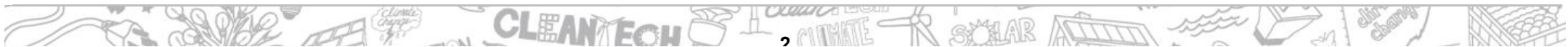


AGMA Estate and Buildings Retrofit Workshop

7 June 2011

Agenda

- ▶ Introduction
- ▶ Public Sector Estate Data - Headlines
- ▶ Scale of Opportunity
- ▶ Project Boundaries
- ▶ Types of Retrofit
- ▶ Delivery Structures
- ▶ Financing
- ▶ Indicative timetable for procurement
- ▶ Conclusion and next steps

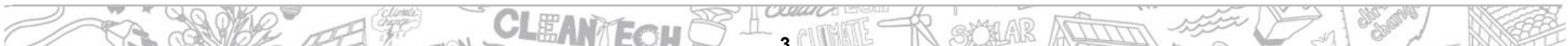


Public Sector Estate Data - Headlines

Current Energy Usage and Emissions by Authority

Authority	Energy Used (000kWh)	CO2 Emissions (tonnes)	Cost (£'000)
Manchester City Council	330,411	107,802	8,137
Oldham MBC	180,696	47,616	9,514
Rochdale MBC	97,027	27,808	1,981
Salford MBC	112,774	36,187	5,898
Stockport	123,749	37,750	2,763
Tameside	109,815	33,597	2,468
Trafford	83,854	27,259	2,055
Wigan	136,162	42,426	3,147
Total	1,174,488	360,445	35,963

Source: Local Authority NI 185 returns



Scale of Opportunity

Potential Scale of Savings Opportunity

Authority	Energy saving (000kWh)	Energy saving (£'000)	CO2 Emissions - Carbon Reduction (tonnes)	CO2 Emissions - Carbon Reduction (£000)
Manchester City Council	82,600	2,000	27,000	324
Oldham MBC	45,200	2,400	11,900	143
Rochdale MBC	24,300	500	7,000	84
Salford MBC	28,200	1,500	9,000	108
Stockport	30,900	700	9,400	113
Tameside	27,500	600	8,400	101
Trafford	21,000	500	6,800	82
Wigan	34,000	800	10,600	127
Total	293,700	9,000	90,100	1,082

Note: Assumes 25% reduction in energy consumption following retrofitting



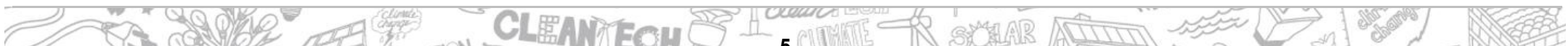
Project Boundaries

- The table below has allocated the public sector estate across the 8 Authorities that have provided information into 4 categories to illustrate how the annual average energy usage, CO2 emissions and the cost are allocated.
- It should be noted that a broad approach has been taken to the information and groupings provided by each Authority in order to allocate the estate.
- Key consideration – asset ownership

Authority	Energy Used (000kWh)	CO2 Emissions (000kg)	Cost (£000)	% Total Utility Cost
Schools	591,106	158,601	16,043	44.6%
Street Lighting	109,943	57,500	6,171	17.2%
Community Assets ¹	177,281	53,262	4,797	13.3%
Other Operational Buildings ²	296,159	91,083	8,951	24.9%
Total	1,174,488	360,445	35,963	100%

Note 1 – Community Assets include community centres and leisure centres

Note 2 – Other Operational Buildings include care homes, libraries, museums, special housing, town halls and offices



Benefits and Types of Public Buildings Retrofit

Asset	Measure / Strategy	Benefit	Issues
Offices / Car Parks / Leisure Centres	<ul style="list-style-type: none"> ▶ Retrofit measures through Energy Performance Contracting ▶ Solar PV on public buildings ▶ RHI on public buildings 	<ul style="list-style-type: none"> ▶ Energy efficiency savings ▶ Carbon reduction ▶ Revenue generation through the feed-in tariffs ▶ Stimulating the renewable energy marketplace 	<ul style="list-style-type: none"> ▶ Prioritising the energy efficiency agenda ▶ Breaking new ground in local government energy policy ▶ Radical thinking required

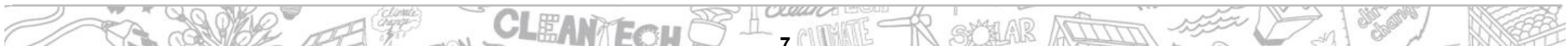
List of typical Energy Conservation Measures (ECM)

