

09.30-10.15

# Removing finance as a barrier to projects

How common standards are lowering the cost of capital for energy projects and making them 'bankable'; and how some investors are moving toward direct, earlier involvement with the I&C sector to bring energy projects to fruition.



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# Removing finance as a barrier to projects

Dr Steven Fawkes, Managing Partner, EnergyPro & ICP  
Europe Senior Advisor & Investor Confidence Project

The latest innovations and thinking around energy  
efficiency financing, removing the barriers to investing in  
efficiency and making it an asset class in its own right.





AA30 969819

Fifty Pounds

£50

SPECIMEN

SPECIMEN

I sell here, Sir, what all the world desires to have in power

I can think of nothing else but this machine

Bank of England

MATTHEW BOULTON 1728-1809

JAMES WATT 1736-1819

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© THE GOVERNOR AND COMPANY OF THE BANK OF ENGLAND 2010

To achieve “66% 2°C” scenario  
requires *average* investment into  
energy efficiency > USD 1 trillion a  
year between 2016 and 2050

i.e. circa 5 x current level



# No shortage of money

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POPULAR

QUARTZ

OBSESSI

BELOW ZERO

## The world is awash in \$9 trillion of bonds that are guaranteed to lose money

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WRITTEN BY

[John Detrixhe](#)

As the world's most important central bank, the US Federal Reserve, steadily [hikes interest rates](#), some \$9 trillion of global government debt still trades at negative rates. That is, these bonds pay back lenders *less* than face value if they hold the debt to maturity. The amount of negative-yielding debt has grown by around \$900 billion over the past few months, [according to Fitch Ratings](#).

# Mechanisms for financing EE

- Own capital
- Loans/mortgages – residential/commercial buildings
- Leasing
- Specialised energy efficiency Funds
- Property funds specialising in energy efficient buildings
- Financing of energy service contracts through ESCOs and Super ESCOs
  - EPC / Chauffage / ESA / MESA / MEETS / LaaS / P4P
- On Bill Recovery (OBR)
- Property Assessed Clean Energy (PACE)
- Guarantee funds
- Forfeiting funds
- Green bonds
- YieldCos

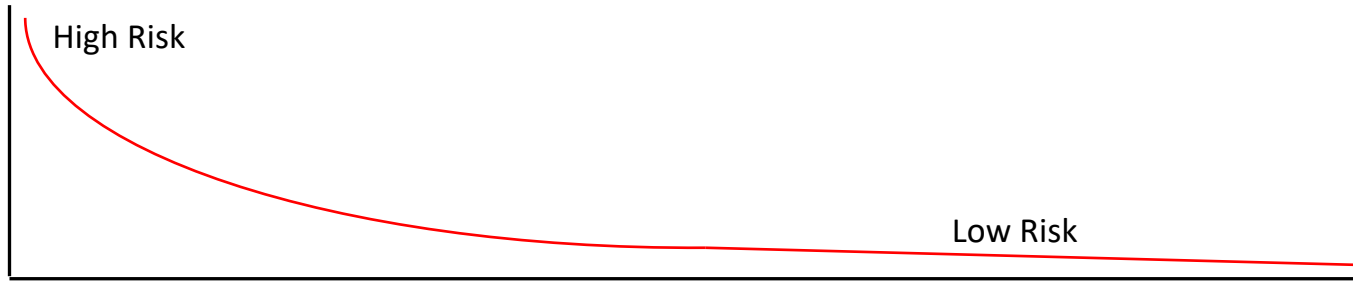
# Challenges to financing energy efficiency

- Small projects
- Lack of well developed bankable projects
- Lack of standardisation
- Hard to measure
- Uncertain results – the design gap
- Hard to meter
- Hard to monetize
- Complex contract forms
- Lack of capacity in the financial sector / demand side / supply side
- Split incentives
- Low energy prices
- Institutional barriers
- etc etc.

