

Status of Energy Performance Contracting

PORTUGAL



Buildings represent the third largest energy consumption sector in Portugal, with an overall share of 29%. However, despite the buildings sector's increasing share in the national energy consumption balance, its energy consumption trend has decreased by about 15.9% in the last 11 years, thanks notably to the contribution of the residential sector.

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

✓ National Energy Efficiency Action Plan (NEEAP):

Decree-Law n.º 50/2010 of 20 May creates the Energy Efficiency Fund (EEF), aiming to finance programmes and activities to implement measures included in the NEEAP. The Decree-Law creates a management structure, as already set out in the NEEAP, to support and promote the implementation of its programmes and measures, including the technical management of the Fund.

✓ Energy Efficiency Fund (EEF):

The EEF aims to fund programmes and activities that support the measures included in the NEEAP. Under this legislative act, Ordinance n.º 26/2011 was published on 10 January, defining the financial support system for measures and programmes eligible for Fund backing. This regulation is intended to coordinate the funding and support process for programmes and measures that lead to a reduction in final energy demand and help meet national energy efficiency targets.

✓ Energy Efficiency Programmes in Public Administration (ECO.AP):

By 2020, the ECO.AP aims to achieve a 30% improvement in energy efficiency in 32 of Portugal's public sector agencies and services. This efficiency level must be achieved without extra public expenditure, while allowing the economy to stimulate the energy services sector. The purpose of this programme is to enable the state to reduce energy consumption in its services and bodies, reduce greenhouse gas emissions and stimulate the economy, thus helping to achieve the objectives of the National Energy Efficiency Programme (NEEP) and the National Renewable Energy Action Plan (NREAP).

✓ Public Contract Regime with Energy Service Companies (ESCO):

This legislation aims to establish a role for the public sector in the development of an energy services market, as well as to promote measures to improve end-use energy efficiency. It regulates the use of ESCOs through a competitive tender process, allowing these companies to identify potential energy savings in buildings and public facilities and to implement procedures for enhancing energy efficiency, reducing energy bills. Decree-Law n.º 29/2011 also sets out procedures for establishing and concluding contracts between public administration bodies and ESCOs, with a clear commitment on simplified and objective models for the evaluation of proposals.

✓ Plan for Promoting Efficiency in Electricity Consumption (PPEC):

The 6th edition of PPEC (PPEC 2017-2018) is now in force. Its main objective is to finance initiatives that promote energy efficiency and the reduction of electricity consumption in different consumer segments.

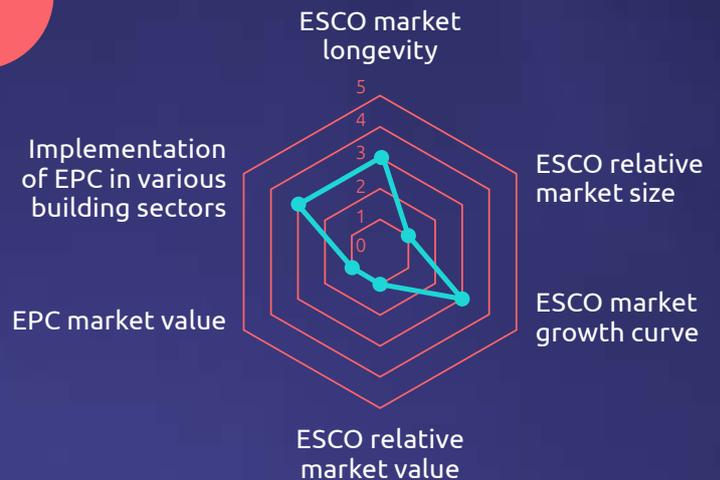
✓ Energy Performance of Buildings Directive (EPBD):

This European Directive was transposed into Portuguese legislation with the Energy Certification of Buildings, Decree-Law 118/2013. This Decree-Law is supported with 6 ordinances and 14 orders that include the specific calculation methodology, renewable energy account, the lay-out of energy performance contracts (EPC), climate data, primary energy conversion factors and others.

EPC/ESCO ASSESSMENT LEVELS

The ESCO sector in Portugal is still small and underdeveloped. The market started to gain traction in 2010 when the Portuguese government concluded that ESCO structures could be an effective tool to help the public sector improve its energy efficiency and save on energy budgets. As a result, the government created a regulatory framework to facilitate the growth of ESCOs and their financing mechanisms.

