

Salix Finance

APSE Renewables and climate change advisory group

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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
- ✓ Renewable projects to date
- ✓ Sharing knowledge
- ✓ Summary and questions



SALIX

SOLVING ENERGY EFFICIENCY FINANCE IN THE PUBLIC SECTOR

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



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 organisations, 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 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

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 #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 tCO₂ saved per year

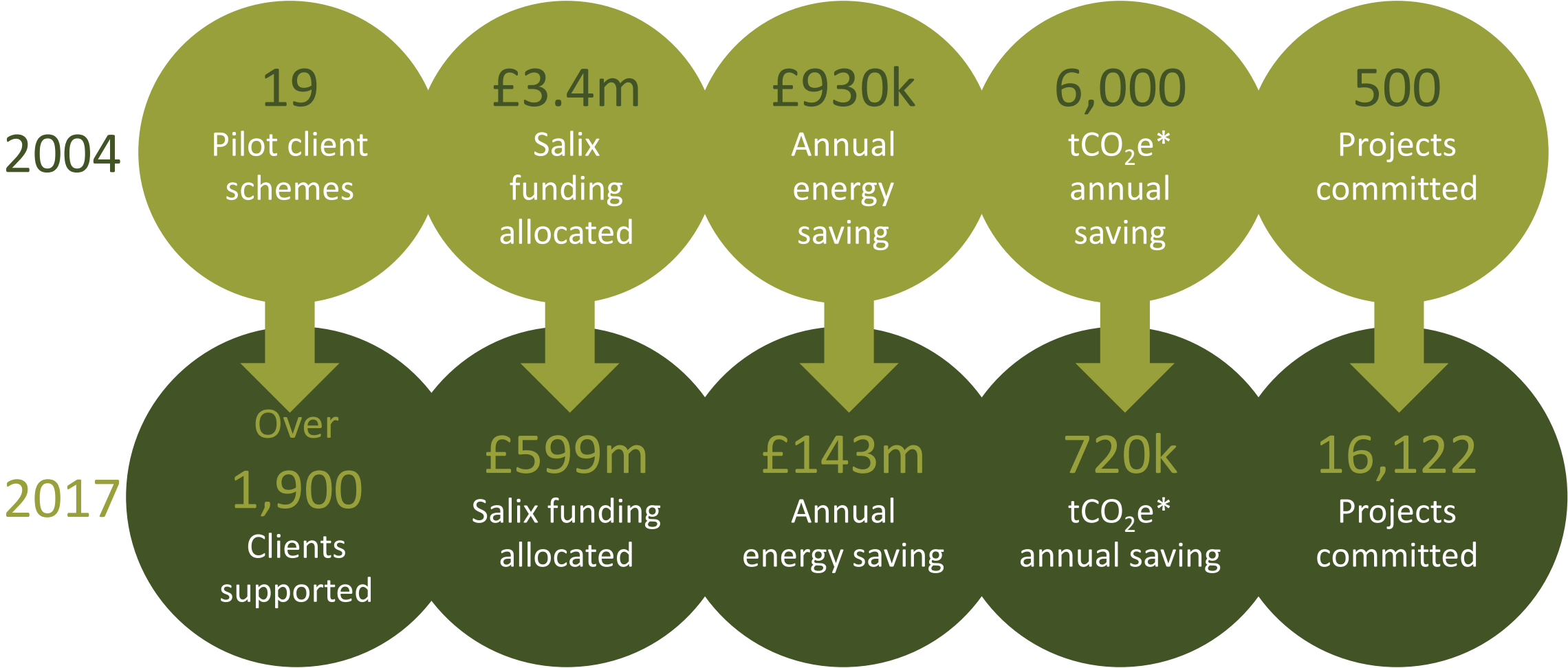
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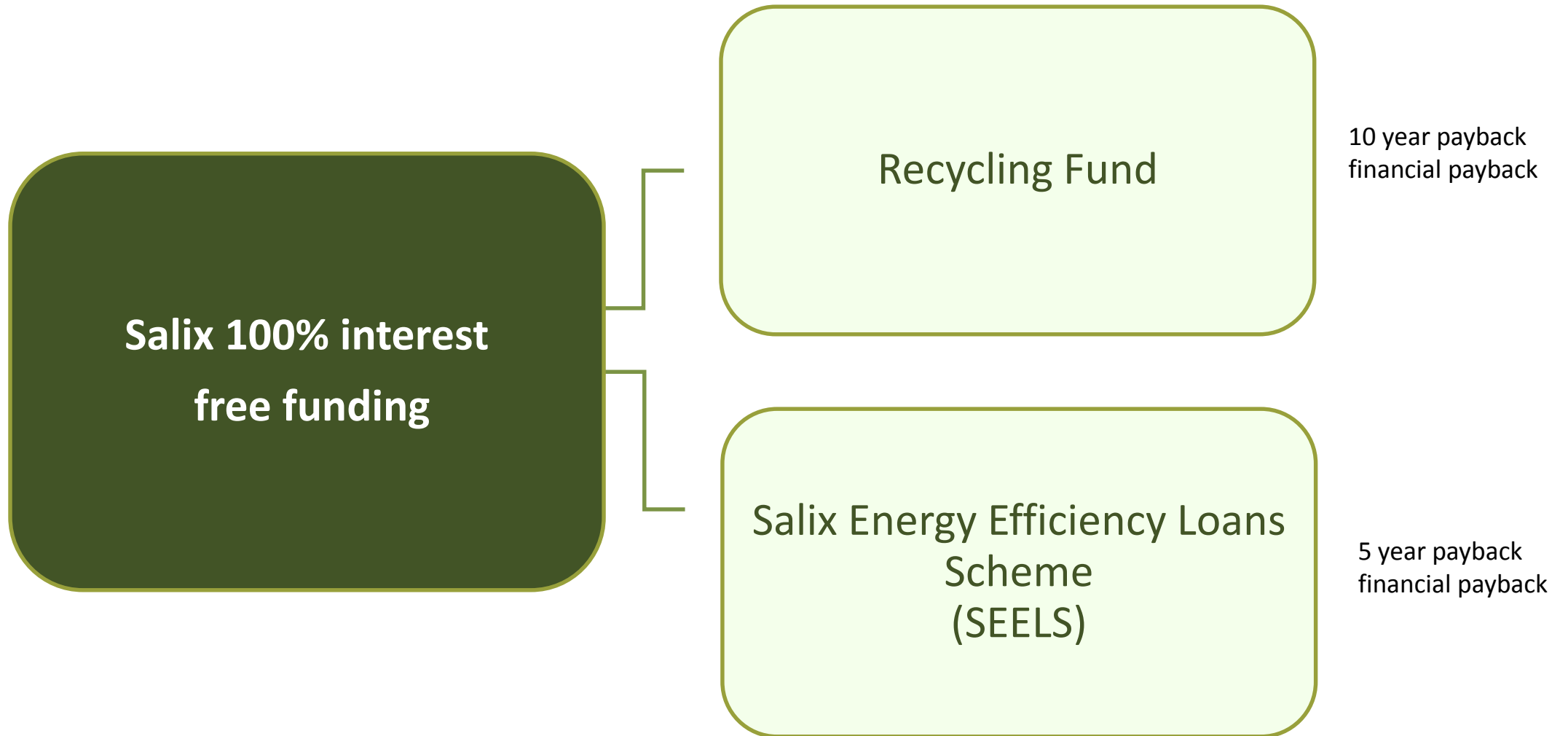
Making a difference 2004 to 2018



