

# Salix Finance

APSE Leisure advisory group

Tuesday 10<sup>th</sup> April 2018

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Department for  
Business, Energy  
& Industrial Strategy

SALIX

SOLVING ENERGY EFFICIENCY FINANCE IN THE PUBLIC SECTOR

# Today's Aims

- ✓ Introduction to Salix
- ✓ How the funding works
- ✓ Funding across the public sector
- ✓ Leisure projects to date
- ✓ Sharing knowledge
- ✓ Summary and questions



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# Who We Are

- ✓ Worked in partnership with the Public Sector for 14 years
- ✓ 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



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# The Salix Finance Business Model

- ✓ 100% interest-free ethical, safe loaning of finance to public sector organisations
- ✓ The Salix model offers a realistic solution by providing interest-free capital, repaid in up to 5 years
- ✓ Repaid loans recycled back into the new loans
- ✓ 3 models of finance for clients
  - ✓ The Revolving Fund- 50% Salix 50% client
  - ✓ 100% interest-free loans
  - ✓ Other public sector partners
- ✓ Salix funding is used to install the most cost effective energy measures in terms of carbon savings

# 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, leading to the rapid implementation of projects for better patient care and resilience in operation.

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 comfortable 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 re-invested into frontline services. The Trust has committed energy and carbon reduction initiatives in the future, this partnership with Salix Finance will go a long way to those objectives!"

View Andy, Energy Manager, Imperial College Healthcare NHS Trust

Estimated savings by Imperial College Healthcare NHS Trust	Estimated £ Savings	Estimated £ Savings	Estimated £ Savings
Charing Cross	£1,936,813	Hammersmith	£26,700,851
St Mary's	£7,394,233	Western Eye	£7,394,233

To apply, or for more information on funding, please contact [info@salixfinance.co.uk](mailto:info@salixfinance.co.uk)

Salix Finance



Green World  
Ambassadors  
2016

Over **400** PKS  
(project  
knowledge  
slides)  
More than  
**45** events



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

Salix Finance

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 tCO<sub>2</sub> saved per year

