



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

AUSTRIA



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Authors

Monika Auer

monika.auer@oegut.at

Gerhard Bayer

gerhard.bayer@oegut.at

Österreichische Gesellschaft für Umwelt und Technik (ÖGUT)

Austria

www.oegut.at

Reviewer

Stefan Amann

stefan.amann@e-sieben.at

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Abbreviations

- EED Energy Efficiency Directive
- EESI European Energy Service Initiative
- EPC Energy Performance Contracting
- ESCO Energy Service Company

1 Summary

The present report aims at providing recommendations for measures enhancing the successful development of the EPC market in AUSTRIA.

The report builds on data and information gathered by two other similar projects, the European Energy Service Initiative¹ (EESI) and the ChangeBest project². It is also intended to be the continuation of the work of the European Commission's Joint Research Centre – the Institute for Energy, and more particularly its Status Report on Energy Service Companies Market in Europe³ published in 2010.

The Austrian ESCO market, in particular the EPC market is considered a highly developed, market, close to German standards.. However, the big boom for EPC announced in the 1990's did not come up until now. Most of the respondents (ESCOs and banks) to the survey about barriers and success factors and the discussions of the authors with ESCOs during the last years show a tendency towards the stagnation of the market. It is expected that the largest EPC market will be the public sector.

Currently, there is no standard that demands sufficient monitoring of the energy demand of public buildings or large buildings of private enterprises in Austria. Therefore detailed data of the energy demand are often not available, but this would be necessary for analysing the buildings profoundly. However, the "Federal Contracting Campaign" sponsored 300 successful cases during the recent years. Until now, approximately 600 buildings, bundled in 19 pools of buildings, have been outsourced to ESCOs and further tenders are in preparation.

The removal of legislative and administrative barriers is a must. For instance, a single national wide implementation law is recommended. Implementing nine different federal laws for every Austrian province would cause an extra bureaucratic effort for ESCOS as well as for building owners.

The platform DECA (Dienstleister Energieeffizienz und Contracting Austria) aims to play an important role in disseminating information, providing trainings and networking Now, the association has 21 members and is active in informing SMEs about the market opportunities by providing EPC.

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://publications.jrc.ec.europa.eu/repository/bitstream/111111111/15108/1/jrc59863%20real%20final%20esco%20report%202010.pdf>

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 focused on Energy Performance Contracting (EPC) to the country's most relevant energy services companies, organisations and finance houses. The survey contained questions around four main areas: existing ESCOs and national EPC market; EPC models, financing models and policy initiatives. The answers were then analysed and the results were presented in a previous report in aggregated form (Transparensense National Report on identified barriers and success factors for EPC project implementation).

This report goes one step further and makes a series of recommendations tailored for AUSTRIA'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 AUSTRIA 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 AUSTRIA in order to improve the quality of the EPC market.

2.2 What is Energy Performance Contracting?

Energy performance contracting (EPC) is when an energy service company (ESCO) 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 ESCO examines a facility, evaluates the level of energy savings that

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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 Energy Service Company (ESCO) and consists of the following elements:

- **Turnkey Service** – The ESCO 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 Measurement and Verification (M&V) of project savings.
- **Comprehensive Measures** – The ESCO tailors a comprehensive set of measures to fit the needs of a particular facility, include energy efficiency and in addition, can include renewables, distributed generation and water conservation.
- **Project financing** – The ESCO 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 ESCO 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 ESCO. The ESCO takes the technical risk and guarantees the savings.

The ESCO 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. ESCOs search for efficiencies and performance reliability to deliver contractual guarantees.

2.3 Definition of EPC and EPC provider

While there is a vast number of definitions of EPC within Europe, within Transparensense project we use the EU wide definition provided by the Energy Efficiency Directive⁴ (EED):

“**energy performance contracting**’ means a contractual arrangement between the beneficiary and the provider of an energy efficiency improvement measure, verified and monitored during the whole term of the contract, where investments (work, supply or service) in that measure are paid for in relation to a contractually agreed level of energy efficiency improvement or other agreed energy performance criterion, such as financial savings;”.

At the same time, within Transparensense project, the focus will be given to the EPC projects, where the above mentioned “contractually agreed level of energy efficiency improvement” is **guaranteed** by the EPC provider⁵. 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 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.

Further, within the Transparensense, we define the companies providing EPC as follows:

“ **EPC provider**’ means a natural or legal person who delivers energy services in the form of Energy Performance Contracting (EPC) in a final customer’s facility or premises”

Such definition respects the fact that EPC is only one type of energy services, and is in line with the definition of the energy services provider specified in the EED (for its definition see the glossary at the end of the report). Within the Transparensense texts, we use the commonly used term “ESCO” as equivalent of the energy service provider.

⁴ 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.

⁵ Guarantee of energy efficiency improvement is defined by EN 15900:2010 as “commitment of the service provider to achieve a quantified energy efficiency improvement”.

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

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 AUSTRIA will benefit from adherence to the Code of Conduct.