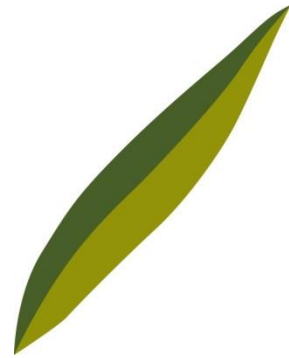
Figures accurate as of September 2017

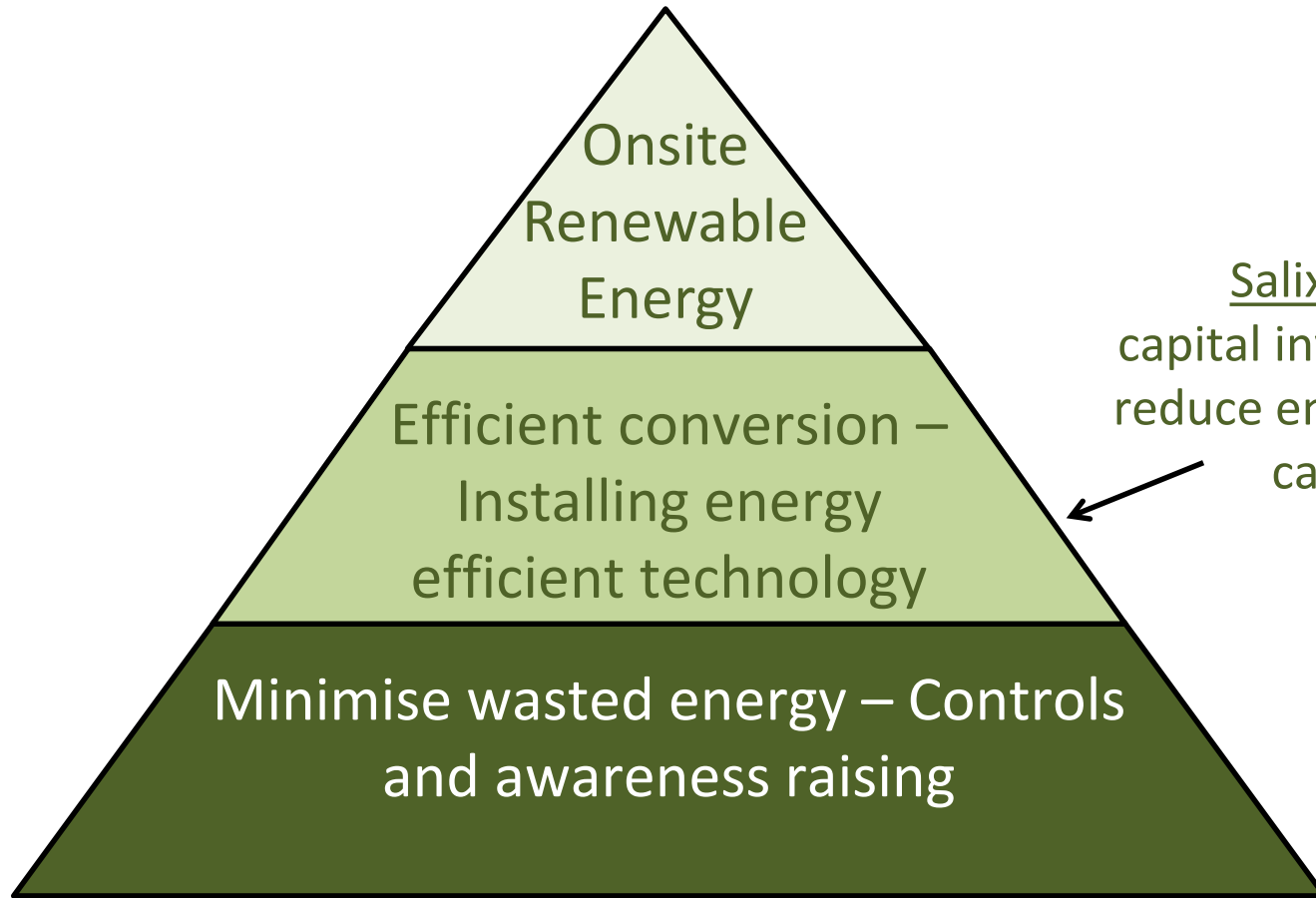
*calculated using emissions factors published by government for carbon foot printing purposes