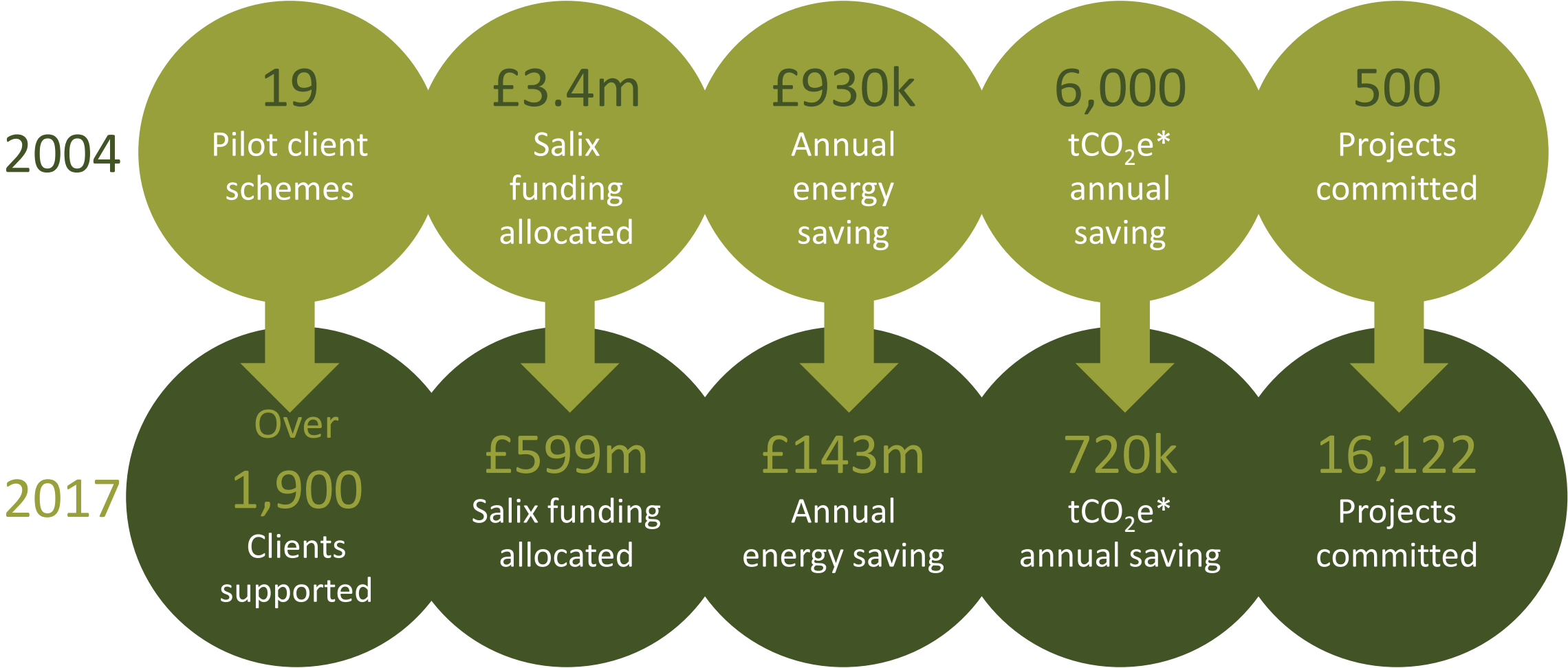
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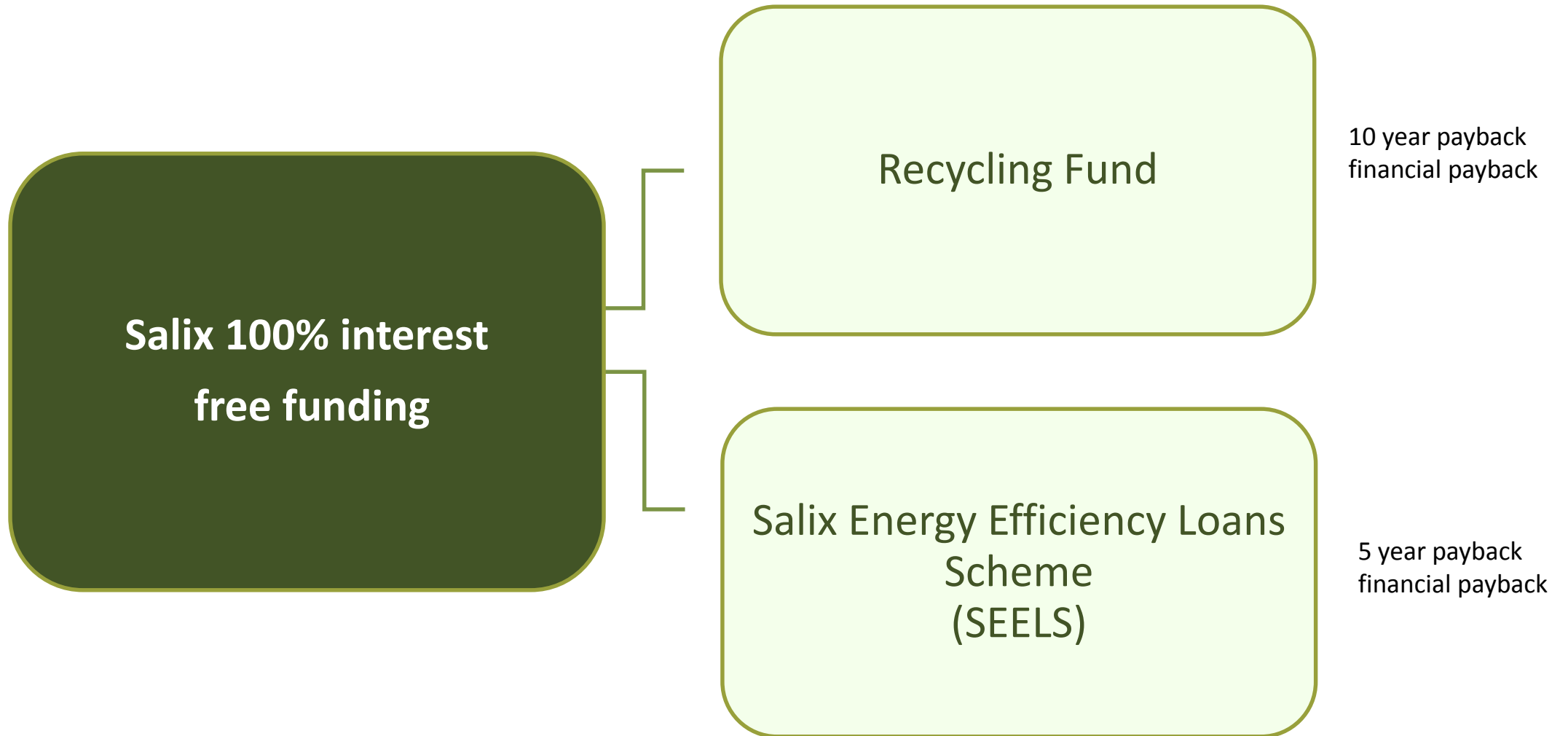
# Making a difference 2004 to 2018



