Evaluating how Energy Performance Contracting impacts the business case for investing in building energy efficiency improvement

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Agenda

- Who is eu.ESCO?
- The challenge we face
- What is Energy Performance Contracting?
- Overcoming barriers to growth
- Who is benefiting from Energy Performance Contracting?
About eu.ESCO

eu.ESCO is the European Association of Energy Services Companies (ESCOs).

It was founded in 2009 by eu.bac, the European Building Automation and Controls Association.

eu.ESCO’s objective is to accelerate the adoption of Energy Performance Contracting (EPC) in Europe to help the European Member States achieve their energy efficiency targets.

More details at www.eu-ESCO.org
The challenge ahead

- Unprecedented financial turmoil
- Government debt levels increasing
- Energy demand & prices increasing
- Energy security issues increasing
- Carbon emissions increasing
- Climate change effects worsening
- European Legislation compliance increasing

EU is set to fall short of its 2020 target to slash energy consumption by 20% instead achieving only 11% by the deadline
The energy we waste in our buildings

- Buildings account for 40% of CO$_2$ emissions
- In Europe we waste 20% of the energy we consume
- Europe’s buildings waste €270 billion every year
- Will increase 53% by 2030
- 80% of the buildings we will occupy in 2050 are standing today

A source of revenue exists – your payment for wasted energy
9% energy savings by 2016 & 80% carbon emissions reduction by 2050

One in Four of 3200 Public Sector Buildings assessed scored F or G

The challenge is significant!
Where should you focus?

£1 spent on more efficient energy use avoids £2 in investment in energy supply

Source: IEA

Supply Side

Demand Side

The greenest energy is the energy that isn’t generated
What is an Energy Performance Contract (EPC)?

A partnership between a customer and an energy services company (ESCO) that allows the customer to improve the demand-side energy efficiency of their facilities without any up-front capital costs or special loans.

Using wasted energy to fund risk free carbon and energy reduction
An Energy Performance Contract enables you to...

- Upgrade your buildings with modern, energy efficient equipment... with no impact on current operational budgets
- Reduce building energy consumption typically by over 20% ... without additional investment
- Meet your carbon emissions targets... at no additional cost
- Make major improvements... without the need for upfront capital

The EPC programme money is already in your budget, currently paying for wasted energy.
Why use EPC?

- Completely self funding
- Guarantee transfers financial and equipment performance risk to the ESCO – if the savings target isn’t made, the ESCO pays the difference
- **Immediate** improvements are made
  - Buildings upgraded with modern, reliable energy efficient equipment
  - Comfort conditions are improved for occupants
  - Carbon reduction
  - Improvement path for CRC benefits
- No need for additional personnel
- Creates job opportunities
- Proven process

**Self funded, risk free improvement programme**
EPC – How the funding works

Energy and O&M Costs

Your annual costs today

Energy savings fund the improvement programme

Your annual costs during EPC

Savings continue

Your annual costs after EPC

Use future energy cost savings - today
EPC is a 4 stage process

No commitment until contract closure
A total facility approach accessing over 250 energy conservation measures
So, what’s the hold up in Europe?

  - More than $1.9 billion has been invested in over 400 EPC programmes
  - Over 30,000 new jobs created

- Lack of awareness
- Energy efficiency – the invisible solution
- Focus on supply side
- Procurement difficulties
- Selective financing
- Lack of policy push and incentives
- No binding targets
- Reliance on government funding
- Accounting & budgetary rules
- Discouraging investment taxation rules
- Few ESCOs able to offer EPC

*Energy efficiency is the unseen elephant in the room*
Procuring an EPC requires a different approach

• The traditional, price driven tender approach does *not* work when procuring an EPC

• Selection is driven by *energy savings* not price

• *Prequalification* of the right EPC supplier is the key step
  – expertise, experience, financial strength, resources, people, references, innovation...

*You are buying energy savings – *not* equipment*
The good news is...

An effective, compliant procurement process exists!

Funding is not a barrier!

LONDON 2009
Who is benefiting from EPC?

The customer
- Transport for London (Clinton Climate Initiative)

The challenge
- 25% Carbon reduction target
- Building mix
- Capital funding issues

Solution (Phase 1, May’09)
- Initial 22 buildings
- £4 Million project
  - Lighting Replacement and Controls
  - Upgraded Building Energy Management Controls
  - Control of PC’s during night time and in stand-by
  - Building Fabric Improvements
  - CHP Plant
  - Solar Thermal Hot Water System

The Benefits
- 25% electrical and 20% gas reduction
- Guaranteed energy savings of £769,128 pa
- CO₂ reduction of 3,648 tonnes pa

Accessing guaranteed risk free benefits
Thank You