

Salix Finance

Interest-free Government funding for street lighting upgrades

APSE National Highways & Street Lighting Advisory Group

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Department for
Business, Energy
& Industrial Strategy

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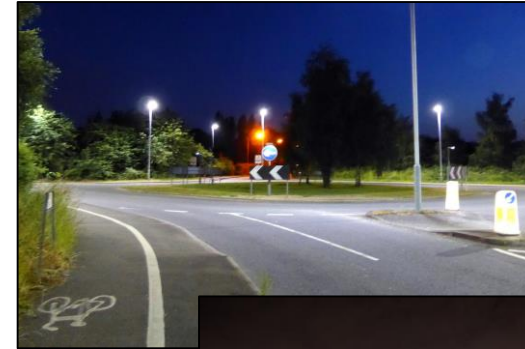
SOLVING ENERGY EFFICIENCY FINANCE IN THE PUBLIC SECTOR



The Earth Observatory, NASA, Sept 2016

Our Presentation

- ✓ Introduction
- ✓ Working with local authorities
- ✓ Case studies of street lighting projects
- ✓ Flexibility and support
- ✓ Application and repayment
- ✓ Summary and questions



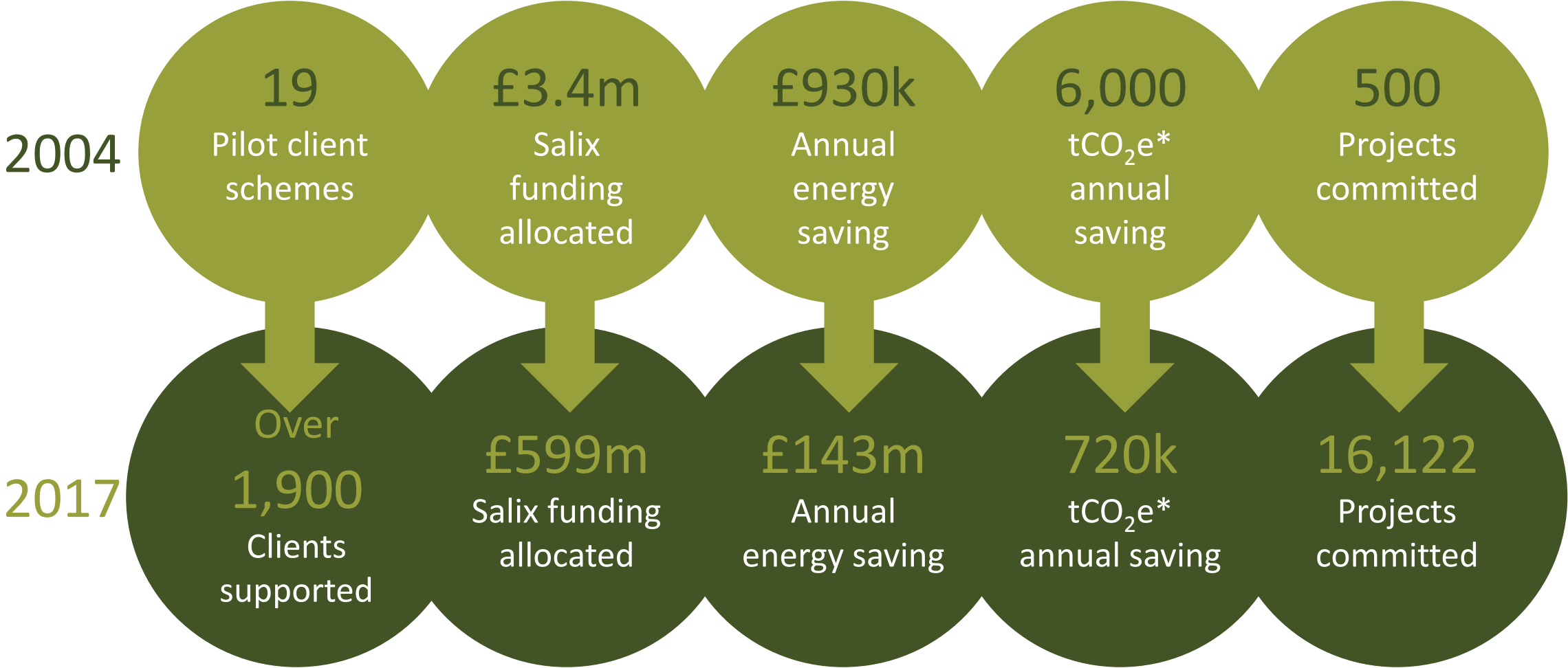
Who We Are

- ✓ Worked in partnership with the Public Sector since 2004
- ✓ Our mission is to reduce public sector carbon emissions through energy efficiency investment using interest-free funding
- ✓ Funded by the Department for Business, Energy and Industrial Strategy (BEIS), the Department of Education, the Welsh Government and the Scottish Government
- ✓ National spread across England, Wales, Scotland and N. Ireland
- ✓ Wealth of knowledge and case study material to support public sector organisations



SOLVING ENERGY EFFICIENCY FINANCE IN THE PUBLIC SECTOR

Making a difference since 2004



Figures accurate as of September 2017

*calculated using emissions factors published by government for carbon foot printing purposes

Knowledge Sharing

More than **80**
case studies

Innovative
Financier of the
Year Award 2017

More than **15**
Infographics

Imperial College Healthcare NHS Trust

covers five sites across London including Charing Cross, St Mary's, Queen Charlotte's and Chelsea, Hammersmith and the Western Eye Hospitals. Since 2009, the Trust have used Salix 100% interest-free funding for over £7.3 million of energy efficiency projects, estimated to achieve financial savings of more than £26 million over their lifetime.

Project overview

Imperial College Healthcare NHS Trust provides acute and specialist care for over 2 million people every year, consisting of over 10,000 staff across the five different hospitals in North West London, with a turnover of over £1 billion. Amongst their assets is the historic Imperial College London, the Trust are one of the UK's most sustainable health care providers, striving to ensure the most important of resources for better patient care and excellence in education.

