|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Country**  **# of ESCOs (2016)** | **Current Energy Services Market (EUR)**  **Potential Growth**  **Barriers** | **Energy Performance Contracts**  **Project Lengths/Amounts** | **Energy Supply Contracts**  **Project Lengths/Amounts** | **ESCOs**  **Relevant Legislation** |
| HR  10 - 15 | 100 million | Small (street lighting) €200,000 - €500,000 for 3-5 years  Large (buildings) €1 million - €5 million for 12-15 years | €130,000 to €1.3 million for 5 to 10 years. | HEP ESCO [www.hep.hr](http://www.hep.hr) |
| (EPCs for public/multi-family buildings, hotels) | Programme of Energy Renovation of Public Sector Buildings 2014-2015 |
| CZ  20 | 10-20 million | 0.5-5 million  for 8-12 years  (schools and public buildings, hospitals, universities) | N/A | Association of Energy Service Providers  <http://www.apes.cz/en/onas.php> |
| 100- 500 million | amendment to the Energy Management Act (July 2015) |
| BG  15 | 33 million | (schools, hospitals, street lighting) €200,000 - €500,000 for 7-9 years | N/A |  |
| 500 to 900 million | The Energy Efficiency Act SG No. 98/14.11.2008 and amended in 2015 |
| EE  2-3 | Market is not developed | Is not used | €5-10 million  annually | Estonian Development Plan for Energy Sector 2030+ (development of the housing sector) |
| €100M (total building renovation) |
| HG  4 | n/a | €500.000 per project for 5-10 years | N/A | The European EPC Code of Conduct is adapted |
| n/a |
| LV  6-8 | €5-10 million | EPC- based projects in the residential sector | N/A | “Energy Efficiency Law” entered into force on March 29 2016 |
| €8 billion |
| LT  4-5 | EPC-only market size >€3million | 200 000€ - 500 000€ per project | N/A | the Program for Improvement of Energy Efficiency in Public Buildings |
| n/a |
| PL  0 | €10-25 million | improvements in street lighting, public buildings, schools, hospitals, and residential buildings  €200,000 -€1,000,000 for 4-5 years for industrial projects and an average of 10 years for public clients | the turnover volume of the Polish energy services market is around €30 million | The Operational Programme Infrastructure and Environment 2014-2020 "Supporting energy efficiency, intelligent energy management and promotion of RES for public infrastructure, including public buildings, and in the housing sector" |
| €25-75million (estimate in 2013) |
| RO  Under 10 | €3-5million | 10-15 performance- linked ESCO projects that are remunerated only if a certain economy is achieved | consulting and engineering firms, equipment producers, manufacturers and retailers, facility managers and energy suppliers | Romanian National Energy Efficiency Action Plan;  Law No. 121/2014 on Energy Efficiency |
| € 780 million/yr |
| SK  10 | €60million (public sector only) | small (up to €200,000) and mid-sized (€500,000 - €1,000,000), with contract lengths of 10 years in public sector, 3 years in private sector. The total size of the EPC market is €5 million per year | Typical ESC-based projects target heat management and supply | Act No 321/2014 Coll. on energy efficiency;  Adoption of the European Code of Conduct for EPC |
| €20 million |
| SL  6-8 | €15 million | Around 15 projects | €200 000- €500 000 for 10-15 years | The National Energy Efficiency Action Plan of Slovenia (NEEAP);  Energy Act (2014); Public Private Partnership Act (2006); Decree on energy savings; Decree on support to electricity produced from renewable energy sources; Decree on support to electricity produced in highly efficient combined heat and power; Rules on efficient use of energy in buildings; Technical Guideline Efficient Use of Energy; Rules on feasibility study of alternative energy systems for energy supply in buildings |
| €51-53million/yr. |

**Financing Institutions/Funds**

BG: Bulgarian Energy Efficiency and Renewable Sources Fund (EERSF) [www.bgeef.com](http://www.bgeef.com)

HR: Croatian Reconstruction and Development Bank (HBOR) [www.hbor.hr](http://www.hbor.hr)

CZ: EFEKT programme administrated by the Ministry of Industry and Trade [www.mpo-efekt.cz](http://www.mpo-efekt.cz)

EE: -

HG: [Hungarian Energy Efficiency Institute](http://www.transparense.eu/hu/news/zaro-szakmai-tanacsado-testuleti-ules)

LV: [The Latvian Baltic Energy Efficiency Facility (LABEEF)](http://www.sharex.lv/en); [the Altum finance institution](https://www.altum.lv/en/services/energy-efficiency/energy-efficiency-in-multi-apartment-buildings/about-the-programme/)

LT: The Energy Efficiency Fund established by the Ministries of Finance and Energy and managed by Public Investment Development Agency

PL: [Ministry of Economy](http://www.mpit.gov.pl/)

RO: [The Regulatory Authority for Energy (ANRE)](https://www.anre.ro/en)

SK: [The Association of Energy Services Providers (APES-SK)](http://www.munseff.eu/en/news/20140404-apes.html), [The Slovak Innovation and Energy Agency (SIEA)](http://en.siea.sk/) administrated by Ministry of Economy of the Slovak Republic

SL: The Ministry of Energy, Ministry of Infrastructure; EU IEE/HORIZON 2020 EPC projects (EESI2020, Transparense, EPC+, GuarantEE, etc.)

