IMPLEMENTATION OF THE QUALITEE BUSINESS MODEL IN SLOVENIA

This project receives funding from the European Union's Horizon 2020 research and innovation programme.

QualitEE Project

This document has been developed as part of the project titled "QualitEE – Quality Certification Frameworks for the Energy Efficiency Services" supported by the EU's Horizon 2020 programme.

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.

Document type

Public

Date

March 2020

Author

Damir Staničić

Jožef Stefan Institute, Energy Efficiency Centre

Slovenia

https://ceu.ijs.si/

Disclaimer

The QualitEE project receives funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 754017. The sole responsibility for the content of this document lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither the EASME nor the European Commission are responsible for any use that may be made of the information contained therein.

Contents

1 EXECUTIVE SUMMARY

In order to fulfil provisions of the Article 16 of Energy Efficiency Directive regarding availability of qualification, accreditation and certification scheme, the Ministry of Infrastructure registered energy efficiency (EE) service providers with the record of realised energy performance contracting (EPC) projects[1] with guaranteed energy savings. The list of registered EE service providers is informative and aims to improve the availability of information on EPC providers to interested customers.

Aiming to upgrade technical competence, objectivity and reliability of EE services, a proposal for future national quality assurance (QA) scheme has been designed in the framework of the QualitEE project and in cooperation with the Ministry of Infrastructure, national promotion team (NPT) members and throughout national discussion platform (NDP) events. The proposed QA scheme is based on three key elements:

- mandatory quality criteria incorporated in standardised model service contracts and tendering documentation of the national EPC/ESC financing schemes,
- national, free of charge QA training programme for EE service providers and EE projects facilitators, and
- provision of information on EE projects quality criteria and assurance, EE services quality and QA scheme.

The quality criteria to be introduced by the national QA scheme build on fully transposition of the European quality criteria and some specific national criteria, such as availability of energy management system, project facilitation and allocation of performance risks (design, implementation and operation risks).

The QA scheme implementation business model developed is reported herein:

- clarification of scheme economic and market rational is given,
- scheme activities, implementation phases and risks are elaborated,
- management, manpower structure, time-framework, costs, financing and marketing strategy aspects are assessed.

[1] https://www.energetika-portal.si/podrocja/energetika/energetska-prenova-javnih-stavb/esco-ponudniki/

2 INTRODUCTION

The objective of this report is to compile evidence to inform the development of national quality criteria and the implementation of QA schemes for EE services. This report has been developed as part of the "QualitEE – Quality Certification Frameworks for Energy Efficiency Services" project supported by the EU's Horizon 2020 programme. The QualitEE project aims to increase investment in EE services and improve trust in EE service providers.

This report aims to cover the practical implementation of the business model selected for Slovenia. A business model is the core for the growth of business. It can be defined as "the rationale of how an organization creates, delivers, and captures value, in economic, social, cultural or other contexts. The process of business-model construction forms a part of business strategy"[2].

It describes the basic idea of QA for EE services in general, the idea of the national scheme and some facts about the development and implementation process of the national scheme (background).

[2] Osterwalder, Pigneur, Smith, et al.: "Business Model Generation" (2010)