Imperial College Healthcare NHS Trust is under pressure to reduce their running costs. Since 2009, the Trust has identified central areas where improvements could be made across three of their hospitals, Charing Cross, St Mary's and Hammersmith Hospitals. The Trust have used several Salix 100% interest-free loans to fund in 2010, heating and hot water systems as well as lighting upgrades designed to increase patient comfort and create a more sustainable working environment for staff.

"With rising financial pressures that the public sector is under, funding from Salix Finance has proven invaluable in implementing a variety of energy efficiency projects across all sites and as energy reductions, allowing these savings to be reinvested into frontline services. The Trust has committed energy and carbon reduction initiatives in the future, the partnership with Salix Finance will go a long way to these objectives."

View Andy, Energy Manager, Imperial College Healthcare NHS Trust

Estimated savings by Imperial College Healthcare NHS Trust	Estimated £ Savings	Estimated £ Savings	Estimated £ Savings
Year 1	£1,936,813	£26,700,851	£7,394,233

To apply, or for more information on funding, please contact info@salixfinance.co.uk

Salix Finance



Green World
Ambassadors
2016

Over **400** PKS
(project
knowledge
slides)

Regional
meetings



Salix Finance @SalixFinance · Sep 20
Find out how Salix can help fund your street lighting projects:
tinyurl.com/zj3m4tc #SalixFunded

Bournemouth International Centre - LED Lighting by
Bournemouth Borough Council

BEFORE

- 26 W PL downlight and 4 x 18 W modules

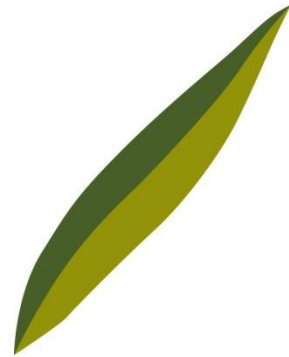
AFTER

- 16 W downlight & 40 W flat panel
- £49,846 project value (93% of project)
- 114,224 post-kWh
- 100,113 annual kWh saving (49%)
- £11,703/year savings
- 4.3 year payback
- 50.1 tCO₂e saved per year

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Supporting Local Authorities



Popular technologies

100+ energy efficiency technologies and growing

- ✓ Boiler replacements
- ✓ Building energy management systems
- ✓ Combined heat and power
- ✓ Heat recovery
- ✓ Heat networks
- ✓ Heating and hot water upgrades
- ✓ Building fabric insulation
- ✓ Lighting upgrades
- ✓ Street lighting
- ✓ Solar & battery storage



