



## IMPLEMENTATION OF THE QUALITEE BUSINESS MODEL IN BULGARIA



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## QualitEE Project

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The QualitEE consortium comprises 12 partner organisations covering 18 European countries, an expert advisory board, including the European standards body CEN/CENELEC, and 59 supporters from major financial institutions, government bodies, trade associations and certification bodies.

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# 1 EXECUTIVE SUMMARY

Based on the analysis of the Bulgarian EES market, the available quality assurance (QA), stakeholders' interests and others, several solutions for actions to improve QA have been identified:

- Development of energy efficiency service (EES) model contracts considering the quality criteria
- Integration of quality criteria into the project template, through which clients specify their requirements to new projects
- A labelling scheme, based on EES provider self-declaration and subsequent client feedback

Due to obstacles, the last solution was replaced by the integration of the quality criteria into the EPC Code of Conduct.

Model contracts integrating some of the quality criteria have been developed and made available for energy performance contracting (EPC) projects in industry. The development of model contracts for the public sector is considered, provided that financing for that activity is secured.

Quality criteria were integrated in the "Project fiche to collect offers" – a questionnaire managed by the Alliance for Energy Efficiency (the national EES provider association) that clients use to express their interest and specify particular requirements to projects.

Finally, a Guidance on the national EES quality criteria will become an Annex to the Code of Conduct. Clients would be encouraged to include in their tender dossiers and contracts requirements to comply with that Annex – either fully or with specific parts of it.

## 2 THE CASE OF BULGARIA

### 2.1 National EES market and pre-existing quality assurance

In Bulgaria, the EES market is not well developed. There are about 10 operating EES providers, of which only 3-4 EPC providers. During the last years, there are 3–6 new EPC projects per year, typically small, as demonstrated in the Qualitee market surveys in 2017 and 2019. Most EESs are implemented in the public sector, but there is notable trend of increase of private sector clients.

Except for the European Code of Conduct for EPC, in 2018, there were no other quality assurance (QA) schemes. None of the following existed: requirements for companies to become EES provider; QA (certification, labelling, etc.) system for the service; QA system for the EES provider/facilitator; model contracts.

The European Code of Conduct for EPC<sup>1</sup> defines the basic values and principles that are considered fundamental for the successful preparation and implementation of EPC projects within European countries and serves as a harmonized European quality standard of EPC projects. In Bulgaria, the Code has been signed by almost all operating EES (especially EPC) providers and gaining popularity among all market actors, thanks to the promotion by SEDAA and the Alliance for Energy Efficiency.

### 2.2 Market needs and stakeholder interests

The national market needs and opportunities to establish QA of EES were studied within different Qualitee activities- EES market survey, National Promotion Team meetings, National Discussion Platform meetings, bilateral discussions with experts, feedback from training courses, etc. Some of the key conclusions were as follows:

- Improvement of EES quality is crucial for the market development, as the lack of client trust is the main barrier.
- Both EES providers and clients expressed interest in both the quality criteria (QC) and the QA scheme. Private financial institutions were generally not interested, as they have to follow their own project assessment procedures, while public financial institutions expressed moderate interest.
- EES QA scheme needs to be a very simple, not very demanding, and no-cost one (or low-cost one, as a last resort) in the beginning. In that way, it would easily become popular and considered by all market actors. Later, in parallel with the market development and the increasing need of some EES providers to differentiate their services from the competition, the QA could become more demanding, more complicated, and more expensive.

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<sup>1</sup> <https://www.euesco.org/european-code-of-conduct-for-epc/index.html>

<sup>2</sup> SEDAA is the Government agency responsible for energy efficiency, energy services, and renewable energy policy implantation, acting as a National Code Administrator.

- Introduction of mandatory requirements for EES providers and development of a list of eligible EES providers is not feasible at this stage of market development, because it may limit the supply of EES.
- Government cannot take a formal role in the administration of QA scheme, but would support all good initiatives through promotion and other relevant activities.
- The Alliance for Energy Efficiency – the national association of the EES providers – is very motivated to support the development, promotion, and administration of QA initiatives.