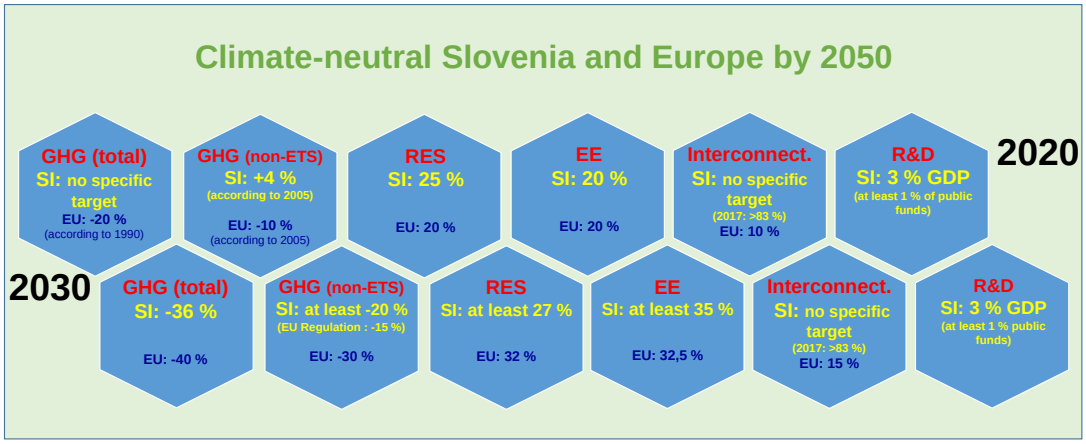
3 THE CASE OF SLOVENIA

3.1 Description

3.1.1 Energy efficiency policy and goals

The Government of Slovenia laid down its energy policy objectives and main priorities for the development of energy system in its Resolution on the National Energy Programme (adopted in June 2004) and with the Energy Act (latest revision from October 2019). The Energy Act provides a legal basis for the adoption of national strategic documents that will determine the long-term trend in energy supply and use. Unfortunately, since 2010 Slovenia was unable to find the national consensus and adopt new National Energy Strategy. The latest attempt failed in 2018 when the National Energy Concept was not adopted. National Energy Concept was strongly debated but there was no real agreement on a final framework. However, it is promising that despite the fact that the National Energy Concept was not adopted, national policy follows the recommendations and requirements from the "Clean Energy for all Europeans" Package. By the end of February 2020, Slovenian Government adopted country's first National Energy and Climate Plan (NECP). In the context of NECP, the main goal of Slovenian national energy policy is to ensure secure, sustainable and competitive energy supply. On the policy level, energy efficiency (EE) is perceived as the most important instrument for the future sustainable growth. The new Slovenian NECP has been recognized as the first step towards establishing a solid base for further development of the national economy in the framework of its transformation towards low-carbon society and reaching goals of 2050. In order to avoid possible future problems, government has to develop comprehensive follow-up plan to improve and accelerate activities for implementation of the proposed measures and projects. NECP is foreseeing support and promotion of investments in new climate neutral technologies, renewable energy sources (RES), EE and comprehensive improvement of electricity distribution network. Overview of key energy and climate policy goals of EU and Slovenia for 2020 and 2030 are given in figure below.

Figure 1 - Key energy and climate policy goals of Slovenia for 2020 and 2030 (NECP)



The key objectives for the 2030 identified in the NECP are:

- reducing the total greenhouse gas (GHG) emissions by 36%
- at least a 35% improvement in EE, which is higher than the target adopted at EU level (32.5%)

- at least a 27% share of RES; due to the relevant domestic circumstances, Slovenia had to agree to a lower target than that of the EU (32%), but will strive to increase this ambition in the next NECN update (2023/2024), and last but not least
- 3% of GDP to be spent on R&D, of which 1% of GDP will be public funds

Regarding share of RES in the final energy consumption Slovenia is facing many challenges. Due to high share of transport in the final energy consumption it is more difficult for Slovenia to proceed at the same pace as the other countries. This means that in order to reach higher overall share of RES in final energy consumption, significant increase of RES share in other sectors, electricity production and heating, is required.

3.1.2 Energy efficiency services market

For the implementation of NECP measures, the estimated total investments for the period 2021-2030 are almost EUR 22 billion, of which the total amount of incentives needed to achieve the EE and RES goals is almost EUR 2.5 billion over the period 2021-2030, i.e. between EUR 200 and 250 million each year for all sectors. Taking into consideration huge investment needs for buildings renovation, the investment volume needs assessed in the Long-Term Strategy for Mobilising Investments in the Energy Renovation of Buildings amounts EUR 400 million per year, it is planned to further extensively increase the scale of buildings deep energy renovation investments and efficient energy supply via EPC and energy supply contracting (ESC) performed by EE service providers/ESCOs.