Renewable technologies funded

- ✓ Biomass boiler
- ✓ Solar PV

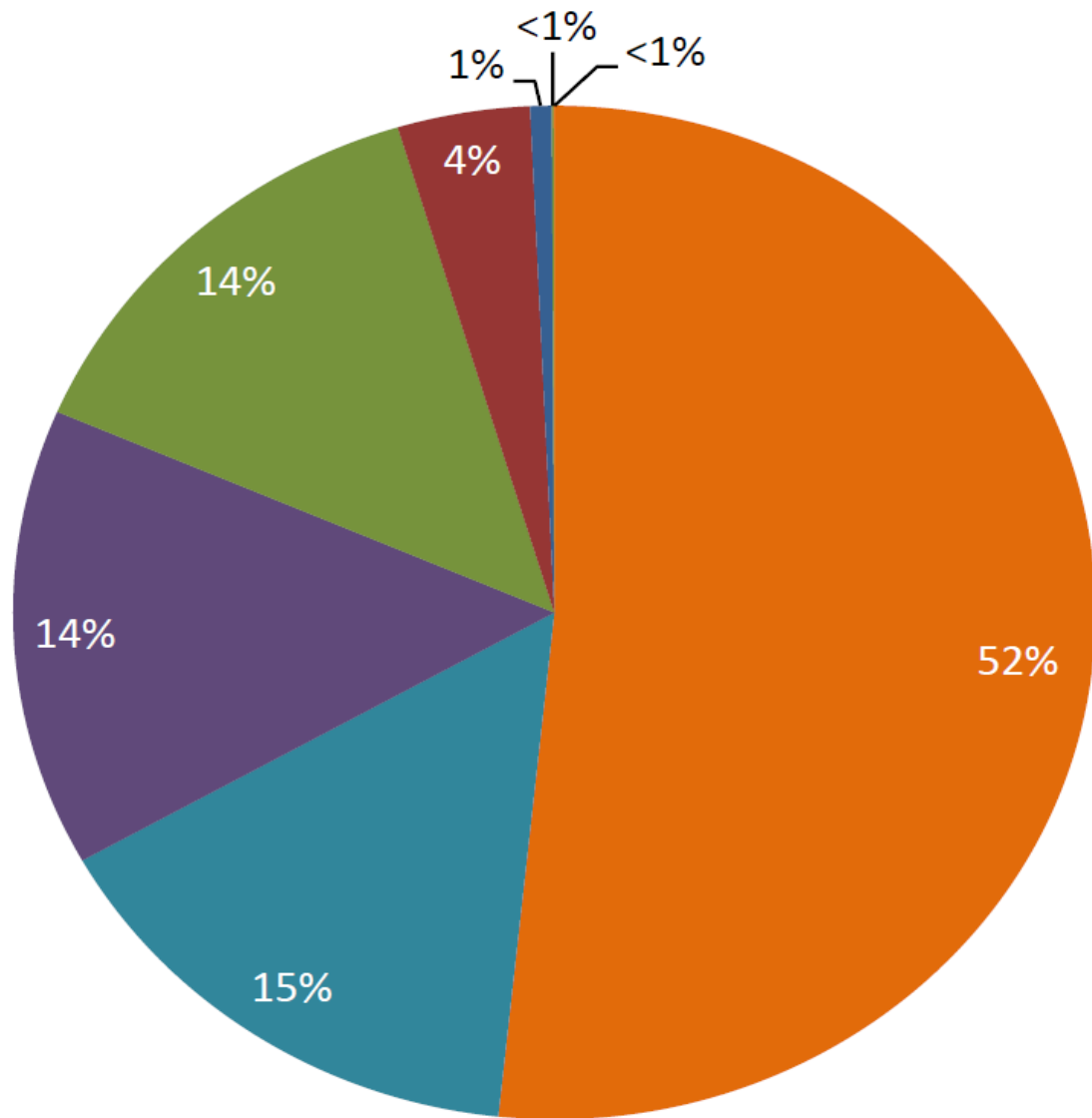
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Eligible areas of estate