## 2.3 Quality assurance solutions

As a result of the discussions, the following particular QA solutions were identified for the country:

1. Development of EES model contract(s) for the private sector and complete tender dossier(s) for the public sector, considering the quality criteria.
2. Key quality criteria to be integrated in the “Project Fiche” template that clients fill-in to indicate their interest in EES projects (more details are available below in this chapter).
3. Introduction of a labelling scheme, based on a self-declaration of the EES provider, managed by the Alliance for Energy Efficiency (AEE). The idea was that the scheme is almost identical to the DECA Quality Label in Austria<sup>3</sup> but with several simplifications: (i) removal of less important sub-criteria; (ii) less frequent feedback by the EES provider and client; (iii) checks in case of disputes between client and EES provider to be made by AEE; (iv) initially the participation of EES providers to be free of charge for both AEE members and non-members.

While the above solutions 1. and 2. have progressed significantly, solution 3. faced criticism:

- ✔ Public sector clients, being the main EES client segment, cannot consider the label in any way. The label availability cannot be mentioned, neither in the selection criteria nor in the award criteria, because the EU and the national legislation do not allow a reference to a specific national scheme.
- ✔ A new European standard on EPC is initiated by CEN in 2019. It will probably include some of the quality criteria of QualitEE project. When that standard becomes operational (in 2021 or 2022) it would be difficult for a national label that provides a much lower level of QA to compete with it. An EU standard, unlike a national one, can be part of public procurement selection and award criteria.

As a result, the implementation of the labeling scheme was abandoned, at least within QualitEE project duration. Instead, an alternative solution was identified and welcomed by all stakeholders:

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<sup>3</sup> <https://www.deca.at/>

1. The technical quality criteria and possibly the financial quality criteria to become Annexes to the EPC Code of Conduct in Bulgaria, so that the basic (quality) values and principles in the Code and complemented by a detailed guidance how they can be implemented and checked in practice. Clients and EES providers to be encouraged to refer to the respective Annex (or to a part of it) in the EES tender dossier / contract.

The implementation of solutions 1, 2, and 4, described above, has either been completed or progressed. Each individual solution is described separately in the next sections.

## 2.4 EES model contracts

Using grant financing from the EU Structural and Investment Funds, SEDA (Government authority, member of QualitEE National promotion team) assigned to a consortium the development of several documents to facilitate EPC in the industrial sector:

-  EPC guaranteed savings contract (for industry clients)
-  EPC shared savings contract (for industry clients)
-  EPC – a sample contract (for industry clients)
-  Annex 1: Methodology for the savings calculation
-  Annex 2: Template for the description and quantification of engineering activities
-  Annex 3: Financial plan
-  A guidance for the development of energy performance contracts

Both SEDA and the consortium members welcomed the collaboration with QualitEE on the inclusion of quality criteria. During the discussions with consortium members, the technical and financial quality criteria were presented and opportunities to consider them in the contracts were discussed.

The following quality criteria (QC) were included in the contracts:

-  QC1 Adequate analysis.
-  QC2 Quality of implementation of technical energy efficiency improvement measures
-  QC3 Savings guarantee
-  QC4 Verification of energy savings
-  QC5 Value retention and maintenance
-  QC6 Communication between the contractor and the client
-  QC9 Comprehensible contractual stipulations for the contracting of specific regulatory requirements

QC7 and QC8, related respectively to users' comfort and information/motivation of users, were not considered, because they are either not or little relevant in industrial projects.