Salix Funding programmes



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



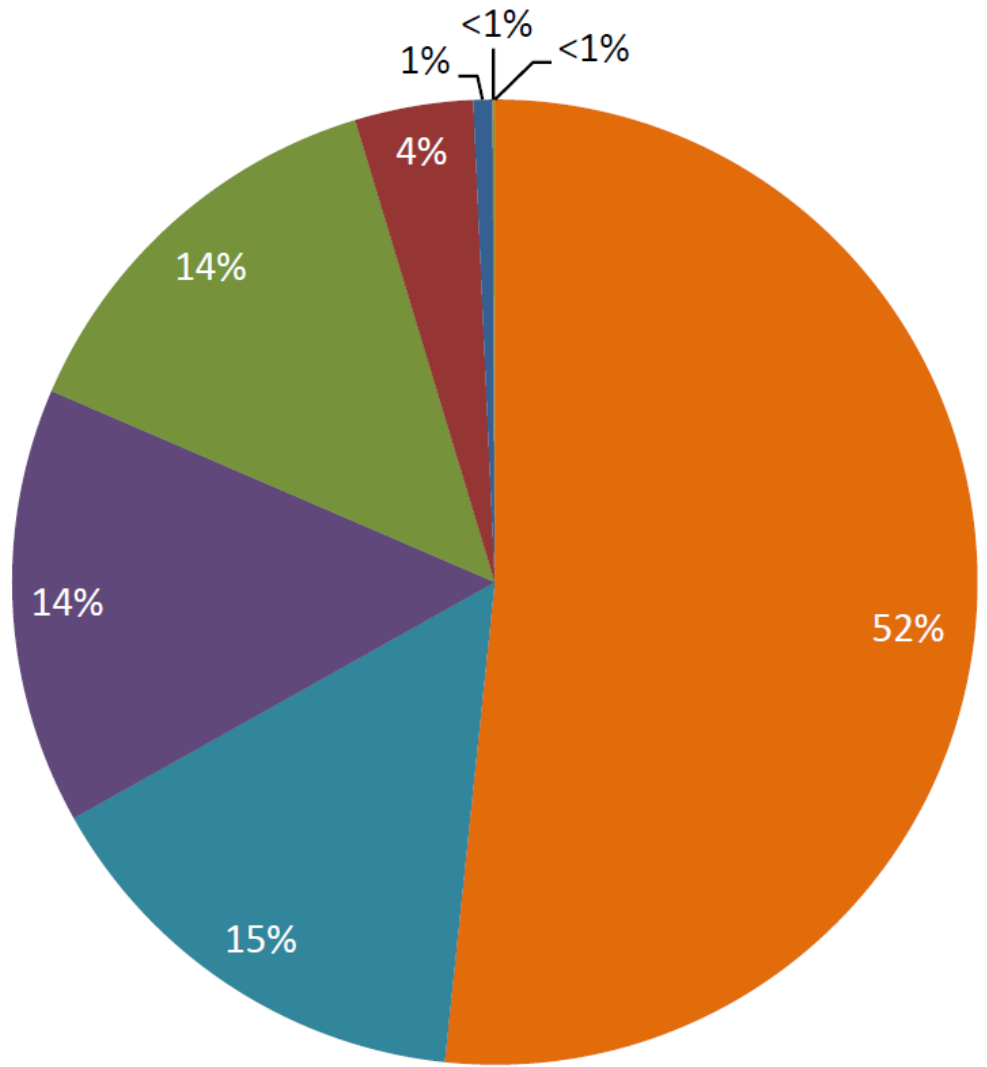
Renewable technologies funded









- ✓ Biomass boiler
- ✓ Solar PV

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Salix project value by client sector



