The role of Energy Service Contracts in delivering improved energy efficiency

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Summary

Energy Service Contracts (ESCs) offer a promising route for public sector organisations to improve energy efficiency, reduce energy bills, cut carbon emissions and improve the comfort of building occupants. By outsourcing the provision of energy services to a specialised contractor, clients can benefit from increased capital investment and guaranteed energy savings.

A growing number of UK public sector organisations have adopted energy service contracts, and many have dramatically reduced their energy bills as a result. But the process of establishing such contracts can be complicated and time-consuming, and opportunities may be missed due to lack of expertise in the relevant areas, or lack of trust in the outsourcing model.

To open up these opportunities, it is necessary to find effective ways to reduce the costs, difficulties and risk faced by potential clients. This can be achieved through a combination of standardised legal frameworks for procuring energy service contracts, and expert assistance in negotiating and monitoring those contracts. Both of these have emerged in the UK over the past decade and have become the primary driver of market growth. This experience provides important lessons for the future development of the ESC market, both in the UK and more widely.

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What are Energy Service Contracts?

Energy service contracts (ESCs) involve the outsourcing of one or more energy-related services to a third party, or contractor. Typically, an ESC guarantees a specified level of energy savings over a period of several years, with the capital investment being financed from the associated energy cost savings. By unlocking the potential for cost-effective energy efficiency improvements, ESCs can enable clients to reduce operating costs, transfer risk, upgrade assets, improve comfort, increase productivity and concentrate attention on core activities. By specifying outputs (e.g. energy savings) rather than inputs (e.g. specific technologies), energy service contracts can encourage flexibility and provide the contractor with ongoing incentives to optimise equipment performance. And by reducing energy demand and associated emissions, ESCs can contribute towards public policy objectives in the area of energy security and sustainability.

Outsourcing can reduce clients' energy costs because the contractor has greater technical, commercial and legal expertise in the provision of energy services and can access finance, equipment and energy commodities at competitive prices. In addition, both the competitive tendering process and provisions within the contract can incentivise the contractor to minimise energy costs. But for the client, the savings in energy bills may be offset by the time and resources required to establish and monitor a viable contract – and there is a risk of obtaining a 'bad deal' if insufficient resources are available.

Specifically, the client faces costs associated with:

Tendering, identifying potential contractors, verifying their suitability, preparing and evaluating bids and selecting a preferred contractor (*search costs*).

Negotiating and preparing a contract, monitoring contract performance, enforcing compliance, negotiating changes to the contract when unforeseen circumstances arise and resolving disputes (*bargaining costs*).

The contractor acting in bad faith – for example by claiming that cost reductions derive from performance improvements when their real origin lies elsewhere (*opportunism costs*).

Historically, these costs have been the biggest obstacle to the growth of the ESC market.

Energy service contracts in the public sector

The UK has one of the largest ESC markets in Europe with more than 50 active contractors. However, the market remains much smaller than many commentators anticipated, with a relatively slow rate of growth and with very few contracts in the commercial sector. The majority of contracts are with public sector organisations, owing in part to their security of tenure and the availability of low-cost finance from Salix and other initiatives.

The UK and other Member State governments have sought to encourage ESCs through the development of best practice guidelines and standardised model contracts. But these initiatives have proved ineffective, partly because they lack the specificity to be useful for individual clients.

Public procurement frameworks (PPFs) for energy service contracts provide a more promising approach to reducing market obstacles for public sector clients. These frameworks effectively combine three separate but interlinked functions.

- First, they provide a recognised *legal framework* for procuring energy service contracts in specific parts of the public sector that complies with the relevant UK and EU procurement legislation and allows a number of pre-qualified contractors to bid for each contract. The agreement is advertised in the Official Journal of the European Union (OJEU), but the individual tenders are not – thereby avoiding the associated delays and costs.
- Second, they act as *intermediaries* between clients and contractors and provide dedicated, professional and informed assistance to clients at each stage of the contracting process - including the organisation of tendering and the selection of preferred bidders. The intermediaries encourage learning from one contract to another, increase trust between the relevant parties and reduce the costs faced by both client and contractor in establishing and executing the contract. The cost of intermediation is recouped from the client and/or contractor - for example through a fixed fee or a percentage of annual cost savings.
- Third, they *promote* energy service contracts to potential clients. For example, they may disseminate case studies, organise seminars with relevant parties, organise visits to successful contracts, facilitate access to specific funding sources, develop model contracts targeted at particular subsectors, promote standardised monitoring and verification (M&V) schemes and liaise with central government on relevant legislation and guidance.

