

## 3<sup>rd</sup> Interregional Event DOSSIER

4<sup>th</sup> November 2016





## Summary

The Financial Instruments for Energy Renovation Policies (FINERPOL) Project aims to increase the rate of refurbishment of buildings to increase their energy efficiency, by improving access to investment finance. It is supported by European Regional Development Funding provided through the [Interreg Europe Programme](#).

The UK event comprised a Dissemination meeting regarding good practices in Plymouth, and an Interregional event in London focussing on lessons to be learned from the London Energy Efficiency Fund.

The lessons emerging from the event that are of immediate relevance for project implementation are:

- Whilst investment funds might operate at a larger scale, local action is needed to bring projects forward, comprising opportunity-spotting, data collection, project development. There is a role for **local trusted intermediaries** (public bodies / community organisations) in facilitating the development of a pipeline of projects that give necessary scale to unlock funds
- Projects need to be developed to a high standard to create the right risk profile for investment, and building owners need local support to achieve this. **Data gathering on energy use, and its quality, is fundamental to this task.**
- Building owner's institutional, legal and operational constraints must be well understood
- Investment Funds can be flexible enough to finance different types of project within the same portfolio (commercial, residential etc.), so it is not necessary to focus on any one sector exclusively
- Opportunities exist to build the required scale of project pipeline by coordinating the actions of a number of regional stakeholders into a single basket of investment propositions.
- Benefit-sharing models will be needed to motivate some building owners, where tenants will otherwise be the sole beneficiaries of energy efficiency investment
- Opportunity lock-out is a strategic risk that we must take into account at the start.

The report summarises case studies and the content of the debate at the Interregional meeting, and goes on to consider next steps for the project in the UK.

## Acknowledgements

The content of this report is based largely on contributions from the following:

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Kore Mason, RE:NEW, GLA

Virginie Caujolle-Pradenc, RE:FIT, GLA

Alex Gilbert, Amber Infrastructure

Ian Hutchcroft, Energiesprong UK

Andrew Padmore, Egnida

Tom Harwood, Abundance Investment

Dave Worthington, Verco

Nick Walker, London Borough of Hackney



## Introduction to FINERPOL

The Financial Instruments for Energy Renovation Policies (FINERPOL) Project aims to increase the rate of refurbishment of buildings to increase their energy efficiency, by improving access to investment finance. It is supported by European Regional Development Funding provided through the Interreg Europe Programme [[hyperlink](#)].

Buildings account for 40% of energy use and 36% of CO<sub>2</sub> emissions in the European Union with older buildings being up to 20 times less energy efficient than new builds. Currently about 35% of EU buildings are over 50 years old ([more info here](#)). Increasing investment in energy efficiency and renewable energy for buildings is a major challenge to meet European Union and UK targets to reduce carbon emissions. However, austerity measures and a more risk-averse investment climate have slowed the rate of investment considerably.

FINERPOL partners aim to develop regional Action Plans to overcome these barriers, making use of EU funds, and national and other sources as appropriate, to attract investment finance from a range of sources for energy efficiency renovations.

For more information about FINERPOL, visit [our webpage](#)

### Project partners

The partnership is led by the [Extremadura Energy Agency](#) (Agenex), Spain and also includes:

- [General Direction of Industry, Energy and Mines, Extremadura Regional Government](#), Spain
- [Plymouth City Council](#), UK
- [Western Macedonia Region](#), Greece
- [City of Prague](#), Czech Republic
- [University Centre for Energy Efficient Buildings](#), Czech Technical University in Prague, Czech Republic
- [Climate Protection and Energy Agency of Baden Württemberg](#), Germany
- [CEiiA – Intelligence in Innovation](#), Innovation Centre, Portugal
- [Autonomous Province of Trento](#), Italy



## Key points arising from the debate

Panellists identified the following key features of any Fund for energy efficiency investments:

1. **Simple** - A simple, compelling product is needed for the end customer (which 'hides' – in a good way – the underlying complexity of the offer)
2. **Flexible** – be willing to change as the market develops (technology, goals, measurement and verification information etc.)
3. **Tangible** – private/community investors should be able to 'see' the investment in a real sense, so that the investment is a simple proposition and one that they can relate to
4. **Meeting customer needs** – especially for smaller investments, where tailored and blended finance can make all the difference. Focus on the legacy the customer wants to achieve.
5. **Well-designed contracts** – doing so provides, certainty, reduces risk and removes barriers. RE:FIT EPC contracts are an example, providing guaranteed savings.
6. **Affordable to deliver** – projects must be big enough to cover transaction costs. Especially with residential, a significant scale of delivery is required and the social housing sector is the best opportunity to kick-start the market.

