

Status of Energy Performance Contracting

BELGIUM



Although some early stage EPCs were seen in the 1990s, in addition to a variation of energy supply contracts for heat, the market development of a new generation of EPC and ESCO models in Belgium started for real in 2005, when the federal government created the Federal Energy Services Company (Fedesco). After initiating a number of more classical energy efficiency projects, Fedesco began the first EPC project in 12 federal public buildings in 2011. Before that, in 2010, it had developed a knowledge centre to share expertise on EPC with other public building owners.

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CONTEXT

The Belgian EPC market was relatively slow from 2010 to 2015, but it has seen significant growth over the last three to four years. The public sector is still driving the market, where there are now dozens of projects in progress or operational – these are run by large (multinational or national) ESCOs. But smaller ESCOs are also active in the (industrial) SME market, where they offer a variety of solutions.

EPC project facilitators play a key role in Belgium. They support customers through the different steps of their project, leading to the selection of the most appropriate ESCO for implementing the energy efficiency measures or building renovation. They also play a key role in the commercial development of – and innovation in – the ESCO market.



POLICIES, DIRECTIVES AND REGULATIONS RELATED TO ACTIVE BUILDINGS AND DEMAND RESPONSE:

Although Belgium has a good reputation for its knowledge and implementation of EPC and ESCO models in general, there are no specific domestic rules on EPC in Belgium, nor in any of its three regions. As such, only the EU directives which have been translated into regional/national law apply. Nevertheless, the Walloon government made a significant policy statement by including several specific measures to promote and use EPC in its Long-Term Strategy for the Renovation of Buildings. The Flemish region also referenced EPC in its 2016 Climate and Energy Pact and its Regional Energy Efficiency Action Plan (REEAP), although without including firm targets. Existing public tendering law is well adapted to the application of EPC, and most projects use negotiated procedures within the tendering phase.

In terms of policy support from national and regional governments, public authorities have mainly focused on the creation of one-stop-shops at federal level like Fedesco (although this was dissolved in 2015 for political reasons) and subsequently at regional level like [Renowatt](#) in Wallonia and the [Vlaams](#)

[Energiebedrijf \(VEB\)](#) in Flanders. These bodies act as ESCO market and EPC project facilitators. Brussels, however, remains a blind spot in this area.

When it comes to demand response regulations, the federal electricity law specifies in Art. 19bis. § 1 that end-consumers are allowed to valorize their demand flexibility if this is in line with technical requirements. The transfer of energy to ensure this goes smoothly is covered by Art. 19bis. § 2. In addition there are regional rules (for Flanders there is for instance the energy decree) which further define flexibility. However, these rules are not always clear. In this regard, the Flemish regulator VREG published two advisory documents to ensure proper interpretation of regulations ADV-2016-1 and ADV-2017-04. With regard to the specific flexibility products, the Belgian transmission system operator Elia sets out the framework to enable participation of energy sources with different types of market players. Over the years, this framework has been changed to ensure that it is open to all technologies, independent of the type of connection and the type of provider.