4 Governmental Strategy to Boost the EPC Market

Mandatory standards for energy monitoring

Currently, there is no mandatory standard ensuring sufficient monitoring of the energy demand of public buildings or large buildings of private enterprises in Austria. Therefore detailed data of the energy demand (e. g. monthly/daily/hourly energy consumption) are often not available, but this would be necessary for analysing buildings profoundly. All public buildings and large buildings of private companies as well should be obliged to operate

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appropriate monitoring programmes in order to secure a sufficient data basis, which is needed to define a fair baseline and to calculate the expected energy savings.

Possible monitoring obligations could be the recording of monthly data for buildings smaller than 250 m², hourly recordings for buildings larger than 2.000 m² as well as recordings via sub-meters in the building.

This demand has been postulated in the press release of DECA on the 11th of November 2013 (DECA, 2013)

Programme to tender EPC in public buildings.

During the last 15 years, several EPC- programmes have been conducted to tender public buildings in “pools”. Many of them have been successful and have given a relevant stimulus for developing an EPC market in Austria.

The largest public program for stimulating EPC in public buildings is the “Federal Contracting Campaign (Bundescontracting Offensive)” encompassing around 300 federal buildings. The program is managed by the federal building agency “BIG” in cooperation with the Ministries of Economics and Environment. The programme’s operation is supported by 22 so-called “Energiesonderbeauftragten” (special representatives for energy issues). Up to now, approximately 600 buildings, bundled in 19 pools of buildings, have been outsourced to ESCOs and further tenders are in preparation. The average share of energy cost savings in buildings owned by BIG is 20.3 %, thus representing 4.23 Mio EUR (Source: Ministry of Economy, Family and Youth, 2013).

These programmes should be continued and extended, as public buildings can serve as showcases for EPC and because the public owner often accepts longer payback periods than private companies.

5 Removal of Legislative and Administrative Barriers

EPC and Maastricht criteria

Currently, according to the Maastricht criteria the respective public entities in Austria do not incur additional debts in the balance when implementing EPC contracts. It is important, that this framework continues in the future; if an EPC contract would pose additional debts, it

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would constitute an obstacle hindering the implementation of economically viable and bankable EPC projects

National wide homogeneous implementation of the Energy Efficiency Directive (EED)

ESCOs in Austria are operating on a national wide and partly international dimension.

Implementing nine different federal laws for every Austrian province would cause an extra bureaucratic effort for ESCOS as well as for building owners.. A single national wide implementation law is therefore recommended.

Coordination of responsibilities in operation and investing at public buildings

In public buildings the budget for operation costs and the budget for retrofitting are often managed by different departments. This leads to investments in energy saving measures which do not benefit the same department; thus the investments are allocated differently. Therefore the motivation to promote rehabilitation measures as well as the planning of measures on a conceptual level may be very little.

Obligation for thermal retrofitting

If comprehensive rehabilitation measures (e.g. embracing 25% of the building value) are planned for a building, the owner should be obliged to improve the energetic standard according to the existing building regulations. This is the case in some regions in Austria, but is often not verified by the administration.. The enforcement of these measures and their appropriate verification should be mandatory for the entire nation.

Nationwide harmonization of the tendering procedure

In several regions of Austria different tendering procedures for EPC exist. They are applied to public objects which are under custody of the public authority. According to the policy recommendations of the European energy service initiative "Framework Conditions for Energy Performance Contracting" (Graz Energy Agency ,2011), this causes additional administrative effort for the ESCOs, which are often acting supra-regional. A harmonization of the different tendering procedures in Austria would help to reduce the costs to elaborate an offer.

6 Information Dissemination, Education and Networking

Independent information centres

An important obstacle for EPC is the lack of independent facilities to support building owners in tendering EPC as well as creating and negotiating contracts with the ESCO. In the Austrian province of Upper Austria an information centre and help desk has already been established: it supports municipalities during the process of tendering and negotiating EPC projects. Such independent information centres should be established in all provinces for municipalities as well as for SMEs.

Providing EPC model contracts

Model contracts can be a useful help for identifying the necessary tasks which should be regulated by the individual EPC project. Different model contracts for different kinds of EPC projects should be provided by public entities or information help desks for download.

In Austria several model contracts have been collected by the Austrian Society for Environment and Technology (www.oegut.at) within a national research project and will be available for public download in the first quarter of the year 2014.

Platform for EPC providers

In Austria a platform for providers of contracting business models and energy efficiency services in general, including EPC, has already been established. The platform is called DECA and was founded in 2004, since February 2013 it is a registered association (artificial person). It aims to play an important role as the Austrian voice for energy efficiency:

- in decision-making processes and discussions between public entities, legislation, companies etc. Concerning issues of energy efficiency (e.g. implementing the Energy Efficiency Directive –EED)
- in defining standards and quality requirements for energy services
- by providing support for EPC clients with information about EPC (how it works in general, best practice projects etc.)
- by providing model contracts and
- by establishing market transparency.

