



# IMPLEMENTATION OF THE QUALITEE BUSINESS MODEL

Belgium



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## QualitEE Project

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## CONTENTS

<b>1</b>	<b>THE CASE OF BELGIUM</b>	<b>4</b>
1.1	Context and approach	4
1.2	Certification process in Belgium	4
1.2.1	<i>Quality of EES.</i>	4
1.2.2	<i>Quality criteria for the Belgian EES market</i>	4
1.2.3	<i>Certification process</i>	6
<b>2</b>	<b>IMPLEMENTATION STRATEGY</b>	<b>10</b>

# 1 THE CASE OF BELGIUM

## 1.1 Context and approach

This report provides a proposal for a potential quality assurance system of Energy Efficiency Services (EES) in Belgium. It is based on market information that was obtained from 3 sources:

- A survey which was conducted by Factor4 in 2018 in the Belgian ESCO arena with support from BELESCO<sup>1</sup> the Belgian ESCO association;
- Meetings with the National Promotion Team (NPT), hosted by Factor4 in the course of the QualitEE project;
- Dialogue with the Belgian Construction Certification Association (BCCA). BCCA<sup>2</sup> is a private agency that was founded in 1992 by SECO (Technical Control Bureau for Construction) and BBRI (Belgian Building Research Institute) as a certification body for the construction sector. BCCA was established to implement quality in the construction sector.

Given the fact that the Belgian energy efficiency market is relatively small, and also taking into account that Belgium is a federal country where part of the energy and climate policy domains have been transferred to the regions (Wallonia, Brussels, Flanders), it was deemed relevant to investigate the possibilities of **one certification scheme covering the entire Belgian market**. Therefore, during the research, it was strived to have **national stakeholders** on board.

We would like to thank all persons that have contributed in this fruitful exercise, by providing suggestions and feedback, notably during the NPT-meetings: representatives from BELESCO, BCCA, Belfius Bank, VEB, and also Mr. B. Ardaen.

The outcome of this exercise is described in §1.2.

## 1.2 Certification process in Belgium

### 1.2.1 Quality of EES.

Generally speaking, a certification system depends on the existence of a common understanding of 'quality'. In other words, one can only embark on a certification activity once standards have been agreed upon that define 'quality'. Within the QualitEE project, European quality criteria have been developed for EES. The quality criteria have been defined with particular focus on "Energy Performance Contracting" (EPC) and "Energy Supply Contracting" (ESC).

### 1.2.2 Quality criteria for the Belgian EES market

In order to assess whether the European quality criteria would be fit-for-purpose on the Belgian EES market, several actions were undertaken:

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<sup>1</sup> [www.belesco.be](http://www.belesco.be)

<sup>2</sup> [www.bcca.be](http://www.bcca.be)