- Variable speed pumps and fans
- PC shutdown software
- Voltage optimisation
- Insulation
- Draft proofing
- Lighting upgrades & controls
- Building Management Systems Controls and strategic review
- Heat recovery
- Boiler replacements
- Combined Heat & Power
- Solar thermal
- Photovoltaics



Delivery Structures and Funding Routes

- Energy Performance Contracting
- 'Standard' SPV structure
- Economic Growth Investment Fund
- Municipal Bonds – not considered in detail



Energy performance contracting - a revenue funded solution, on public sector balance sheet

Case Study: London Development Agency RE:FIT approach

The use of Energy Performance Contracting was piloted by the London Development Agency as part of their RE:FIT programme to help develop the retrofit market for public buildings.

The £7m pilot scheme of 42 buildings proved highly successful and has subsequently been scaled up to include all of London's public sector buildings involving an investment of £400m. A high level overview of the concept of Energy Performance Contracting is defined. A summary of typical energy conservation measures that might be implemented by ESCOs is shown opposite along with the current framework panel of approved suppliers for LDA RE:FIT.

London Development Agency - RE:FIT The framework panel approved suppliers

Balfour Beatty
COFELY (GDF Suez)
MITIE (Dalkia FM)
EDF Energy
E.ON Sustainable Energy Business
Hoare Lea Consulting Engineers (Parkeray)
Honeywell
Hurleypalmerflatt
Interserve
Johnson Controls
Schneider Electric - Strategic Building Solutions
Willmott Dixon Partnerships

Energy Performance Contracting EPC

The local authority identifies a portfolio of buildings they would like to retrofit, sets a target percentage energy savings and a payback period

Procurement

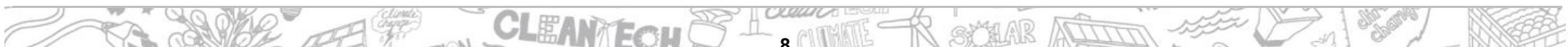
Energy service company (ESCO)

ESCO carries out the works and guarantee the resulting energy savings

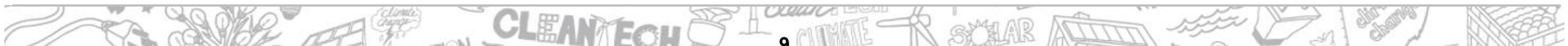
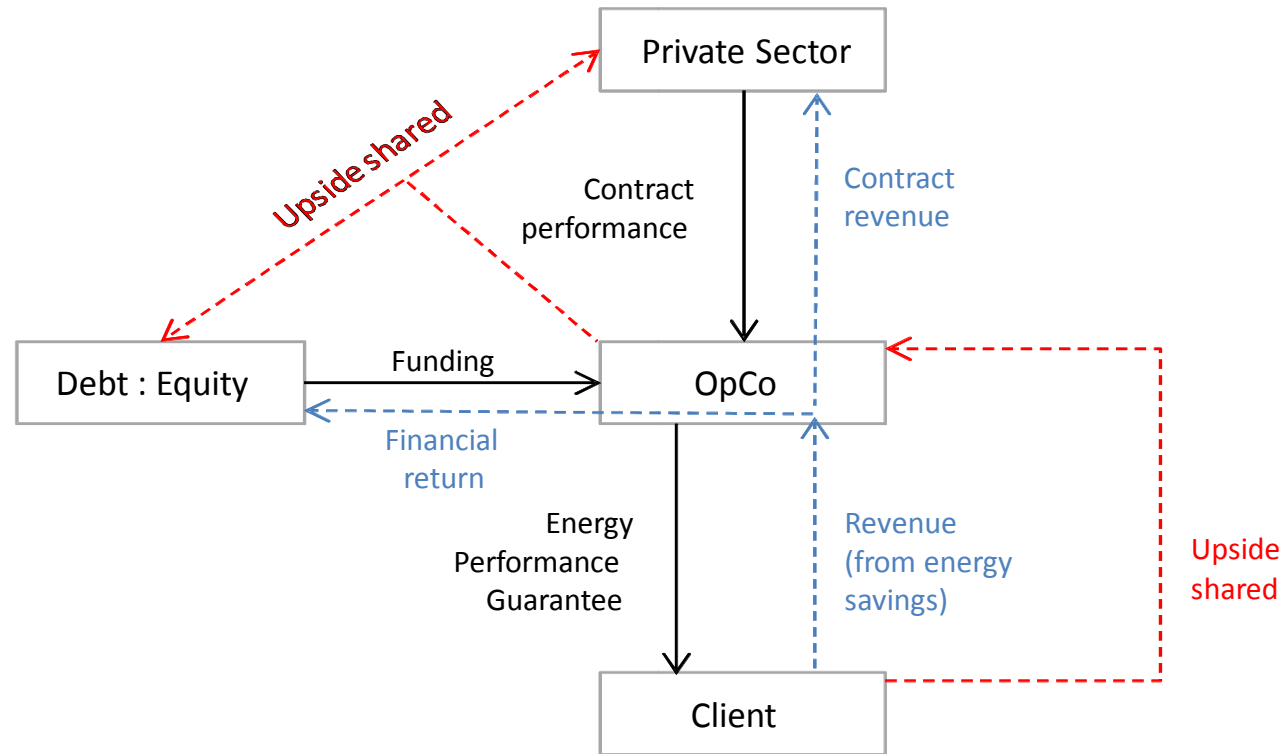
Delivery