Figures accurate as of September 2017

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

# Salix Funding programmes





# Project Knowledge – Boiler Optimisation by Oxfordshire County Council



## BEFORE

- 20 Existing boilers controls
- 3,330,471 kWh Pre project consumption
- £99,914/year running cost

## AFTER

- 20 New Boiler-Burner Controls
- £42,832 Project value (89%/£38,300 funded through Salix Recycling Fund)
- 304,346 kWh Annual saving
- 9.1% kWh saving
- £9,130/year projected savings
- 4.2 Year Payback
- 56tCO<sub>2</sub> saved per year



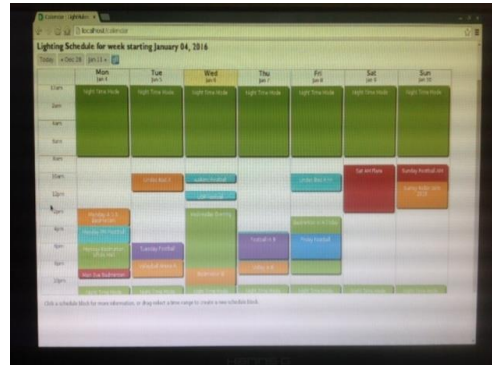
[Project completion date – October 2016](#)



# Project Knowledge – LED Lighting at Spectrum Sports Hall by Guildford Borough Council

## BEFORE

- 56 HID 400W Running at 456W 15 h/day.
- 138,162 kWh consumption.
- 56 lamps x 0.456W x 15h x 360.69 days.
- About 300 lux, poor quality light.
- £12,904 year running cost.
- The quality of light was raising complaints so the lighting had to be left on constantly.



## AFTER

- 44 LED lamps with adjustable light output daylight settings and individually switchable.
- Post consumption 28,788 kWh.
- £10,215 savings per year.
- 4.8 year payback.
- 54.73 tCO2 saved per year.



[Project completion date – October 2015](#)

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# Project Knowledge – Battersea Sports Centre, BEMS by Wandsworth Borough Council



## BEFORE

- Indoor & outdoor Sports Centre (no pool)
- Electric 128,461 kWh a year
- Gas 192,417 kWh a year
- Increasing use of site in recent years
- £18,200/ year running cost for electric & gas

