



D2.5 Country Report on Recommendations for Action for Development of EPC Markets

Hungary

gr^{EE}Independent
Institute



Co-funded by the Intelligent Energy Europe
Programme of the European Union



Transparensense project

This document has been conducted within the framework of project “Transparensense – Increasing Transparency of Energy Service Markets” supported by the EU program “Intelligent Energy Europe”

www.transparensense.eu

Date

November 2013

Place

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Contents

ABBREVIATIONS	2
LIST OF FIGURES	HIBA! A KÖNYVJELZŐ NEM LÉTEZIK.
LIST OF TABLES	HIBA! A KÖNYVJELZŐ NEM LÉTEZIK.
1 SUMMARY	3
2 INTRODUCTION	3
2.1 Methodology	3
2.2 What is Energy Performance Contracting.....	4
3 EPC CODE OF CONDUCT	6
4 GOVERNMENTAL STRATEGY TO BOOST THE EPC MARKET	7
5 REMOVAL OF LEGISLATIVE AND ADMINISTRATIVE BARRIERS	8
6 INFORMATION DISSEMINATION, EDUCATION AND NETWORKING	9
7 FINANCIAL INSTRUMENTS TO SUPPORT EPC	10
REFERENCES.....	12

Report on recommendations for action for development of EPC markets in Hungary



Abbreviations

- EPBD - referring to the recast Energy Performance of Buildings Directive (2010/31/EU)
- EPC – Energy Performance Contracting
- ESCO – Energy Service Company
- EU – European Union
- GEF – Global Environment Facility
- IFI – International Financial Institutions
- NEEAP –National Energy Efficiency Action Plan
- RES – renewable energy sources
- UNEP - United Nations Environment Programme

Report on recommendations for action for development of EPC markets in Hungary



1 Summary

The present report aims at providing recommendations for action for the successful development of the EPC market in Hungary.

The report is building on the data and information gathered by two other similar projects, the European Energy Service Initiative¹ (EESI) and the ChangeBest project². Given that the Hungarian case was not analysed by those projects, the Hungarian country report is rather intended as a continuation of the work of the European Commission Joint Research Centre – Institute for Energy, and more particularly of its 2010 Status Report on Energy Service Companies Market in Europe³.

2 Introduction

2.1 Methodology

The contents of this report are based on two main sources:

- the results of a nation-wide EPC survey which was sent to the country's main actors within the EPC market
- the market knowledge of the authors, as well as research from local / national literature (publications and studies, legislation documents, official statistics and databases)

The first step in collecting the data used in this document was to distribute a survey, focusing on Energy Performance Contracting (EPC), to the country's most relevant energy services companies, organisations, public agencies/policy makers and finance houses. The survey contained questions around four main areas: existing ESCOs and the national EPC market, EPC models, financing models and policy initiatives. In Hungary the online/email survey was supplemented and in some cases substituted by personal face-to-face interviews or phone contacts. The answers and collected information were then analysed and the

¹ <http://www.european-energy-service-initiative.net/eu/toolbox/national-reports.html>

² http://www.changebest.eu/index.php?option=com_content&view=article&id=43&Itemid=10&lang=en

³ http://iet.jrc.ec.europa.eu/energyefficiency/sites/energyefficiency/files/escos-market-in-europe_status-report-2010.pdf

Report on recommendations for action for development of EPC markets in Hungary



results were presented in a previous report in an aggregated form (cf. Transparensense National Report on identified barriers and success factors for EPC project implementation⁴).

The current report goes one step further and makes a series of recommendations tailored for Hungary's national EPC market. These recommendations are based on the information gathered from the respondents to the surveys (in written form or in conversations), as well as on the authors' knowledge of the national market and of any relevant literature / research piece.

This report aims at showcasing the successful experiences for EPC providers in Hungary and separating what has been proven to enhance the EPC offering from what constitutes potential barriers. The recommendations contained in this report have been made in order to tackle the issues highlighted in the previous Transparensense report (Transparensense National Report on identified barriers and success factors for EPC project implementation). The authors believe that EPC providers / customers and the EPC industry as a whole will benefit from replicating the success factors observed within the national market. These recommendations should be seen as "best practice" guidelines and disseminated within Hungary in order to improve the quality of the EPC market.

2.2 What is Energy Performance Contracting

Energy performance contracting (EPC) is when an EPC provider is engaged to improve the energy efficiency of a facility, with the guaranteed energy savings paying for the capital investment required to implement improvements. Under a performance contract for energy saving, the EPC provider examines a facility, evaluates the level of energy savings that could be achieved, and then offers to implement the project and guarantee those savings over an agreed term.

