



**CONCERTED ACTION  
ENERGY EFFICIENCY  
DIRECTIVE**

**Study Visit CA EED**

# **Energy Performance Contracting in Slovenia**

**Ljubljana, Bled, Bohinj**

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## **Summary of Proceedings**

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# 1 Introduction

Building on the know-how gained from the EU on promoting the energy efficiency services market, Slovenia experienced exceptional growth of that market during the period between 2012 and 2018, and in particular within the market for Energy Performance Contracting<sup>1</sup> (EPC) in public buildings. The size of the Slovenian EPC market was estimated to be at EUR 50 million/year in 2017. The purpose of the study visit was to share information on the national energy efficiency services policy; its programming within the framework of the National Energy Efficiency Action Plan (NEEAP); development of energy efficiency services financing instruments; as well as to demonstrate examples of implementing EPC measures and successful building management after EPC deep renovation.

During the study visit in Slovenia over 30 experts, policy makers, national and EIB financing institution representatives, EPC clients, facilitators and Energy Service Companies (ESCOs) gathered together to exchange experiences, learn from each other and discuss issues related to the development of markets for energy services in the framework of EED, particularly Article 18 and Article 6.

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<sup>1</sup> According to the Energy Efficiency Directive '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.

## 2 Scope and key findings

The Ministry of Infrastructure of the Republic of Slovenia and the Jožef Stefan Institute, Energy Efficiency Centre, supported the planning and organisation of the study visit on Energy Performance Contracting in Slovenia. On the first day participants got an in-depth overview of the EPC in Slovenia. Presentations were given by key EPC stakeholders (policy makers and programme experts, financing institutions, market and projects facilitators, clients, energy services provider, research and development experts). A broader perspective on EPC and energy efficiency services and tools development was also presented. Each presentation was followed by a short Q&A session. In order to establish interaction between theory and practice, two field visits to deep renovation projects took place on both days after the presentation session. The second day provided participants with the opportunity to learn from the energy service provider professional experience. Discussions were organised with the 1<sup>st</sup> EPC programme pilot project ESCO and client. In-depth discussions covered a broad set of topics related to implementation and operation of EPC projects, as well as performance monitoring and verification.

### 2.1 Scope

The scope of the study visit was for key representatives from Member States to exchange experiences and information on the process of developing the market for energy services, on unlocking energy savings, finance (deep) renovations and implementing plans to maintain or improve energy efficiency in the long term.

This exchange was aimed at gaining insight into Slovenia's energy performance contracting model that has been in development since 2001. More specifically it focused on:

- overview of the EPC development and programming during the period of 2001 to 2018 and lessons learned (Presentation 1)
- EPC regulatory framework, current and planned national EPC programme initiatives, organization forms and processes (Presentation 2), and results of the NEEAP EPC programme (Presentation 3)
- financing arrangements for energy savings and use of innovative financing mechanisms to mobilise investment in energy efficiency in public sector buildings (Presentation **Error! Reference source not found.**)
- supporting the public sector in taking up energy service offers (Presentation 5), in particular for cost-effective building deep renovation, by enabling the independent EPC market and project facilitators to play a role in stimulating market development on the demand and supply sides (Presentation 6)
- providing information on EPC best practices (Presentation 5, Presentation 12) and deep renovation (Presentation 11), development of energy service providers business model (Presentation 7), risk management, introduction of long-term use of IT energy management solutions, client information, and performance measurement and verification (Presentation 12)

On a broader national and EU perspective, the Study visit provided information on:

- the EU statistical treatment of EPC in terms of impact of the EPC on government balance sheets (Presentation 4)
- recent EU and national EPC developments in terms of the EPC models for small and medium clients and energy services providers, split incentive dilemma and quality assurance (Presentation 8)

- EPC supportive tools for planning efficiency in heating and cooling, based on geographic information system (GIS) approach to energy performance certificates (Presentation 9), national heat mapping (Presentation 10)
- municipalities energy efficiency services supportive tool Local Energy Scoreboard (Presentation 10)

## 2.2 Key findings

### EPC in Slovenia

The EPC market in Slovenia has been experiencing growth since 2012 and saw major expansion in 2016. This growth is attributed to strong uptake in the public sector, which has been driven by the success of the public building deep energy renovation scheme that offers standardised EPC project development processes, procurement requirements and guaranteed saving contracts, as well as up to 40% cohesion grant financing.