The model contracts were developed in the 1st half of 2019 and are available at SEDA website at the following address: <https://www.seea.government.bg/bg/dogovori-s-garantiran-rezultat>

*Table 1 - Main features for EES model contracts*

<b>Principal action</b>	Quality assurance through the use of a model contract
<b>Country</b>	Bulgaria
<b>Type</b>	Voluntary
<b>Target user</b>	Industry clients, EES providers
<b>Authority</b>	N/A
<b>Phases</b>	N/A
<b>Stakeholders</b>	EES Provider. Government (through public support) Facilitators. EES Clients
<b>Support measures/ dissemination</b>	Website, national events
<b>Year of implementation</b>	2019
<b>Costs</b>	N/A

QualitEE team made an attempt to initiate the development of a model tender dossier for EPC projects in the public sector, building on the results of previous attempts to develop such dossiers. Although the idea was welcomed, its practical implementation appeared to be difficult and costly and none of the approached public and private stakeholders was interested to undertake it, unless financial support is available.

## 2.5 Quality criteria integration in “Project fiche” template

The Alliance for Energy Efficiency (AEE) – the association of the EES providers in Bulgaria – decided to act as market for EES projects (a project hub). Potential clients fill-in a so called “Project fiche to collect offers” – a questionnaire accessible through AEE website<sup>4</sup> that clients use to express their interest in projects. The questionnaire is received by AEE members. Each interested EES provider then directly approaches the client to collect additional data and to send an offer.

There are 3 questionnaires – for buildings, industrial systems, and street lighting. Each contains information about the project, such as type of energy service required, desired energy efficiency measures, current fuel, type and key characteristics of the site, energy audit report. The last part of the questionnaire, developed within QualitEE, concerns the quality requirements of the clients, namely:

1. The EES provider has signed the European EPC Code of Conduct;
2. The project is based on an energy audit or another evaluation methodology according to the national legislation;
3. The EES provider explains the difference between the baseline and the actual energy consumption and its effect on the project cash flows;
4. The EES provider offers and coordinates a plan for M&V according to IPMVP, ISO 50015:2014, or another methodology complying with the Bulgarian legislation;
5. The EES provider to clarify and coordinate the obligations related to the operation and maintenance of the equipment, as well as to provide the necessary training.

Only EES providers that (commit to) comply with all criteria specified by the client are expected to approach the client with an offer, as the client would most likely disregard the non-compliant providers. Criteria 1 and 3 can be checked / implemented during the first contact with the client, while criteria 4 and 5 need to be included as requirements in the EES contract. There are different options for the check / implementation of Criterion 2, depending on the party (client or EES provider) responsible to arrange the audit.

Навигатор към осигуряване на качествени енергийно-ефективни услуги

Изберете кои практики желаете да бъдат следвани от страна на доставчиците на енергийно-ефективни услуги

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Разработен съвместно с




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Доставчикът да припознава Европейския професионален кодекс за Договори с гарантиран резултат (ЕСКО) \*

Списъкът е наличен на страницата на Агенцията за Устойчиво Енергийно Развитие (АУЕР): <https://www.seea.government.bg/bg/dogovori-s-garantiran-rezultat>

Избор

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Доставчикът да реализира проекта на база енергийно обследване или методика за оценка, изготвени съгласно българското законодателството \*

Отговор "Да" води до възможност за търгуване с удостоверения с енергийни спестявания (УЕС)

Избор

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Доставчикът да разясни и съгласува разликата между нормализирана и реална икономия на енергия, респ. отраженията върху паричния поток от постигнатите икономии \*

Отговор "Да" води до възможност за пресмятане на реален паричен поток при клиента

Избор

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Доставчикът да предложи и съгласува план за мониторинг и верификация, съгласно IPMVP, ISO 50015:2014 или друг в съответствие с българското законодателство \*

Отговор "Да" води до възможност за бързи коригиращи действия за постигане на преадиридените икономии, както и до възможност за съдействие от страна на трети страни като Алианс за Енергийна Ефективност (АЕЕ)

Избор

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Доставчикът да разясни и съгласува ангажиментите за експлоатация и поддръжка на съоръженията, както и да осигури необходимо обучение \*

<sup>4</sup> [http://www.alliance-ee.bg/?page\\_id=484](http://www.alliance-ee.bg/?page_id=484)

The “project fiche” initiative became operational in mid-2019. At the moment it serves mainly to establish the first contact between the client and EES provider. A potential next step is to track the signed contracts and obtain feedback from clients.