Further issues identified during the debate were:

**Data needs.** Fundamental to any project is an understanding of the energy usage patterns in the existing building. This can take 12 months to develop. The better the data, the better the cost and saving projections, and the less is the risk and therefore the more likely the project to gain affordable finance. Operations & maintenance and verification & monitoring data are vital to ongoing operation of contracts. In contrast to renewable energy investments (eg wind and solar farms), energy efficiency investments are essentially long term partnerships – which must start with data. Thus, perhaps institutions should consider data solutions first, before progressing on to finance....? The 'Internet of Things' (connected sensors integrated into buildings) and big data collection and analysis presents a great opportunity to improve data.

**Project development.** A pipeline of projects is fundamental to the establishment of any investment fund for energy efficiency. A key task is to work with building owners to identify opportunities and to support internal decision-making processes before a project pipeline can be realised. This is a key barrier and there is a case for technical assistance delivered through a third party (eg. RE:NEW, RE:FIT) to support this task.

**'Opportunity lock-out'**. For example, insulating a building will reduce the incentive to provide renewable, district heat at a later date for which the business case can no longer be made. This problem points to the need to take a holistic and long term perspective where possible and to blend the difficult with the easy in a single investment.

**Standardisation of project development.** Providing confidence that financial and energy performance models will prove correct and that investment returns will be realised. See 'Investor Confidence Project'



which develops standards for energy efficiency project development [www.europe.eepformance.org](http://www.europe.eepformance.org). Impact on the market place has been demonstrated in Australia with the 'Nabers' star rating scheme for energy performance of property. It is leading to asset value improvement and driving investment.

**Finance solutions for Residential sector.** Need to develop finance solutions alongside development of scale of delivery (to bring down product costs). Ideally, monetise energy savings and work with valuers and lenders to reflect this in mortgage lending and property valuations. The [Energiesprong](#) approach to the social residential sector is to a) replace energy bills with an energy service contract, which provides part of the revenue stream to meet finance costs (i.e. some of the savings are passed on to the resident, some are diverted to pay finance costs) and b) repackage annual budgets for maintenance and repair & renewals as the other part of the revenue stream to repay finance costs.

**Institutional constraints.** Finance (and project structure) must be tailored to meet building-owner/borrower needs: strategic goals (e.g. reducing cost, CO<sub>2</sub> emissions); procurement strategies; need for off-balance sheet solutions, where these are important (often to overcome public sector borrowing constraints); overcoming VAT issues in the public sector. Power Purchase Agreements offer a lot of flexibility to tackle these issues, for example for sharing benefits, restructuring risk etc.

**The need for public funding.** Examples were given of private-led solutions with no public funding. However, the general view from the panel was that public support (not necessarily money – it could be policy mechanisms) are needed for market development and to build momentum. This can deliver CO<sub>2</sub> reductions as contributions to national targets at a reasonable cost to the tax payer.

**Community investment market.** Returns are not as high now that subsidies in the UK have been reduced, but returns of 3-4% are still possible. New tax-efficient savings mechanisms (ISA's and SIP's) offer new sources of finance for energy efficiency. Being owned by individual investors, there is interest in ethical investment as long as reasonable returns on investment are on offer (compared to standard interest rates on savings). This source of finance is flexible and can fund smaller projects, especially those with a community benefit, and can be blended with other forms of finance, or used for refinancing of completed schemes.

**Heritage buildings.** The future may provide new solutions. For now, there is a trade-off between heritage value and loss of heat. Focus on providing renewable heat.

### How best to start an energy efficiency investment programme?

The panel provide the following advice:

**Define your goals.** Which are most important: Energy savings, CO<sub>2</sub> reductions, fuel poverty reduction etc? Think short, medium and long term.



**Identify and rate opportunities.** Look for **quick** and **easy** wins to get the ball rolling.

**Develop a Roadmap.** Analyse opportunities in detail and map out the phasing of investments over 20-30 years. Consider how to minimise opportunity lockout by taking a long term, strategic view.