- ✓ Carparks
- ✓ Communal areas of social housing
- ✓ Depots and warehouses
- ✓ External building lighting & floodlighting
- ✓ Leisure and sports centres
- ✓ Libraries
- ✓ Monument and other spotlighting
- ✓ Museums, galleries and theatres
- ✓ Parks and playgrounds
- ✓ Public transport shelter & footpath lighting
- ✓ Schools and academies
- ✓ Street lighting
- ✓ Traffic lighting, bollards and street furniture

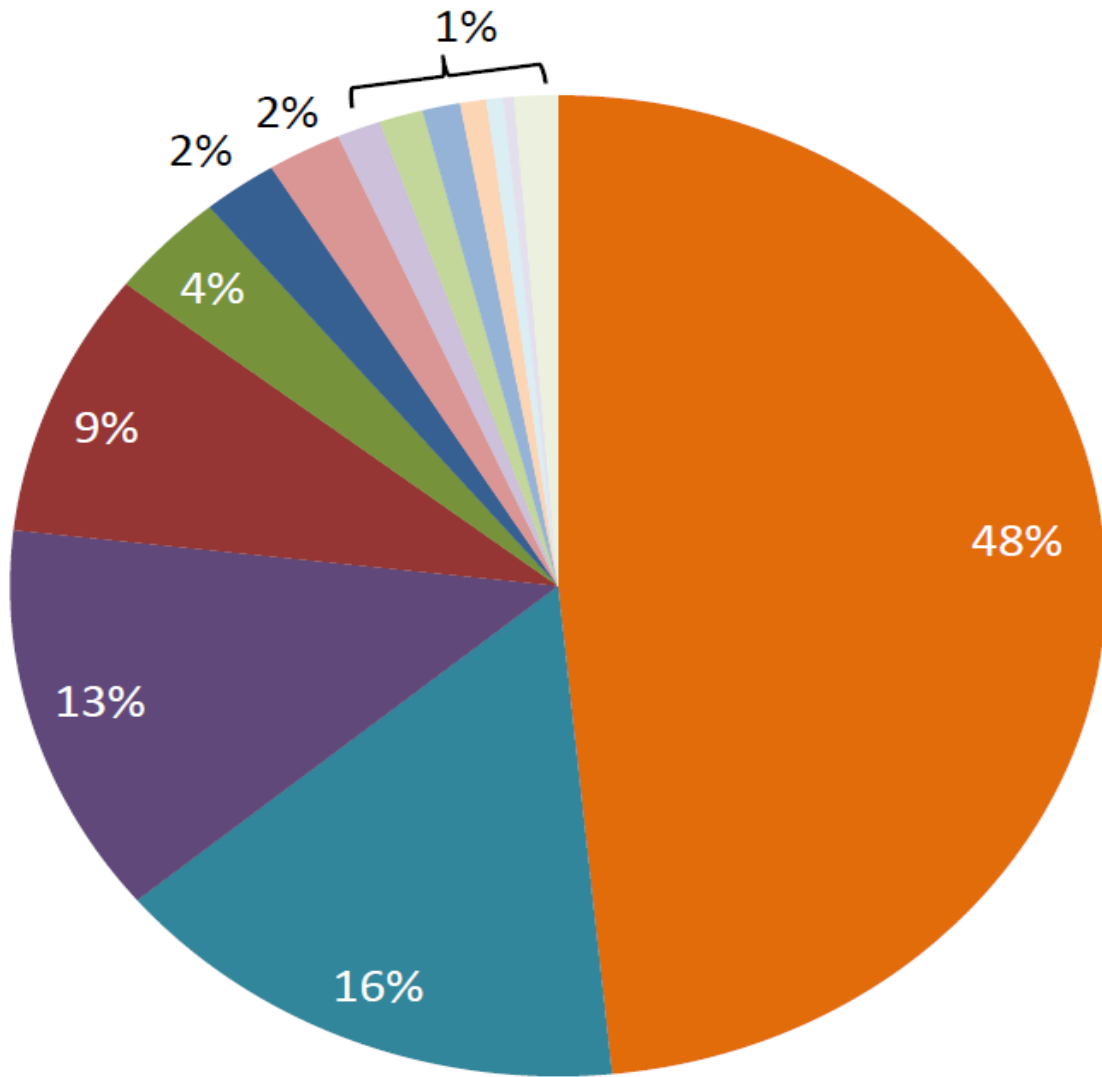
Loan value by sector












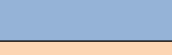
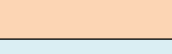