*Table 2 - Main features of QA through a Project Fiche*

<b>Principal action</b>	Quality assurance through inclusion of criteria into a “Project fiche”
<b>Country</b>	Bulgaria
<b>Type</b>	Voluntary
<b>Target user</b>	Clients
<b>Authority</b>	Alliance for Energy Efficiency
<b>Phases</b>	Key criteria identified and specified in the project fiche Clients specify which criteria they would require from the EES provider First contact with the EES provider: check of some criteria; Contract stage: Inclusion of other criteria in the contract.
<b>Stakeholders</b>	EES Provider. Facilitators. EES Clients
<b>Support measures/ dissemination</b>	Website, national events
<b>Year of implementation</b>	2019
<b>Costs</b>	N/A

## 2.6 Annexes to the EPC Code of Conduct

Given the popularity of the EPC Code of Conduct in Bulgaria, it was decided that a good way to provide additional guidance and requirements to projects is to enrich the Code with Annexes, each dedicated to a specific topic – technical quality, financial aspects, etc. This change concerns only Bulgaria.

All Code signatories will be encouraged to consider not only the Code, but also its annexes. Additionally, clients would be encouraged to specify in the tender dossier and the contract these additional requirements, e.g. “The project shall follow the requirements of the European EPC Code of Conduct and its Annex 2”. Alternatively, clients may reference only to a part of the quality criteria.

AEE committed to implement that initiative. Currently a procedure to change the National Code Administrator is under way - the existing one is SEDA and the new one would be AEE. Next step is AEE to develop the final version of the national quality criteria to be included in the Annex. A draft version of the national technical quality criteria guidance is currently available at QualitEE website<sup>5</sup>

The current version contains 9 criteria:

-  **QC1 Availability of an energy audit**, implemented according to the requirements of the Bulgarian legislation.

<sup>5</sup> [https://qualitee.eu/bg/wp-content/uploads/sites/15/QualitEE\\_D3.5\\_National-technical-guidelines\\_BG\\_20200313\\_BSERC.pdf](https://qualitee.eu/bg/wp-content/uploads/sites/15/QualitEE_D3.5_National-technical-guidelines_BG_20200313_BSERC.pdf)

-  **QC2 Quality of implementation of technical energy efficiency improvement measures:** In many cases, the rendering of an EES is connected with the implementation of technical measures. A broad spectrum of quality standards can be met in practice while rendering services in this respect. QC2, therefore, stipulates a range of quality standards that must be complied with when implementing technical measures. In the process, compliance with such standards that regulate the implementation of technical measures is of paramount importance. Moreover, it must be ensured that the operator of the facility will be in a position to operate the newly installed facilities after the end of the project.
-  **QC3 Savings guarantee:** some EES come with the promise that savings of a specific size will be realized. Such promises – routinely known as savings guarantee – must meet specific requirements for them to truly be beneficial to the client.
-  **QC4 Verification of energy savings:** The identification and/or implementation of energy savings is at the center of EES. For this reason, the quality of an EES is also determined by the way that energy savings are verified. Energy savings cannot be measured directly but are always calculated. In simple terms, three approaches are differentiated:
  -  Verification based on measured energy consumption: even in places where measurement equipment is available for the purpose of recording energy consumption, energy saving is determined through the comparison of the current value with a reference consumption (frequently called a “baseline”). At the same time, factors impacting energy consumption that are not caused by EES must be “filtered out” (often referred to as an “adjustment process” e.g. for the impact of variations in weather conditions);
  -  Engineering calculation of energy-savings: usage of complex methods of calculation and simulation largely based on standards;
  -  Expert estimation: derivation from savings realized from similar and comparable cases.
-  **QC5 Value retention and maintenance:** some EES also cover services relating to the maintenance and repairs of newly installed or existing facilities. Quality of these services has a direct influence on the availability of the (energy) system and retention of its value. As these factors ensure desired benefits and long-term sustainability of projects beyond the contract duration, they also influence the overall quality of the EES.
-  **QC6 Communication between the contractor and the client:** In addition to technical quality, the type and scope of communication between the EES provider and the client contributes to the quality of EES. EES providers assume only partial responsibilities from existing operating personnel. To avoid problems in the implementation of the EES the interfaces between contractual parties must be effectively managed through continuous and well-defined communication.
-  **QC7 Maintenance of users’ comfort:** The execution of EES shall not lead to any impediment on the comfort of the user. In this context, users’ comfort requirements can be assessed either through physical parameters (temperature, air quality, luminous intensity, etc.) or captured by collecting feedback via a comfort survey tool.
-  **QC 8 Information and motivation of users:** Since in most cases, users have a considerable impact on the energy consumption of an object and thus, also influence the success of EES, selected EES approaches entail actions for the information and motivation of users.
-  Taking into account the heterogeneity of user-information activities, QC 8 contains just a “minimum package”. In real EES projects, however, it may be advisable to extend user-information activities beyond the minimum requirements as included in QC 8.