The Slovenian ESCO market kicked-off in 2001 with the first energy supply contracting (ESC) project, and was growing slowly, with EPC projects entering the market in 2007. In 2016 the EPC market started to grow significantly with introduction of the national EPC scheme in the public sector, reaching volume of investments EUR 50 million in 2019. The key driving factor is the public sector demand generated through tenders that are in the pipeline, topped with a large financing programme, underpinned by supportive legal framework, standard documents and guidelines, and awareness raising activities.

As per 2020, the EPC and ESC market is considered moderately developed and has space for further growth. There are 6 national registered ESCOs in Slovenia. In spite of the EPC market demand growth, the size of ESCO supply side of the market is below expectations and competition is not very vivid. Beside the national register of ESCOs with the EPC record of projects, there is no quality QA in place for EE services. An ESCO association has not been established yet.

The EPC and ESC market QualitEE survey for Slovenia offers compelling evidence that a QA scheme would lead to increased customer trust and quality of projects, which is expected in turn to lead to higher savings and reduce transaction costs and time needed for projects implementation. Lack of trust in the ESCO industry, complex book-keeping rules and administrative barriers in public sector were identified as the top barriers for business in the sector. This indicates that growing market is becoming increasingly sceptical about the quality of EE services offered for considerable high number of projects by very limited number of national providers, and that implementing transactions costs are still high and additional information is needed. When asked about EE services quality, respondents particularly emphasised the importance of investment grade energy audit, whilst also highly ranking measurement and verification. The strong emphasis was on technical and economic analysis as the main area for quality improvement, alongside measurement and verification. The survey also strongly identified that the Government / public institutions should play key role in the QA scheme to ensure its credibility.

3.1.3 Quality assurance scheme design

The QA scheme business case was therefore prepared following three basic principles:

(i) QA scheme should improve trust in EE services and client satisfaction through standardisation of EE services quality by:
   a. introducing assessment criteria covering whole value chain i.e. service development, implementation, savings guarantee, performance measurement and verification, energy management, operations and maintenance, communication, environmental conditions, behaviour change, and contractual terms
   b. ensuring competence training programmes to EE services providers and facilitators, and make publicly available information on the QA scheme

(ii) QA administrative and procedural activities should be part of existing national ESC/EPC programmes and QA criteria included in related public procurement and financing.

(iii) QA scheme should contribute to the further development of the EE services market enabling EE service providers voluntary entrances and not imposing on them any additional cost hindering market growth.

3.2 Phases of quality assurance scheme procurement

The QA scheme is going to be implemented in two phases:

- 1st PHASE. In the first phase of QA scheme procurement:
  - The Ministry of Infrastructure will nominate a body responsible for developing and implementing the QA scheme, the Public Buildings Energy Renovation Project Office (PO). The PO will define a QA scheme implementation plan. The plan will define objectives, roles and responsibilities, coordinate with EE/EPC/ESC public programmes, and define tasks and the schedule.
  - The PO will prepare QA technical guidelines for quality criteria and their assessment, to be approved by the Ministry for Infrastructure. The mandatory quality criteria will be incorporated in EE/EPC/ESC recommended standard service contracts and public tendering procedures. The EE/EPC/ESC public projects QA check will be performed in a standardized manner throughout procurement, implementation and operation phases, so ex-ante and ex-post results will become qualitative assessments.
  - The PO will design a QA training programme for EE services providers and facilitators comprising training curricula and tutorials. The QA trainings are going to be performed at least twice per year during the first two years of the QA scheme implementation.
  - The Ministry for Infrastructure will keep the register of qualified EE/EPC/ESC services providers and trained facilitators with log of qualified EE projects. The QA qualified EE/EPC/ESC services applicant determinations will be made based on applicant's expertise, experience, qualification and capacity approved by the public projects QA check and QA trainings qualification.
  - The Ministry for Infrastructure will make publicly available and promote the QA scheme, and to provide information on the quality of the EE services and projects.
- 2nd PHASE. In the second phase of QA scheme procurement the Ministry of Infrastructure will assess the EE services market developments in terms of quality assurance and evaluate the QA scheme implementation, functionality and adequacy related to the market needs and its feed-back. Based on this analysis the Ministry of Infrastructure will decide if the self-regulatory EE services providers qualification framework should be redesigned and legal framework set in the Energy Efficiency Act, for the purpose of ensuring quality of EE services provided to clients.