Transfer of risk to the ESCO

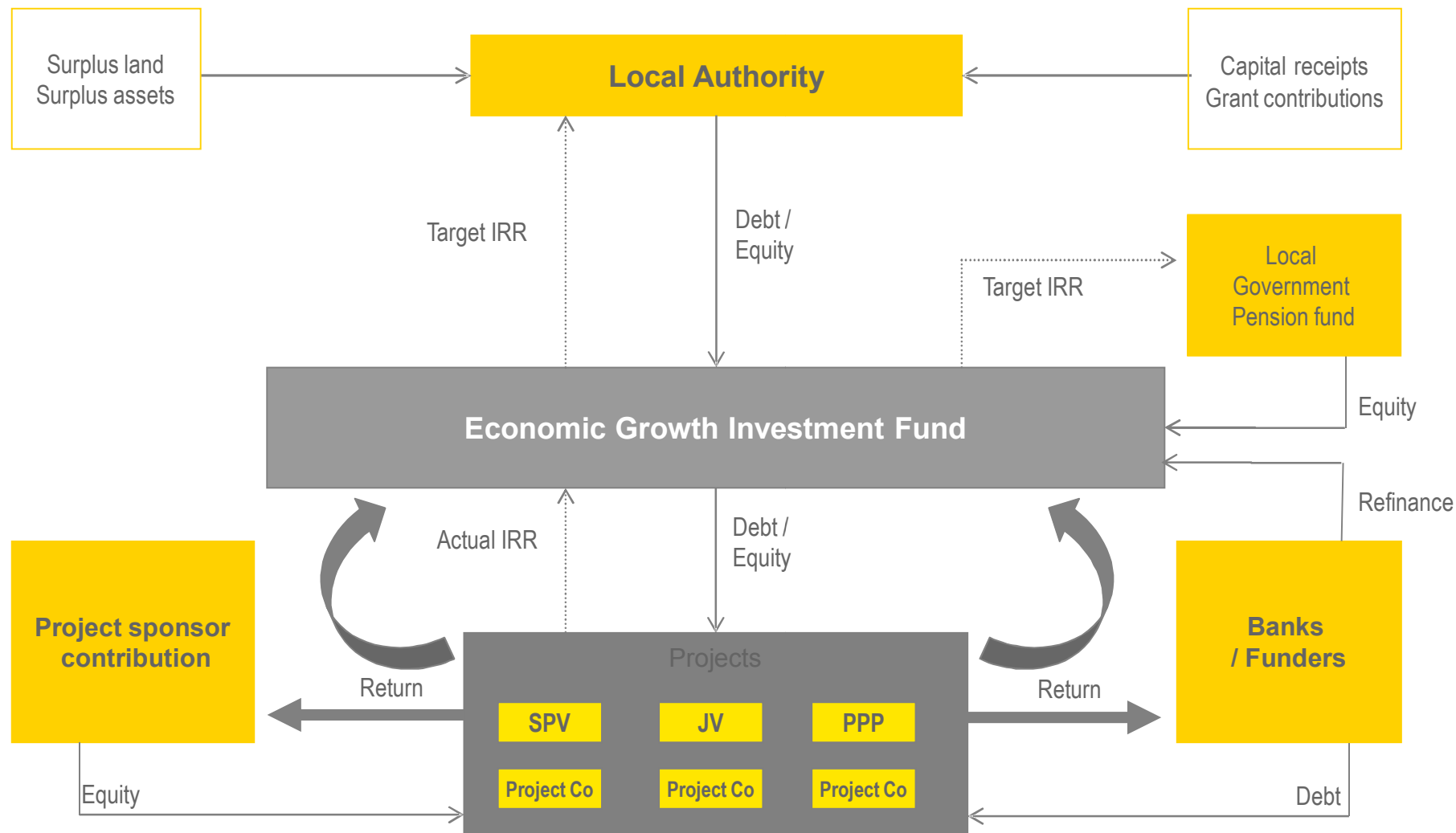
This guarantees the payback of the initial investment with the delivery risk transferred to the ESCO.



