (elapsed days)	4.8	3.16	5.06	3.30	2.74
	27	Public calls as a percentage of faults	53.31%	30.72%	No data	96.16%	58.49%
	28	Public calls as a percentage of street lights	10.33%	5.21%	No data	24.34%	12.96%

Table 3.2 Benchmarking Comparison with other Cities and Scottish Averages							
	PI Ref:	SCOTS / APSE PI Description	Scottish Average	Council Results 2012-13			
				Dundee	Council A	Council B	Council C
	Stat	Percentage of street lights modern white light	16.72%	58.05%	37.56%	11.38%	15.41%
Availability	2b	Percentage of street lights not working as planned on any one evening	3.3%	0.50%	1.06%	14.38%	11.24%
	Stat	Number of night inspections annually	21	24	18	0	0
Financial	35	Actual capital investment as a percentage of annual depreciation (from AMP)	51.56%	41.98%	32.91%	9.94%	No data
	36	Depreciated Replacement Cost (DRC) as a percentage of Gross Replacement Cost (GRC)	53.82%	47.66%	39.76%	37.79%	No data
	33	Average cost (client) of repairing routine faults (eg. component replacement)	£74.85	£29.24	£30.14	No data	No data
	34b	Individual cost of night inspecting a street light per light	£0.07	£0.03	£0.06	No data	No data
	42	Revenue allocation per street light excluding electricity costs	£31.82	£25.86	£35.36	£78.11	£24.60
	43	Capital allocation per street light - replacement	£31.84	£31.57	£15.59	£4.98	£50.93
	1a	Total investment in infrastructure per street light	£58.56	£57.42	£50.95	£83.09	£75.53
	Stat	Percentage Capital allocated to previously unlit areas	0.08%	0.0%	0.0%	0.0%	0.0%
Environmental	18b	Average annual electricity consumption per street light (kWhrs))	405.79	405.84	545.29	578.3	No data
	Stat	Average annual CO_2 emissions per street light (kg)	208	218	293	311	No data
	Stat	Percentage of street lights Dimmable or Part Night Operation	1.63%	4.09%	0.%	No data	0.10%

Headline Results for Dundee City 2012/13

Scottish Cities Comparison

- Dundee City Council consumes the least amount of electricity annually per street light and has the lowest carbon footprint of any Scottish City
- It's costs for repairing a routine fault is lower than any other Scottish City
- The City has the most reliable street lights averaging almost 6 years between repairs

Scottish Council Comparison

- Dundee City council has the highest percentage of street lights operating correctly on any one evening than any other Council in Scotland
- To assist with recognition and reduce the fear of crime, Dundee City Council has the highest percentage of modern white light sources of any Scottish Council
- As a percentage of street lights, Dundee City Council receives the fewest number of calls from the public reporting faults due to its proactive night inspection measures and speed of repair.

4 ENERGY

4.1 Energy Efficiency

The biggest factor influencing future street lighting costs involves the price of electricity. Over the last decade the cost of electricity has increased significantly. The scale of future price increases is unknown however it is highly probable that energy will become more expensive due to growing competition for resources and increased generation costs. It is therefore prudent to explore options for reducing street lighting energy usage while still maintaining an acceptable level of service for the residents and travelling public. Below details some of the steps which are being taken in 2013/14 to mitigate higher than inflation price rises in electricity.

Energy Spend to Save Initiatives

A number of initiatives and projects are under way to counteract and minimise the forecasted increases in energy costs.