In combination, these functions significantly reduce the costs faced by clients in establishing a contract. For example: they lower *search* costs by prequalifying a group of contractors, standardising the tendering process, and filtering and verifying relevant information; they lower *bargaining* costs by developing sector-specific model contracts and performance benchmarks and by assisting with all stages of contract negotiation; and they lower *opportunism* costs by increasing the incentive for contractors to maintain their reputation.

There were eight PPFs operating in the UK in 2017: five developed by local authorities and three by the National Health Service (NHS) (see Box 1). All combine a legal framework with intermediation services, but they vary in the nature, scale and focus of their activities. The NHS frameworks typically target larger projects with longer paybacks financed off-balance-sheet, while the local authority frameworks target smaller projects with short paybacks financed through Salix or other initiatives. Re:fit London has proved particularly successful, with more than £100 million of investment in over 550 buildings since 2008, leading to energy cost savings of more than £7 million per year. The success of this initiative has led to it being rolled out to local authorities across England, Scotland and Wales.

A particularly notable feature of Re:fit is the extension of ESCs to schools and other small sites through the 'bundling' of multiple sites into a single contract.

Box 1 Public Procurement Framework for energy service contracts in the UK

Re:fit London
Established in 2009 by the Greater London Authority (GLA) with funding from the European Union European Regional Development Fund, this works with public sector organisations in London boroughs, such as central government offices, libraries, museums and schools.

Re:fit Local Partnerships
Established in 2016, this extends the Re:fit model to local authorities across England.

NDEE framework for the Scottish public sector and **Re:fit Cymru**
Established in 2016, these extend the Re:fit model to Scotland and Wales respectively.

P-EPC
Established by Peterborough City Council in 2013, this framework facilitated a comprehensive contract for Peterborough council buildings, and is also targeting schools.

Carbon and Energy Fund
Established in 2011 to support NHS Trusts in developing large-scale upgrades of complex energy infrastructure in NHS hospitals.

Essentia and **Evocate**
Established in 2012 and 2013 respectively, both focus on energy projects in London hospitals.

Energy service contracts in commercial buildings

The recent growth of energy service contracts in the public sector has not been paralleled in the commercial sector. While there are examples of ESCs in commercial buildings, the level of take-up is low, with little sign of market growth and no comparable intermediation services.

Despite the size of the relevant estate, there are very few contracts with retailers – largely because they have large and sophisticated energy management teams that manage multiple sites, and because they are reluctant to cede control over critical equipment such as refrigeration. The largest potential market is commercial offices, but most companies have a higher credit risk than the public sector and shorter time horizons, which makes them reluctant to sign contracts of more than five years duration. Since the majority of office space is leased, there is a major problem of split incentives: landlords are reluctant to invest since tenants will reap the benefits in terms of lower energy bills; energy efficient buildings do not attract a significant rental premium; and tenants lack the ability and/or incentive to invest since their tenure may be relatively short.

These difficulties suggest that it will take more than the development of intermediation services to encourage the take-up of energy service contracts in commercial buildings. Instead, more novel business models and policy initiatives are required – perhaps building upon recent experience in other countries. These include, for example: local government bonds to finance building renovations (e.g. the US Property Assessed Clean Energy Program); green leases that give both landlord and tenant responsibility for the sustainable operation of a building; 'dynamic metering' to deliver an assured income stream to investors from energy saving measures (e.g. the Measured Energy Efficiency Transaction Structure that has been used in Seattle); and standardised methods for implementing, documenting and evaluating energy efficiency projects, to give financiers confidence in recognising energy cost savings as security for loans (e.g. the Investor Confidence Project). Initiatives such as these remain in their infancy in the UK, but may offer more promise for commercial buildings than the standard model of energy service contracting.

Conclusions and recommendations

Energy service contracts continue to provide an effective route to improving energy efficiency in the public sector. And public procurement frameworks for these contracts provide the most effective route to encouraging their adoption. **Public policy should therefore prioritise establishing, supporting and promoting procurement frameworks in different parts of the public sector**.

Energy service contracts appear a much less effective route to improving energy efficiency in commercial buildings and little further is to be gained by their promotion in this sector. **Instead, lessons should be learnt from newer initiatives, such as attempts to standardise energy efficiency projects to make them attractive to financiers. There will be a role for policy in supporting and promoting such initiatives**.

References and further reading

See for example: https://www.london.gov.uk/what-we-do/environment/energy/energy-buildings/refit/refit-london-case-studies

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