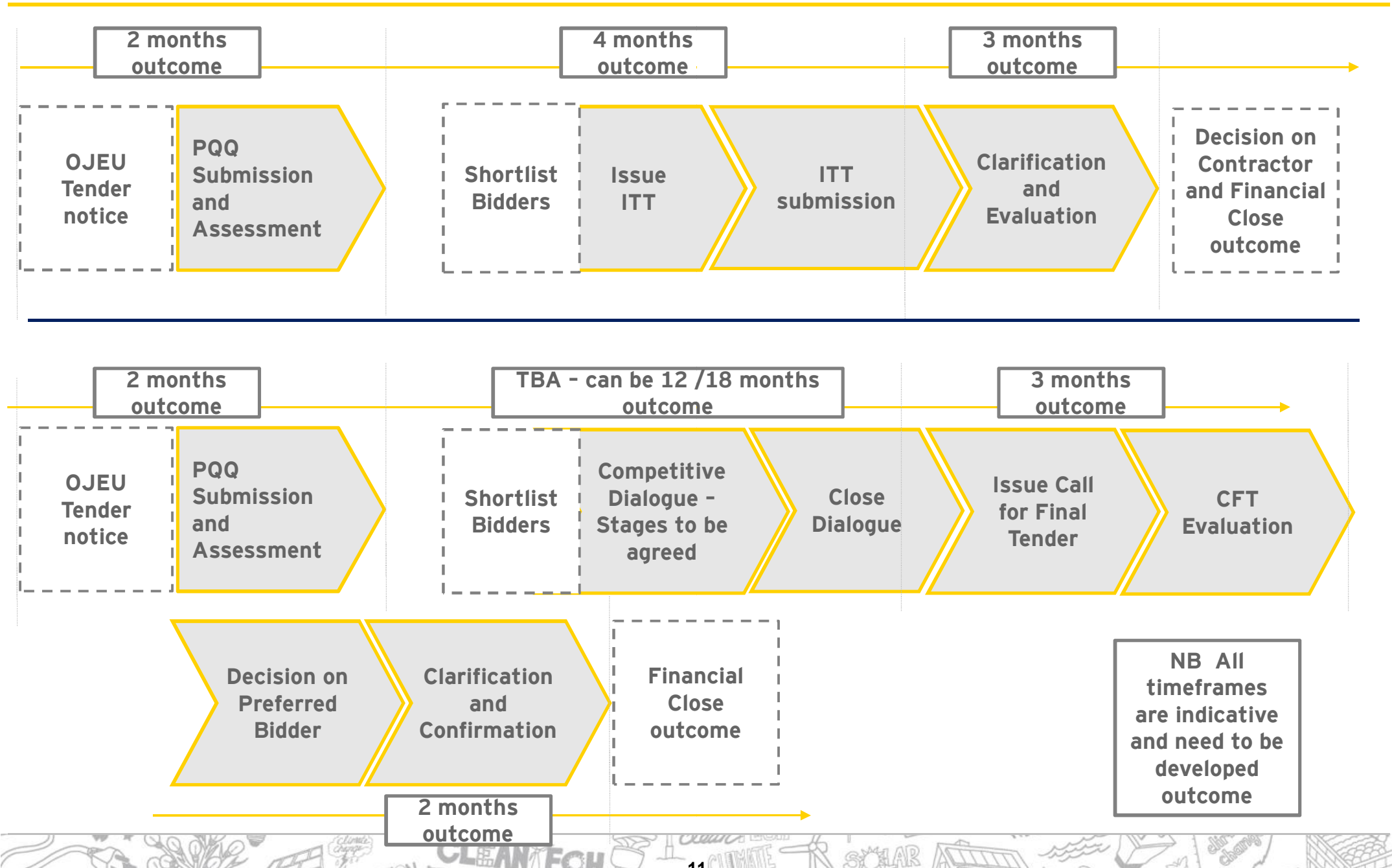
SPV Structure - off public sector balance sheet



Economic Growth Investment Fund – balance sheet treatment complex



Procurement Routes – Restricted or Competitive Dialogue ?