In Portugal, 30 companies are registered as ESCOs. In 2018 the total market size was estimated at approximately €75 million, with an annual growth rate of around 20% since 2014. The energy performance contracting (EPC) market, however, has been developing more slowly: its 2018 turnover was approximately €30 million. There are only 10 companies registered as EPC facilitators or EPC providers, so there is limited capacity to develop large numbers of EPC projects in different fields at the same time. Nonetheless, current projects are spread across a range of buildings segments – hotels, hospitals, sport and leisure centres, schools and public buildings are the most common.

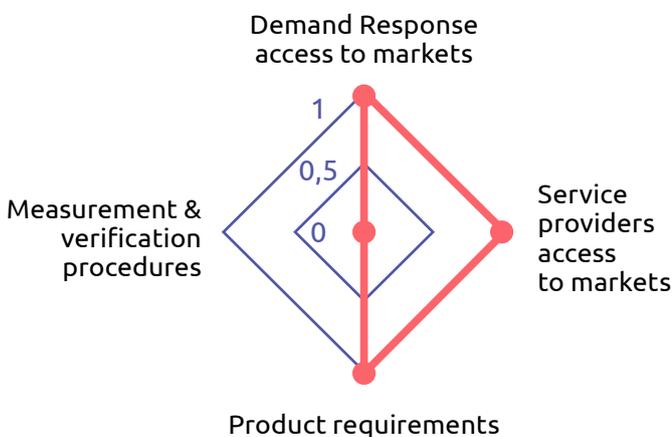


30 companies registered as ESCOs

TOTAL MARKET IN 2018
€75 million

20% annual growth rate

DEMAND RESPONSE FLEXIBILITY AND EXPLOITATION



Portugal's regulatory regime for Demand Response is very poor, and significant barriers still exist: there is currently no way for aggregated demand-side resources to play a role in its electricity markets. Aggregation is still not legal, and there is only one scheme – the Interruptible Load programme – which allows Explicit Demand Response.

Distributed Energy Resources (DER) flexibility is not exploited for participation to the market in the aggregated form in Portugal. Regarding the exploitation of demand-side flexibility on building level for instance in energy communities, there exists some pilot projects which have started to aggregate energy at demand side. As for the integration of energy and non-energy services, the relevant regulatory framework is totally absent.



BARRIERS FOR ACTIVE EPC IN THE EU

» Administrative and financial barriers:

The public procurement process is lengthy and inefficient, and administrative accounting systems are not set up to efficiently realise energy cost savings. There are no suitable financing schemes for the development of ESCOs and ESCO projects. Before the economic crisis, most ESCOs dealt with commercial banks for financing. However, this source of financing has now virtually disappeared. Currently, many ESCOs are financing projects with their own money, which is unsustainable. High transaction costs decrease interest for both the client and the ESCO. ESCOs cannot justify the administrative costs of carrying out small projects.

» Lack of knowledge and trust:

Not enough is known about the EPC business model and its providers, and there is a lack of familiarity with EPC projects among final users. Providers see this as a key barrier to developing the tertiary sector's potential.

» Lack of standard and enforced measurement and verification (M&V) protocols

» Lack of a neutral third-party

Institution to certify the accountability of a particular ESCO.

» Duration of contracts:

While EPC providers need long-lasting contracts, they also see this as a major roadblock – the level of risk involved in a project may be perceived as too high by the prospective clients due to the duration of the contract.

Regarding the Demand Response services offered by (clusters of) buildings, there are legal, policy, market, technical and social barriers.



LEGAL BARRIERS:

Regulations to enable innovation and participation in the market lack flexibility.



POLICY BARRIER:

There is no regulatory framework for the integration of energy and non-energy services.



MARKET BARRIERS:

These include limited access to the various market options for demand and DER; market concentration and high entrance costs; the absence of a clear scheme to support DER penetration in the markets; and the lack of an independent aggregator.



TECHNICAL BARRIERS:

Interoperability of hardware (to allow future aggregation of DER) remains an issue; as do cybersecurity and reliability (there is a lack of operational procedures); while third parties cannot access DER data.



SOCIAL BARRIERS:

More knowledge is needed on how to change end-user behaviour in order to provide flexibility services; as the current energy market is opaque and customers lack confidence. Demand anaesthesia – reactive consumer.

Read the full report for more detailed analysis and results:

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Contributing national partner: EDP CNET, INESC TEC