**These apply to all sources of finance including balance sheet self-funding**



# The project life cycle



## Development finance

- Equity
- Grant (PDA)

Scarce

## Implementation finance

- Debt

Abundant

# To scale up we need to assemble the jigsaw of energy efficiency finance



# Standardisation

**An international framework for reducing owner and investor risk, lowering due diligence costs, increasing certainty of savings achievement and enabling aggregation.**



Investor Ready Energy Efficiency™ is the quality mark like BREEAM or LEED but for an **ENERGY EFFICIENCY RETROFIT PROJECT**



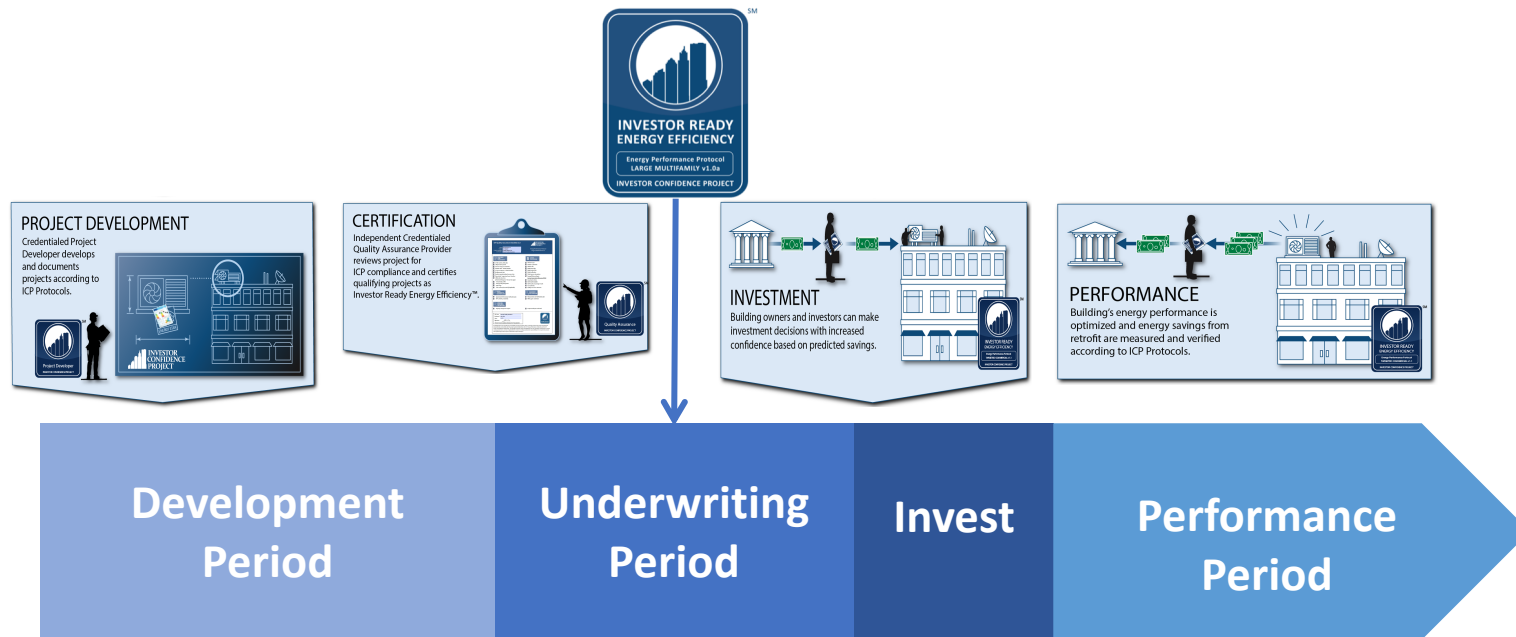
Ensures transparency, consistency and trust-worthiness through **best practice and independent verification.**

Available across EU for buildings, industry, street lighting and district energy projects.





