The Highland Council

Transport, Environmental and Community Services Committee – 6 February 2014

Agenda Item	**7**
Report No	**TEC 5/14**

Scottish Government Funding - Lighting Column Condition Surveys

Report by Head of Transport and Infrastructure

Summary

The purpose of this report is to advise Members of funding made available by the Scottish Government to carry out column condition surveys which will assist with the development of LED energy efficient improvements to street lighting, which will contribute to "Carbon Clever Highlands".

1. Introduction

1.1 The Scottish Government has made available a total funding package of £2.0m in 2014/15 to distribute among Local Authorities to support the development of energy-efficient street lighting throughout Scotland. The Scottish Government has identified the reduction in carbon produced from Street Lighting as an important element in the commitment to cut greenhouse gas emissions by 42% by 2020.

1.2 A copy of the letter from Scottish Government is attached in **Appendix A.** This letter allocates funding of £104K to Highland Council in 2014/15 from this fund.

1.3 In addition to CO2 reduction it has been estimated by the Scottish Futures Trust that the adoption of Street Lighting LED technology could generate potential savings of £1.3bn over a 20 year period if adopted by all Scottish Local Authorities.

1.4 The Scottish Government has identified that condition surveys are one of the prerequisites for the development of modern technology in street lighting. This will assess the condition of the asset in advance of the large scale introduction of LED's.

2. Carbon Reduction Commitment

2.1 In 2014/15 changes to electricity supply charging rules will mean that unmetered Street Lighting Energy usage will be included in the Carbon Reduction Commitment (CRC). This change will result in a charge of £16 per tonne being incurred for CO2 produced from street lighting energy consumption. This charge will be reviewed annually and rates are likely to increase in future years.

2.2 In Highland Council in 2014/15, the CRC charge will result in estimated additional costs of £154K/annum in respect of CO2 production resulting from street lighting energy consumption.

3. Highland Council LED Street Lighting Pilot Schemes

3.1 Several Street Lighting Pilot projects have recently been installed or are under construction throughout the Council area. These pilots have indicated savings in energy of typically 50% to 80% when compared to the previous energy consumption.

3.2 The pilot schemes have been introduced in a number of street lighting scenarios, dual carriageways, rural roads and residential housing developments. The new lighting has performed well and in addition to the energy savings listed will produce significant maintenance savings due to the long life of the LED technology.

3.3 In addition to the above savings, the LED street lighting has much better light control than the previous sodium sources, and in consequence there is a significant visible reduction in sky glow in areas where this has been installed.

3.4 Details of the Pilot locations and the energy saving achieved are listed in **Appendix B.**

4. Distribution and use of Funding

4.1 This £2m sum is to be distributed among all of the Local Authorities in Scotland on the basis of the Urban Lane Length listed against each Council.

4.2 Highland Council will receive £104k in 2014/15.

4.3 It is proposed that these funds will be used to test different types of street lighting columns throughout the Council Area. The structural testing will identify any weakness in the structure of the columns, and whether or not they are capable of supporting the installation of LED technology.

4.4 The work will be undertaken by external consultants and will establish the condition of the columns and brackets including a projection of the lifespan of the asset. A sample of columns will be tested in each area and the results from this will be used to develop a detailed picture of the Council wide street lighting network.

5. Implications

5.1 The surveys proposed will be entirely funded from Scottish Government monies.

5.2 There are no legal implications arising from this report.

5.3 There are no equality implications arising from this report.

5.4 The funding and surveys associated with this report will help in working towards a carbon reduction strategy for street lighting.

5.5 There are no risk implications arising from this report.

5. Recommendation

5.1 Members are invited to:

a) Note the funding allocation made available by the Scottish Government for street lighting and,

b) Approve the use of these funds to develop street lighting column condition surveys in accordance with the condition of the fund.

Designation: Director of Transport, Environmental and Community Services

Date: 27 January 2014

Report Author: Andrew Matheson, Lighting Manager

Appendix A.

Energy and Climate Change Directorate
Climate Change and Water Industry Division

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The Scottish Government
Riaghaltas na h-Alba

LEGACY 2014
XX COMMONWEALTH GAMES SCOTLAND

To:

Local Authority Directors of Finance

Copy for information:

Local Authority Chief Executives
Council Leaders and Convenors

21 November 2013

You will be aware that the Scottish Government's second Report on Policies and Proposals (RPP2) published this year, maps out to 2027 how Scotland's ambitious climate change targets, set out in the Climate Change (Scotland) Act 2009, and the transition to a low-carbon society will be achieved. It recognises the critical role of the public sector in leading Scotland to achieve this.