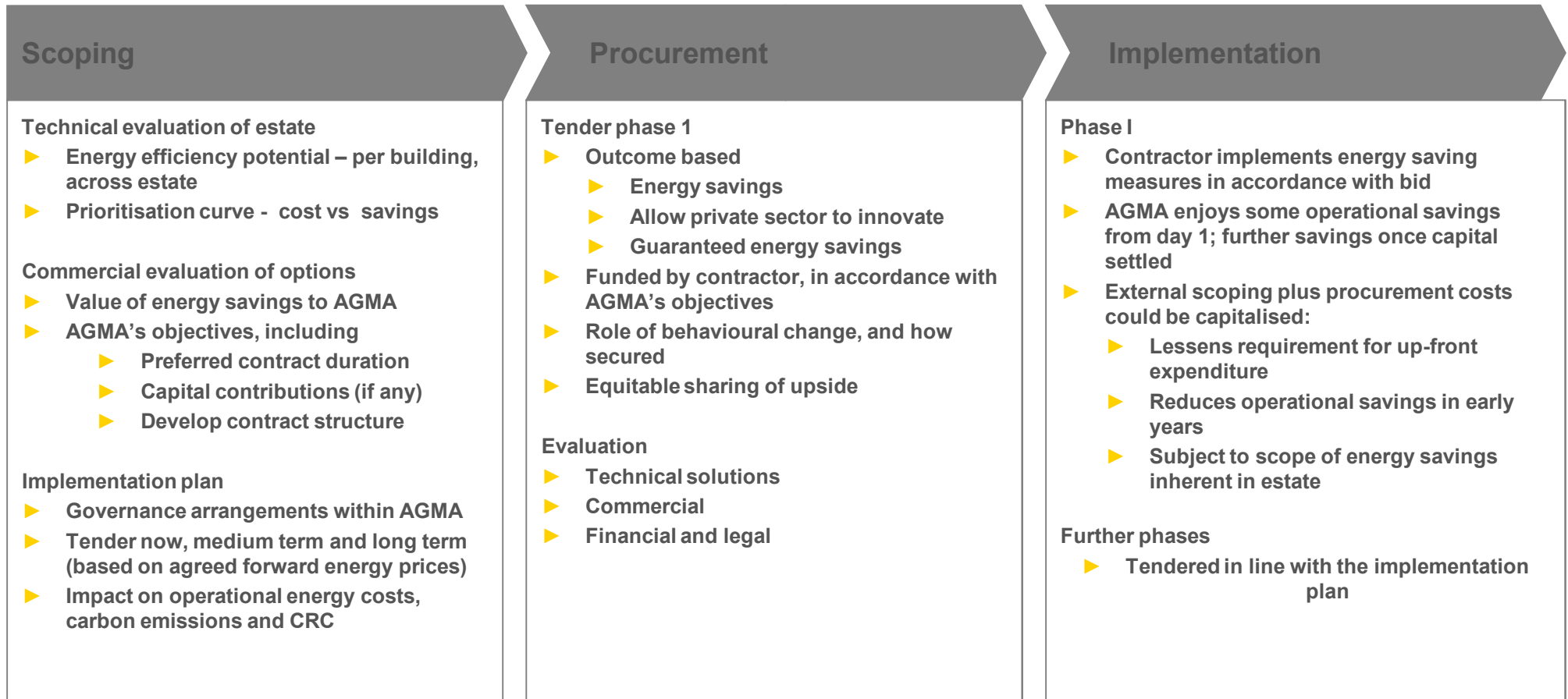
Conclusion

- Time to act is now

- Wholesale energy costs are relatively low today but are set to double over the next 5 years ⁽¹⁾
- A proposition to create a market demand in the private sector will help to build much needed economic activity
- Opportunity to be at forefront of developing an innovative approach to Public Buildings
- Anticipate the implications of 'Green Deal' and CRC

Note 1: Ofgem's discovery scenarios 2010 - 2025

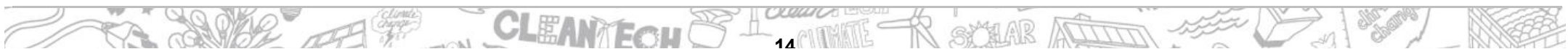
Next steps - implementation in three phases ...



Flexible solution that can be deployed on a portfolio basis, on a building/measure basis if applicable, expediting implementation

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Contact Details

James Close

Partner

jclose@uk.ey.com

Office: 020 7951 0866 / Mobile: 07787 151 424

Michael Berrington

Assistant Director

mberrington@uk.ey.com

Office: 020 7951 4380 / Mobile: 07764 235 306

Andrew Mee

Senior Executive

amee@uk.ey.com

Office: 0161 333 2602 / Mobile@ 07827 230 732

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