EPC/ESCO ASSESSMENT LEVELS

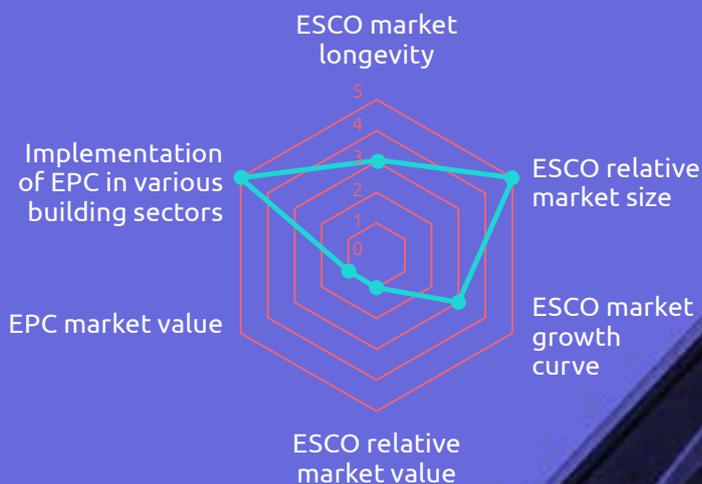
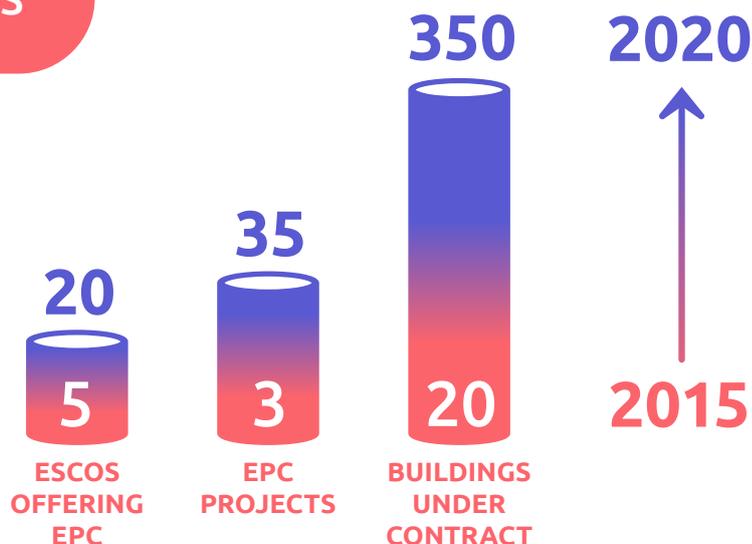
The Belgian energy service market is considered stable and moderately sized, although it is still relatively new. Market development started in 2005 with the creation of Fedesco. Five years later, the Belgian ESCO association – BELESCO – was created. Nevertheless, it took a while before the first ESCO contracts were signed: the market has only begun to grow significantly in the last few years.

In the last five years, the total number of ESCOs offering EPC has increased from 5 to 20; the number of private EPC facilitators has increased from 2 to 5; and the number of public facilitators or one-stop-shops has increased from 1 (Fedesco) to 5 (including Renowatt and VEB). Moreover, in the same period, the number of EPC projects has grown from 3 to more than 35, while the number of buildings under contract has increased from 20 to more than 350.

There are no exact numbers on annual contract size or revenues for the Belgian market; however, a reasonable estimate would be that it grew from a few million euros in 2014 to roughly EUR 50 million in 2018. The annual growth rate is thought to be 50%. As the EPC market corresponds to the ESCO market for Belgium, its size is also estimated at EUR 50 million.

The public building sector is most developed for EPC use and includes federal and regional government buildings, provincial buildings and municipal buildings, secondary schools, universities and public hospitals. The private, tertiary sector is less developed but includes private care homes and some office buildings. The public sector represents roughly 90% of the market, although few numbers exist on the size of the private tertiary sector.

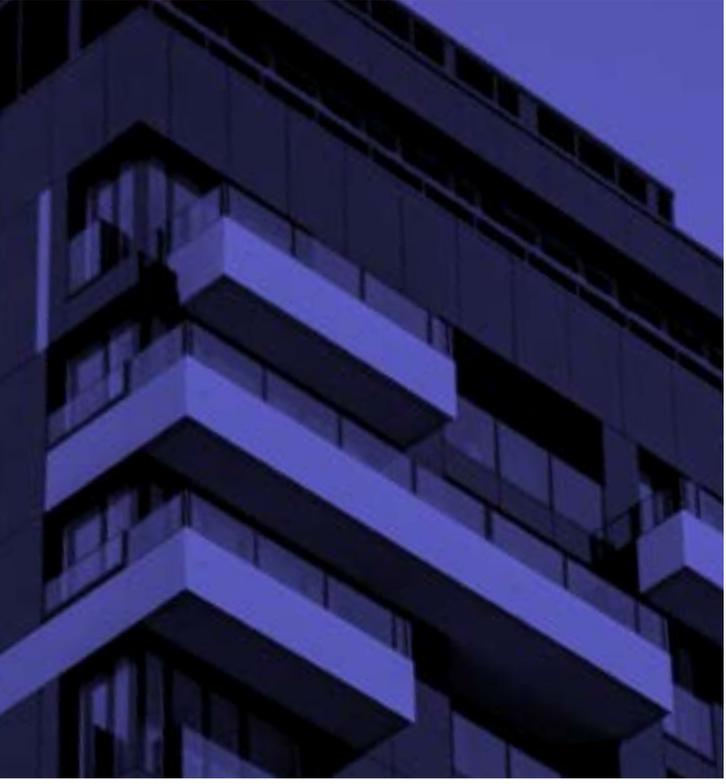
Some ESCOs focus on small or medium-sized companies, often in the industrial sector. In these cases, energy conservation measures are mainly focused on the building (heating, cooling, lighting etc.) rather than on the processes. There are a few projects in multi-apartment social housing buildings, but not in individual houses. Similarly, there are some projects on private co-owned, multi-apartment buildings. However, these are often focused on boilers and combined heat and power (CHP) systems.