3.2.1 Quality assessment criteria and compliance

The QA scheme quality assessment criteria and related guidelines will be based on the European technical quality criteria for EE services developed by the QualitEE project[3]. It is foreseen to transfer all elaborated European technical quality criteria to the QA Scheme Guidelines of Technical Quality Criteria for Energy Efficiency Services. However, some adjustments reflecting national implementation framework for EE services are performed. Gained feedback on the EU criteria from Slovenian EPC pilot projects and discussions with the QualitEE national promotion team and discussion platform members showed that there is a need to introduce additional quality criteria related to the performance risks (design risks, implementation risks and risks related to the operation of installed measures to be taken over by service provider), project facilitation steering quality procurement and implementation of the EPC project, and introduction of energy management system.

This comprehensive set of technical, economic, communicational, and other criteria will be applied on EE services assessed, with special focus on EPC and ESC, in order to ensure minimum quality requirements which all services must comply with to be labelled as high-quality services. These criteria are:

- QC1 Adequate analysis. The analysis of an energy-consuming unit (building, industrial establishment, facility, etc.) with respect to possible energy savings including the identification of possible energy efficiency improvement (EEI) measures is the first step in development of the EE service and the establishment of s strong business case. The analysis should be performed at the level of an investment grade audit/proposal
- QC2 Quality of implementation of technical energy efficiency improvement measures. The rendering of an EE service is connected with the implementation of various EEI measures which may range from energy management processes through to construction and installation of new equipment. QC2 stipulates a range of quality standards and requirements that must be complied with when implementing and operating EEI measures. The EPC provider actively supports the client in the implementation of an energy management system during the contract period and eventually after the contract period by agreement. This supports the benefits from the project to sustain also after the contract period.
- QC3 Savings guarantee. The EPC provider guarantees the achievement of the contractually agreed level of savings. In case an EPC project fails to achieve performance specified in the contract, the EPC provider is obligated by the contract to compensate savings shortfalls that occurred over the life of the contract. The excess savings should be shared in a fair manner according to the methodology defined in the contract. The EPC provider assumes contractually agreed performance risks of the project during the whole duration of the EPC contract (hereto contract). These include the risks of not achieving contractually agreed savings as described below as well as design risks, implementation risks and risks related to operating of the installed measures.
- QC4 Verification of energy savings. Contractually agreed savings as well as achieved savings are determined in a fair and transparent manner by Measurement and Verification (M&V) using appropriate methodology as defined in the contract. The contractually agreed savings are determined based on reference data provided by the client and realistic assumptions. The achieved savings are calculated as a difference between energy consumption and/or related costs before and after implementation of EEI measures.
- QC5 Value retention and maintenance. Ensuring persistence of EEI measures requires ongoing operations and maintenance. 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-

[3] https://qualitee.eu/publications/

term sustainability of projects beyond the contract duration, they also influence the overall quality of the EE services.

- QC6 Communication between the contractor and the client. In addition to technical quality, the type and scope of communication between the EE services provider and the client contributes to the quality of EE services. The working relationship between service provider and client is critical to success. To avoid problems in the implementation of the EE services the interfaces between contractual parties must be effectively managed through continuous and well-defined communication. It should be based on transparent and regular sharing of information through reporting, meetings and software tools.
- QC7 Maintenance of users' comfort. The execution of EE services 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. Where relevant, the required environmental conditions should be agreed and maintained.
- QC8 Information and motivation of users. Building users have a considerable impact on the energy consumption and thus, an EPC service should be supplemented by, a behavioral change package that aims to improve EE through actions for information and motivation of users. As QC 8 contains just a "minimum package", it is 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. Shaping of the clear and robust contract contributes decisively to the long-term quality of EE projects and supports the working relationship between EE service provider and client. 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.

