The Energy Efficiency Directive (EED) encourages the development of markets for energy services and aims to ensure “availability of both the demand and for the supply of energy services.” Transparency should be ensured via lists of energy service providers and “model contracts, exchange of best practice and guidelines, in particular for energy performance contracting (EPC). As in other forms of third-party financing arrangements, in an energy performance contract the beneficiary of the energy service avoids investment costs by using part of the financial value of energy savings to repay the investment fully or partially carried out by a third party.

**Energy Performance Contracting**, is “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”.1

EPC has been used in the European Union since 1980, but the market is still underdeveloped when comparing it to North America (the United States and Canada). The market development of EPC in Europe varies from one country to another. The Joint Research Centre report *Energy Service Companies Market in Europe* estimated that in 2010 there were 700-1040 active ESCOs in the EU representing a market volume of EUR 6.7-8.5 billion. However, the market potential was estimated at EUR 25 billion. Even though the EPC market is well developed in some Member States, it is, overall, still considered a niche market.2

**How does it work?**

In an Energy Performance Contracting project, the provider of the improvement measure, usually an *Energy Service Company (ESCO)* offers its technical expertise and takes on the performance risk to ensure the proper implementation of energy efficiency measures and the achievement of the estimated energy savings. These savings can be used to refinance the measures' investment cost. Concerning the remuneration of the ESCO, there are two major variations in the performance contracting models:

- **Shared savings**: the cost savings are split for a pre-determined length of time in accordance with a pre-arranged percentage. This split depends on the cost of the project, the length of the contract and the risks taken by the ESCO and the consumer.
- **Guaranteed savings**: the ESCO guarantees a certain level of energy savings, protecting the client from any performance risk.

As mentioned before, the market development of EPC in Europe can vary from one country to another. Models may differ in the assignment of roles, responsibilities and risks between building

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1 Directive 2012/27/EU on energy efficiency
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owners and ESCOs. The most important factors are the payment process, the financing terms, the measurement and verification and, finally, the termination of the project.

Different reasons could be identified as barriers for Energy Performance Contracting:
- Lack of awareness from the demand side of the market for energy services
- Poor understanding of energy efficiency and EPC by financial institutions
- Small size of projects
- Incompatibility of legal and regulatory frameworks
- Low level of understanding of measurement and verification protocols
- Administrative hurdles
- Lack of motivation
- Limited government support

Case Studies

All over Europe, there are already several examples of EPC successfully implemented:

- Large scale municipal project tackling heating, ventilation and lighting in Norway
- Renovation and upgrading of a district heating system in Slovenia
- Reconstruction and regulation of the heating system in 9 buildings (schools, kindergartens and public buildings) in Slovakia
- Heating system renovation in a large bakery in Czech Republic
- Large project covering 98 public buildings in Milan
- Social housing: the FRESH project feedback.

During the European Sustainable Energy Week, June 2013, the Executive Agency for Competitiveness and Innovation held an event on “Innovative financing approaches”. Concrete examples from MLEI PDA (Mobilising Local Energy Investments - Project Development Assistance) projects on Energy performance contracting (EPC) on public buildings have been showcased: (MLEI Beam Graz, Graz, Austria).

- Energy Saving in Municipal Buildings in Small Communities in Rural Districts (MLEI ENSAMB)
- Energy Contracting on Public Buildings in Graz (AT) (BEAM Graz)
- Energies POSIT'IF-A public ESCO for the low energy refurbishment of condominiums in Ile-de-France region

Covenant of Mayors and the EPC Campaign

The European Commission, DG Energy has launched an EPC campaign to promote and build capacity for EPC and ESCOs throughout Europe. The Covenant of Mayors is involved in this campaign through organisation of webinars that focus on the barriers and solutions encountered by municipalities that have been using EPC. You can find more information on these webinars here.

These webinars are held in the national language of the countries covered. Energy Performance Contracting can be a powerful tool for Covenant of Mayors Signatories willing to ensure that their public buildings do not waste energy and are equipped with the latest technology. In Berlin, over 1600 public buildings have been refurbished in the context of this initiative since 1996, with average energy savings of around 26%.
Covenant of Mayors webinars on the EPC Campaign

Further reading

EPC leaflet

*Energy efficiency & public-private partnerships: What you need to know* (ManagEnergy)

*Energy Performance Contracting in the European Union: Creating common “model” definitions, processes, and contracts* – A report from the Institute for Building Efficiency

EU funded projects like [EUROCONTRACT](https://www.eurocontract.eu/) and [ChangeBest](https://www.changebest.eu/)