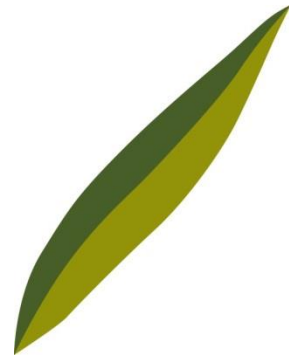
## AFTER

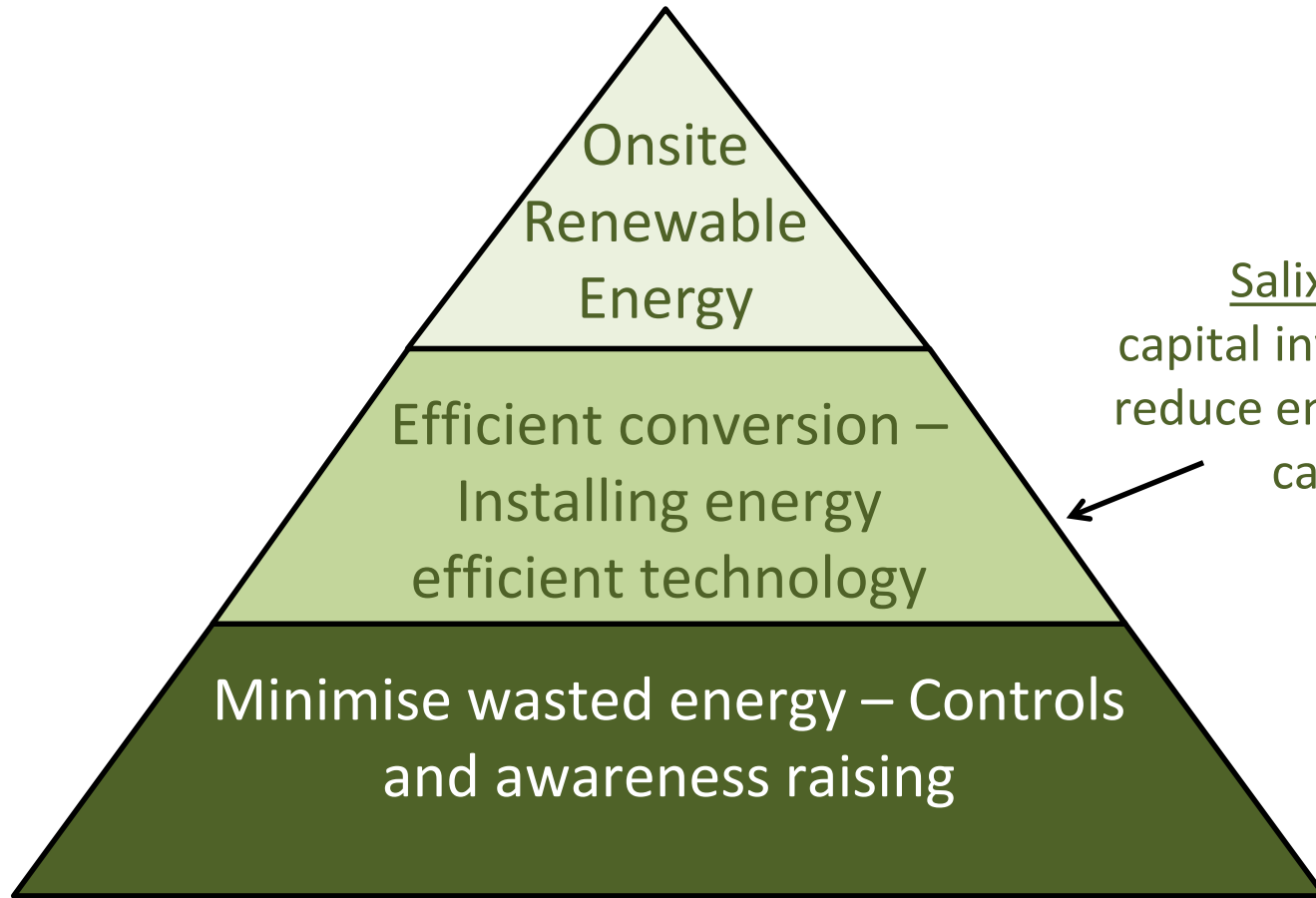
- New Control Panel to AHU's & boiler (£19,377)
- Expected savings of 32,116 kWhrs (25%) on Electricity & 63,417 kWh (33%) on gas
- Expected £13,197 / year running costs for electric & gas
- Payback of 3.9 years
- 28 tCO2 saved per year (expected)



[Project completion date – October 2013](#)