The introduction of long term energy management is an obligatory part of these projects. The EPC providers market is quite small and limited to 4 qualified national providers. The key EPC technical assistance is performed through the ELENA and mainly involves local energy agencies, as project facilitators. Requirements of the EED Article 18 and Annex XIII are fully transposed into Slovene law. A stimulating support environment for the development of EPC and energy efficiency services is established in the framework of the NEEAP, published in 2017, and Long-term Strategy for Mobilising Investments in the Energy Renovation of Building Stock, published in 2015. Model contracts for EPC in the public sector are provided and updated in line with the latest Eurostat Guidelines. Typical EPC projects have a capital outlay of EUR 0,7-5 million, contract length of 15 years due to prevailing buildings deep energy renovation, and are paid for using the EPC provider's financing, covering more than 50% of the investment cost, client's own funds of up to 9%, and grant funding. The EPC providers take over investment and the operation risk. Mainly IT supported operation, measurement and verification processes are used. Future EPC development foresees:

- development of financial instruments for mobilising investments in the deep energy renovation of buildings
- preparation of the financing plan for the public and residential sector deep renovations during 2020-2030
- introduction of energy efficiency services Quality Assurance Scheme and Facilitators Scheme

### Study visit

One of the main issues observed during the study visit in Slovenia was the capacity of the Member State to articulate EPC programme development and implementation processes. The success factors identified during the study visit were a clear long-term strategy, a main goal focused on EPC programme in terms of deep renovations in the public sector, and very close relationships between EPC market stakeholders.

The study visit programme was balanced and had a mix of speakers, discussions with ESCO and client, and field visits. On the last day, participants were invited to a wrap-up session. The study visit participants' feedback in terms of future study visits comprised of the following findings and suggestions:

- a broad range of information, expertise and research and development knowledge, possibility to discuss the projects details in depth with energy service providers, and clients and participants

geographic spread brought in the Study visit, were evaluated as future study visits' elements to strive for

- the follow up of the study visit could be a presentation of the evaluation of the results achieved in the best and worst case EPC projects and common measures, enabling Member States EPC experts to further develop markets for energy services
- a short survey among participating Member States on the topic in focus before the study visit would be of benefit to study visit participants in order to identify most important challenges and opportunities, and to help study visit hosting Member State to accordingly design the programme
- study visits offer possibility to identify interested experts to join CA EED Working Groups as members
- there is a need to talk further on technical issues but also to identify key political stakeholders

Hosting Slovenian EPC experts expressed their opinion that the Study visit was an excellent opportunity to present their work, meet experts from various countries and professional backgrounds, establish contacts for cooperation and business development, and get inspiring ideas.

## 3 Presentations

1. [Energy efficiency services programming and EPC market development](#), JSI EEC
2. [Implementation of the national EPC model: Legislative Framework](#), Mol EPC Project Implementation Unit – PIU
3. [Implementation of the national EPC model: Implementation and Results](#), Mol EPC PIU
4. [New Eurostat rules on EPC](#), European Investment Bank
5. [ELENA projects in Slovenia: EPC client view](#), City of Ljubljana
6. [ELENA projects in Slovenia: Facilitator view](#), Goriška Local Energy Agency
7. [EPC financing: ESCO view](#), Resalta
8. [Future EPC developments: Horizon 2020 projects EPC+, GarantEE, QualitEE](#), JSI EEC
9. [Energy Efficiency Services Support Tools: Energy Performance Certificates Mapping – ENERFUND](#), JSI EEC
10. [Energy Efficiency Services Support Tools: Local Energy Scoreboard & Heat Mapping](#), JSI EEC, Project LIFE ClimatePath2050
11. [Deep energy renovation of the Reactor Centre Podgorica buildings](#), JSI EEC
12. [Petrol Energy retrofit project CŠOD Bohinj](#), Petrol

## 4 Further reading

[Country Report on the Energy Efficiency Services Market and Quality – Slovenia,](#)  
Horizon 2020 Project QualitEE Report, 2018

[European Report on the Energy Efficiency Services Market and Quality,](#)  
Horizon 2020 project QualitEE Report, 2018

[Energy Service Companies in the EU - Status review and recommendations for further market development with a focus on Energy Performance Contracting,](#)  
Joint Research Centre (JRC) Science for Policy Report, 2017

[A Guide to the Statistical Treatment of Energy Performance Contracts](#)  
Eurostat and the European Investment Bank, 2018

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