Using Energy Performance Contracts (EPC’s) to unlock energy savings and improve the patient/working environment

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Director
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What I will cover...

- Why is this significant?
- Energy Performance market growth
- The British Gas approach to EPC’s
- Real life case studies
- Challenges
- What next…

Energy Performance Contracting is now unlocking significant energy savings and improving the patient and working environments
## Why is this significant?

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<th>Energy Performance Partnerships can generate income for communities.</th>
<th>Energy Performance Partnerships can generate income for public and private sector organisations.</th>
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<td>Energy Performance Partnerships can help to invest to reduce fuel poverty.</td>
<td>EPCs can cut fuel bills and significantly improve the energy infrastructure with a positive impact on service and staff.</td>
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<td>Energy Partnerships can create local jobs through local service provision.</td>
<td>Energy Performance Partnerships can cut carbon emissions and reduce the cost of carbon taxes.</td>
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The Energy performance market in the UK is following trends set in North America, the EU and Canada.

Lack of funding initially available to perform up-grades to energy equipment

The relatively high number of very large buildings

Government support and standards

“Key drivers for growth include the large infusion of funding from the American Recovery and Reinvestment Act to support state and local government energy efficiency programs, increased spending in ratepayer-funded energy efficiency programs, and increased customer interest in strategies that mitigate higher utility bills and/or address environmental concerns.”

Ernest Orlando Lawrence Berkeley National Laboratory

Source: ‘A survey of the US ESCO industry; market growth and development from 2008-2011’: Ernest Orlando Lawrence Berkeley National Laboratory, Supplier websites and press releases, Credo interviews for British Gas
The Energy performance market in the UK has potential for dramatic growth above analyst forecasts

A guaranteed reduction in energy consumption
“A key appeal of EPCs is that you are guaranteed energy savings against the baseline.”
Director, Private sector

Long-term stability in energy costs
“Providing some assurance to help manage your long-term energy costs was appealing from a Local Authority’s perspective.”
Energy Officer, District Council

Ability to access capital to make upfront investments
“We used a EPC contract model as we couldn’t afford the up-front cost of the CHP onsite generation.”
Facilities Manager, International Hotel Chain

“I think you will see more EPCs as capital budgets shrink post the recession.”
Energy Manager, UK Aggregates and Cement Company

Source: BSRIA; Review of the European Performance Contracting Market; December 2006, Frost & Sullivan, Credo research and analysis for British Gas
What our customers say they want...

“I would love British Gas to come to me with a strategic offer on energy services, ranging from supply through to how to save me energy. There are a lot of programmes out there – I want someone to co-ordinate them together for me.”
Director of Property Services

“In non-housing property, you often get a consult and then install energy services bundle. Local Authorities like this offer as in the end it saves them money – and they often need help in understanding their buildings as they are large and complex.”
Energy Consultant, Environment & Energy

“ESCOs are offering a variety of energy services bundled together.”
Head of Energy Services, County Council
Our approach has succeeded in forming new and emerging partnerships in the private and public sector.
What does the best EPC look like for you?

We provide the client with a level of savings that are guaranteed to repay the cost of the installation and ongoing maintenance over the contract period. Beyond the contract period energy and other savings will continue to accrue for the client.

Energy saving activities and assets installed on-sites at no upfront cost to the client. The client pays BG/MCW a monthly charge during the life of the EPC.

Assets sold to finance partner and assigned to the client with entitlement to “hard deck” repayments from monthly charges levied by BG/MCW to the client.
Achieving an EPC

In our experience, the 4 elements highlighted below have proven to be critical, almost to the exclusion of other critical elements, in developing an Energy Performance Contract (EPC). It is essential that these elements are dealt with early in the process, if dealt with late in the project they can end an unsatisfactory manner.
The three practical elements of an EPC usually consist of:

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<th>Phase 1: Audits</th>
<th>Phase 2: Implementation</th>
<th>Phase 3: Monitoring</th>
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| An investment grade audit of the properties to:  
  • Identify the savings opportunities.  
  • Build the Business Case  
  • Design resulting performance guarantee | Implementation of the savings measures identified in phase 1 | Operate, Monitor and Verify the savings over the length of the contract. |
What does an EPC investment structure look like?