# Working with Local Authorities





Salix Focus  
capital investment to  
reduce energy & save  
carbon



# 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



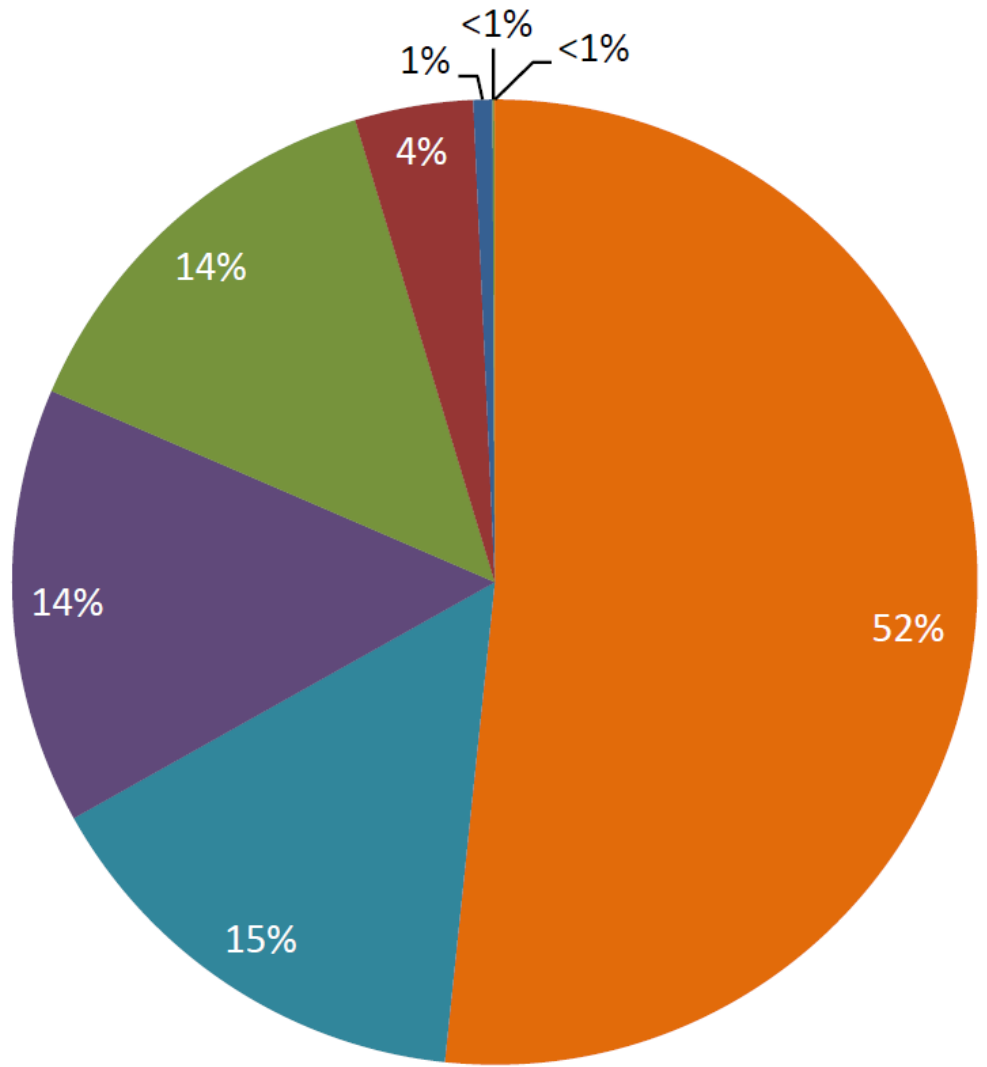
Renewable technologies funded









- ✓ Biomass boiler
- ✓ Solar PV

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# Salix project value by client sector



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

Data for all England loans programmes and total Recycling Funds for the 12 months June 2016 to June 2017

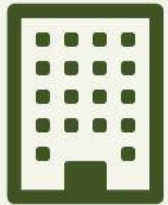


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# Local Authorities: Energy Saving Potential

## Salix & Principal Authorities to date



NUMBER OF  
PRINCIPAL  
AUTHORITIES IN  
ENGLAND  
**353**



NUMBER OF  
SALIX  
CLIENTS  
**156**



NUMBER OF  
PROJECTS  
**5766**



TOTAL SALIX  
LOAN VALUE  
**£220.4m**



ANNUAL £  
SAVINGS  
**£51.5m**



ESTIMATED  
ANNUAL tCO<sub>2</sub>e\*  
**242,218**

## Further potential

- ✓ To save 10% on total energy spend (**£750m/yr**) - **£319.6m** investment needed
- ✓ To save 10% on total carbon (**242,218tCO<sub>2</sub>e**) – **£632.5m** based on historic projects or up to **£370m** depending on grid changes

Figures shown are up until September 2017

\*Calculated using emissions factors published by government for carbon footprinting