Key	
Local Authority	
National Health Service	
Academy School	
Higher Education Institute	
Maintained School	
Further Education College	
Emergency	
Other	

Data for all England Loans and Recycling Funds from June 2016 to June 2017

Loan value by technology



Key

Street lighting	
LED lighting	
Combined Heat and Power	
Combined Measures	
Boiler replacement	
Heat recovery	
Chiller replacement	
Heating and hot water	
Insulation - building fabric	
Building management systems	
Glazing	
Insulation - pipework	
Boiler controls	

Data for all England Loans and Recycling Funds from June 2016 to June 2017



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Street lighting Loans with England Local Authorities

- ✓ Over £100m on Street lighting commitments - Significant growth last 3 financial years
- ✓ First LED lighting project with **Buckinghamshire County Council** 2008
- ✓ First LED street lighting project with **Gloucestershire County Council** 2010
- ✓ Growing number of multiple phase/year projects
- ✓ Work closely with authorities to earmark future funding
- ✓ Also working with Parish Councils



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Street lighting commitments financed by Salix in England

Council names	Value
Kent County Council	Over £27m
Sunderland City Council	Over £11m
Doncaster MBC, Essex County Council, Nottinghamshire County Council, Gloucestershire County Council, Cheshire East Council, Trafford Council, Lancashire Council, Wirral Borough Council, Newcastle City Council	Over £5m
Bournemouth Borough Council , Brent Council, London Borough of Enfield, Wigan Council, Borough of Poole	£3m - £5m
Cheshire West and Chester Council, Buckinghamshire County Council, London Borough of Havering, Manchester City Council, London Borough of Barnet	£2m - £3m
Torbay Council, Derby City Council, Warrington Borough Council, Durham County Council, Bristol City Council, Stockton on Tees Borough Council, London Borough of Bromley	£1m -2m
Further 31 Councils	Under £1m



The Metropolitan Borough of Wigan – LED Street Lighting and CMS



Project overview

The Metropolitan Borough of Wigan undertook a 3 year street lighting project. 31,775 lanterns were upgraded to LED with Central Management System. Salix part-funded almost £3.6m of the project.

- ✓ The project was carried out over 3 financial year phases from April 2014 to March 2017.
- ✓ Salix provided almost £3.6m of funding with a technical payback of 5 years
- ✓ Centralised controls helped increase savings by allowing dynamic lighting levels to be used to provide the right light in the right place at the right time.
- ✓ To date, this project has benefited Wigan Council by:
 - ✓ Delivering a 51% in energy consumption with a potential to make further savings
 - ✓ Avoided the generation of over 2,900 tCO₂e per annum
 - ✓ Reduced its street lighting annual cost by over £750k compared with the “do nothing” scenario



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Kent County Council – Street Lighting



Project overview

Kent County Council are undertaking a 3 year programme to convert 120,000 lanterns to LED with Central Management System (CMS). Salix provided £27m (69% of finance).

- Existing recycling fund client since **2004**
- The pre-consumption kWh made up half of the council's carbon footprint
- £39m** total project cost, Salix funding **£27m** of overall project up to 5yr payback
- Project started **March 2016**, with residential followed by traffic routes
- Most ambitious individual LED conversion undertaken in Europe
- 18 crews working on installation at peak
- Using several lighting suppliers to promote competition and efficiencies
- Predicting 65.7% kWh saving and £5m annual savings over the lifetime of the technology**



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Project overview

Wirral Council converted 7,553 lanterns to LED with a Central Management System in 2015/16, using over £2.7m of Salix finance. Now in the process of a multiphase street lighting project, the Council is converting the remaining 31,260 with Salix funding 100% of the project.