An Energy Performance Contract (EPC) is a contractual and financing structure that allows NHS Trust to make energy efficiency improvements to your facilities without having to make the upfront capital investment.

- As illustrated a typical EPC has a contract length of 10-15 years
- incorporates dept and equipment financing
- upgrades the resilience of the site without costing the Trust anything.
- The energy reduction is guaranteed for the length of the contract.
Our approach...

Designed to provide a holistic, turn-key solution to analysis and reduction of building energy usage

Implement energy efficiency measures and services that deliver guaranteed energy savings against the previous baseline

Use best of breed technologies in energy efficiency to create a compelling business case for carbon reduction

Customised financial solutions:
- Client capital investment
- EPC provider funding or 3rd party funding
- Other funding streams (e.g. FIT and RHI)

Typical contract length of five to 15 years
British Gas Case Study: A Local Health Board in Wales (Four Hospital Trusts)

The Challenge:

Energy bills had risen by 19.5 per cent over the previous ten years and were projected to increase further, so the board set itself a target to reduce energy consumption by 25 per cent.

The Solution:

Contract with one energy performance partner that will “contractually guarantee” the savings and take responsibility for the upgrade and maintenance of its energy estate.
Benefits:

- Improved facilities and better building controls. More responsive heating, cooling, ventilation and hot water based on the specific needs across each of the sites and facilities.
- Improved wellbeing and comfort of patients.
- Reduced risk of unplanned and unbudgeted maintenance costs.
- Replaced ageing assets that are approaching the end of their life.
- Reduced the existing maintenance backlog which saves on management and procurement time.

Anticipated Energy Savings £862k p.a.
British Gas Case Study: UK Government – Home Office

- Programme includes 350 sites under the “greenest government ever” initiative
- Investment repaid through innovative Gain-share mechanism
- A 13 per cent reduction in consumption, 30 per cent more than the government target
- CO2 emission reduction of ~1,000 tonnes
- Helping the customer save £1.3million annually

“I wanted to place on record my thanks to you and your BG colleagues for the energy savings you have so far achieved for the Department through the innovative payment by results agreement that we have with your company.

The agreement carries risk as well as opportunities, I am please that you were prepared to accept the risk and I am delighted to learn that our collaborative partnership has already generated a range of real benefits.”

Dame Helen Ghosh DCB, Permanent Secretary, The Home Office
Energy Performance Contracting – Only for the serious!

“British Gas has become an energy services company that offers energy, no longer an energy company that also offers energy services”

Sam Laidlaw, Chief Executive, Centrica


Our commitment to the Energy Services market is now being delivered by over 2,300 dedicated employees at British Gas.
The Challenges we have had to overcome...

• Low **awareness** and lack of **information** about the ESCO concept;
• Trust and **scepticism on the clients’** side and little understanding of the opportunities ESCO projects and EPC offer;
• High **perceived risk** of the ESCO investment, lack of expertise and experience on the financial market;
• Non-supportive **procurement rules**;
• **Accounting** problems (investment vs. operating costs);
• Lack of **"off-balance sheet"** solutions, need more **commercial banks** financing;
• **Public budgeting** rules (“pressure to spend” and yearly budgets);
• Reluctance to **outsource**;
• Lack of **M&V protocols** + baseline data;
• Administrative hurdles, high **transaction costs** (especially for saving guarantees);
• **Split incentives.**
What next...

- A rise in take up of EPC good practice lead by informed front runners and facilitated by programmes such as RE:FIT?

- Developments in policy and incentives to encourage public/public and public/private EPC partnerships?

- Growth in the availability of financing solutions and funds such as LEEF?

- Could energy performance partnerships drive real innovation and development in the supply chain of energy measures?

British Gas will continue to lead in its investment and innovation in the provision of Energy Performance services.
Happy to answer any questions or address further requests for information...

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