Experiences with EPC business models

Marcel Lauko

Energy Centre Bratislava

International Energy Performance Contracting Conference

November 15th, 2016

Stuttgart-Esslingen / Germany

EPC Signatory
EUROPEAN CODE OF CONDUCT FOR ENERGY PERFORMANCE CONTRACTING

Energetické centrum Bratislava
Ambrova 35, 831 01 Bratislava, Slovak Republic
Tel.: +421 2 593 000 91,
e-mail: office@ecb.s,
web: www.ecb.sk

energy centre BRATISLAVA

Experiences with EPC business models

Content

1. Overview of EPC business models
2. Standard EPC models
3. EPC without investments
4. Comprehensive energy efficiency refurbishment
5. Complex refurbishment
6. Real Life Observations
7. Challenges – barriers and opportunities

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 696040.

Experiences with EPC business models

Overview of business models utilization in market segments

Focus	Financing of Investments		
	Client	ESCO	Combined
Technologies *(Standard EPC)*	**public** **private**	**public** *private*	*public* *private*
Operation and maintenance *(EPC without investments)*		*public* **private**	
Comprehensive EE refurbishment	*private*	*public*	***public*** *private*
Complex refurbishment	EPC not used	NA	*public* *private*

public, private – business models used already
public, private – business models under development

guarantEE
Building Energy Services in Europe

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 696040.

energy centre BRATISLAVA

Experiences with EPC business models

Standard EPC models

- Focus on technologies and public sector
- Introduction of energy management as a standard measure
- Construction measures only in limited extent
- Only short (up to 3 years) and simple projects (single technology) in private sector

- Used as financial instrument (i.e. 100% financing ensured by ESCO's) in public sector
- Limited market potential – especially in transforming countries – due to a need for construction measures implementation
- No low hanging fruits available anymore in sufficient volume
- Private clients do not want to pay for guarantees (no risk transfer)

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 696040.

Experiences with EPC business models

EPC without investments

- Focus on optimization of operation (energy performance plus maintenance costs) in first place – Energy Management introduction
- Change of users behavior is an important part

- Shared savings approach is often applied
- Used in private sector mostly (commercial buildings)
- Short projects (1-2 years)

guarantEE
Building Energy Services in Europe

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 696040.

energy centre BRATISLAVA

Experiences with EPC business models

Comprehensive energy efficiency refurbishment

- Increase of energy efficiency (of buildings) is the main target
- Enables implememntation of complex solutions (demand side, supply side)
- Includes implementation of construction measures
- Long repayment period requires tailored financing

- Successful projects combining financing by ESCo with other resources (client‘s, ESIF) exist

guarantEE
Building Energy Services in Europe

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 696040.

energy centre BRATISLAVA

Experiences with EPC business models

Complex refurbishment

- Focus on building's value – Energy efficiency is not the main target
- Covers implementation of construction measures including measures without energy efficiency impacts
- Savings on energy costs are not the main benefit (revenue) – also other benefits have to be taken into consideration within projects feasibility assessment
- Monetized energy savings should be considered as one of several financing sources

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 696040.

Experiences with EPC business models

Real Life Observations

- **EPC facilitators** are key to the sound project and market development
  - Majority of clients do not know what they want
  - Those who know what they want usually do not know how to reach it
  - EPC client that knows what and how and wants to do it, does not exist
- **Reliable Baseline** and **Clear Methodology** for energy savings calculation is fundamental for success of the long-term client-ESCo relationship
- **One contract for everyone** – comparing of contracts from different ESCos is the most reliable way how to kill a project

guarantEE
Building Energy Services in Europe

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 696040.

energy centre BRATISLAVA

Experiences with EPC business models

Challenges / Barriers (1)

- **EPC is difficult** compared to „standard“ ways of EE measures implementation
- **What are the real benefits** appreciated by clients?
  - Guarantees?
  - Financing?
  - Outsourcing?
  - Transfer of risks?
- **Are the additional benefits of EPC adequate** to the increased requirements on clients?

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 696040.

Experiences with EPC business models

Challenges / Barriers (2)

- Is the **market potential** large enough?
  - Almost no low hanging fruit available
  - Demand for comprehensive refurbishments
  - Split incentives dilemma
  - Standard EPC does not reflect requirements of private clients

- EPC increases **indebtedness** (in public sector)

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 696040.

Experiences with EPC business models

Challenges / Opportunities (1)

- Rising **priority of energy efficiency**
- **Lack of financial resources** in public sector vs **need for comprehensive refurbishments**
  - New market opportunities (requiring adaptation of standard business models)
  - Long-term financing necessary
- **Standardization** of EE projects

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 696040.

Experiences with EPC business models

Challenges / Opportunities (2)

- Removing of prevailing barriers
  - Split incentives dilemma
  - Standard EPC does not reflect requirements of private clients
  - Lack of EPC facilitators

- Project **GuarantEE** – Energy Efficiency with Performance Guarantees in Private and Public Sector
  - Definition of Solutions to the Split Incentive Dilemma
  - Development of new variants of contracts for private sector
  - Trainings of facilitators
  - www.guarantee-project.eu

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 696040.

THANK YOU FOR YOUR ATTENTION

Marcel Lauko
lauko@ecb.sk

Energy Centre Bratislava is member of
Association of Energy Services providers
www.apes-sk.eu

APES

Energetické centrum Bratislava
Ambrova 35, 831 01 Bratislava, Slovak Republic
Tel.: +421 2 593 000 91,
e-mail: office@ecb.s,
web: www.ecb.sk

energy centre BRATISLAVA