3.2.2 Evaluation of compliance

Through the quality assessment process, a QA scheme managing body shall evaluate an EE providers' compliance with the requirements of quality criteria approved by the ministry in charge for energy and should not approve registration of the EE provider as the qualified one until compliance can be determined. Compliance with quality criterion will be checked for various assessment areas, based on a set of requirements and assessments of compliance.

During the first phase of the QA scheme implementation, the evaluation of compliance will be based on ex-ante assessment of quality evidence collected via EE services tenders and contracts. The quality compliance once approved can be challenged in the case of the QA scheme re-design in the second phase of QA scheme implementation introducing ex-post evaluation.

3.2.3 Registration of Qualified Energy Efficiency Providers

Registries must fulfil two public QA scheme qualification requirements i.e. they have to pass periodical quality evaluation of compliance and regularly provide evidence of employed staff with a QA scheme training certificate.

The QA training legal framework may be subject of the QA scheme re-design in the second phase of its implementation.

3.3 Main features

The main features of the proposed Slovenian business model for QA scheme are found in the following table:

Table 1 – QA scheme main features

	Slovenia
Principal action	Quality assurance
Country	Slovenia
Type	Voluntary
Target user	EE services provider (ESCO company)
Authority	Ministry of Infrastructure
Phases	1st. PHASE: 1) Public body in charge for the QA scheme designs scheme, prepares quality criteria and related guidelines, introduces quality criteria in public tendering and standardised EE services contracts, and develops QA training; 2) Ministry in charge for EE services quality approves quality criteria, assessment processes, establishes register of qualified EE services providers and ensure that information on the QA scheme is transparent and widely disseminated to all relevant EE market actors; 3) Public body in charge for the QA scheme organises QA trainings and quality criteria assessment check protocol; 4) EE service providers apply for qualification; 5) If registration criteria are met applicant is registered as qualified EE service provider; 6) Registered qualified EE service providers regularly report to the body managing the QA scheme on reference projects energy savings verified by the clients and QA trained staff. 2nd. PHASE 1) Ministry in charge for EE services assesses QA scheme against the impact on EE services quality and market needs on an ongoing basis; 2) Ministry in charge for EE services introduces remediation measures and sets legal framework if needed.
Stakeholders	1. EE services providers 2. Ministry of Infrastructure 3. Public body in charge for management of the QA scheme (Public Buildings Energy Renovation Project Office)
Support measures/ dissemination	Information available on the Ministry of Infrastructure website
Year of implementation	2020/2021
Costs	Free of any charges

Source: JSI Institute, Energy Efficiency Centre

3.4 Canvas analysis

3.4.1 Business Model Canvas Analysis

Table 2 - Canvas analysis

KEY PARTNERS	KEY ACTIVITIES	VALUE PROPOSITION	CUSTOMER RELATIONSHIP	CUSTOMER SEGMENT
• EE service providers: EPC & ESC providers, ESCOs • EE service facilitators, energy auditors • Public body in charge for EE services quality	• Through its quality assessment it defines if an EES meets the prerequisites to register as EES provider • Through its quality assessment it defines if an EES meets the prerequisites to obtain their label, and deem them to be a high-quality efficiency service	• EE services quality assurance based on comprehensive set of quality criteria agreed at the EU level • National recognition • Easy to perform	• Information from Ministry of Infrastructure on QA scheme and register of qualified EE service providers	• Public sector • Private clients looking for trusted EE service providers (commercial and industry sector, multi-apartment buildings owners); • Professional associations
	KEY RESOURCES • Ministry of Infrastructure to provide: human resources, IT support to keep the register, information, financing for trainings • ESCO companies' resources to register as qualified EE providers		CHANNELS • Webpage of Ministry of Infrastructure • • Webpages of ESCO companies • Targeted press and news portals • Awareness-raising and training initiatives	