The association (DECA – Dienstleister Energieeffizienz und Contracting Austria) currently counts with 21 members. There should be financial support coming from public entities for

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information tasks and initiatives to improve the quality of energy services (EPC) and market transparency.

DECA is also active in informing SMEs about the market opportunities by providing EPC. Target groups of these information activities are companies, which have been active in the energy sector and which see EPC as an additional product within their range of activities. These information activities take place at seminars, lectures at advanced technical colleges or speeches at conferences and workshops.

7 Financial Instruments to Support EPC

The state of Upper Austria (Oberösterreich) has a funding model to support energy contracting projects (EPC and Supply contracting). The fund is managed by the OÖ Energiesparverband (<http://www.esv.or.at>). The link to the application can be found here: http://www.land-oberoesterreich.gv.at/cps/rde/xbcr/ooe/LWLD_Wi_E13_EnergieContractingProgramm.pdf (Amt der OÖ Landesregierung, 2013).

Projects between an investment sum of 50,000 to 500,000 Euro are eligible to apply. The maximum share of support for EPC is 20% and 13.5% for Supply Contracting projects. In addition, subsidies pay 50% of the costs (max. 1,000 Euros) for “preanalyses”. Contracting projects with longer payback periods receive higher subsidy rates than those with short payback periods. This system supports the implementation of comprehensive EPC projects with high energy saving rates. (ESV, 2013)

Maxium % of subsidies for EPC projects in the region Upper Austria		
Contract-duration in years	EPC (max. in %)	Supply-Contracting (max.in %)
2	8	5,5
3	9,5	6,5
4	11	7,5
5	12,5	8,5
6	14	9,5
7	15,5	10,5
8	17	11,5
9	18,5	12,5
10	20	13,5

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Assuming the liability for client's payments

For small ESCOs the client's risk of bankruptcy is a relevant obstacle for EPC. If a governmental body assumes the liability for the clients payments (investing part of the costs), small ESCOs will have better chances at getting a credit from a bank.

Public support for rough concept

The analyses of the building status and the rough concept of measures are a necessary part of EPC to tender. This requires more effort than a "normal" building contract or service contract. If the ESCO does not get the EPC contract, this work is often not paid by the client and causes high financial risks for the ESCO.

Subsidies for comprehensive EPC projects

If HVACR energy saving measures of a building are implemented first, it becomes more difficult to finance the outstanding measures regarding the building shell (longer payback period). To facilitate comprehensive energetic retrofitting subsidies for measures concerning the building shell EPC is necessary and should be extended.

Search engine for public subsidies

A search engine can facilitate the identification of possible and suitable subsidy schemes for EPC projects. A comprehensive overview of subsidies in the energy sector is provided by e.g. the search engine of the Austrian Energy Agency (AEA 2013) at <http://www.energyagency.at/fakten-service/foerderungen.html>.

A search engine for subsidies in the heat pump and geothermal sector is provided by the heat pump producer Ochsner (2013) at <http://www.energyagency.at/fakten-service/foerderungen.html>.

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<http://www.land->

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Definitions and glossary

Term	Definition
energy efficiency (EE)	means the ratio of output of performance, service, goods or energy, to input of energy (as defined by EED)
energy efficiency improvement	means increase in energy efficiency as a result of technological, behavioural and/or economic changes (as defined in EN 15900:2010)
energy management system	means a set of interrelated or interacting elements of a plan which sets an energy efficiency objective and a strategy to achieve that objective (as defined by EED)
energy savings	means an amount of saved energy determined by measuring and/or estimating consumption before and after implementation of an energy efficiency improvement measure, whilst ensuring normalisation for external conditions that affect energy consumption (as defined by EED)

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final energy consumption	energy	means all energy supplied to industry, transport, households, services and agriculture. It excludes deliveries to the energy transformation sector and the energy industries themselves (as defined by EED)
guarantee of efficiency improvement	energy	means commitment of the service provider to achieve a quantified energy efficiency improvement (as defined in EN 15900:2010)
energy performance contracting (EPC)	performance	means a contractual arrangement between the beneficiary and the provider of an energy efficiency improvement measure, verified and monitored during the whole term of the contract, where investments (work, supply or service) in that measure are paid for in relation to a contractually agreed level of energy efficiency improvement or other agreed energy performance criterion, such as financial savings (as defined by EED)
EPC provider		means a natural or legal person who delivers energy services in the form of Energy Performance Contracting (EPC) in a final customer's facility or premises
energy provider service (ESCO)	service /energy company	means a natural or legal person who delivers energy services or other energy efficiency improvement measures in a final customer's facility or premises (as defined by EED)
energy service (ES)		the physical benefit, utility or good derived from a combination of energy with energy-efficient technology or with action, which may include the operations, maintenance and control necessary to deliver the service, which is delivered on the basis of a contract and in normal circumstances has proven to result in verifiable and measurable or estimable energy efficiency improvement or primary energy savings (as defined by EED)