-  **QC9 Comprehensible contractual stipulations for the contracting of specific regulatory requirements:** several years of experience in contracting projects, have shown that their quality is not just of a technical and communicative nature but that the shaping of the Contract also contributes decisively to the quality of a project. The Contract must contain regulations for individual issues such as ownership transfer, handling of energy price risk, insurance or exit regulations, that will repeatedly lead to problems in practice, if they were not regulated.

Only Criterion 1 was changed substantially, due to a specific requirement in the Bulgarian legislation, prohibiting the EES provider from carrying out the energy audit of the same project site - building, industrial system, lighting. Except for Criterion 1, the texts in the current version of the National Guidance are almost identical to the ones in the European guidance, but will most likely be changed in the next versions of the national guidelines.

*Table 3 - Main features of QA through EPC Code of Conduct Annex*

<b>Principal action</b>	Quality assurance through inclusion of criteria into an annex to the EPC Code of Conduct
<b>Country</b>	Bulgaria
<b>Type</b>	Voluntary
<b>Target user</b>	Mainly clients and facilitators, also EES providers
<b>Authority</b>	Alliance for Energy Efficiency
<b>Phases</b>	Administrator develops the criteria that become part of the Annex Clients / facilitators decide compliance with which criteria is required Reference to the criteria (or the whole Annex) is made in the contract
<b>Stakeholders</b>	EES Provider. Facilitators. EES Clients
<b>Support measures/ dissemination</b>	Website, national events
<b>Year of implementation</b>	2020
<b>Costs</b>	N/A

## 3 IMPLEMENTATION STRATEGY

The EES model contracts for the industry sector are completed. Model contracts for the public sector will be elaborated once (public) financial support is available.

The integration of quality criteria into the “Project Fiche” is completed. The list of criteria would be continuously updated by AEE to respond to the new market needs. It is still not decided whether the scheme would evolve in the future to include project monitoring and client’s feedback.

The development of Annexes to the EPC Code of Conduct in Bulgaria is at an early stage. It is expected that it would be completed in the 2nd half of 2020, as the transfer of the Code administration to AEE (already agreed with SEDA) is a pre-requisite.

## 4 MARKETING STRATEGY

### 4.1 Target groups

The target groups for the communication strategy in Bulgaria are mainly:

-  ESCOs
-  Clients
-  Facilitators.

### 4.2 Communication

Within QualitEE, extensive communication with the target groups has taken place – organization of 4 events, presentations at 32 additional events (training seminars and info days), 13 press releases and articles, and QualitEE website.

Additional communication (website, newsletters, events) is carried out by SEDA (the developer of the model contract) and AEE (the administrator of the project fiche and coming administrator of the EPC Code of Conduct). These two organizations would carry out regular promotion in the future.

## 5 ECONOMIC PLAN

None of the QA initiatives in Bulgaria includes financial transactions.

## 6 CONTINGENCY PLAN

No potential risks related to the QA initiatives have been identified.