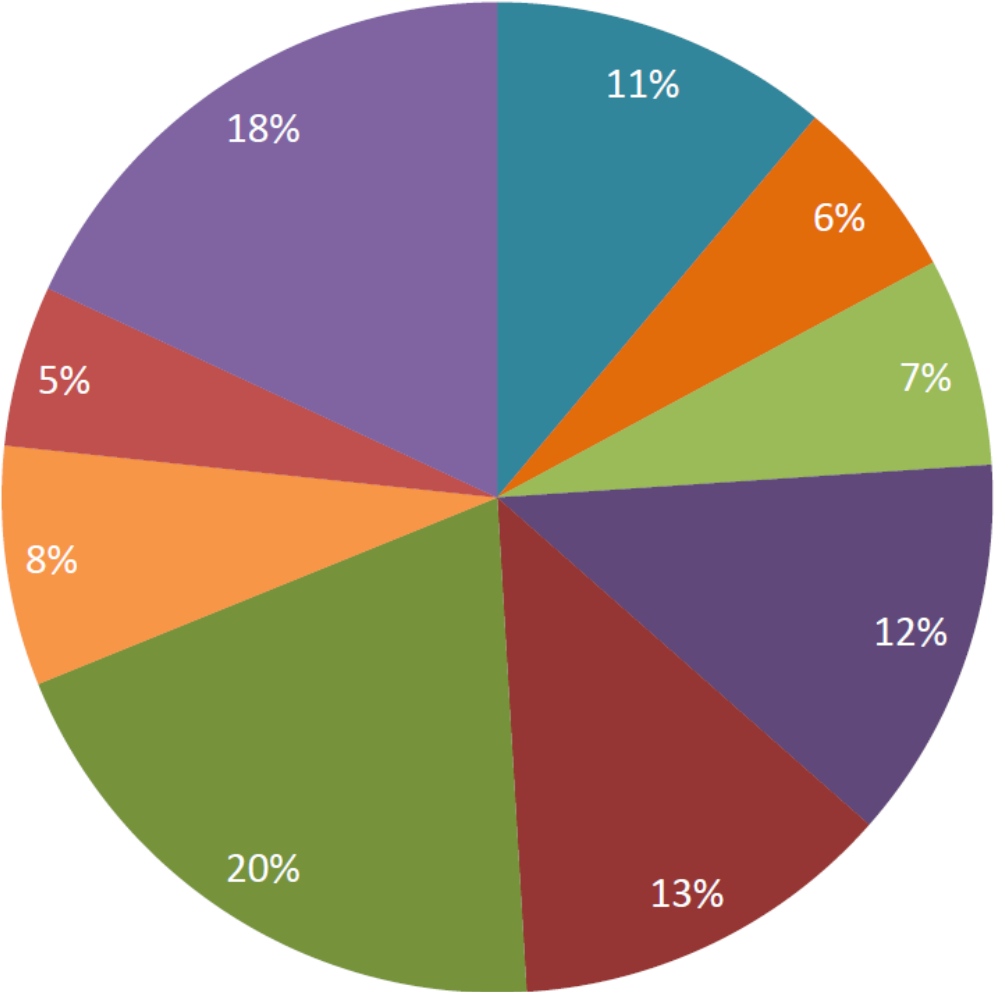
Key	
Local Authority	
National Health Service	
Academy School	
Higher Education Institute	
Maintained School	
Further Education College	
Emergency	
Other	

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












SOLVING ENERGY EFFICIENCY FINANCE IN THE PUBLIC SECTOR

Salix project value by region



Key

North East	
Yorkshire and the Humber	
East Midlands	
East of England	
London	
South East	
South West	
West Midlands	
North West	

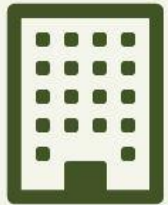
Data for all England loans programmes and total Recycling Funds for the 12 months June 2016 to June 2017



SOLVING ENERGY EFFICIENCY FINANCE IN THE PUBLIC SECTOR

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 tCO₂e*
242,218

Further potential

- ✓ To save 10% on total energy spend (**£750m/yr**) - **£319.6m** investment needed
- ✓ To save 10% on total carbon (**242,218tCO₂e**) – **£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