A typical EPC project is delivered by an EPC provider and consists of the following elements:

- **Turnkey Service** – The EPC provider provides all of the services required to design and implement a comprehensive project at the customer facility, from the initial energy audit through long-term Monitoring and Verification (M&V) of project savings.
- **Comprehensive Measures** – The EPC provider tailors a comprehensive set of measures to fit the needs of a particular facility, and can include energy efficiency, renewables, distributed generation, water conservation and sustainable materials and operations.

⁴ Available at: <http://www.transparensense.eu/hu/news/d42>

Report on recommendations for action for development of EPC markets in Hungary



- **Project financing** – The EPC provider arranges for long-term project financing that is provided by a third-party financing company, typically in the form of a bank loan.
- **Project Savings Guarantee** – The EPC provider provides a guarantee that the savings produced by the project will be sufficient to cover the cost of project financing for the life of the project.

Energy Performance Contracting allows facility owners and managers to upgrade ageing and inefficient assets while recovering capital required for the upgrade directly from the energy savings guaranteed by the EPC provider. The EPC provider takes the technical risk and guarantees the savings.

The EPC provider is usually paid a management fee out of these savings (if there are no savings, there is no payment) and is usually obligated to repay savings shortfalls over the life of the contract. At the end of the specific contract period the full benefits of the cost savings revert to the facility owner.

The methodology of Energy Performance Contracting differs from traditional contracting, which is invariably price-driven. Performance contracting is results-driven: ensuring quality of performance. EPC providers search for efficiencies and performance reliability to deliver contractual guarantees.

While there is a vast number of definitions of EPC within Europe, the Energy Efficiency Directive⁵ (EED) finally provided EU wide definition as follows:

“energy performance contracting means a contractual arrangement between the beneficiary and the provider of an energy efficiency improvement measure, according to which the payment for the investment made by the provider is in relation to a contractually agreed level of energy efficiency improvement or other agreed energy performance criterion, such as financial savings”.

While within the Transparense project we stick with the EU definition, the focus will be given to the EPC projects, where the above mentioned “agreed level of energy efficiency improvement” are **guaranteed** by the EPC provider. This is in line with the EED, as in its Annex XIII, guaranteed savings⁶ are listed among the minimum items to be included in energy performance contracts **with the public sector** or in the associated tender specifications. Moreover, in the article 18 of EED, Member States are required to promote

⁵ Directive 2012/27/EU of the European Parliament and of the Council on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC was approved on 25 October 2012.

⁶ Annex XIII of the EED lists the minimum item as: „Guaranteed savings to be achieved by implementing the measures of the contract.”

Report on recommendations for action for development of EPC markets in Hungary



the energy services market and access for SMEs to this market by, inter alia, disseminating clear and easily accessible information on available energy service contracts and clauses that should be included in such contracts to **guarantee energy savings** and final customers' rights.

3 EPC Code of Conduct

An important step towards a transparent and trustworthy EPC market is the acceptance and widespread usage of the EPC Code of Conduct. Such a Code is being developed under the Transparense project and will be publically discussed with all interested parties to reflect their needs and concerns.

The Code of Conduct is a set of principles describing best practice from EPC providers (primarily) and customers (secondly) in the preparation and implementation of EPC projects in order for them to succeed, maximizing the energy and cost saving resulting from the EPC. The Code is a voluntary commitment and it is not synonymous with any legal obligation. However, acts in violation of the EPC Code of Conduct may cause damage to the EPC providers' and/or the customers' good name. It is also an indicator of the quality requirements for new EPC providers entering the EPC market. The EPC Code of Conduct is an in-depth view of what EPC providers and customers believe the EPC excellence is, and it paints a picture of how customers and EPC providers can expect to be treated as a result.

By adhering to the EPC core values of the Code of Conduct, EPC providers and customers develop solid foundations for working partnerships based on trust and confidence. They are expected to utilise the Code in order to further develop energy efficiency services to meet their goals and expectations.

The EPC Code of Conduct aims to improve understanding and awareness of the EPC and raise EPC quality requirements by setting best practice commitments and proposing standards to be met by the EPC providers, in line with other initiatives. The Code encourages the development of voluntary quality labels and tools for certified energy savings, and ultimately further develops energy efficiency policy. As a result, the EPC market as a whole (level of demand + quality of offer) in Hungary will benefit from adherence to the Code of Conduct.

4 Governmental strategy to boost the EPC market

To return from the currently deep diving status of the EPC market, first of all the framework conditions would need to be ensured. Hungary should develop or strengthen its energy efficiency plan and **build up a strong, dedicated and long-term energy efficiency strategy**, supplementing that with an **implementation plan**. Currently, the energy policy is focussed towards socially explained energy (and general utilities) price reduction, which has been particularly detrimental both for running energy efficiency projects, and on the public awareness. An understanding of the benefits (e.g. social benefits) of energy efficiency improvement and sustainable energy would be needed at the highest decision levels. Another problem in the way of sustainable energy supply is that developing nuclear power and gas access have become key directions in Hungary in order to supply the growing energy needs. Decision and policy makers should consider alternatives, including energy efficiency and RES.