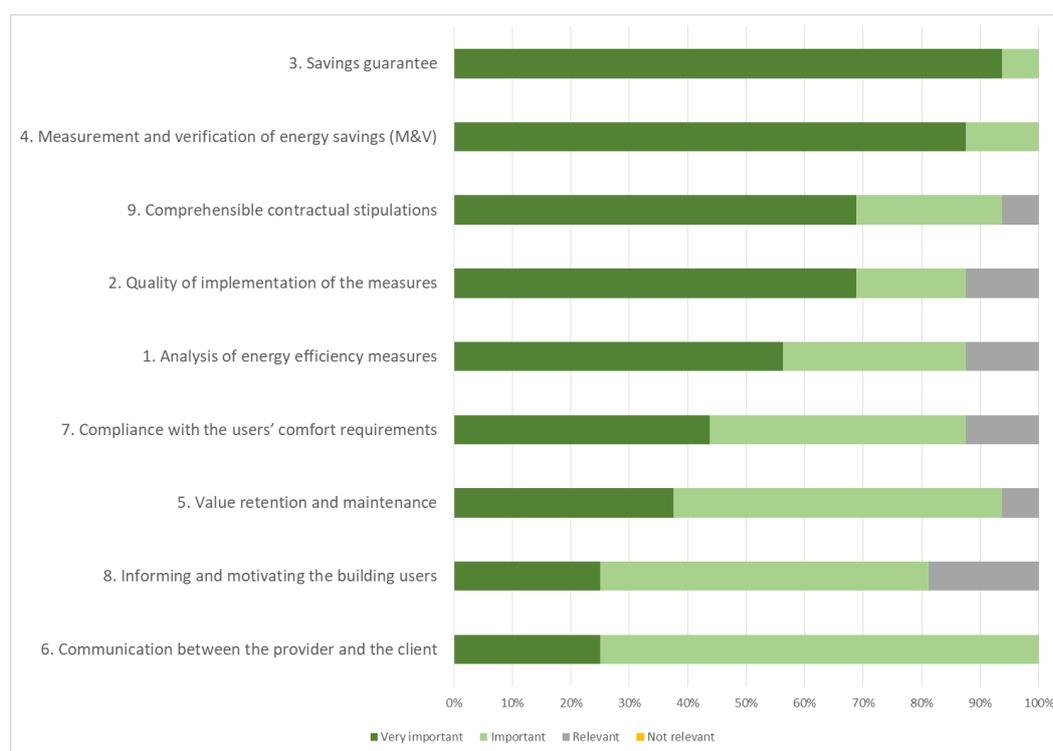
- Factor4 launched a **survey<sup>3</sup> within the Belgian ESCO arena** in order to listen to the stakeholders that are active in the EES market (2018).
- Two recent EES projects were used for testing the set of European quality criteria.
  - EPC project for the City of Sint-Niklaas: pool of municipal buildings
  - ESC project for the University of Brussels (VUB): campus heating system
 We refer to these 2 projects further in the text by '**pilot projects**'.
- Discussions within the **NPT-team**.

<b>QC 1</b>	<b>Adequate analysis</b>
AC 1-1	Agreement on the process of energy analysis pursuant to EN 16247-1
AC 1-2	Adequate data collection and analysis
AC 1-3	Adequacy of the derivation of recommended energy efficiency improvement (EEI) measures
<b>QC 2</b>	<b>Quality of implementation of technical energy efficiency improvement measures</b>
AC 2-1	Performance of services in accordance with applicable standards, statutes and official permits
AC 2-2	On-schedule delivery
AC 2-3	Commissioning of services and documentation of services rendered
AC 2-4	Induction of users or operating personnel
AC 2-5	Ensuring the functionality of newly installed facilities after the end of the Contract
<b>QC 3</b>	<b>Savings guarantee</b>
AC 3-1	Dependency of remuneration on adherence with the savings guarantee
AC 3-2	Guaranteed savings achieved (only applicable to saving guarantee type 1)
AC 3-3	Adequate intervals for the verification of compliance with guarantee promise
<b>QC 4</b>	<b>Verification of energy savings</b>
AC 4-1	Application of a standardized method for the calculation of energy-savings
AC 4-2	Selection of the most appropriate approach to the verification of energy savings
AC 4-3	Clear definition of the baseline (reference consumption)
AC 4-4	Clear definition of the basis of adjustment of the energy savings calculation
AC 4-5	Transparency and agreement of M&V processes and related responsibilities

Based on the outcome of the aforementioned survey, it appeared that **the importance of each quality criterion** was not deemed equally important for the Belgian EES market. This is reflected in the following figure, which provides a ranking of the perceived importance.

<sup>3</sup> As agreed with EASME, this survey replaces the National Discussion Platform.

Figure 1: Ranking of the 9 QCs, based on the deemed importance in the Belgian EES market.



A trend which we observe on the Belgian EPC market, is that **QC5 (value retention and maintenance)**, is being integrated in EPC contracts in a way that goes beyond the current assessment criteria. Indeed, in order to make sure that a well performing ESCO is financially rewarded for its maintenance efforts **on an objective basis**, a rating system was developed to monetize the maintenance status, based on the NEN2767 standard.

**In conclusion**, at the time of writing this report, it is not deemed required to deviate for the Belgian market from the generic quality criteria (QC) which were identified at European level. The same applies to the corresponding assessment criteria (AC). At a later stage, e.g. during the future establishment and operation of a certification scheme in Belgium, it might be useful to re-assess the current conclusions.