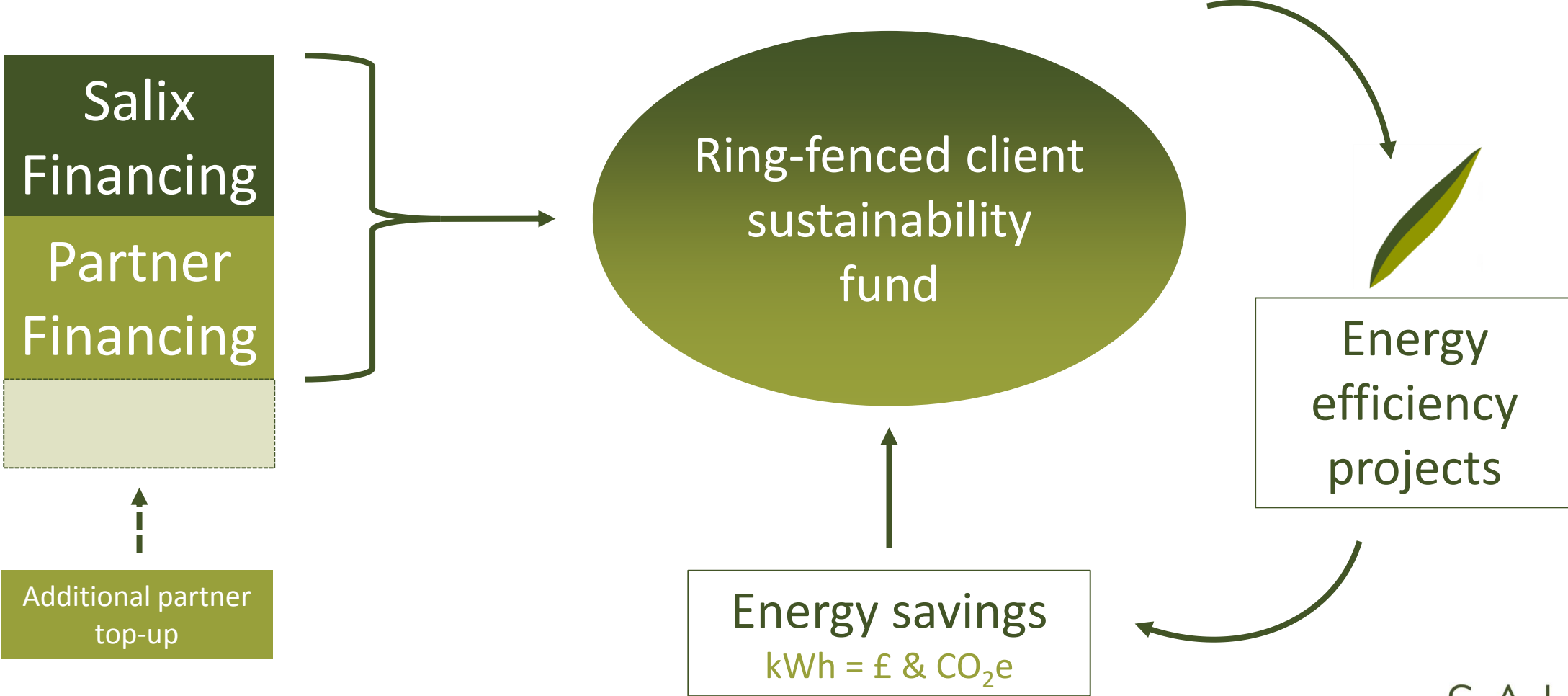
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Recycling Fund



