



European Performance Contracting Information Seminar

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Energy Performance Contracting Information Seminar

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Introduction

Codema held an Energy Performance Contracts Information Seminar for local authorities on Thursday 7 November in the Dublin Docklands as part of the EESI 2020 project. The participants included local authority officials, members of Sustainable Energy Agency Ireland (SEAI), ESCOs and representatives from each of the international partners on the EESI 2020 project. The seminar was opened by Dublin City Manager, Owen Keegan, and included presentations from Sabine Pillar, Berliner Energieagentur GmbH (BEA), Stjohn O'Connor from the Department of Communications, Energy and Natural Resources (DCENR) and Joe Hayden, Executive Engineer with Codema.

In his opening remarks, the Dublin City Manager summarised the key questions for local authorities considering the use of EPCs:

- How can energy saving projects be implemented without sacrificing value for money?
- Will the cost of transferring risk prove unfeasible?
- Do local authorities such as Dublin City Council (DCC), have the skills and expertise to manage contracts such as EPCs?
- How important is scale in bringing about projects?
- Is the market for providing EPCs sufficiently developed to provide real value for money?



The EESI2020 Project and Experience with EPC from Germany

Berliner Energieagentur GmbH

The first presentation on the city of Berlin's experience in employing EPCs was delivered by Sabine Piller of BEA, the coordinator of the EESI 2020 project. According to BEA, broader use of EPCs could help to achieve EU 20% energy saving targets. However, there are non-technological barriers hindering the EPC market.

Ms Piller outlined the ways in which the EESI 2020 project is supporting nine cities to integrate long-lasting EPC schemes in to their energy plans. These include improving market transparency through an EPC database, quality criteria and evaluations of EPC projects; producing guidelines for facilitators, developing practical political recommendations; developing the market; promotion of EPCs and capacity building. The project anticipates the implementation of a minimum of 20 EPC projects, representing an investment of approximately E15 m and resulting in primary energy savings of 7,000 toe/year and 15,000 t CO₂e/year.

EPCs can provide substantial energy savings by working on the principle of repaying investment in energy efficiency from the cost savings made. According to BEA, savings of between 25 and 35% are possible. In an EPC, the ESCO can perform the following functions:

- System analysis, planning, financing, implementation & operation
- System responsibility for equipment & users' behaviour
- Controlling

The ESCO then invoices the user based on the reduced energy consumption. The ESCO may guarantee:

- Energy saving guarantee and share of the client on the savings;

- Hardware investments (amount and structure);
- Energy controlling system, maintenance;
- Compliance with required comfort levels;
- User motivation concept (e.g. incentive schemes);
- Verification of energy savings and remuneration;
- Liability / collaterals / crisis management.

Over the term of the contract, the user retains the balance of the savings of the reduced energy costs after the performance related contribution has been made to the ESCO. Once the contract is complete, the user benefits from the entire savings. The user is further advantaged by shifting the technical and economic risks to the ESCO.

The following factors were identified as barriers to EPCs:

- Lack of capacities;
- Lack of information;
- Lack of motivation;
- High investment costs.

BEA propose the use of a facilitator to overcome these barriers. In an 'Energy Saving Partnership', all parties work towards a common goal of reducing energy consumption and BEA acts as a facilitator between the client and the ESCO.

For the practical operation of EPCs, BEA recommends the use of pooling buildings which require little investment to achieve high savings with buildings in which the converse is the case.

The criteria and conditions of success were identified as:

1. Driving force: Decision makers who take on the responsibility;

2. Reliable legal framework: Clear information that EPC is allowed and on tender and award procedure;
3. Standardised contracts and procedures are time and cost effective;
4. Neutral process management e.g. by energy agencies: Provide trustworthy technical and economic know how and act as mediator if a conflict arises.

Questions and Answers

At the end of the presentation, Cian O'Riordan, Powertherm, asked whether BEA ask bidders to do investment grade audits and if so who pays? Sabine Piller confirmed that audits are carried out and paid for by the bidder. Vladimir Sochor from SEVEN injected that in the Czech Republic the customer normally pays or payment can be made to the facilitator after the contract is signed.

National Energy Services Framework and Energy Efficiency Fund

DCENR

The second presentation, delivered by Stjohn O'Connor of DCENR, was on the subject of the National Energy Services Framework and Energy Efficiency Fund. The framework is drawn from a combination of EU and national policy, specifically the Energy Efficiency Directive, the National Energy Efficiency Action Plan and elements of the National Action Plan for Jobs.