### 1.2.3 Certification process

#### Survey within the Belgian ESCO arena

In order to avoid imposing a certification system to the Belgian market that would not be fit for purpose, Factor4 launched in 2018 a survey<sup>4</sup> within the Belgian ESCO arena in order to listen to the stakeholders that are active in the EES market. We received 19 responses. The main outcomes of the survey is presented underneath:

*'Do you think that some kind of Quality Assurance (QA) would bring added value to the Belgian market of performance-based energy services (e.g. EPC, ESC)'*

- 63% -> yes
- 37% -> no

<sup>4</sup> As agreed with EASME, this survey replaces the National Discussion Platform.

- 0% -> maybe

Hence, the majority of the participants recognized the added value of QA.

***'What kind of QA approach would you prefer?'***

- 68% -> certification by a third party
- 32% -> self-declaration

The majority of the participants were clearly in favour of a formal and thorough certification, implemented by a third party.

***'At which level should the QA approach be applied?'***

- 37% -> at service provider level
- 5% -> at project level
- 58% -> hybrid approach = a combination of certification both at project AND at service provider level

The majority of the participants preferred the hybrid approach, whereby the EES provider is audited, as well as (a selection of) his projects. When setting up the survey, we had decided to keep the survey quick and dirty, in order to maximize the response rate. Hence, we did not go into detail by specifying what the hybrid approach might look like. This could be a topic for further research. Interestingly, the outcome of the survey in Belgium is clearly different from the approach which is adopted in Austria by DECA, the first country where a QA system is implemented, and where precisely QA at project level is chosen.

***'Who should manage this QA system?' (multiple choice question)***

- 58% -> a private certification body, e.g. BCCA/SECO, SGS, Bureau Veritas, ...
- 37% -> a private branch organization, e.g. BELESCO (Belgian ESCO association)
- 32% -> a governmental organization (regional, federal)

The preferred option is a private certification body. With this choice, the Belgian participants clearly differentiate themselves from EES stakeholders in other EU countries, most of which prefer a QA system that is embedded in the government.

***'What is the maximum extra fee that a QA system may cost?'***

- 42% -> 0.5-1.0% of the contract volume
- 21% -> a lump sum of €2000
- 11% -> a lump sum of €1000

The preferred option is a private certification body. With this choice, the Belgian participants clearly differentiate themselves from EES stakeholders in other EU countries, most of which prefer a QA system that is embedded in the government.

So, the **main survey findings** were:

- Quality Assurance may bring added value to the EES market
- Certification by a 3<sup>rd</sup> party is preferred over self-declaration
- A ‘hybrid’ certification approach is preferred, meaning a combination of a certification at service provider level *and* at project level.
- The certification scheme should be managed by a private certification body (alternatively a private branch organization)
- The certification fee should not exceed 0.5-1.0% of the ‘contract volume’

One important caveat was formulated during the NPT meetings: the hybrid certification approach should not restrict new ESCOs from entering the EPC market. In other words, the certification approach should not favour incumbent players.

During a meeting with the BELESCO board members, the expectation was expressed that the certification system would be sufficiently strong to enable to make a clear distinction between well performing/trustworthy ESCOs and others. Only under these conditions, the ESCOs would be willing to invest in being certified, as this would ultimately become a clear commercial differentiator on the EES market.

### Certification principles

Taking into account the survey outcome, as well the suggestions made during the NPT-meetings, we were able to depict the following **main traits of a potential certification approach that seemed to match the Belgian EES market**:

1. A **hybrid certification approach**, consisting in 2 complementary levels of certification:
  - audit at the **level of an ESCO company**, followed by an
  - audit **at project level**
2. Certification by a **private certification body**
3. Certification by a certification body that is operational **at national Belgian level**. The audits would be conducted by independent professionals hired by the national certification body.

One of the NPT members, **the Belgian Construction Certification Association (BCCA)** matches the 2<sup>nd</sup> and the 3<sup>rd</sup> requirement and was willing to further investigate the certification approach as described in the 1<sup>st</sup> bullet, as well as the corresponding business case and its economic viability.