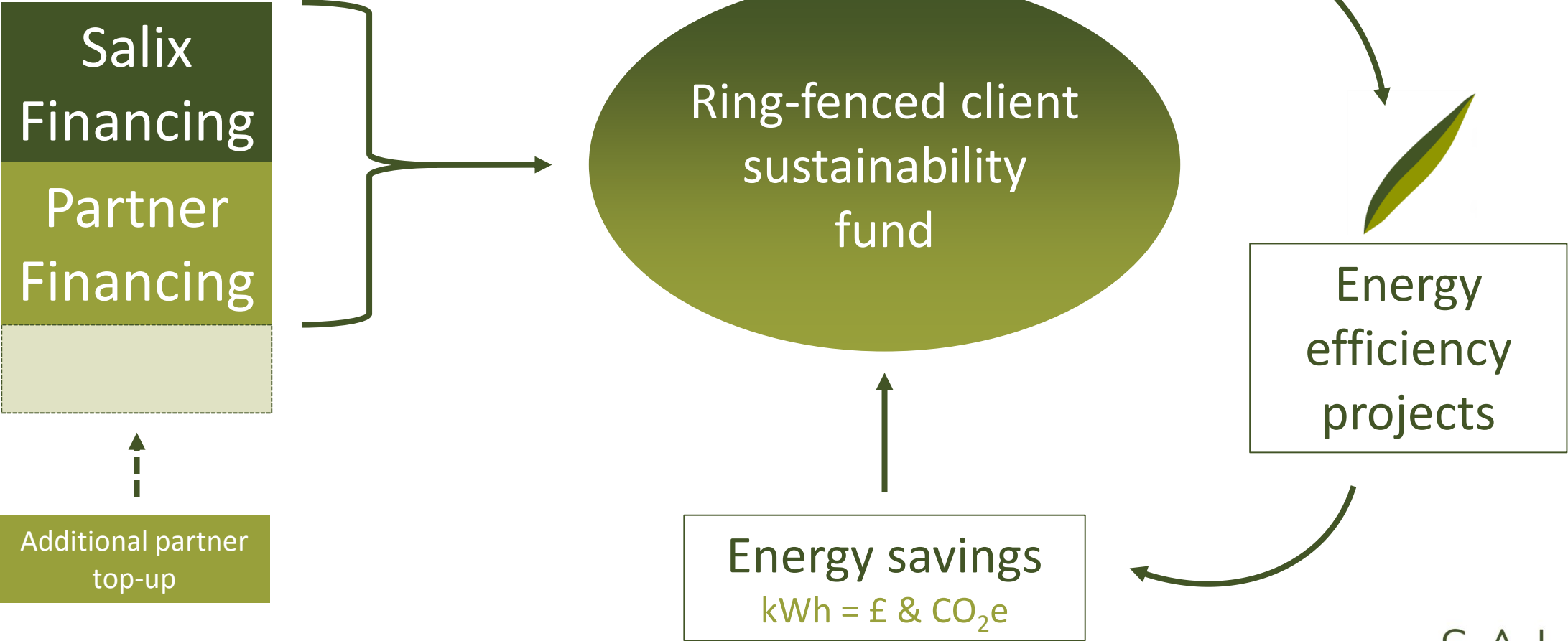
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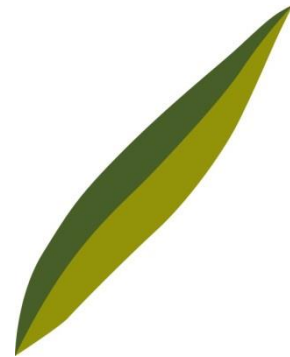
# Recycling Fund



# Recycling Fund



# Salix Funding for Renewable Technologies



# Salix Finance – Guidance on Solar Photovoltaics

- ✓ Many authorities have undertaken comprehensive energy efficiency upgrades to lower site baseloads
- ✓ the natural progression to continue driving down fuel bills and green house gas emissions is onsite renewable generation.
- ✓ Salix will assess applications for solar PV on a case by case basis and clients will need to be able to demonstrate the wider organisational commitment to energy efficiency.

# Salix Finance – Guidance on Solar Photovoltaics

- ✓ £5.4m of solar PV & incorporating other measures (using average payback)
- ✓ 23 applications since 2016
- ✓ 50 – 100% funded
- ✓ £842k annual & £17.5m LT savings
- ✓ Sites have included: Schools, leisure centres, depots, council offices & ground mounted arrays
- ✓ Future – battery storage & solar canopy



# Salix Finance – Guidance on Solar Photovoltaics

- The following guidelines outline how Salix financing can be used to enable solar PV to be installed at your sites:
  - Savings will primarily be based on reducing onsite consumption from the National Electricity Grid.
  - Clients should independently satisfy themselves that by receiving an interest-free government loan, they will be eligible to receive Feed-In Tariff (FIT) benefit from the relevant accreditation authority (e.g. OFGEM).
  - Any proportion of exporting back to the grid as a revenue stream cannot be funded by Salix. In these instances, Salix could fund the proportion of onsite generation used with client own funding supporting the rest of the project cost (e.g. if a project estimates 30% of generation will be exported, Salix financing will be available for up to 70% of the total project costs).