DCENR works on a 3 pronged approach in order to stimulate supply and demand:

- Energy Efficiency Fund;
- Framework;
- Exemplars / Technical Support.

The framework will form a 'rules of the road' for suppliers and buyers which will deliver standard reference material on procurement, model contracts and technical support. It is intended to overcome existing barriers to EPCs. The framework is expected to be completed in December 2013.

There are four elements to the framework: market development of ESCOs; SEAI supports; guidelines/handbook and financing. The guidelines or handbook are a suite of documents that are intended to act as a template for contracts and will create consistency. Nonetheless, they are a living, breathing organism with sufficient flexibility to be adapted to the circumstances. It is anticipated that the template contracts will be signed off the Chief State Solicitor. Exemplar projects are being used to test the framework and make any refinements necessary.

In relation to financing, the DCENR are endeavouring to educate banks as to the value of energy efficiency and how to quantify it, in the hopes that banks finance projects in the future.

Energy Performance Contracting in Dublin

Codema

The third presentation on the theme of alternative finance and reduced risk was delivered by Joe Hayden, Executive Engineer at Codema. In a traditional contract, the building owner provides financing, develops the project specification and goes into the market to locate the best value service provider. In this model the building owner assumes all of the risk, including the risk that the original specification was not fit for purpose. Energy Performance Related Payments and EPCs offer an alternative method of financing a project at a reduced risk.

Codema are road testing the framework with a pool of three DCC leisure centres in Ballymun, the Markievicz Centre in Dublin 2 and Fingal Leisure Centre.



Joe Hayden, Codema

Panel Discussion

The presentations were followed by a panel discussion with input from the audience. The panel was comprised of Pat Gilroy (Dalkia), Joe Hayden (Codema), Majella Kelleher (SEAI), Brendan Kenny (Dublin City Council), Stjohn O'Connor (DCENR), Sabine Piller (Berlin Energy Agency), Reinhard Ungerböck (Graz Energy Agency), Gerry Wardell (Codema, facilitator).

The User-ESCO Relationship

The panel focused on the need for a good working relationship between the client and ESCO based on transparency of information, trust and regular dialogue. Pat Gilroy described the difficulties facing ESCOs at the beginning in getting a return on the initial investment - 2 million in his example. He stated that 60% of their revenue is from public authority work and that, although local authority work offer a significant opportunity, it is not a silver bullet. He opined that transparency of information, mutual trust and a partnership approach to projects is vital. The example was given of a building in which hours of occupancy change thereby potentially increasing the risk on the part of the ESCO. He believes that the framework is a big step forward and increases the chance of EPCs being successful.

Majella Kelleher of SEAI praised the consistency of language and concepts between the three presentations, in particular the consistency between the risk transfer graphs prepared by Joe Hayden and Sabine Piller. In her view, it is a matter of building competence and confidence. Similar to Pat Gilroy, she held that a partnership of trust between the user and ESCO is essential. The problem of distrust in the public procurement process in Ireland was identified as a significant challenge for EPCs.

The SEAI is of the opinion that the first step is to make a

needs assessment of the project. An EPC is not necessarily a panacea but the process of understanding needs and collecting baseline information is important. Once the process is complete the appropriate methodology for execution can be selected. The SEAI contend that it is vital to evaluate the framework and to get it right. They added that the SEAI is available to give technical help and assistance and noted that there is political commitment to this process at the highest level.

Michael Malone of the Midlands Energy Agency highlighted the particular challenges facing smaller organisations, specifically where solutions are dismissed due to lack of capital. He called for the publication of league table to uphold standards. Stjohn O'Connor (DCENR) informed the seminar that public sector scorecards are being evaluated by SEAI and would be used to produce a league table. He added that the Framework is there to help but may not be the right financing option. The fund will pay for a variety of energy efficiency projects, not just EPC. Joe Hayden expressed the view that these initiatives would help establish a baseline and the league table would encourage improvements. Gerry Wardell reminded the group that the ultimate function was to provide a good public service.

Brendan Kenny, DCC, drew the groups attention to the cost of implementing such projects in older buildings as compared to the low investment required for the modern leisure centres in the exemplar project. He reiterated a point made by Pat Gilroy, that there needs to be an energy management strategy to complement the EPC project. He also acknowledged the difficulties posed by public procurement in Ireland. He expressed concern that there is insufficient expertise at the moment. However, DCC will avail of Codema's expertise as a facilitator to deliver its exemplar project.