**Barriers**

**Bulgaria**

* Low, but unpredictable energy tariffs
* Lack of eligibility for public funding
* Lack of information about EPC providers
* Lack of trust in ESCOs
* EUROSTAT definition
* Low capacity in public sector for the preparation of EPC tenders
* Lack of trust
* Legal limitation of the amount of EPC contracts for municipalities

**Czech Republic**

* Trust in the ESCO/EPC market is the most critical,
* complexity of the scheme demotivates potential clients
* EUROSTAT definition

|  |  |
| --- | --- |
| **CROATIA** | |
| **Availability of financing and high interest rates** | EPC providers see this as one of major roadblocks. The level of risk is determined for EPC provider and client separately by the banks. Financing is not project based and banks tend to use additional safeguard conditions as mortgage. Because of the country risk and perceived client risk interest rates are high, prolonging the needed contract duration. Possible solutions could include a guarantee fund to stimulate project financing, independent technical and economical agency trusted by the banks and clients to reduce the calculated risk and clearer legislation or instructions from the government to provide easier administration. |
| **Low energy prices** | Low energy prices, compared in absolute value to other EU MSs, have an effect of prolonging contracts. As a solution, EPC providers tend to invest in buildings and processes that have high energy consumption, targeting, in absolute value, high energy cost savings. With this approach smaller projects are not interesting and are left for potential clients to invest themselves. Solution that has been mentioned by some companies is additional taxation of energy to increase unit prices. |
| **Lack of knowledge and trust** | Most of the barriers for the development of the market potential are all somehow related to the lack of trust. The longevity of contracts wouldn’t be an issue if customers had confidence on the results of the project. Same happens with the common belief of being able to bypass the EPC provider and develop projects without their intervention. Independent technical and economical agency trusted by the banks and clients and/or calculation tool could form the solution. |
| **Potential client believe that they can implement energy measures themselves** | When financing is not an issue for potential client, energy efficiency measures are implemented as an in-house project. In these situations EPC providers tend to convince potential clients that off the books financing offers greater flexibility for future planned non-energy related projects. Only, fully developed market and standard business practice can eliminate this roadblock. |
| **Market insecurity** | Economic crisis has scared many of the companies and potential investments, and they see EPC as an investment, are carefully studied and picked for realization. Economic recovery will stabilize the market for the increase in investment activity. |
| **EPC is not interesting for companies that do not own the building that they are using** | Companies that rent buildings are not interested in EPC solutions even if they are paying for the energy costs (not included in rent). Those companies have stated that building owner has to be stimulated or compelled by governmental policy to implement EE/RES measures. |
| **Lack of trained and**  **well versed personnel** | Introduction of internationally (EU) verified and approved training  programs (preferably EU supported) |
| **High transaction costs** | Improvements of legal and regulatory framework and introduction of guarantee based schemes |
| **Lack of guarantees** | Top – up alternative investment funds and schemes providing risk mitigation products (preferably EU/government supported) would be needed |
| **Lack of clear regulatory and contractual rules** | Standardization of rules and procedures and introduction of publicly supported pilot projects |

**Estonia**

* lack of demand based on
* the lack of legal framework and
* lack of trust;
* EUROSTAT definition

**Hungary**

* destructive legal framework, no definition, demonization
* regulatory instability
* financial liquidity of the clients and of the ESCOs
* unclear future of national grants for EE
* public procurement is perceived problematic
* lack of political commitment to energy efficiency

**Latvia**

* low level of trust and lack of awareness, resulting in lack of demand
* financial issues, such as long payback time and high initial costs
* difficulties in tendering arising from the public procurement law
* lack of guidelines, methods
* EUROSTAT definition or otherwise liquidity issues

**Lithuania**

* Lack of legal frameworks and public support schemes for EPC in private sector
* Banking sector not well informed and familiar with the EPC
* Limited procurement capacities
* Too long project periods (15-20 years)
* Lack of legal framework and public support schemes for
* EPC in municipalities’ buildings sector (vs. central government for Energy Efficiency Fund).
* Managers of public buildings are used to grants, reluctant to use “alternatives”

**Romania**

* Introducing EPC concept in tertiary legislation
* Establishment of registry, certification, model contracts
* development of trust and confidence
* EUROSTAT note
* Difficulties in tendering and contracting (lack of expertise, unsuitable electronic system, complex procurement, etc.)
* Data sharing

**Slovakia**

* low awareness on benefits and limitations of the EPC concept among potential clients
* lack of experiences with EPC projects development on the side of clients combined with reluctance to engage an EPC facilitator for this purpose
* lack of specific banking products available for EPC / ESCO projects
* lack of accounting rules to resolve financial liquidity problems of the clients and of the ESCOs
* competition by ESIF
* obsolete technical state of public buildings – substantial  part of the public buildings requires comprehensive refurbishment
* inclusion of the EPC’s into public debt (EUROSTAT  accounting)

**Slovenia**

* Low number of EPC Providers (small market)
* Low energy prices
* Lack of available information and expertise
* ESA 2010 definition of public debt related to EPC
* Lack of training expertise in house, but reluctance to use facilitators
* lack of trust and fear towards the actual applicability and effectiveness of the EPC mechanism

**Appendix**

**Energy Service Providers**

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**Dalkia Bulgaria**

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[www.dalkia.bg/bg](http://www.dalkia.bg/bg)

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**Karoll**

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karoll.bg/en/financial-services/

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**Merkantile d.d.**

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**Virtus d.o.o.**

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**Montkemija d.o.o.**

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**Philips Lighting Czech republic s.r.o.**

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HUNGARY

Very good database with 68 companies, which includes differentiation according to the particular sectors and geographic districts of the country: <https://www.europages.co.uk/companies/Hungary/Service%20Provider/electricity.html>

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