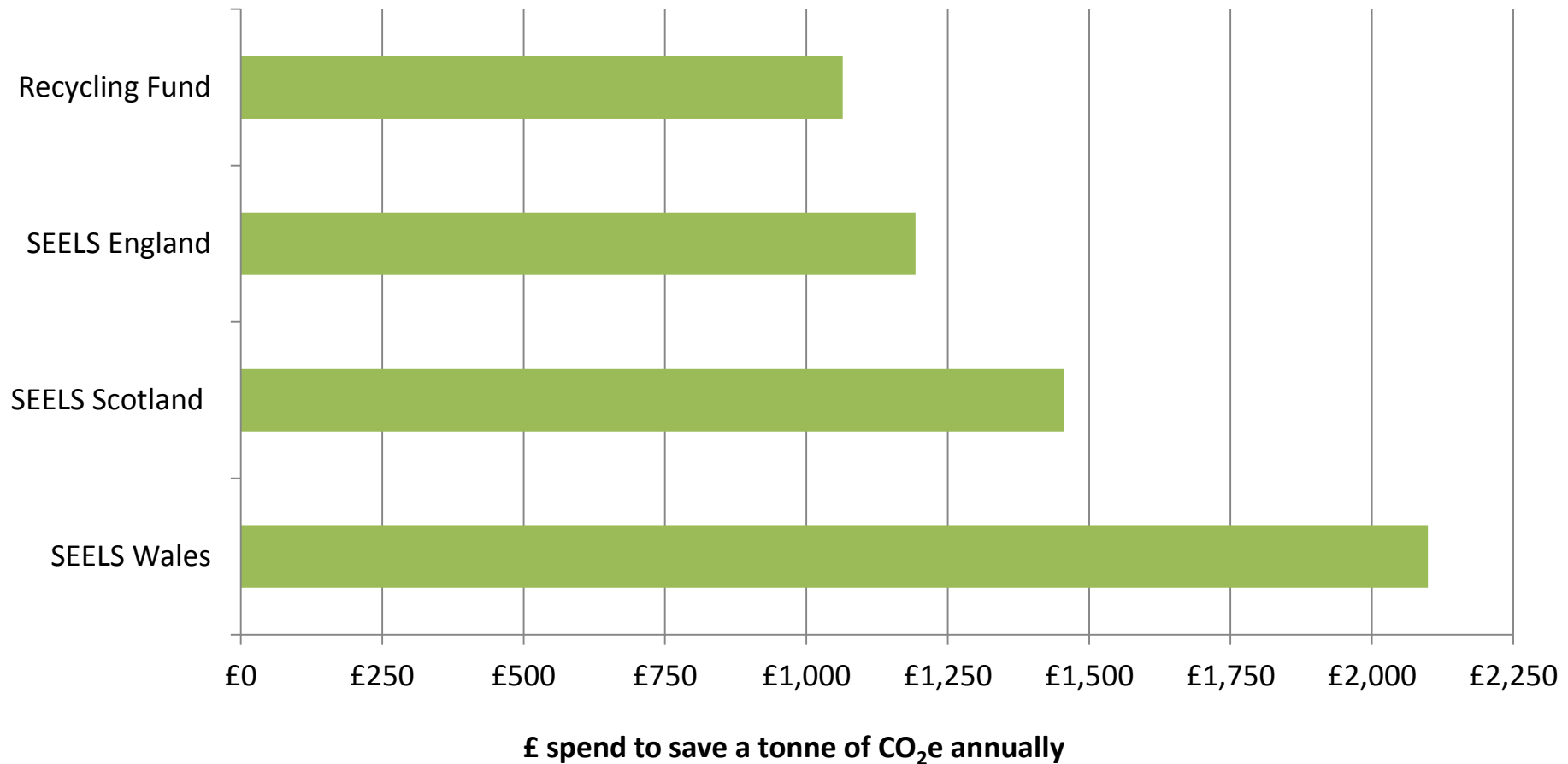
Recycling Fund



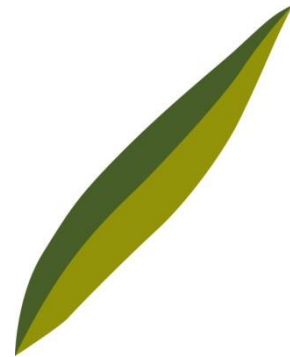
SOLVING ENERGY EFFICIENCY FINANCE IN THE PUBLIC SECTOR

Carbon cost effectiveness of Salix Programmes in FY 16/17

Recycling Fund programme remains the **most cost effective** programme!



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).
 - Where the above FIT criteria has been met, clients should also check that the FIT rate used at the time of applying for a Salix loan will be available on commissioning or when the installation is accredited.
 - 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).
 - For installations [under 30 kWp where 50% of generation is deemed export](#), Salix could finance the entirety of the project however, this export benefit will be used to repay the Salix loan quicker.

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 CO₂e emissions - ca 47tCO₂e/year
- ✓ Potential for **smart grid approach** incorporating battery storage