The Hungarian government usually takes a minimalist approach in the subject of building renovations and energy efficiency, which makes it hard to follow the EU developments and to adjust to the local situation. Instead a long-term approach would be needed and policies should be made at **an ambition level that is most cost-effective and socially beneficial**.

Different strategies could be better combined: building stock renovations, energy security issues, social problems. A good example though is the thorough background work done for the EPBD provisions, including a well-developed building categorisation, energy auditing of thousands of buildings, developing a monitoring system to keep in contact with the building owners who will have to update the energy performance information, etc. The results are not yet public and probably public consultation about the following regulations (cost optimality, nearly zero building strategy, etc.) will be a feeble.

In general, **public and expert consultations need to be strengthened**, because energy policies and building policies need broad agreement and awareness in order to succeed.

Hungary has put forward in its NEEAPs that a **public ESCO** will be established. Stakeholders' opinion varies on the need and the expected success of such a new organisation, and the official details are not yet available. While, public ESCOs are successful in several countries (see Belgium, Spain, Switzerland, Croatia (EC JRC forthcoming)) and there is a tendency to establish them lately (e.g. France), the local conditions may not be adequate in Hungary. While a public ESCO can be very effective and develop projects that would not work otherwise, some experts have expressed concerns that an upcoming public ESCO in Hungary will compete with existing private ESCOs, and the cultural traditions of corruption may question the quality of and trust in projects done by a public ESCO.

5 Removal of legislative and administrative barriers

The most serious problem in Hungary that makes EPC businesses difficult currently is the **hectic policy-making and unexpected changes of legislation** that is not put through proper public and expert consultations. The interviewed experts and ESCO representatives all agreed that in this environment, large investments are too risky.

One of the recent problems of the Hungarian EPC market for public buildings has been the **low creditworthiness** of the potential customers because of the large credit burden of many municipalities. This has been resolved by the state through taking over the ownership of many types of buildings (hospitals, schools, etc.), which on the other hand seem to cause administrative and procedural problems (e.g. because of the central procurement of even minor consumables, which causes regular shortages). In addition, municipalities were compensated for their insolvency, thus creating a new start for them. On the other side of the coin, this has been an extremely expensive action, while also causing friction amongst municipalities, due to the uneven benefits (i.e. municipalities that were in fact careful to avoid risky loans before, did not feel it fair that others, the less careful ones receive the benefits).

In the beginning of the 2000's a large number (around 1000) of **free feasibility studies** were carried out by the Hungarian Energy Center (based on a UNEP/GEF credit line) to support the development of EPC (EnergoBanking Kft. 2006). However, the feasibility studies rarely lead to actual projects and the collected data were not made public or available for analysis. By now these are outdated. It would be valuable to repeat/continue such programs, thus overcoming a large chunk of the transaction cost of EPC projects and helping the market to re-establish. Today some ESCOs offer free audits and a free set of recommendations to get in contact with the potential customers and to later develop some of these into an EPC project. However, according to the procurement rules, a company that carried out such an audit would not be able to participate in a public procurement tender for the actual EPC project (Kuntner 2013). This contradiction needs to be resolved. One partial solution could be to announce national or municipal grants for feasibility studies, and therefore the ESCO could join in the project already when the evaluation of the set of alternative measures is available. Otherwise, the **public procurement law needs to be adjusted** to accommodate for real ESCO projects.

Public projects are also affected by the split incentive problem. Primarily it is an issue that the energy cost savings are run on a **separate budget line** from the others. Therefore cost

Report on recommendations for action for development of EPC markets in Hungary



savings in one budget line cannot be transferred to another line, which causes a lack of interest to save (and to put back the savings to the national budget).

In the residential segment, where EPC has been tried out and successfully developed, the model goes through hard times to expand, even if Hungary is a rather unique case in Europe for showing interest and success in EPC implementation in this sector (EC JRC forthcoming). There is high motivation to renovate (and thus reduce costs and increase the value of the properties) (Energy Club 2013), and the owners and tenants have very high awareness. On the other hand, non-payment is a crucial problem worsened by the social policies of moratorium on eviction even in case of large arrears. It is agreed by stakeholders that tenants in deep need would require help, however **a general moratorium does not seem to be the appropriate measure**, because this allows everybody to avoid payments with impunity.

People have a significant loan aversion and/or face difficulty in accessing loans, as a result of the financial crisis. Therefore, while ESCOs themselves or several banks would be willing to participate in ESCO projects with the residential sector and provide the financing, the dwellers are afraid to engage. Building of trust and information dissemination would be a solution for this. In addition, banks must increase their level of carefulness in **selecting borrowers, developing loan products** that are easy to understand and develop a partnership with the interested property owners.