In recognition that there may be costs to local authorities in taking forward some aspects of the low-carbon agenda, the Scottish Government has provided £2million from the Sustainable Action Fund to support local authorities' work on increasing energy efficiency of street lighting. This follows the success of a recent pilot project involving two local authorities and the Scottish Futures Trust which resulted in the inclusion of large-scale LED street lighting within the local authorities capital investment plans and the development of a Toolkit to help other councils explore the financial need, and potential benefits, of an energy-efficiency investment in street lighting assets.

Distribution of the £2million, by urban lane length, was approved at the COSLA Leaders meeting on 27 September. Your Council's share of the £2 million will be paid as General Revenue Grant in the last two weeks of March 2014. **Annex A** sets out the detailed allocation for each local authoruity on the basis of the urban lane length metric, as approved by the distribution group. **Annex B** provides background information on current energy efficiency work on street lighting, and highlights best practice and key contacts for local authority officers to support them in taking forward local energy efficiency in street-lighting schemes.

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The Scottish Futures Trust estimates that energy for street lighting typically accounts for 20-25% of a local authority's electricity costs, as well as contributing significant associated carbon emissions. This funding therefore provides the opportunity for local authorities to develop both cost and carbon savings.

Yours faithfully

Judith Young

Team Leader
Climate Change:Public Bodies Duties Team

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ANNEX A

ROAD LIGHTING 2012-15 LGF Settlement

	Primary Indicator Urban Lane Length 2011	Grant Aided Expenditure Share	Grant Aided Expenditure Allocation (£000s)	Energy Efficient Street Lighting allocation (£)
Aberdeen City	1,670	4.2%	2,526	84,000
Aberdeenshire	1,607	4.1%	2,431	81,000
Angus	828	2.1%	1,253	42,000
Argyll & Bute	860	2.2%	1,302	43,000
Clackmannanshire	419	1.1%	635	21,000
Dumfries & Galloway	1,226	3.1%	1,855	62,000
Dundee City	1,097	2.8%	1,660	55,000
East Ayrshire	881	2.2%	1,333	44,000
East Dunbartonshire	820	2.1%	1,241	41,000
East Lothian	659	1.7%	997	33,000
East Renfrewshire	743	1.9%	1,124	38,000
Edinburgh, City of	2,709	6.8%	4,098	137,000
Eilean Siar	327	0.8%	495	17,000
Falkirk	1,394	3.5%	2,109	70,000
Fife	2,872	7.2%	4,346	145,000
Glasgow City	4,447	11.2%	6,728	224,000
Highland	2,054	5.2%	3,107	104,000
Inverclyde	561	1.4%	849	28,000
Midlothian	665	1.7%	1,006	34,000
Moray	796	2.0%	1,204	40,000
North Ayrshire	1,116	2.8%	1,689	56,000
North Lanarkshire	2,551	6.4%	3,860	129,000
Orkney Islands	235	0.6%	355	12,000
Perth & Kinross	1,046	2.6%	1,582	53,000
Renfrewshire	1,280	3.2%	1,937	65,000
Scottish Borders	731	1.8%	1,105	37,000
Shetland Islands	245	0.6%	370	12,000
South Ayrshire	841	2.1%	1,272	42,000
South Lanarkshire	2,321	5.9%	3,511	117,000
Stirling	746	1.9%	1,129	38,000
West Dunbartonshire	643	1.6%	972	32,000
West Lothian	1,273	3.2%	1,926	64,000
SCOTLAND	39,660	100.0%	60,008	**2,000,000**

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ANNEX B

Energy Efficient Street Lighting

Background

- RPP2, maps out to 2027 how Scotland's ambitious climate change targets, set out in the Climate Change (Scotland) Act 2009, and the transition to a low-carbon society will be achieved. It recognises the critical role of the public sector in leading Scotland to achieve this.

- In recognition that there may be costs to local authorities in taking forward some aspects of this agenda the Scottish Government has provided £2million to support local authorities work on increasing energy efficiency of street lighting. The £2million is being distributed through the agreed COSLA/ Scottish Government process.

- The information below provides a background to current energy efficiency work on street lighting, highlighting best practice and key contacts for local authorities.

