

Role of private business in energy efficiency projects

Kiev, 17th of December 2015 r.

**Arkadiusz Ratajczak, legal counsel
Mariusz Swora, PhD, Attorney Law Office
(SworaLegal), est. 2001**

Scope of the presentation

- conventional financing measures
 - observations of ECA (2007–2013)
- innovative sources of financing of energy efficiency projects
 - third party financing (TPF)
 - energy performance contracting (EPC)
 - energy services company (ESCO)

investment process:

- identification & recognition of the problem & preliminary estimates of costs
- realization (in house or by third party) of analysis and possible concepts & technical project
- ensure financing
- realization of project (in house or by third party)
- acceptance
- operation

conventional financing measures

- investor's own resources
- subsidies, grants
- preferential loans and credits
- commercial credits, leasing

conventional financing measures

- ECA special report No 21//2012 *Cost–effectiveness of Cohesion Policy Investments in Energy Efficiency*
 - audit carried out in the Czech Republic, Italy & Lithuania
 - largest contributions from the CF and ERDF for energy efficiency measures and had also allocated the highest amounts to projects by 2009
 - examination of 4 OPs and a sample of 24 energy efficiency investment projects in public buildings

conventional financing measures

- ECA special report No 21//2012 *Cost-effectiveness of Cohesion Policy Investments in Energy Efficiency*
 - observations:
 - lack of proper needs assessments to identify the specific sectors where energy savings could be achieved and the options for achieving those savings in a cost-effective manner, thereby justifying the chosen measures and their cost
 - cost-effectiveness concept, or the best relationship between resources employed and results achieved, was not a determining factor

conventional financing measures

- ECA special report No 21//2012 *Cost–effectiveness of Cohesion Policy Investments in Energy Efficiency*
 - observations:
 - performance indicators for energy efficiency measures were not appropriate for the monitoring of the programmes → the results of the energy efficiency measures are not comparable across the EU and cannot be aggregated

conventional financing measures

- ECA special report No 21//2012
 - observations:
 - energy efficiency projects in public buildings were not cost-effective
 - all the audited projects produced the planned physical output, such as replaced windows and doors or insulated walls and roofs, **however** the cost in relation to the potential energy savings was high
 - more important consideration than energy efficiency was the need to refurbish public buildings

conventional financing measures

- ECA special report No 21//2012
 - observations:
 - projects did not generate a good ratio between energy savings and the corresponding investment cost
 - average planned payback period for the investments was around 50 years
 - energy audits were either not mandatory or recommended investment options that were far too costly

conventional financing measures

- ECA special report No 21//2012
 - recommendations:
 - proper needs assessment
 - regular monitoring
 - use of comparable performance indicators
 - transparent project selection criteria
 - standard investment costs per unit of energy to be saved
 - maximum acceptable simple payback period

innovative sources of financing

- energy services company (ESCO)
- third party financing (TPF)
- energy performance contracting (EPC)

energy services company (ESCO)

- providing energy services to final energy users, including:
 - the supply and installations of energy efficient equipment
 - and/or
 - the building refurbishment
- ESCOs can also finance or arrange financing for the operation by providing a savings guarantee
- their remuneration is directly tied to the energy savings achieved

energy services company (ESCO)

- ESCOs guarantee energy savings and/or provision of the same level of energy service at lower cost
- a performance guarantee:
 - can revolve around the actual flow of energy savings from a project,
 - can stipulate that the energy savings will be sufficient to repay monthly debt service costs, or
 - that the same level of energy service is provided for less money