COST STRUCTURE	REVENUE STREAMS
• Fixed costs: QA scheme implementing body staff cost • Variable costs: training costs (2 trainings/year; 15.000 EUR)	• Voluntary and free of charge, no revenues

Source: JSI Institute, Energy Efficiency Centre

3.4.2 Value proposition

Table 3 - Value proposition of QA scheme

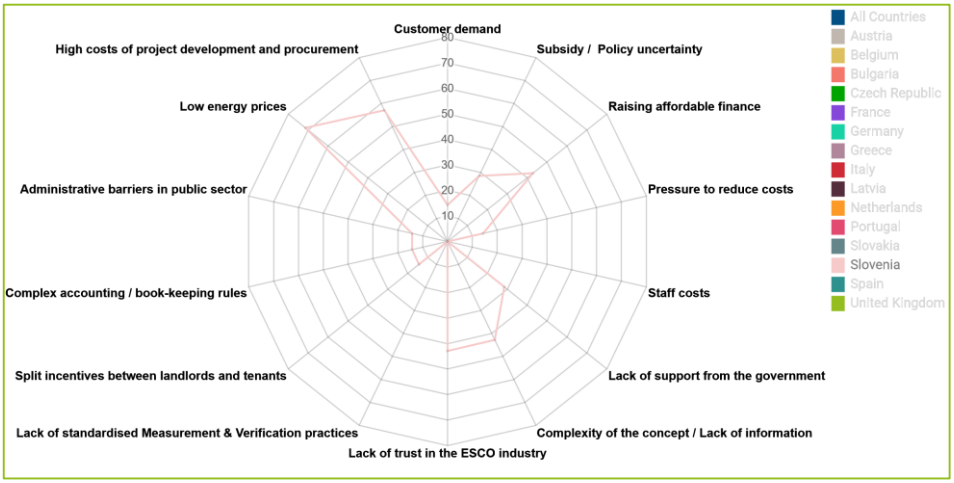
QUALIFIED EE SERVICE PROVIDER		CLIENT OF THE QUALIFIED EE SERVICE PROVIDER	
SERVICES	GAIN CREATORS	GAINS	CUSTOMER JOB(S)
The qualified EE service provider delivers, operates and maintain economically efficient quality EEI measures	Energy savings guaranteed and verified EEI measures performance risks taken over Functionality of EE equipment throughout contract duration Improved system availability and troubleshooting Required requirements (temperature, humidity, …) met Introduced energy management system	Reduced energy consumption and lower environmental impact Lower energy operation and maintenance costs Minimized technical and financial risks of EEI measures Provided EE equipment long-term quality Increased reliability of operations	Improve energy efficiency and environmental key performance indicators Increase profitability of the business Run profitable business (reducing costs by maintaining operation equal) Improve image operating in a sustainable way
	PAIN RELIEVERS	PAINS	
	Minimize design risks, implementation risks and risks related to the operation of installed EEI measures Most of the financial obligations and timeliness are met by the EE services provider	Influence on core business Need for resources for non-core activities Lack of time and resources for business Upfront investment costs	

4 IMPLEMENTATION STRATEGY

4.1 Business opportunities

Slovenia has seen a steadily growing EE services market, especially in the EPC sector. The major drivers have been the established EPC implementation framework and financing through the public-private partnerships. The EE service market is expected to grow further significantly and contribute to the EE targets according to the NECP. However, the number of EE service providers is still very small, and this limits the EE service market stride. The QualitEE energy efficiency services market analysis identified lack of trust in EE services providers/ESCOs, high costs of project development and complexity of the EPC concept as the key barriers to EPC business in Slovenia, beside low energy prices, Figure 2. These barriers lead to a reduced market demand for EE services as well as to difficulties in attracting large amounts of capital.

Figure 2 - The main barriers to EPC business in Slovenia (2019)



The QA scheme is therefore addressing these three barriers for investments in EEI measures by getting relevant information on the quality of EE services to the right decision makers. The scheme supports the fulfilment of EED (Article 8) which requires "the availability of appropriate qualification, accreditation and/or certification schemes for market players delivering energy services", too.