# Salix Finance – Guidance on Solar Photovoltaics

## Factors to consider for funding applications

- ✓ Calculations for generation and electricity savings
  - Electricity generation profiles, across daily and yearly periods
  - Local factors considered – solar irradiation levels, panel orientation and any effects from shading
  - Site demand profile – when will electricity be used on site, or exported to the grid
- ✓ Technical specifications of the Solar PV system
  - Panel choice, £/kW output as a recommended comparison measure
  - Inverter sizing
  - Roof fixing arrangements
  - Battery storage
- ✓ Financial savings
  - Savings in utility bills, through reduced electricity demand
  - Income from Feed-In Tarriffs, both generation and export tariffs, if applicable
- ✓ Cost calculations demonstrating how the total project costs have been built

# Solar PV Case Study – Oxford City Council

- ✓ **125 kWp** Solar PV system to be installed on roof of a depot
- ✓ Generating approx. **118,379 kWh** per year
- ✓ **34% reduction** in grid based electricity
- ✓ Project **payback** of **8.4 years**
- ✓ Benefits will include:
  - Significant **reduction** in use of **grid sourced** electricity
  - Reduction in CO<sub>2</sub>e emissions - ca 47tCO<sub>2</sub>e/year
- ✓ Potential for **smart grid approach** incorporating battery storage



# Salix Finance – Other types of renewable projects?

- ✓ Biomass boilers
- ✓ Anaerobic digestion
- ✓ Fuel cells
- ✓ Water source heat pumps
- ✓ Others?

# How the loan works



# Application in 5 simple steps

1. Visit our website at [www.salixfinance.co.uk](http://www.salixfinance.co.uk)
2. Simple on-line application process.
  - ✍ Download project compliance tool
  - ✍ For projects valued over £100,000 – business case template
  - ✍ Attach supporting information
3. Public Sector Body or supporting body submits application.
4. An automatic email is sent to the authorising official.
5. Application assessed and decision made typically within **two weeks**.



# Project delivery

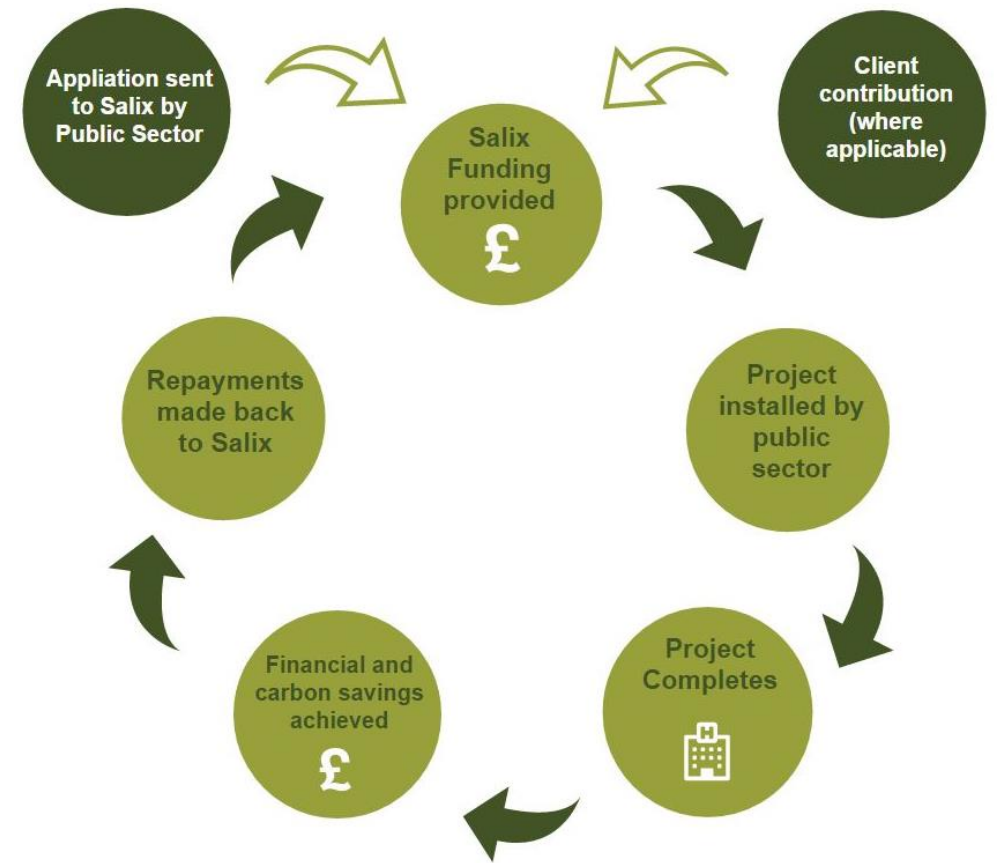
- ✓ Projects typically have 9-12 months to complete from commitment of funding
- ✓ Public sector client and contractor updates Salix at key project milestones
- ✓ Notify Salix of any delays in delivery at the earliest possible stage

