Energy performance contracts
and behaviour

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## About us

**SEA Servizi Energia Ambiente S.r.l.**

<table>
<thead>
<tr>
<th>E.S.Co.</th>
<th>Resources</th>
<th>Engineering firm</th>
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</thead>
<tbody>
<tr>
<td>Energy Service Company</td>
<td>• 15 internal staff</td>
<td>ESCO Italian certification</td>
</tr>
<tr>
<td>founded in 2005</td>
<td>• 7 ext. staff</td>
<td>UNI CEI 11352</td>
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<tr>
<td></td>
<td>• 2 consultant</td>
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</tbody>
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**Resources**

- 15 internal staff
- 7 external staff
- 2 consultant firms

**About us** – ESCo Approach – behaviour & EPC - Conclusions
About us

- Efficient recovery of low-temperature heat for small-scale decentralized power production in the range of 1-5 kWe. Partnership with INFN

G.R.E.T.A. Project

- Collaboration with the Technical University of Delft (Netherlands) in the development of a pilot plant for the production of furfural from biomass

Furfural production from biomass

- Collaboration in an industrial prototype (plastic sector) to decrease energy consumption using an innovative process and approach

Industrial research project in the plastic sector

Research Projects

Activities

- EPC
- Engineering
- Energy Audit
- Italian White Certificates

Sectors

- Industrial
- Residential
- Hotels
- Municipalities
Business as usual in retrofitting (NO ESCo)

- Control: Pay for supply
- Metering: Pay for service
- Maintenance and installation company: Pay for service and supply
- Engineering: Pay for service
- Bank: Pay for loan

Who cares about Energy Efficiency and Cost Reduction?
A partner for energy efficiency

Go for an E.P.C.

- Customer
- ESCo
- O&M
- Project management
- Engineering
- Authorizations
- Construction
- Investment
Approach comparison for the customer

**Business As Usual**  VS  **ESCo / EPC**

**Pay for technologies**
- **YES**
- **NO**

**Technical risk**
- **NO**
- **YES**

**Guaranteed savings**
- **YES**
- **NO**

**Take technical decisions**
- **YES**
- **NO**

**Under ESCo responsibility**
- **YES**
- **NO**

**Invest money and time**
- **YES**
- **NO**

**Let the ESCo Invest**
- **YES**
- **NO**

**Take care for O&M**
- **YES**
- **NO**

**Under ESCo responsibility**
- **YES**
- **NO**

**Financial risk**
- **YES or NO**

**Measur. & Verif.**
- **YES**

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About us – ESCo Approach – behaviour & EPC - Conclusions

13 Nov 2015 - Paris
behavioural – ESCo expectations from EPC

**Residential Customer**
- Interested in energy efficiency not only in economical savings
- Need to improve HVAC and home comfort
- Advanced building administrator
- Some owner that can understand EPC

**Industrial Customer**
- Talk with owners and CEO
- High Energy Cost
- With an internal technical unit
- Interested in energy management

**Technology Supplier**
- Good after sale service (often new products)
- Reliable company
- Long term products warranty
- Available to external staff training

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– About us – ESCo Approach – behaviour & EPC - Conclusions

13 Nov 2015 - Paris
behavioural – Residential customers expectations

Positive

- Save Money
- Have a new and more efficient HVAC system
- No dealing with O&M and electricity and gas supplier
- Have only one partner for HVAC

Negative (fears)

- Have a good contract understanding
- It is a new approach. Does it work?
- Difficulty to compare with Business as usual

Positive (not energy related)

- No initial investment
- Less responsibilities
- Have more comfort and advanced control tools
- Increased value of the apartment

About us – ESCo Approach – behaviour & EPC - Conclusions

13 Nov 2015 - Paris
behavioural – Industrial customer expectations

Positive

- Save Money
- Have a new and more reliable equipment
- No dealing with O&M
- Don’t use internal staff expertise

Negative (fears)

- Have a good contract understanding
- It is a new approach. We don’t have procedures to analyze it
- Difficulty to compare with Business as usual

Positive (not energy related)

- No initial investment
- Environmental friendly
- Meter new consumption and savings
- Money to invest in their core business
Conclusions – main standard for a useful EPC

- Increase energy savings
  - Incr. revenues for the ESCo
  - Incr. savings for the customer

- Contract as simple as possible → Help customers to understand it

- Improve energy efficiency culture
  - Incentives linked to EPCs
  - Municipalities give the example

Facilitator