Pilot Projects, business case toolkit and best practice

- In 2012 two local authorities, East Dunbartonshire and West Dunbartonshire, worked with the Scottish Futures Trust (SFT) on street lighting pilot projects which resulted in the inclusion of large-scale LED street lighting within their capital investment plans and the development of a Toolkit to help other councils explore the financial need, and potential benefits, of an energy-efficiency investment in street lighting assets. Further information on the pilot projects can be found at:

    - http://www.scottishfuturestrust.org.uk/publications/east-dunbartonshire-council-street-lighting-business-case/
    - http://www.scottishfuturestrust.org.uk/publications/west-dunbartonshire-council-street-lighting-business-case/
    - By contacting Morag Wallace morag.wallace@scottishfuturestrust.org.uk

- The toolkit which enables councils to identify cost benefits in street lighting has been made available to all local authorities. It is accessible via this web link: http://www.scottishfuturestrust.org.uk/publications/street-lighting-toolkit/

- The best practice from the pilot projects identified the following key steps:

    - The development of an outline business case, using the Toolkit.
    - The undertaking of detailed condition surveys of the street lighting assets and an assessment of their readiness for the installation of energy saving measures
    - The appointment of a Senior Manager to lead and direct the project
    - The appointment of a Project Manager to provide day-to-day management of the project
    - The development of a detailed business case
    - The development of planned programmes and a submission for funding
    - The delivery of planned programmes.

Condition Surveys

- Presenting core information within local authorities' detailed condition surveys on a consistent basis is a key factor in ensuring the potential benefits of procurement are maximised, where economies of scale show attractive financial benefits.

- There may therefore be considerable merit in local authorities collaborating on detailed condition surveys. SCOTS, using a lead local authority, has previously undertaken successful asset management surveys on behalf of all local authorities.

Procurement

- The partnership working between SFT, local authorities and the Society of Chief Officers of Transportation in Scotland (SCOTS) over the past 18 months has highlighted that procurement savings can be made through economies of scale if councils procure services via consortia arrangements.

- Close working with SFT is encouraged to help refine estimates of the overall expected level of investment and to support dialogue with the private sector to help them gear up to support this effort.

Steering Group

- To support realising the benefits from economies of scale in procurement, and to ensure sharing of approaches and best practice in the implementation of energy efficiency schemes a Steering Group has been established.

- The Steering Group's role is to support local authorities on energy efficiency in street lighting. The Steering Group comprises a number of organisations and local authorities including Scottish Futures Trust, Resource Efficient Scotland (RES), SCOTS, Scotland Excel and COSLA.

- Information on how organisations within the Steering Group can help manage progress on energy efficiency in street lighting is outlined below.

Contacts

Organisation	Main Contact Details	Outline of potential support
SCOTS	Lindsay McGregor: lindsay.mcgregor@dundeecity.gov.uk	Technical options and case studies.
SFT	Morag Wallace, Associate Director morag.wallace@scottishfuturestrust.org.uk	Advice and support to local authorities (a) to assess the potential financial and carbon savings that could be captured from a programme of energy efficiency works to street lighting (b) on the financial and commercial and procurement options for delivery and (c) to develop business cases.
RES	Allan Crooks Allan.Crooks@resourceefficientscotland.com	Technical advice and support for street lighting condition audits and business case development.
COSLA	Rona Gold, Policy Manager rona@cosla.gov.uk	Can support taking forward best practice examples and also issues or blockages with energy efficiency in street lighting where these are shared across local authorities and require a change in policy or strategic direction at a national level to enable local delivery.
SCOTLAND EXCEL	Lubna McCarthy Lubna.McCarthy@scotland-excel.org.uk	Procurement of Street Lighting Materials Framework (including LEDs)

Relevant links

http://www.scottishfuturestrust.org.uk/publications/low-carbon-and-energy-efficiency/

http://www.resourceefficientscotland.com/PublicSector

APPENDIX B

INSTALLED LED STREET LIGHTING PILOT SCHEMES

Location	Old Lantern Type	Replacement LED lantern	No of lanterns changed	% energy Saving
Maryburgh/Dingwall Distributor Road	150w High Pressure Sodium	74w LED	44	56
Contin Village	70w High Pressure Soduim	23w LED	50	75
Maryburgh - Mackenzie Place	70w High Pressure Sodium	30w LED	14	66
Fort William -Plantation Housing	70w High Pressure Sodium	30w LED	80	66
Ballachulish	70w High Pressure Sodium	42w LED	10	56
Inverness – Millburn Road	250w High Pressure Sodium	140w LED	12	52
John o Groats	150w High Pressure Sodium	24w LED	26	86
Canisbay	36w Low Pressure Sodium	16W LED	7	70
Castletown	70w High Pressure Sodium	16w LED	21	82
Bettyhill	70w High Pressure Sodium	23w LED	25	74