## Once project completes:

Public sector client submit the Completion Certificate (template online) to Salix

# Repayment of loan

- ✓ Loan repayments only begin after the project completes to allow the Public Sector Organisation to accrue savings
- ✓ Repayment dates are confirmed on project completion
- ✓ Repayments are made by Direct Debit
- ✓ Repayments are made twice a year over the agreed period of the loan



# Repayment Example

- ✓ Parish Council £10,000 street lighting project
- ✓ Starts on site April 2018 and completes September 2018
- ✓ Funding paid to client September 2018 on completion

## Repayments – 10 equal payments of £1,000

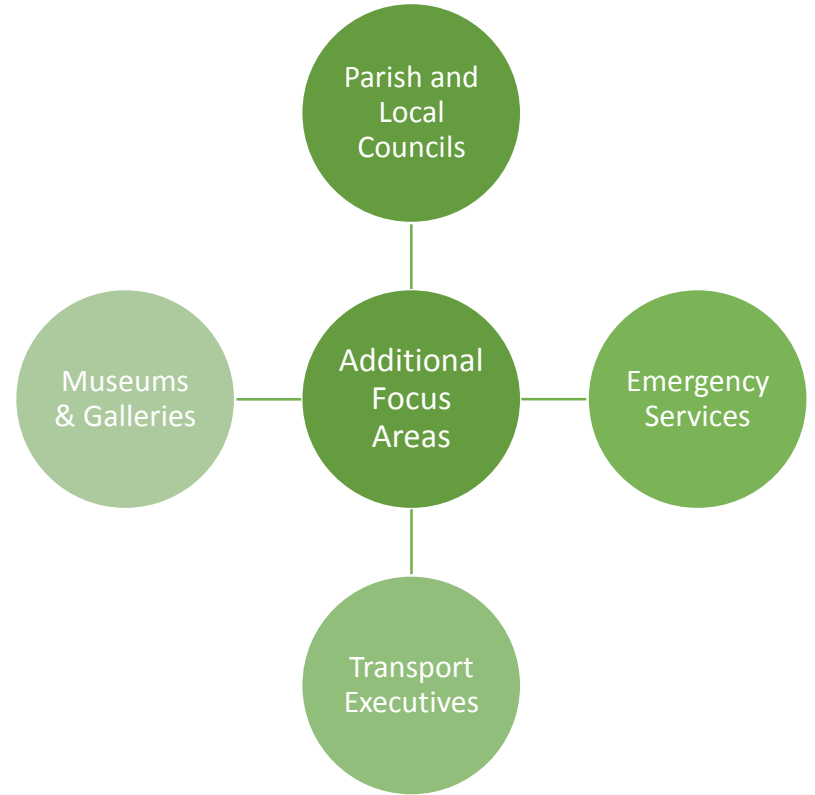
- ✓ April 2019 - £1,000
- ✓ October 2019 - £1,000
- ✓ April 2020 - £1,000
- ✓ October 2020 - £1,000
- ✓ April 2021 - £1,000
- ✓ October 2021 - £1,000
- ✓ April 2022 - £1,000
- ✓ October 2022 - £1,000
- ✓ April 2023 - £1,000
- ✓ October 2023 - £1,000

# Reservation of funding

- Salix can issue reservation of funding for clients when an early stage commitment is needed for cabinet approval

## *Benefits of a reservation of funding:*

- Allows Salix to prepare for future applications – streamlining the application process
- Provides confidence for board/cabinet approval
- Can reserve funding for projects in future financial years



***Additional areas of funding***

# Summary

- ✓ How the funding works
- ✓ Current funding available for local authorities & leisure centres
- ✓ Funding of renewable technologies
- ✓ Knowledge sharing
- ✓ Summary and questions

# Salix key contacts

Name	Title	Programme & point of contact for	Email	Landline	Mobile
<b>Paul Smyth</b>	Head of Programmes	All programmes & Technical Services	<a href="mailto:paul.smyth@salixfinance.co.uk">paul.smyth@salixfinance.co.uk</a>	0203 102 6912	07917 701184
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<b>Alannah Powell</b>	PR & Marketing Executive	All marketing activities including promotion, case studies & client articles	<a href="mailto:alannah.powell@salixfinance.co.uk">alannah.powell@salixfinance.co.uk</a>	0203 102 6811	



Thank you – Any Questions?

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[www.salixfinance.co.uk](http://www.salixfinance.co.uk)

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