(a) Changing from Passive Half Hourly Metering to Dynamic Half Hourly Metering

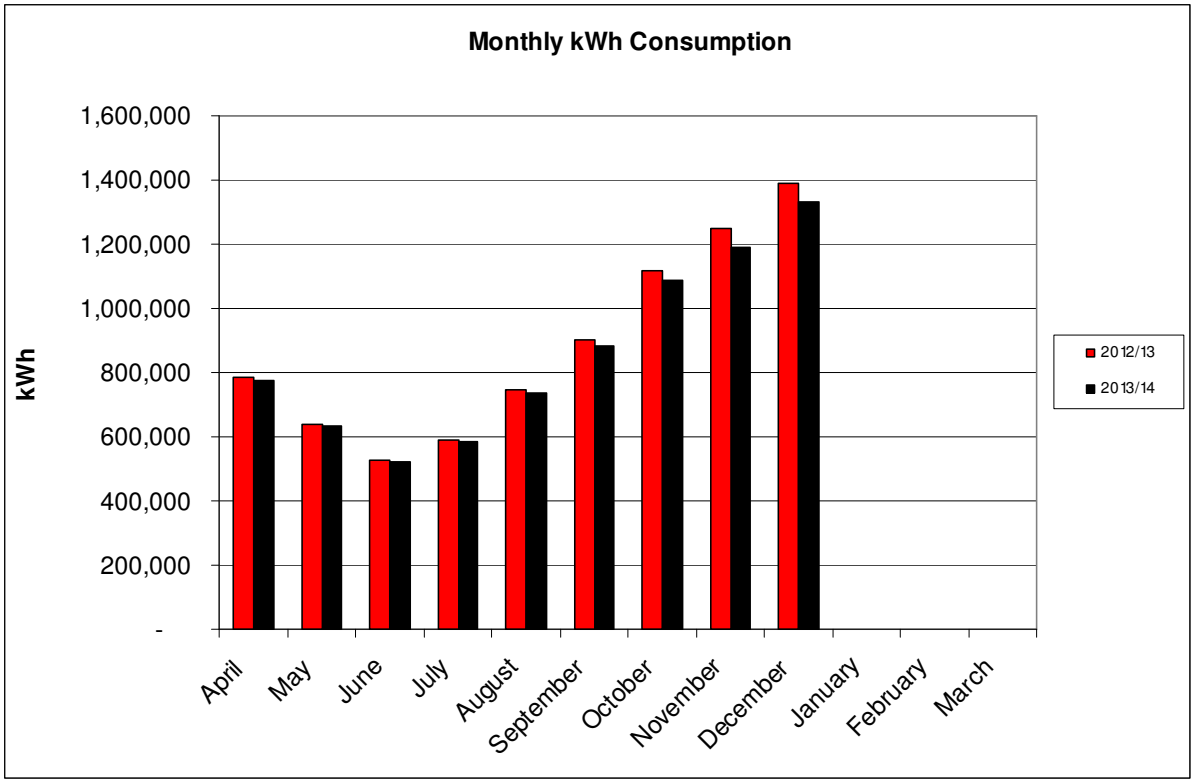
Due to the physical practicalities, street lights are not metered and the hence electricity consumed is calculated using National agreed annual average operating hours based on longitude. In 2011/12 these figures were reviewed and increased by OFGEM. Previous research carried out by the Lighting Partnership indicated that these increases exceeded the actual dusk to dawn operating hours of the street lights and hence would resulted in higher consumption figures and higher cost to the Council. To correct this, the Council has since changed to Dynamic half hourly metering which uses daily date from a local photocell array to measure actual switch on and switch on times of the street lights. This change is project to save £18k in 2013/14.

(b) Restructuring of the way Distribution Use of System is Calculated (DUoS)

Electricity costs are made up of two distinct parts, the cost of Energy and the past through charges levied by the Host Electricity Company Scottish & Southern. DUoS is a passed though charge which is added to the electricity bills for use of the overhead and underground cables. In 2011/12 OFGEM approved significant increases in SSE DUoS and what they were allowed to charge street lighting customers in their geographical area. The Lighting Partnership with the support of Society of Chief Officers Scotland (SCOTS) and COSLA lobbied OFGEM to change the way DUoS was calculated as it unfairly penalised Council operating in Scottish & Southern geographical area and SSE DUoS charges were almost double that of the other 12 Electricity Distribution Companies in the UK. OFGEM agreed that charges were unfair and introduced a new charging methodology for DUoS which was introduced on the 1 April 2013.

(c) Installation to more Energy Efficient street lights

Due to the recent increased Capital investment in street lighting, the Partnership has been able to take advantage of modern technology and replace existing equipment which has come to the end of expected service life. The overall affect of this can be seen in the monthly comparison chart for the previous year.



For the first nine months of 2013/14, Electricity consumption has reduced by 207,276kWhrs due to energy efficiency measures. These savings along with the changes in DUoS and moving to Dynamic Half Hourly metering is forecast to save the Council £198,000 in 2013/14 compared to the previous year.

4.2 Routine and Reactive Maintenance

Street lighting routine and reactive maintenance comprises:

- Routine Cyclic Maintenance; Bulk lamp changing and cleaning
- Reactive Maintenance (Emergency); High priority repairs
- Reactive Maintenance (non-safety related); lower priority repairs

This part of the service currently costs the council £512,591 per annum, and this is expected to continue in the future.

4.3 Inspection and Testing:

Inspection and testing activities for street lighting comprise:

- 6 yearly electrical safety inspection and testing
- Structural testing – Period between tests is determined by the results of the inspection

These activities currently cost the council £35,000 per annum and this is expected to continue in the future.