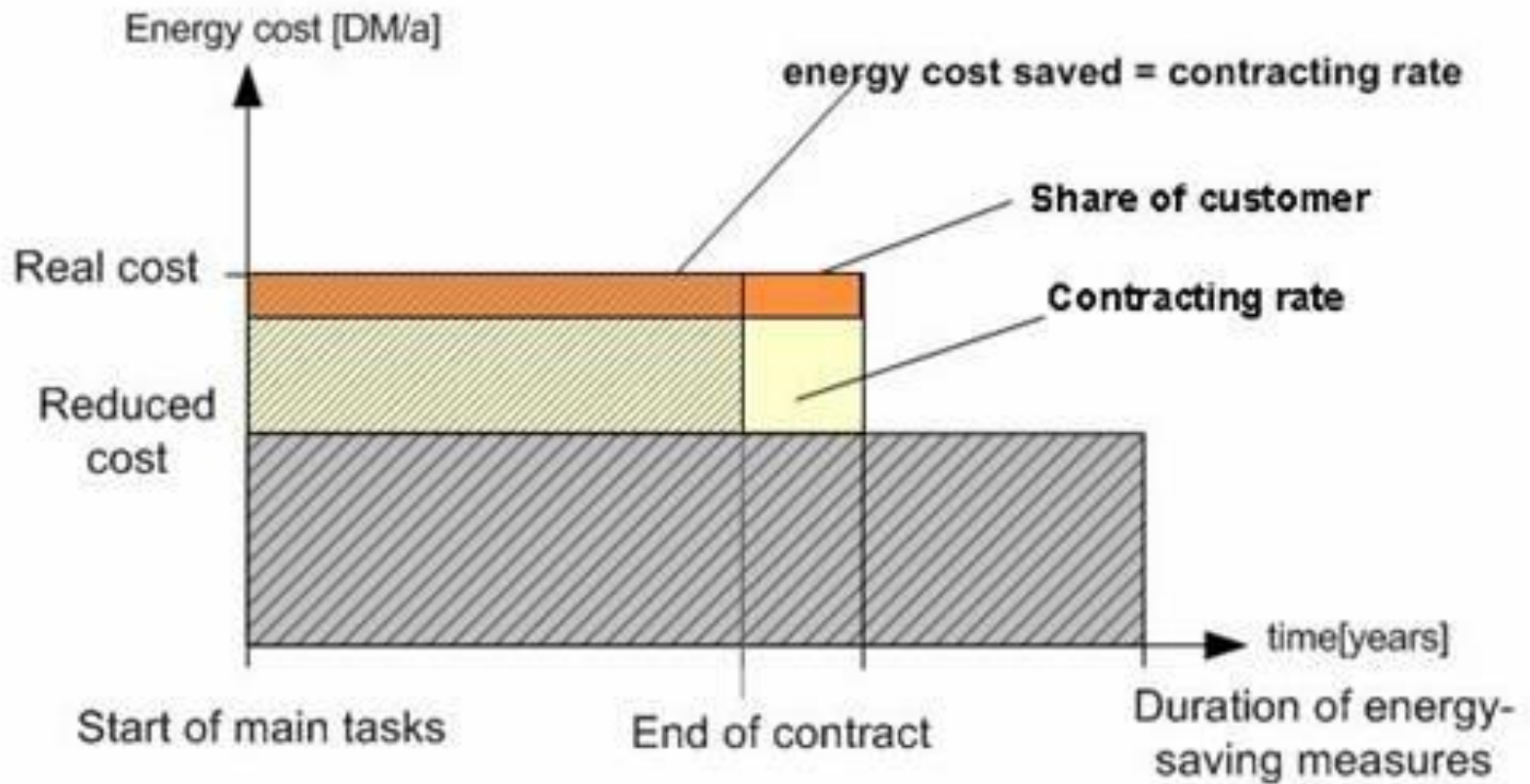
energy performance contracting (EPC)

- form of ‘creative financing’ that allows funding energy upgrades from cost reductions
 - ESCO implements a project to deliver energy efficiency
 - the stream of income from the cost savings is used to repay the costs of the project, including the costs of the investment
 - ESCO will not receive its payment unless the project delivers energy savings as expected

energy performance contracting (EPC)

- technical risks is transferred from the client to the ESCO based on performance guarantees given by the ESCO
- ESCO remuneration is based on demonstrated performance:
 - level of energy savings or energy service

energy performance contracting (EPC)



source: Berliner Energieagentur GmbH

energy performance contracting (EPC)

– shared savings

- the cost savings are split for a pre-determined length of time in accordance with a pre-arranged percentage

