

materiaalitehokkuus koulut energiansäästö  
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aurinkoenergia

## **ESCO and EPC service in Finland**

CA ESD II , Plenary meeting in Warsaw; WG 4.1

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lämpöpumppu bioenergia energiakatselmus rakentaminen

# Motivas role

- Motiva has a commission from MEE (MEE, Ministry of Employment and the Economy) to promote ESCO service, the target is:
  - Disseminate info about the service and connect ESCOs and potential clients...
  - Produce Info and Marketing material ,
  - Create and maintain an ESCO project register
  - Produce ESCO guides and develop models
- **latest and just now ongoing is a task where an ESCO procurement guide for public sector will be created together with potential clients and ESCOs,**

# History, definition, subsidies

ESCO service started about 15 years ago in Finland by one service provider

Our definition for ESCO service from the beginning:

- financing by the savings of the service period
- guarantee and verification of the savings

=> projects implemented according the definition are justified to apply for ESCO investment subsidies (15..25 %) from the ministry

## History, active ESCOs

- At first most ESCO projects were built up for single or separate technical solutions or systems in industry and buildings where energy saving was the target e.g. investments for heat recovery units in buildings and industry
- The volumes stayed modest, the markets have not grown and worked as expected
- 4...8 ESCO service providers in Finland now
  - active ones now: see [www.motiva.fi](http://www.motiva.fi) (ESCO hankerekisteri)
  - the understanding is based on our project register (active ESCOs send project information to Motiva, and Motiva takes it in the Motiva web-pages (the register is not well updated and does not give the whole picture about our ESCO markets))

# ESCO service for public sector

The target is to make ESCO projects (Energy Performance Contracting) attractive for ESCOs and clients

- many buildings and different needs to the same single project => + energy saving + renovation + modernisation + comfort +service changes
- Why important in public sector and in municipalities:
  - ESD: 9 % saving target for municipalities till 2016...2016 =>
  - The exemplary role of public sector stated in ESD
  - Important renovation and modernisation needs: The idea of ESCO/ EPC-concepts optimize the investment and energy costs during long period (and do not emphasize only investment costs)
  - Energy Efficiency Directive under discussion ..and there the renovation target of 3% per year for public buildings

# ESCO service for industry > < ESCO service for municipalities

not different models but have different features (FI: questionnaire CAESD II, WG 4.1)

Industry	Municipalities
+ big projects even in single technical system (heat recovery in an oven etc.)	- small projects or needs to package buildings and needs (energy saving, services, renovation, modernisation..)
=>need for ESCO service lower	=>need for ESCO service higher
+ the company has free choices to select the ESCO	- Need to follow public procurement law
- Big changes in annual energy consumption	+ "steady" consumption and great confidence about the continuation

The main topic of the presentation:

Public ESCO procurement,  
problems in the tendering process

# ESCO service for public clients

Answering to the needs of public clients, ESCOs have during last years marketed wide (many buildings and different services) EPC-projects for many clients, but

- the bidding process has appeared to be a serious problem – some ESCOs have marketed their own procurement process which the others have considered discriminatory and unfair
- several projects have been stopped because ESCOs have taken projects to the Market Court



- There is a need for
- => Guides and guidelines for public ESCO procurement

### Target for public ESCO service

- maximum economical energy cost savings among existing installations
- innovative and most economical (investment and long term energy cost) solutions for installations that need renovation/ modernisation/ etc.
- cost effectiveness – e.g. costs of the tendering process and studies (where economical saving measures will be studied) should be reasonable
- non-discriminatory and fair treatment for ESCOs

# Work for the guidelines is going on..

## Target

- To give different possible procurement options for clients and show what are the pros and cons of each option
- The client knows what he gets and what not with different options (=the awareness of clients increases)

## TO BE CONSIDERED..

The client doesn't have a clear picture where he can save energy economically (what are the energy saving measures)

- one suitable method in procurement is "the competitive dialogue"
- Energy studies will be needed to show the saving measures
- Studies made by one unconnected (separate) consultant
  - This may be a solution but at the end - ESCOs need to plan the measures and calculate the saving and investment costs by themselves in order to be able to make tenders with saving commitments
- If all ESCOs make energy studies with their own financing in all buildings before tendering
  - big costs and a lot of work also to the client
  - the saving measures that the ESCOs find cannot be delivered to others
  - the client will not get a comprehensive package of saving measures ..
  - leads to different tenders with different saving measures, increases the complexity in comparing ESCO's tenders
- The client has to pay the costs of studies if he wants to bundle the saving measures for all ESCO's before asking tenders,
  - The definition of studies has to be made
  - The procedure => se Option 1

ESCOs short list

Studies

Dialogue

Bidding

Selecting ESCO

Implementation

Verification

Sanctions/ or..

## Option 1

- All buildings will be audited by short listed ESCOs according to the Motiva energy audit model
  - Definitions for studies exists (content, reporting, etc.)
  - Each ESCO makes energy audits for an equal amount of different buildings from the bundle after a competing process \*
  - Client finances (and gets audit subsidies)
    - => reports will become available for all short listed ESCO's
    - showing the economical saving subjects (excluding detailed solution and measures) found by ESCOs
    - building info (volumes, activities, services, service/ opening hours, comfort level etc.)
- \* *process how to deal the audits to ESCOs has to be considered and solved*

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## Option 1

- The objective of the dialogue is to prepare tendering documents and outline contract clauses
- The client selects and bundles the saving measures (not solutions) and other (modernisation, comfort improvement etc.) and asks for tenders
  - the saving measures and contract clauses will be as much as possible the same
  - comprehensive list of saving measures

# Option 1

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## The ESCOs

- Make complementary checks in the buildings where they have not performed the audits by themselves
- Are allowed to include the extra saving topics they find (but only for those buildings where they have not performed the audit)
- Make tenders where savings and investments have been shown in euros (detailed documents, plans and other will be done in implementation phase)

The ESCO's can give their innovative and efficient solution for the client needs

- => the tenders never will be exactly the same but show different energy saving with different investments
- If there are lots of modernisation, comfort etc. requirements, annual energy costs may increase

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## Option 1

### Verification

- Services, comfort and technical performance
- net present value of the energy savings (or extra costs) from the predefined period (eg. 10 years) set by the client

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## Option 2

- A selection of buildings (only part of the bundle) will be studied by all short listed ESCO's
  - All ESCOs make studies in all buildings in the selection
  - The bidding process comprise these selected buildings
- Need for Dialogue?
- The winner ESCO has an option to continue the work with the remaining buildings
  - lots of questions and remarks to be answered or solved..



# Work for the guidelines is going on..

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- To give different possible procurement options for clients and show what are the pros and cons
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# Thank you for your attention

Comments, questions, remarks and experiences  
are welcomed!

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