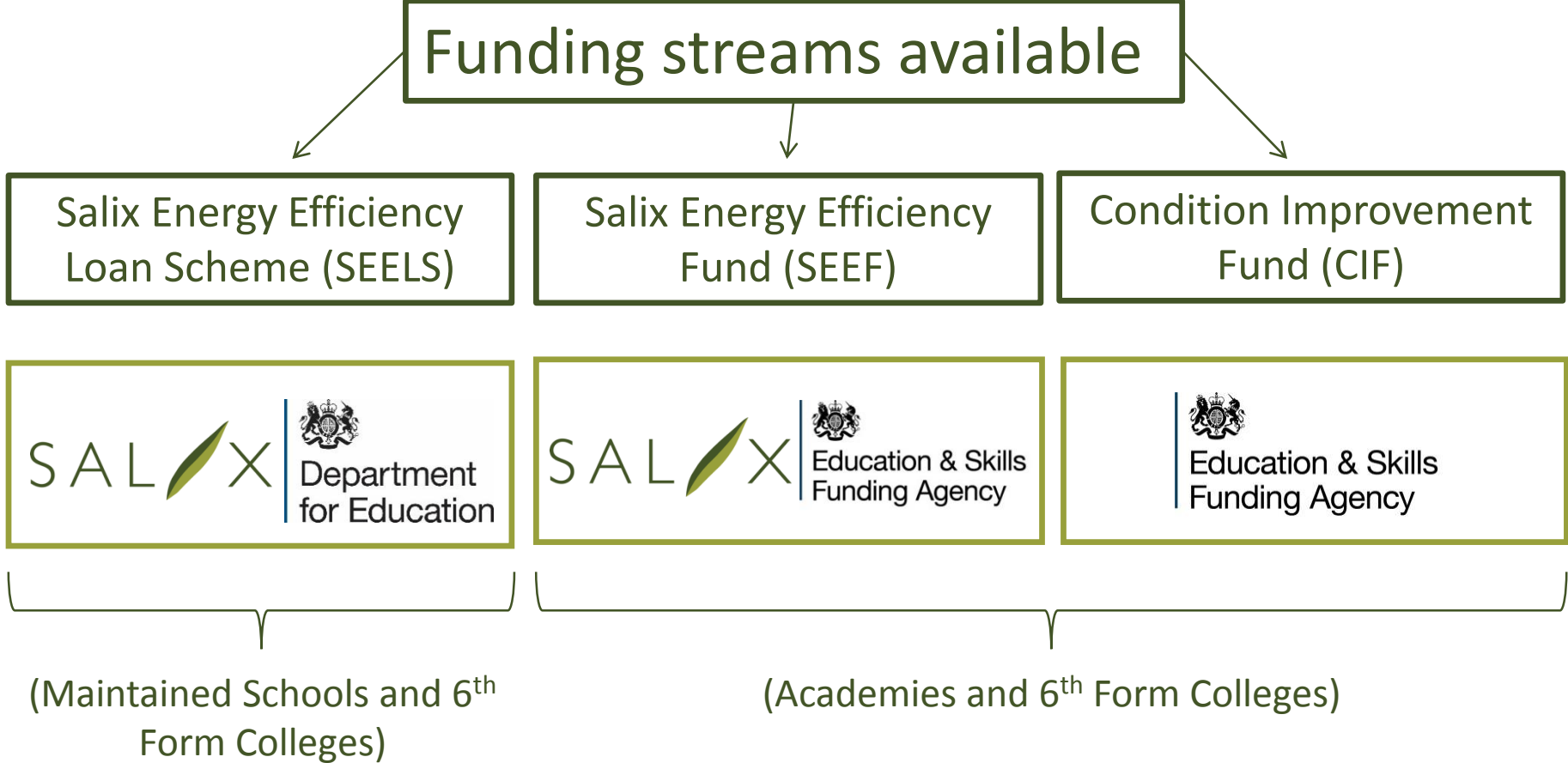
Salix Finance – Other types of renewable projects?

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

Working with other public sector bodies



Schools in England



New DfE £25million fund

- ✓ In partnership with the Department of Education
- ✓ A long term £25 million fund
- ✓ Opportunity for local authorities to reach CO₂e targets
- ✓ Significant financial and carbon savings

**Payback criteria:
8 year payback
£200/tonne CO₂e**



Heat Networks



Heat Network Investment Project

HNIP is a major new Government project announced in 2015 Spending Review

“The government will provide over £300m of funding on heat networks over the next five years leveraging around £2bn of private and local capital investment..... expected to lead to the construction of some 200 large heat networks in towns, cities and communities across England and Wales heating commercial offices, public sector buildings like hospitals and schools, as well as flats and houses by 2025”

- ✓ Pilot round launched in October 2016
- ✓ £39m across FY 2017/18 and 2018/19

Aims

1. Increase deployment of heat networks
2. Deliver carbon savings
3. Enable schemes to be optimised to local needs
4. In the longer term, create self-sustaining market for heat networks

How the loan works



Application in 5 simple steps

1. Visit our website at 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

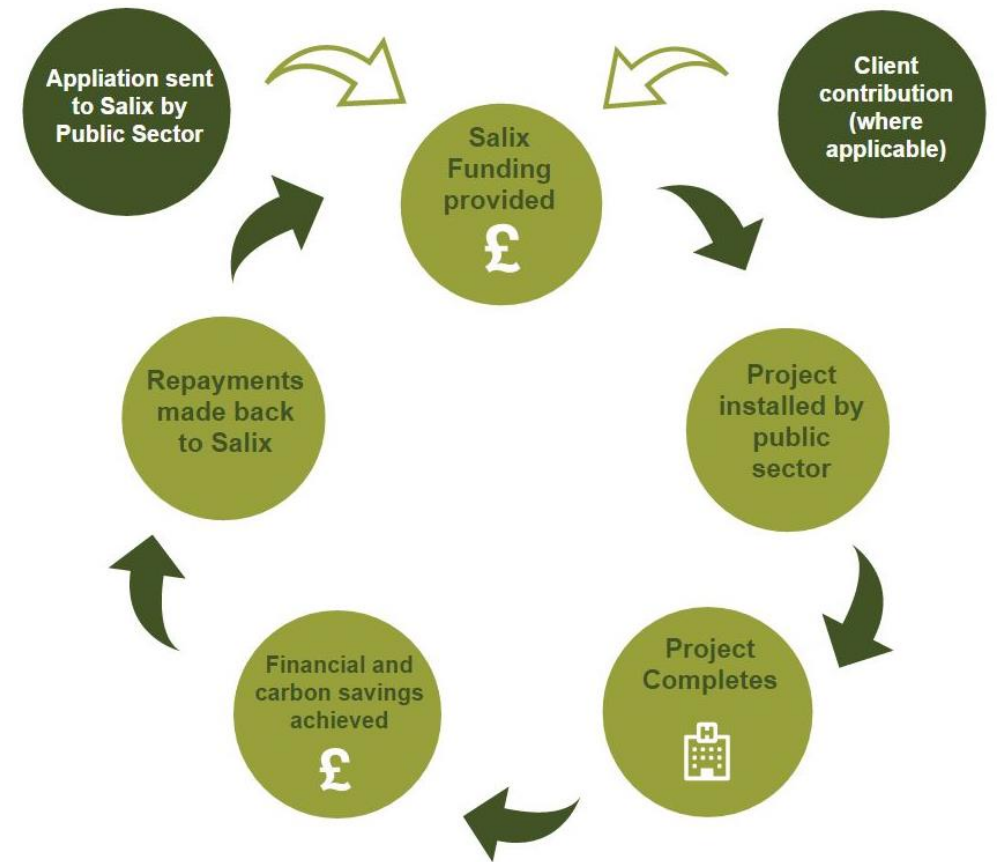
- ✓ Projects typically have 9-12 months to complete from commitment of funding
- ✓ Public sector client and contractor updates Salix at key project milestones
- ✓ Notify Salix of any delays in delivery at the earliest possible stage