4.2 Potential partnerships

The Ministry of Infrastructure is going to bear overall responsibility for the QA scheme. The Public Buildings Energy Renovation Project Office within the ministry will be the scheme implementing body. The tasks of the PO are:

- preparation of an appropriate support framework and necessary documentation for EE services;
- providing assistance and professional support to intermediary and implementing public bodies, public sector entities, energy service providers, public private partnerships and beneficiaries of the EE operations;
- establishment of necessary records of operations and EE service providers register;
- monitoring and controlling the implementation of operations;
- transfer of knowledge and good practices.

4.3 Implementation strategy

Register of qualified EE service providers is already launched by the Ministry of Infrastructure and has to be upgraded in accordance to the 1st Phase of the QA scheme. The PO will perform other implementation activities described in the Chapter 3.2. and QA scheme is going to be fully implemented by the end of year 2021. The 2nd phase of the scheme will start in the first half of the year 2024.

5 MARKETING STRATEGY

5.1 Target groups

The main stakeholders for the use of the QA scheme are:

- Ministry of Infrastructure
- Public Buildings Energy Renovation Project Office
- energy service providers (ESCOs) - natural or legal persons who deliver energy services or other EEI measures in a final customer's facility or premises
- EPC providers - energy service providers who deliver energy services in the form of EPC
- ESC providers - energy service providers who deliver energy services in the form of ESC
- energy service project facilitators - advisory company working on behalf of the client to procure and/or implement an energy services
- clients - natural or legal person to whom an energy service provider delivers energy service

5.2 Price

The QA scheme is public and going to be free of charge for EE services providers and EE project facilitators.

5.3 Communication Plan

The Ministry of Infrastructure will use its standard online communication channels like https://www.energetika-portal.si/ and https://www.borzen.si/sl/Domov/menu1/Trajnostna-energija.

Proposed key message is: “Quality improves your energy efficiency projects.”

6 ECONOMIC PLAN

6.1 Revenue sources

The QA scheme is going to be financed from the state budget and revenue sources are not planned.

6.2 Potential expenses

Only QA trainings expenses are taken into account as QA scheme implementation costs, Table 4, considering that marketing, software and management expenses are going to be covered by the QA scheme implementing body on-going information programmes and budget.

Table 4 – QA scheme outsourcing costs in the period 2021 - 2025

[EUR]	2021	2022	2023	2024	2025
QA training design	5.000	-	-	-	-
QA trainings	7.500	15.000	15.000	15.000	15.000

7 CONTINGENCY PLAN

7.1 Identification of potential risks

An analysis of the potential risks is summarized below. Only potential risk which is modesty jeopardising the QA scheme in the 2nd phase is timely legal set-up of the QA legal status, if assessed as needed.

Table 5 - Potential risks

Type of risk	Risk	Likelihood	Impact
Technical	A	Low	Low
Financial	B	Low	Low
Management	C	Low	Low
Legal status	D	Medium	Medium

7.2 Risk management

No regular risk management is foreseen.

8 CONCLUSIONS

The Slovene EE services providers already have possibility to be included in the EE service providers register managed by the Ministry of Infrastructure. EE service providers should fulfil few administrative requirements to be registered. There are six registered EE service providers at the moment. The list is purely informative and aims to improve the availability of information on EE service providers to potential clients in line with Energy Efficiency Directive.

The QA scheme will provide and integrate national technical quality criteria in form of guidelines and standardized tendering procedures and contracts. The quality criteria will be "operational tools" and applied for qualification of EE service providers. The QA scheme implementation body will audit the adherence to the quality criteria. The qualification process will be underpinned with trainings in the area of EE services quality and the corresponding business models, and provided to EE service providers, facilitators, clients, financing institutions and policy makers. Information on quality criteria and quality assurance scheme for EE service providers will be disseminated.

With the QA scheme the analytical skills of EE service providers, facilitators and clients can be improved and quality can be assessed effectively. Such scheme will fill the trust gap on the one hand and increase the know-how of applicants on the other.