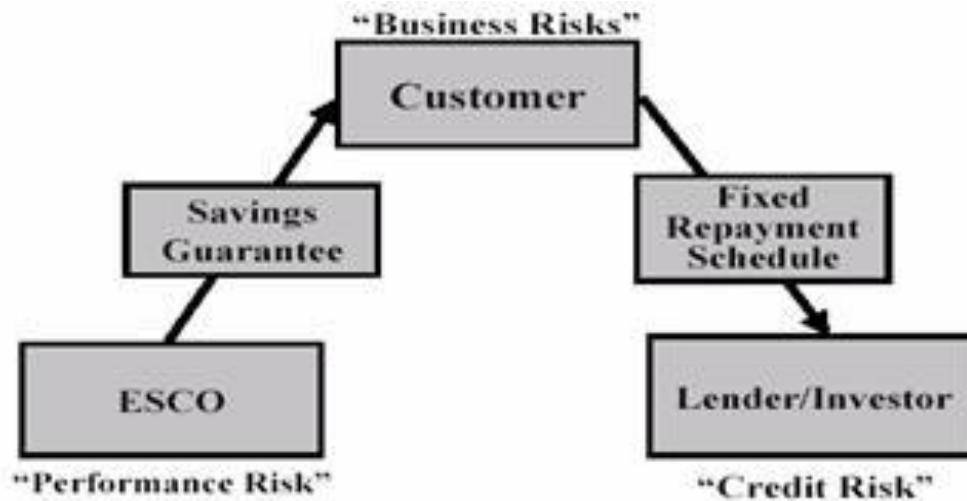


source: <http://iet.jrc.ec.europa.eu/energyefficiency/european-energy-service-companies/energy-performance-contracting>

energy performance contracting (EPC)

– guaranteed savings

- ESCO guarantees a certain level of energy savings and in this way shields the client from any performance risk



source: <http://iet.jrc.ec.europa.eu/energyefficiency/european-energy-service-companies/energy-performance-contracting>

third party financing (TPF)

- refers solely to debt financing
- project financing comes from a third party, e.g. a finance institution
- finance institution may either:
 - assume the rights to the energy savings or
 - take a security interest in the project equipment

third party financing (TPF)

- two TPF arrangements:
 - the ESCO borrows the financial sources necessary for project implementation
 - energy-user/customer takes a loan from a finance institution

third party financing (TPF)

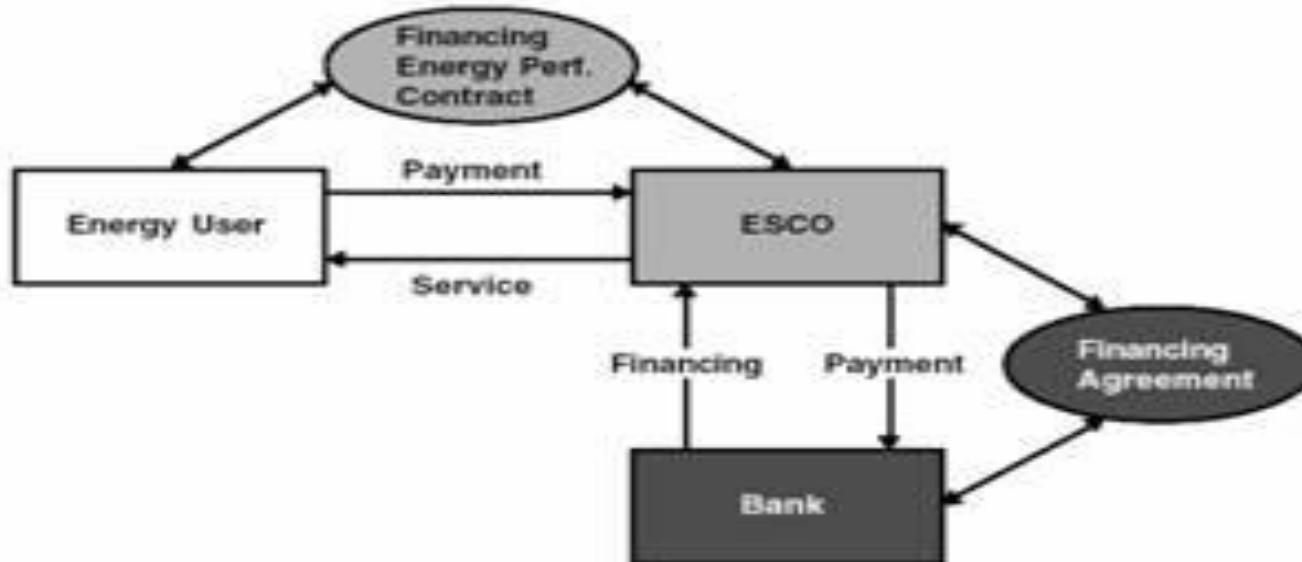
- the ESCO is a borrower
 - the customer is safeguarded from financial risks related to the project technical performance:
 - the savings guarantee is coming from the project value
 - the savings guarantee is appearing on the balance sheet of the ESCO
 - the debt resides on someone else's balance list (ESCOs, finance institution's)
 - debt service is treated as an operational expense, not a capital obligation
 - debt ratings are not impacted