- ✓ The 2015/16 project has benefitted Wirral Council by:
 - ✓ Increased savings through centralised controls, which manage dimming levels and fault identification
 - ✓ Avoiding the generation of over 1,876 tCO₂e per annum
 - ✓ Reducing their street lighting annual energy cost by over £556k
- ✓ The current project will be carried out over 3 financial year phases from mid 2018 to March 2021
- ✓ Salix is providing close to £4.5m of funding with a technical payback of 6. years
- ✓ This project is expected to achieve a 69% saving in energy consumption
- ✓ Reducing the street lighting annual cost by over £733k

Grendon Parish Council

Project overview

Grendon Parish Council in Northamptonshire applied to Salix for an interest-free loan to part finance the replacement of the council's street lighting stock.

- ✓ Grendon had the aim of modernising the council's street lighting lanterns to light emitting diodes (LED), which would reduce the council's energy consumption and greenhouse gas emissions.
- ✓ The council used an interest-free loan of £4,800 to part finance a £9,500 programme to upgrade 34 street lights with energy efficient LED lanterns.
- ✓ Grendon now benefits from a 9,431 kWh reduction in its annual electricity usage, saving the council £970 and 4.24 tonnes of CO₂ e* per annum.



"I would urge any other parish councils who are looking into financing the upgrading of street lighting to certainly consider Salix Finance as a source of appropriate funding."

Ian Denton, Chairman of Grendon Parish Council

Lancashire County Council - LED Street Lighting



Project overview

Lancashire County Council is undertaking a 3 year street lighting project, where more than 38,000 lanterns will be upgraded to LED. Salix is funding £9.2m – the full project cost.

- ✓ The project is being carried out over 3 financial year phases from mid 2018 to March 2021.
- ✓ Salix is providing £9.2m of funding with a technical payback of 5 years
- ✓ Lancashire have projected significant benefits upon delivery:
 - ✓ A 64% reduction in street lighting energy consumption
 - ✓ Avoiding the generation of over 4,270 tCO₂e per annum
 - ✓ Reducing its street lighting energy cost by over £1.8m annually
 - ✓ Reduced maintenance costs
 - ✓ Reduced CRC payments

Flexibility and support

- ✓ Initial feedback on project ideas and draft application
- ✓ Meetings and presentations to Finance and Procurement colleagues
- ✓ Long term security of funding for multi-year projects
- ✓ Reservation of funding – to support decision making
- ✓ Supporting longer procurement timeframes
- ✓ Loan value can be revised following tender or change of scope



How the loan works



How the loan works

- ✓ Easy online application process, decision typically in 2 weeks
- ✓ 'Reservation Letter' if pending procurement, PFI or approvals
- ✓ 'Commitment Letter' if project is ready to go
- ✓ Application can be revised following tender or changes during installation
- ✓ Long term projects are split into financial year phases
- ✓ Interim payments available throughout project

Phased Repayment Example

- ✓ Three phase street lighting project example
- ✓ Phase 1 starts on site April 2018
- ✓ Phases completing in March 2019, 2020, 2021
- ✓ Each financial year has a loan agreement
- ✓ Each loan agreement has a 5 year repayment term

Phased Repayment Example

Date	Phase 1	Phase 2	Phase 3
October 2019	1		
April 2020	2		
October 2020	3	1	
April 2021	4	2	
October 2021	5	3	1
April 2022	6	4	2
October 2022	7	5	3
April 2023	8	6	4
October 2023	9	7	5
April 2024	10	8	6
October 2024		9	7
April 2025		10	8
October 2025			9
April 2026			10

Upcoming events

- ✓ Salix street lighting workshop – dates tbc
- ✓ BEMS workshops
 - ✓ Leeds Beckett University - 14th June 2018
 - ✓ Nottingham University - 29th June 2018
 - ✓ Queen Mary University of London - 6th July 2018
- ✓ ILP Professional Lighting Summit (with Kent) - Oxford - 14th June 2018
- ✓ Kent Association Local Councils – 10 July 2018

Discussion questions

- Main barriers/challenges to investment
- Future opportunities
- Carbon tax
- How the savings are realised
- Challenge Fund & prudential borrowing
- Useful topics to include at Salix street lighting workshop

Summary

- ✦ Updates on the funding available and progress achieved
- ✦ Case studies from other local authorities
- ✦ Support and flexibility
- ✦ Application and repayment process
- ✦ **Call for applications by September 2018**



Thank you – Any Questions?

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