**Public sector partnerships** (e.g. local government, NHS, social housing, education sector) can create significant scale, which has value.

### Next steps for the UK

The lessons emerging from the event that are of immediate relevance for project implementation are:

- Whilst investment funds might operate at a larger scale, local action is needed to bring projects forward, comprising opportunity-spotting, data collection, project development. There is a role for **local trusted intermediaries** (public bodies / community organisations) in facilitating the development of a pipeline of projects that give necessary scale to unlock funds
- Projects need to be developed to a high standard to create the right risk profile for investment, and building owners need local support to achieve this. **Data gathering on energy use, and its quality, is fundamental to this task.**
- Building owner's institutional, legal and operational constraints must be well understood
- Investment Funds can be flexible enough to finance different types of project within the same portfolio (commercial, residential etc.), so it is not necessary to focus on any one sector exclusively
- Opportunities exist to build the required scale of project pipeline by coordinating the actions of a number of regional stakeholders into a single basket of investment propositions.
- Benefit-sharing models will be needed to motivate some building owners, where tenants will otherwise be the sole beneficiaries of energy efficiency investment
- Opportunity lock-out is a strategic risk that we must take into account at the start.

There are some key initial questions to consider which are pertinent to the structure of the FINERPOL UK Stakeholder Group(s) regarding:

1. How we engage with building owners to encourage and support them to develop energy efficiency projects that are investment ready, and how we achieve a sufficient scale of projects
2. How that activity is funded
3. What structure might be employed to manage finance (one Fund or a Fund of Funds?; who appoints a fund manager and who partners in this? etc)
4. Do the key urban centres (Plymouth, Exeter, Bristol....etc) work jointly or in parallel? Doing so would be to provide the scale of investment opportunity needed to secure finance, rather than to exclude rural estates or individual stakeholders.
5. What business models are available for benefit-sharing? For those for whom this is a barrier, they need to be able to see solutions that they can realistically achieve.



## Case Study: London Energy Efficiency Fund

The Greater London Authority has set ambitious climate change targets. However,

- Private investors not investing in areas such as retrofitting and decentralised energy
- Projects are too small, too risky, and lack sufficient precedents to attract finance
- Solutions & investment cannot be addressed by the public sector alone.

The London Energy Efficiency Fund (LEEF) invests in energy efficiency retrofit to public, private and voluntary sector buildings and infrastructure in order to make it more energy efficient and environmentally friendly.

LEEF is one of three **'Urban Development Funds'** (UDFs) procured by the European Investment Bank (EIB) on behalf of the London Green Fund. The **Amber Green Consortium**, led by Amber Infrastructure, with funding from RBS and Arup as technical advisors, is responsible for operating LEEF.

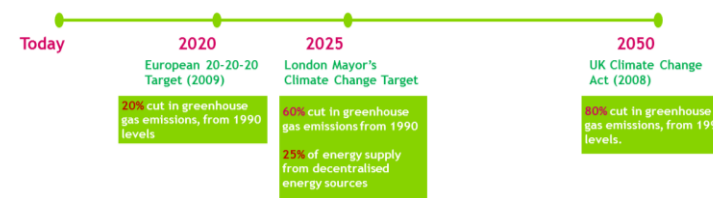
The [London Green Fund](#) was established by the London Development Agency (LDA) (now the GLA) with the assistance of the EIB and the London Waste and Recycling Board (LWARB) under the European Commission's JESSICA initiative (Joint European Support for Sustainable Investment in City Areas).

LEEF has £112m from the London Green Fund and the private sector; to be lent to public or private sector borrowers on projects that promote energy efficiency. LEEF can also support larger projects such as Combined Heat and Power, District Heating and Renewable Energy Generation. Loans are flexible and competitive; with tenors of up to 10 years and interest rates from 1.70% per annum.