Mandatory **energy certification of buildings** was introduced from January 2012, however there is no infrastructure and procedure to keep track of them, neither to control quality and to ensure lack of corruption. These need to be built up, because energy certification has proven very effective in pressing on the benefits of energy performance improvements and to reduce transactions costs of ESCO projects in other countries (EC JRC forthcoming).

6 Information dissemination, education and networking

Information about EPC and the ESCO solution has been actively disseminated, demonstration projects have been common throughout the last 20 years, mainly through the activities of the ESCOs themselves and through IFIs (Bertoldi, Boza-Kiss, and Rezessy 2007). Nevertheless, this is a task that **has to be continued**, as there is still a lot of aversion and perceived risk is high in all sectors.

Model contracts are not available, because Hungary has not participated in major European projects (such as EUROCONTRACT, Permanent, ChangeBest, EESI, etc.), and because many

Report on recommendations for action for development of EPC markets in Hungary



types of financing models have been used often without customers understanding the key points and differences between the alternatives. **Trainings and/or a transparent description** of alternative contracts would be helpful.

Interest in establishing an association was always present amongst ESCOs, but was not formalized in the end. Around 2006-2008, a DEEM workgroup existed with the participation of a few ESCOs, banks, decision-makers, and IFIs. Regular meetings, conferences, plans about market research, and lobbying were on their agenda, but the crash (of the financial, construction and thus the ESCO sectors) overrode this group. Currently, ESCOs interviewed have expressed interest in participating in an **ESCO association**.

7 Financial instruments to support EPC

Financing of ESCO projects is a classic problem of beginner EPC markets, because of the aversion to investing in large projects using an unknown/little known and complex investment structure, where even transaction costs are high (and relatively higher than in more developed markets) (Szomolanyióva and Sochor 2012). However this is not fully true for Hungary, where it is not the regular availability problem which is the most fundamental (Boza-Kiss and Vadovics 2013).

It is the public and residential sectors for which appropriate financing solution is critical as of 2013. Both of these sectors were attracted to energy efficiency (and complex) renovation projects by the various and **generous state grants** until 2008-2009, when renovation projects, including ESCO projects flourished, however for a high (public) price. Until this time, national grants were based on the Structural Funds and often sourced from IFIs (Bertoldi, Boza-Kiss, and Rezessy 2007). When these grants dissipated from 2009 and were exchanged for carbon-quota based grants, they became **irregular and very small**. Usually, these grants were snapped up within hours and days. As a result, building owners and decision makers, even if they have the necessary budget for the renovation or the ESCO could offer to combine its own internal funds, maybe with a bank loan, postpone the renovation, waiting for the grant to appear.

Decision makers of public buildings also prefer grant based renovations (earlier from the Operation Programmes) to own or ESCO based investments because grants provide them with more freedom, as regards the types of investments. For example in the case of grant-based renovations, they can include comfort and aesthetics improvements, too.

Report on recommendations for action for development of EPC markets in Hungary



Therefore, stakeholders interviewed for the current report all agreed that the grant structure in its current format is destructive to the ESCO (and in general to the energy efficiency) market. The changes suggested are:

- **Intensity of grants** should be reduced significantly. Grants are more effective when they are in the **range of 20-30%**, as opposed to some structures of up to 60-70% that were common around 2005-2009.
- Indeed, there is a plan at the moment submitted to the Ministry that recommends a **complex grant system**, whereas the submitted projects will be subdivided to parts on the basis of payback time, and thus include non-supported (short payback on market basis), refundable and non-refundable parts. But the grant evaluator would have to consider the whole project as complex solution.
- The **total volume of the grants** should be much higher, as interest is significantly larger than what is available now, and a fair decision on which projects should be funded is not possible. It also raises the problem of corruption.
- Grants should be **announced regularly** as opposed to the current rhapsodic mode. Information about them should be widely available and in time.
- Finally, it should be considered to stop the grants and establish a **guarantee fund** instead.

Financing is not a problem in the industrial projects, because either the ESCOs or the customers are able and willing to pre-finance the investment. These projects are not eligible for state grants, and therefore they are not influenced by the timing and the conditions of those. At the moment, one of the major ESCOs reported 250 running projects, which were all financed without external funding.

There is full agreement amongst stakeholders, including ESCOs and finance houses that the most effective step towards strengthening the EPC market in Hungary would be the establishment and the running of a **guarantee fund**. International studies also support this opinion with international experience (Szomolanyiiova and Sochor 2012). This could mean a revolving budget, which would be able to motivate a 10 times bigger investment than a grant of the same budget. This would result in an improved spending of public capital, and also a fairer system of project selection. However, one barrier to this is that the carbon quota income, which is used as a source of the grants, is earmarked and could not be used as the basis of a guarantee fund.

Report on recommendations for action for development of EPC markets in Hungary



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