third party financing (TPF)

- the ESCO is a borrower
 - different countries apply various conditions to treat financing as an operating/capital lease
 - it is necessary to inquire the country-specific conditions for operational financing

third party financing (TPF)

- the ESCO is a borrower



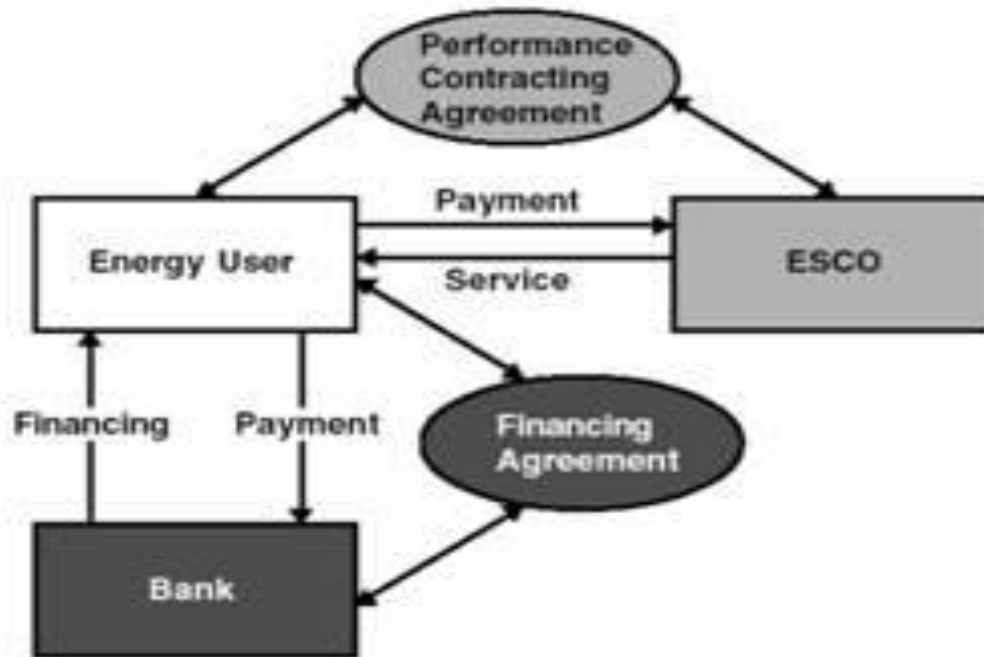
source: ECS (Energy Charter Secretariat), 2003. Third Party Financing. Achieving its potential. Energy Charter Secretariat, Brussels

third party financing (TPF)

- the energy-user/customer is a borrower
 - loan is backed by an energy savings guarantee agreement with the ESCO; savings guarantee:
 - demonstrates future positive cash flow, i.e. that the savings achieved will certainly cover the debt repayment
 - reduces the risk perception of the bank
 - implications for the interest rates at which financing is acquired
 - „cost of borrowing” is strongly influenced by the size and credit history of the borrower

third party financing (TPF)

- the energy-user/customer is a borrower



source: ECS (Energy Charter Secretariat), 2003. Third Party Financing. Achieving its potential. Energy Charter Secretariat, Brussels

**Thank you,
r. pr. Arkadiusz Ratajczak**

contact: arkadiusz.ratajczak@swora.pl