Some pilot projects are providing one-stop-shop solutions for the deep renovation of co-owned private apartment buildings. There is also a pilot project on the deep renovation of multiple individual social housing units. In general, large ESCOs focus on public buildings and large tertiary or industrial buildings, whereas smaller ESCOs focus on buildings of (industrial) SMEs.

Pooling multiple buildings (typically between 5 and 40) is very common in the public sector, but not in the private sector. Ambition levels are relatively low, with typically 20 to 35% guaranteed savings, with some exceptions of deeper renovation of some buildings in a pool. Comprehensive refurbishment (CR-EPC) and deep energy retrofit (DER) with EPC are not very common yet, although they are expected to grow.

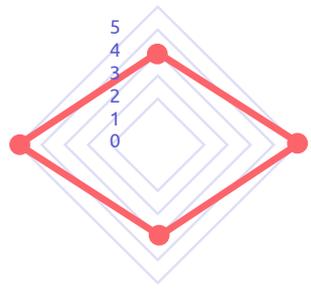
DEMAND RESPONSE FLEXIBILITY AND EXPLOITATION



In Belgium, end-consumers have the right to valorize their demand flexibility if they stay in line with technical requirements. To facilitate this, independent aggregation is allowed, implying that end-consumers can valorize their flexibility via a flexibility service provider of their choice. If this is not done through their own energy supplier, the regulation foresees rules on the transfer of energy. Service providers should therefore have good access to markets, and independent aggregators are fully accepted in Belgium.

Nevertheless, not all types of market response can yet be offered easily on the market due to stringent product requirements. This is, however, changing rapidly as Elia created a framework to open up all products and services to all types of flexibility, independent of the technology, type of connection or type of provider. This means that, in the near future, all products will be adapted to become accessible to new market parties.

Demand Response access to markets



Measurement & verification procedures

Service providers access to markets

Product requirements

Measurement and verification is clearly defined and standardized for all market players, apart from consumers who do not yet have a digital meter. Elia's rules on the transfer of energy clearly define how flexibility should be calculated for each product and clearly state what the baseline is. Furthermore, by 2030, all Flemish households will have a digital meter. The roll-out started in July 2019. This process will also ensure that end-users receive more opportunities with regard to actively offering their demand-side flexibility.





ENABLERS AND BARRIERS FOR ACTIVE EPC IN THE EU

Belgium is well positioned to use enhanced EPCs, because of factors including:

- » The presence of a **strong legislative background** and standards established for energy efficiency in buildings
- » The **very high competence of the ESCOs** and EPC project facilitators
- » Guaranteed results: customers can be reassured by the fact that the ESCO will only profit if the proposed interventions are effective and lead to an effective energy saving
- » The presence of a **national ESCO association**
- » The creation of **several public one-stop-shops**
- » A **strong focus on innovation** by some market and project facilitators.

The main enablers for the DR services offered by (clusters of) buildings are:

- » The ongoing revision of the regulatory framework according to the concept of technology-neutrality, to **guarantee the supply of network services from the demand side and improve integration of flexible demand in the market**
- » The **well-established regulatory framework** for accepting independent aggregators and for revisions of the minimum performance requirements
- » The **standardized and clear M&V procedures**.

Other enablers:

- » **EPCs include non-energy services** (maintenance, comfort and related improved health benefits and productivity, increased asset value, financing), although these vary between contracts (e.g. EPC vs. M-EPC) and sectors (e.g. public buildings vs. SME buildings).

There are however still some barriers for Belgium to address, such as:

- » The **contractual complexity of EPCs**
- » The **complex political system** leads to fundamental differences in approaches and priorities in the three regions, making it difficult for EPC market stakeholders to engage with policymakers to define consistent regulation and policy measures across the country
- » **Low energy prices** are still a substantial barrier to energy efficiency in general and to EPC specifically
- » **Lack of awareness about the benefits of EPC**
- » **Subsidy conditions focusing on input-driven methods**, using technical specifications rather than functional and performance-based specifications in tenders
- » The **absence of historical monitoring data**.

Read the full report for more detailed analysis and results:
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Contributing national partners: ENERGINVEST, VITO/EnergyVille