### Achievements

- Backed 7 major carbon saving projects
- Invested throughout the Capital (76 buildings across 9 London Boroughs)
- Committed £67 million of capital
- Mobilised £350m external finance through our capital
- Saved 20,000,000 kWh of energy; the equivalent of 1,100 homes
- Reduced annualised CO<sub>2</sub> emissions by 35,000 tonnes
- Supported 1,600 construction and operational jobs

### London Climate Change Target







# LEEF – A Success Story?

Backed **7 major** carbon saving projects



Invested **throughout the Capital** (76 buildings across 9 London Boroughs)



Supported **1,600 construction and operational jobs**



Committed **£67 million** of capital



Saved 20,000,000 kWh of **energy**; the equivalent of **1,100 homes**



Reduced annualised CO2 emissions by 35,000 tonnes; equivalent to taking **32,000 cars off the road**



**Mobilised £350m** external finance through our capital







# RE:FIT

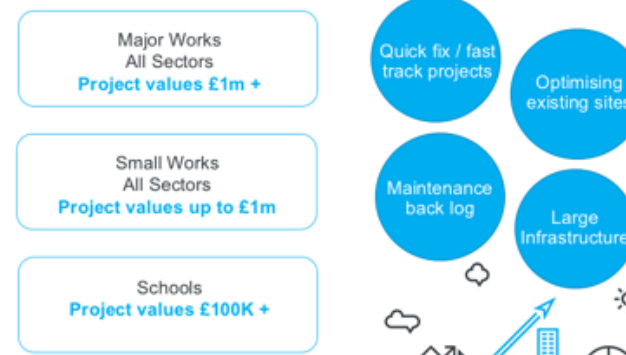
The **GLA RE:FIT programme** provides an OJEU procured framework of Energy Service Companies (ESCOs) who will provide Energy Savings Performance Guarantees.

Projects using the RE:FIT programme are one potential source of investments for the fund, but use of RE:FIT is not mandatory for LEEF. Click [here](#) for information.

- Currently saves organisations over £7m a year
- Reduces 15–25% of organisations' energy costs

## MAYOR OF LONDON

### TYPES OF RE:FIT LONDON PROJECTS



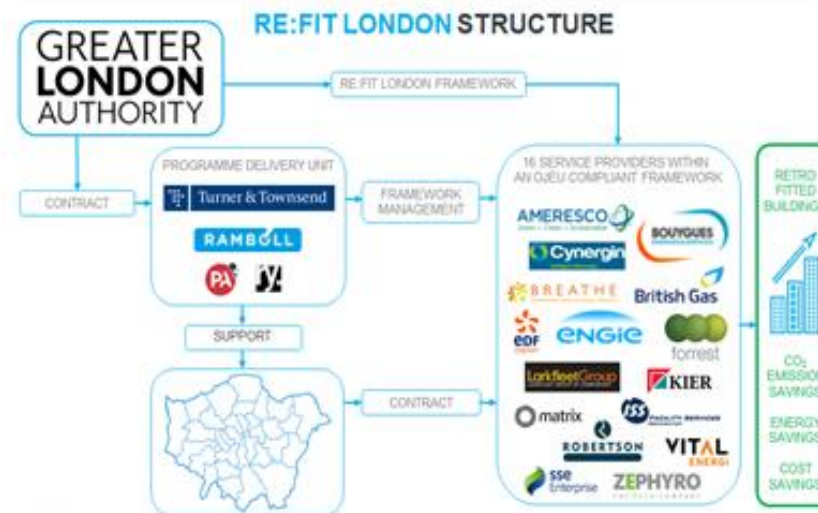
## MAYOR OF LONDON

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### WHAT HAS RE:FIT LONDON ACHIEVED SO FAR?



### RE:FIT LONDON STRUCTURE





## RE:NEW

RE:NEW is the award-winning programme to help make London's homes more energy efficient and so reduce their carbon emissions and energy bills. These account for around 36 per cent of the capital's total carbon footprint. RE:NEW helps organisations such as London boroughs, housing associations, and universities to implement retrofit projects and alleviate fuel poverty. It is doing this through:

- the RE:NEW Support Team, an expert team providing the end to end support needed to get projects up, running and successfully implemented
- the RE:NEW framework of suppliers, which saves time and resources for organisations that are procuring retrofit services and works

RE:NEW is helping to achieve the ambitious target for London to be a zero carbon city by 2050.

Established in 2009, RE:NEW has helped improve over 119,000 of London's homes, saving around 40,000 tonnes of CO2 a year. Coupled with wider market delivery, over the lifetime of the programme over 570,000 homes in London have been retrofitted, through the programme directly and/or through receipt of the main subsidies.