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

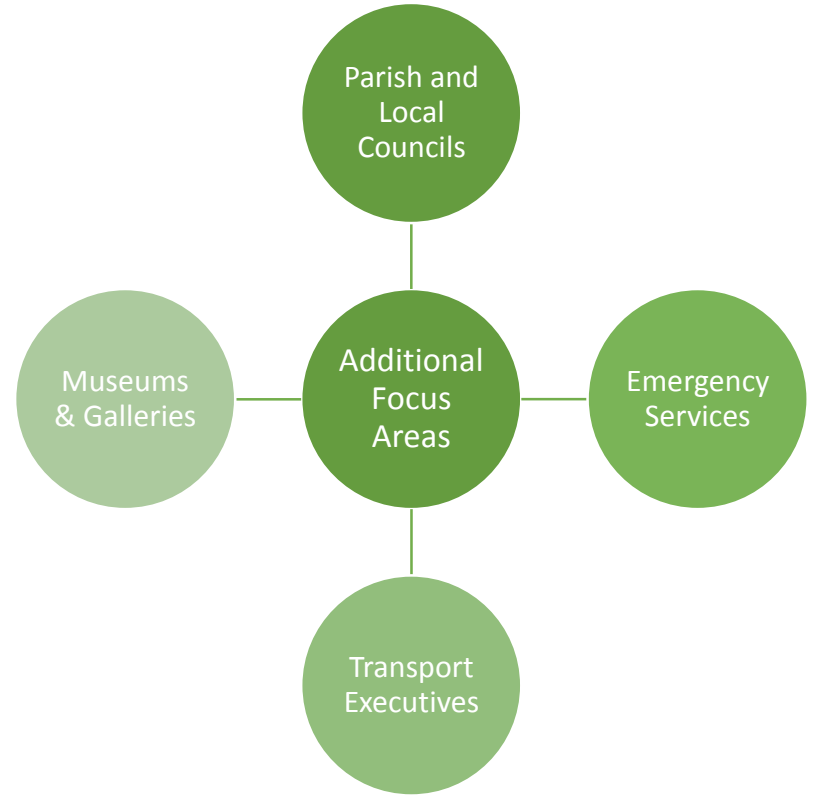
- ✓ April 2019 - £1,000
- ✓ October 2019 - £1,000
- ✓ April 2020 - £1,000
- ✓ October 2020 - £1,000
- ✓ April 2021 - £1,000
- ✓ October 2021 - £1,000
- ✓ April 2022 - £1,000
- ✓ October 2022 - £1,000
- ✓ April 2023 - £1,000
- ✓ October 2023 - £1,000

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

Salix consultation with BEIS

Salix Finance was invited to submit a response to the Department of Business Energy & Industrial Strategy's (BEIS) call for evidence in "*Leading by example: cutting energy bills and carbon emissions in the public and higher education sectors*".

- ✓ A move away from grants
- ✓ **Immediate revenue savings**
- ✓ **Clean Growth Strategic Funds**
- ✓ **Longer paybacks**
- ✓ New areas to fund and work in
- ✓ Upfront energy surveys

https://www.salixfinance.co.uk/system/public_files/salix_finance_response_to_beis_cutting_energy_bills_and_carbon_emissions_in_public_sector1.pdf

Summary

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

Salix key contacts

Name	Title	Programme & point of contact for	Email	Landline	Mobile
Paul Smyth	Head of Programmes	All programmes & Technical Services	paul.smyth@salixfinance.co.uk	0203 102 6912	07917 701184
Hayley Condie	Programme Manager	England – Local Authority buildings & street lighting	hayley.condie@salixfinance.co.uk	0203 102 6913	07979 636863
Craig Mellis	Programme Manager	England - Higher & Further Education and Heat Networks	craig.mellis@salixfinance.co.uk	020 3102 6917	
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Hannah Taylor	Programme Manager	England - NHS	hannah.taylor@salixfinance.co.uk	0203 102 6910	07989 200506
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Thank you – Any Questions?

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