Pooling

Joe Hayden raised the question of how to approach buildings with a baseline of less than E500,000 and, if employing the pooling method, what in the panel's view are the ingredients of a successful pool? The panel turned its attention to the practical implications of pooling and the question of how pools should be drawn i.e. buildings with similar usage or by locality. Reinhard Ungerböck recommended pooling buildings or buildings with street lighting. He noted that in Graz GEA has worked with EPCs with a baseline of E100,000. John Williams (Fingal Co. Co.) noted that there is a significant difference between lighting and building projects as energy usage in lighting is mostly consistent while buildings are more variable, e.g. through a change in occupancy level. Care must therefore be taken to ensure that users are not overpaying for a risk that does not really exist. Sabine Piller acknowledged that public lighting is easier, unless it is a smart or motion sensitive system. She suggested a number of options for pooling: combining buildings with high-saving potential with those where only small

savings can be made, or combining buildings with a diverse energy profile or combining buildings with the same or similar functions e.g. pooled swimming pools in Berlin even though they weren't in the same location. Location is not always a determining factor but it can be helpful to look at a district.

Reinhard Ungerböck raised the importance of keeping costs down in negotiations with ESCOs and the need for fair competition between tenderers. The cultural issues with public procurement were reiterated by Majella Kelleher, as well as the need for value for money and a balanced equation between the ESCO and the client. Vladimir Sochor suggested that EPCs are win-win projects and described his experience with a large hospital. It was recognised that ESCOs have to make a profit from EPC projects and that profit margins in these projects tend to be quite low across the board (approximately 5-10%). Thus contracts should provide a fair remuneration for ESCOs and should be based on fair dealings on both sides.

Pat Gilroy noted the potential for localised energy schemes where the local authority buildings are pooled



Panel discussion

with local private properties, for example an office with a 9am-5pm occupancy and a GAA club with a 5pm – 11pm occupancy. Joe Hayden asked the panel what, in their opinions, are the ingredients of a successful pool. Sabine Piller stated that BEA's preference is for a collection of buildings with similar consumption and demand. The buildings need not be in the same locality.

Vladimir Sochor noted that the Czech Republic are celebrating 20 years of the use of EPCs. He described how subsidies are used in the Czech Republic to assist in construction.

Facilitation

Sabine Piller noted value of facilitation in EPCs, e.g. through an agency like BEA and Codema, which was reinforced by Pat Gilroy. Majella Kelleher reiterated that SEAI is available to assist with technical aspects e.g. standardised contracts which can reduce transaction times and costs. Speaking from the audience, Alan Ryan (SEAI) predicted that future contracts would all include an energy performance aspect and that the traditional model of the client providing finance and assuming all risk would become a thing of the past.

Conclusion

Summing up the seminar, Sabine Piller stated that she was impressed by what she had heard from the Irish contingent about current initiatives and said that Ireland had made significant progress in recent years.

Appendix 1

List of Attendees

Casey, Triona	Midlands Energy Agency / Laois County Council
Cosgrave, Tony	Fingal County Council
Dorethy, Ger	SEAI
Ferguson, Michael	Aramark
Gilroy, Pat	Dalkia
Gilteneane, Edel	Codema
Hayden, Joe	Codema
Healy, Cormac	Dublin City Council
Hermann, Laurenz	Berlin Energy Agency
Keegan, Owen	Dublin City Council
Kelleher, Majella	SEAI
Kenny, Brendan	Dublin City Council
Granollers, Josep M.	ICAEN
Maher, Kieran	Fingal County Council
Malone, Michael	Midlands Energy Agency / Laois County Council
McCabe, Neil	Dublin City Council
McCormac, Dec	Codema

Mowlds, Grainne	South Dublin County Council
O'Connor, Stjohn	DCENR
O'Riordan, Cian	Powertherm
O'Sullivan, Maire	South Dublin County Council
Piller, Sabine	Berlin Energy Agency
Lindseth, Liv Randi	NEE
McGarry, Anthony	Aramark
Ryan, Alan	SEAI
Ryan, John	Dublin City Council
Sochor, Vladimir,	SEVEn
Terziyska, Irina	ELI
Tyse, Randi	NEE
Ungerböck, Reinhard	Graz Energy Agency
Wagner, Verena	Codema
Wardell, Gerry	Codema
Waters, Sharon	Codema
White, Philip	Dublin City Council
Williams, John	Fingal County Council



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