### RE:NEW Support Team services



RE:NEW

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### How RE:NEW helps



RE:NEW

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### RE:NEW Framework of suppliers



RE:NEW

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## LEEF Case Study: THE FUEL SWITCH

Heating upgrade of 800 homes in Hackney:

- Replacing expensive individual electric heating with communal gas boilers
- Heat meters in every flat

RE:NEW provided:

- Funding and finance support
- The OJEU-compliant procurement framework

Finance:

- £4.2m low-interest loan finance from the London Energy Efficiency Fund (LEEF)
- £1.7m of Energy Companies Obligation (ECO) funding
- Hackney Council's own budget
- External funding means residents only pay for maintenance and fuel costs

Benefits

- Tackle fuel poverty - winter electric bills were up to £60 per week
- Provide warmer homes
- Reduce risk of cold related illness
- Reduce maintenance costs

56% Fuel bill savings. 40% CO<sub>2</sub> savings.





## LEEF Case Studies: THE FACILITY

- A low cost of finance loan (£3.6m) to energy efficiency schemes being prioritised by the Council
- Over 30 separate buildings being extensively retrofitted, including: schools, libraries, social housing and civic buildings
- Forecast energy savings of 17% per annum
- ESCO procured under the GLA's RE:FIT scheme, which includes the benefit of an energy savings guarantee
- Wider scheme may leverage European Investment Bank monies







## LEEF Case Study: THE EPC

£13.3m – St George's NHS Trust

- Installation of a CHP plant, remodelling of an energy centre and broad ECM retrofit
- An innovative source of funding to a National Health Service (NHS) entity proceeding through the Foundation Trust conversion process
- Project tender won by British Gas and to be delivered under an Energy Performance Contract with guaranteed energy savings
- Expected to save over 7,000 tonnes of carbon and reduce energy usage by 6.5 million kWh (58%)





## **Annex : A new fund for Energy Efficiency Investment?**

*Seminar: Nov 4<sup>th</sup>, London. 12 noon start*

- Investing in energy efficiency in buildings is vital to meet climate change targets
- In a climate of austerity, alternative forms of finance are essential
- There have been some great examples, but what of the future post-Green Deal and post-Brexit?
- This seminar is an opportunity to shape the debate and join a stakeholder-led initiative to look for alternatives.

This free, half- day Seminar will feature lessons learned from the London Energy Efficiency Fund, which has successfully delivered over £65m of investment into both residential and public buildings since its launch in 2011. The programme is targeted at a broad audience including public and private sector property management companies, low carbon policy specialists, social landlords, community energy organisations, ESCOS (Energy Service Companies), social investors, financial intermediaries, energy consultants and more.

A panel and audience discussion will examine the case for a new energy efficiency investment fund in England, taking account of the post-Green Deal, post-Brexit investment landscape and policy and market priorities. Furthermore, there will be the opportunity for delegates to contribute to or to follow this initiative as we develop it over the coming 18 months.



## FINERPOL Project Interregional Meeting: England

**Venue:** RICS, 12 Great George St, London SW1P 3AD

**Date:** Friday 4<sup>th</sup> November 2016

1200 Registration, Sandwich Lunch

1300 Welcome and Introduction to FINERPOL

*Alex Midlen, Plymouth City Council*

1315 Greater London Authority support for Low Carbon Infrastructure.

*Kenroy Quellenec-Reid, GLA*

1335 The role of a financial intermediary in delivering energy efficiency investments.

*Alex Gilbert - Amber Infrastructure*

1355 RE:NEW and RE:FIT initiatives: Bringing energy efficiency projects to investment ready status. *Kore Mason/Virginie Caujolle-Pradenc, GLA*

1415 Lessons from Green Deal and how do we make pay-as-you-save Investment Funds work? *Ian Hutchcroft, Energiesprong UK and Energy Saving Trust*

1435 Refreshment Break

1500 Panel and audience debate: What is the future for pay-as-you-save energy efficiency Investment Funds in England? Additional panellists, introducing:

“Invest to save investment models – key success factors.” *Andrew Padmore, Chief Executive, Egnida Energy Solutions.*

“On the benefits of community finance in energy efficiency refurbishments and barriers to overcome.” *Tom Harwood. Abundance Investment.*

“Minimising investment risk - bridging the information gap between project developers and investors.” *Dave Worthington, Managing Director, Verco.*

1600 Summary and next steps. *Alex Midlen, Plymouth City Council*

1615 Close of meeting