With respect to the **hybrid certification approach**, various combinations, audit frequencies and audit stages (*ex-ante*, *ex-post*) might be envisaged. A non-exhaustive list of options is provided underneath:

- a. One certification audit of the ESCO company, at a frequency to be defined (e.g. once a year), complemented by an audit of a **selection of past projects (*ex-post*)**. Both audits would take place at the same time. The selection projects would be made by the auditor.
- b. One certification audit of the ESCO company, at a frequency to be defined (e.g. once a year), complemented by an audit of one **specific project at the request of the ESCO (*ex-ante*)**. These 2 audits do not necessarily coincide.

- c. One certification audit of the ESCO company, at a frequency to be defined (e.g. once a year), complemented by an audit of **one specific project at the request of the ESCO (ex-post)**. These 2 audits do not necessarily coincide.

### Business case

BCCA's investigation of the business case of setting up an EES certification scheme in Belgium was based on the following estimates and assumptions:

- The certification scheme will be based on the principles of auditing **processes** rather than results.
- A hybrid certification approach will be adopted, which was described supra under (a.): One certification audit of the ESCO company, once a year, complemented by an audit of a selection of past projects (*ex-post*). These project audits take place at the same time of the ESCO audit. The selection of past projects is made by the auditor.
- The **cost for running an EES certification scheme**, based on the hybrid certification approach described above, **is estimated to be €50 000 per year**. This figure is estimated by BCCA based on similar certification schemes in Belgium which are currently managed by BCCA.
- The scheme is **voluntary**.
- **13 ESCOs** were active on the Belgian EES market in 2018 (cf. information from BELESCO).
- The majority of the ESCOs which are active on the Belgian market (let's assume 10), is commercially interested in being certified.
- The **certification frequency is once a year**.
- There is currently no indication that a certification system of EES would be subsidized by the federal nor the regional authorities. Hence, the scheme should be financially self-reliant.

A simplified calculation, based on these figures, shows that **each certification audit would have to cost approximately €5 000 in order to be viable**. If the number of ESCOs, which are interested in being certified, would increase in the future, the price per audit may decrease to a certain extent.

At operational level, BCCA stresses that a certification system managed by BCCA can only be successful if it is actively supported by relevant branch organizations. BCCA also strongly recommends that the certification audits are conducted by (subcontracted) professionals that are truly acquainted with the subject to be certified. In a small market this may sometimes represent an organizational bottleneck, as there is a risk of having a conflict of interest: the professionals involved in the certification process might at the same time be involved in actual energy efficiency projects. This risk is deemed manageable, however, by establishing appropriate procedures for allocating auditors.

## 2 IMPLEMENTATION STRATEGY

What could be the next steps now towards implementing a certification scheme of performance based EES in Belgium? That is the core question of this chapter.

It is clear that a certification system could bring added value, by providing trust in a market where the supply side is ready, but the demand side is not convinced, and hesitates to embark on e.g. EPC.

Also, a potential, well respected candidate for running the certification scheme has been identified (BCCA). However, the bottom line is that BCCA should have a viable business case. This can be achieved by meeting at the same time 2 requirements:

- Audit rates which cover BCCA's costs for running the scheme, *and* are affordable to the ESCOs,
- Sufficient ESCOs willing to be certified on a regular basis (e.g. yearly); the latter will depend on the market growth.

Also, from talks within the NPT team, it is understood, that BELESCO is willing to provide (non-financial) support to the creation and marketing of a quality assurance scheme for EES providers, to the extent that the scheme meets the requirements and constraints of its members.

Nevertheless, it is Factor4's current opinion that the market for EES has not yet reached sufficient maturity for setting up a certification scheme, meaning that the core challenge on the Belgian market is to increase the number of EPC-projects, rather than increasing the quality of the projects. Also, it should be taken into account that most EPC projects in Belgium are advised by professional EPC-facilitators, which already implies a certain degree of quality control.

The business case for setting up a quality assurance (QA) system of EES in Belgium might become more attractive if the system would be financially supported by the regional and/or federal governments. It is, however, deemed unlikely that a government that would consider to promote EES, would prefer to spend its promotion budget on supporting a QA scheme compared to promoting the EES market in a more direct way.