# The Investor Ready Energy Efficiency™ process



# Building Capacity in the Financial Sector

## EEFIG UNDERWRITING TOOLKIT Value and Risk Appraisal for Energy Efficiency Financing

A tool to assist financial institutions to scale up the deployment of capital into energy efficiency



Introduction



Financial Institutions  
and Energy Efficiency



Financing Energy  
Efficiency



The Project Life Cycle



Value and Risk  
Appraisal



Resources



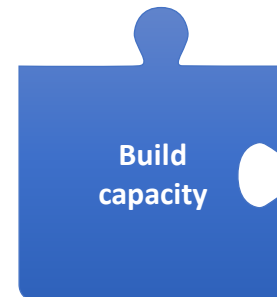
I strongly recommend this toolkit to project promoters, banks, financial institutions and anyone else interested in financing energy efficiency

Foreword by Maroš Šefčovič, European Commission VP



It will make it easier for financial institutions to carry out value and risk appraisals, for developers to attract capital, for businesses to fund projects

Foreword by Erik Solheim, UN Environment



The EEFIG Underwriting  
Toolkit

[valueandrisk.eefig.eu](http://valueandrisk.eefig.eu)



MIND THE GAP

The development gap



# ESCOs, Super-ESCOs and procurement frameworks

**Energy Service Companies (ESCOs) offer guaranteed savings through contracts such as Energy Performance Contracts (EPCs)**

- High transaction costs
- Useful model – particularly for the public sector
- Does not transfer well into other sectors
- ESCOs only respond to RFQs – they don't undertake high risk development
- Super-ESCOs can be “super developers” and do undertake development risk



<https://www.eeslindia.org>



<http://www.etihadesco.ae/index.html>

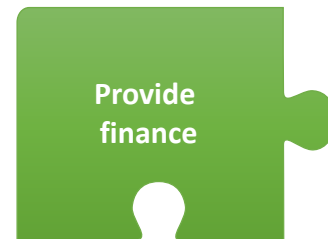


<https://www.carbonandenergyfund.net>

# On-Tax Financing

## Property Assessed Clean Energy (PACE)

- Started in the US in 2008
- Has grown to finance €4.7 billion of residential & commercial projects in US
- Covers 100% of project costs
- Repayable over 20 years by an addition to property tax
- Low risk
- Copied in Canada, Australia and elsewhere
- Now being developed in Europe through Horizon 2020 project EuroPACE



<http://www.europace2020.eu>

# Specialised energy efficiency funds

## London Energy Efficiency Fund (LEEF)

- Established by the Mayor of London
- Long term debt fund
- ERDF funds plus private sector debt
- Managed by Amber Infrastructure
- Invested more than £110m
- Invested in public sector and private sector



<http://www.leef.co.uk/index.html>



# Wherever there is scale all the pieces are there



**ENERGY EFFICIENCY SERVICES LIMITED**



لخدمات الطاقة  
Energy Services



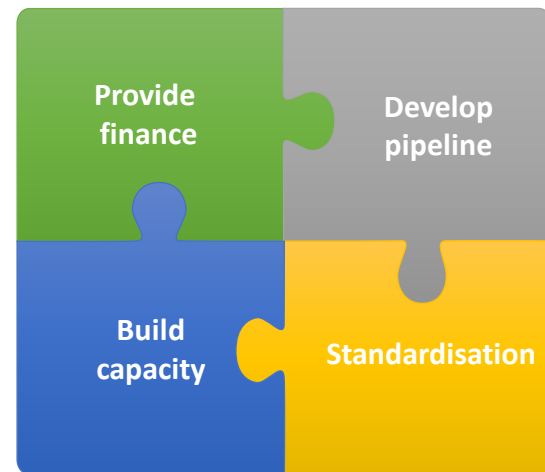
LONDON  
ENERGY  
EFFICIENCY  
FUND



# In conclusion

## To remove the barriers to growing energy efficiency financing:

- It is not just about the money
  - Need Finance, Pipeline, Standardisation & Capacity building to come together
    - [the EE financing jigsaw](#)
- Distinguish between development finance and project finance
  - Development finance = high risk = scarce
  - Project finance = low risk = abundant
- Many different types of mechanism
  - Optimum will depend on market segment being addressed
- Lack of standardization needs addressing
  - The methods exists through the ICP's [Investor Ready Energy Efficiency™](#)
- Lack of capacity in financial sector needs addressing
  - Through tools like the [EEFIG Underwriting Toolkit](#)
- Need super developers
  - To develop and aggregate projects – super ESCOs, procurement frameworks



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