

Why Outsource?

INTRODUCTION

Outsourcing of all types is growing rapidly for the following reasons:

- Competitive pressures are becoming more severe in the global economy. Most products, including those that once relied on a craft approach, such as beer, can increasingly be made anywhere in the world. Most multinational companies are moving production towards lowest production cost sites, wherever they may be in the world and within manufacturing organisations it is now normal for new production projects to be tendered out to different production sites. In some industries whole elements of production, such as packaging, can be outsourced to other companies. In some cases, for example, in the brewing industry, companies that provide outsourced services such as packaging can even be competitors to the client company in other markets.
- Product and cycle times have been reduced dramatically (therefore there is a need for a quicker response and more flexibility in the supply chain including energy supply systems).
- Investor demands have focused management on delivering results.
- Small agile niche competitors can change industries and cost structures over night.
- Achieving significant operating and financial performance improvements is critical (the twin pressures of oil peaking leading to sharp rises in energy prices and global climate change described in Part I mean that significant improvements in efficiency are needed now, just to stand still. Incremental change is no longer good enough).

An added motivation to outsourcing including asset monetisation can be the method of measuring success in a company. If a company uses return on capital employed (ROCE) or added value to measure success then there is a motivation to reduce the amount of capital employed. This will increase the motivation to sell assets to get them off the balance sheet and hence outsourcing

involving asset monetisation will be more attractive. (This kind of off-balance-sheet treatment is a complex issue and in every case it is necessary to seek appropriate legal and accounting advice at an early stage, especially in the post-Enron world.)

Whatever the size of the organisation, the processes of energy management (described in Chapter 4) are the key to achieving real energy cost savings and energy risk management. The resources dedicated to energy management will vary between organisations but the basic process steps are the same. So why should an organisation consider outsourcing some or all of its energy management?

Organisations are facing the following energy problems:

- Increasing energy costs (and increasing price volatility).
- Ageing utility infrastructure (in many instances companies have repeatedly invested in new process equipment without updating utility equipment).
- Lack of resources. In the 1980s large organisations often had dedicated energy management teams but most of these were disbanded when energy prices were low. Organisations downsized and lost energy management skills during the period of low and stable energy prices and expertise was lost from the economy as a whole as people moved into other functional areas. Some organisations are now (as of 2006) appointing energy managers to deal with the energy issue but the supply of qualified, experienced people is a problem.
- Pressure to focus on core business and outsource non-core activities. This is a general business pressure and there has been a rapid growth in outsourcing of non-core activities over the last 20 years.
- The increasing pressure to reduce emissions to mitigate climate change.
- Increasing complexity of the regulatory environment brought about by the onset of schemes such as Integrated Pollution Prevention and Control (IPPC), Climate Change Levy (CCL) and EU Emissions Trading Scheme (EU ETS).

The decision to outsource energy management can be driven by several factors, which may include the setting of a high level target to reduce energy and utility costs and/or emissions; a threat of plant closure, which triggers a fundamental examination of costs and evaluation of options that may

previously have been considered 'off limits'; or the recognition of the need to invest in new utility plant at a time when capital is constrained due to other investment priorities.

According to Greaver (1999) some reasons to outsource any service or process include:

- obtaining expertise, skills, best practice and technologies that are not available within the organisation;
- increasing flexibility to meet changing business conditions, demand for products/services and technologies;
- improving operating performance;
- reducing costs through superior provider performance and the provider's lower cost structure;
- enhancing effectiveness by focusing on core business;
- transforming the organisation;
- reducing investment in assets, freeing up resources for other purposes;
- improving risk management;
- gaining market access and business opportunities through the provider's network;
- improving management and control;
- improving credibility and image by associating with superior providers (gain new assets that improve credibility/image);
- expanding sales and production capacity during periods when such expansion could not be financed;
- turning fixed costs into variable costs;
- commercially exploiting existing skills;
- acquiring innovative ideas;
- giving employees a stronger career path;
- increasing commitment and energy in non-core (but important) areas;
- generating cash by transferring assets to the provider;

- accelerating expansion by tapping into the providers resources, capacity, systems and processes;
- increasing product and service value, customer satisfaction and shareholder value.

Examples of these reasons in the context of energy management are shown in Table 5.1.

BARRIERS TO THE OUTSOURCING PROCESS

Factors that often inhibit organisations from outsourcing in general include:

- uncertainty;
- fear of:
 - loss of control;
 - loss of core competencies;
 - employee dissent or unrest;
 - difficulty in reversing decision;
 - risks of failure.

Another issue hindering the take-up of advanced energy services is the energy procurement process. The annual power and gas procurement round, in which companies tender the supply of power and gas but focus entirely on the price per MWh, may achieve the lowest unit cost for commodity but is a barrier to obtaining the lowest overall cost of delivered energy. There is a need to break this process and look at longer term deals tied with energy services aimed at giving lowest total costs. Senior managers need to change the established methods of energy procurement and focus on total cost, not just commodity cost. Energy procurement teams will always say they have the best deals; but have they considered the risk issues for instance? Have they really optimised energy volume, energy price and energy risks?

Another, related factor that inhibits outsourcing of energy functions is that the various elements of total energy cost sit in different budgets or functional areas within most organisations in areas including maintenance, capital projects, energy procurement, bill verification and accounting, monitoring and targeting (M&T) and management reporting. A major inhibitor is that many organisations still see energy as an uncontrollable overhead rather than a management activity that can be used to produce value and manage risks.

Table 5.1 Reasons to outsource energy management

Reason to outsource	Energy or utilities example
Obtain expertise, skills, best practice and technologies that are not available within the organisation	This is a particularly important in energy management. In the 1970s and early 1980s many organisations had effective, large energy management groups. With the lower energy prices brought about by the advent of competitive energy markets, coupled with the general trend towards downsizing in the 1990s, many organisations reduced, or even lost their energy management teams altogether. The economy as a whole lost expertise in energy management. With the increase in energy prices in 2004/05 many organisations did not have the expertise or skills needed to address the problem and there is a need to reacquire lost skills as well as new skills required by the growth of the carbon agenda.
Improve operating performance	As well as the obvious example of reducing energy costs there are examples where improving the reliability or service levels of utility provision can improve product quality and/or production level, thus improving profitability.
Reduce costs through superior provider performance and the provider's lower cost structure	As well as reducing energy demand outsourcing energy management can potentially access better buying power for utility supplies such as power and gas, or ancillary supplies such as chemicals or plant and equipment, thus reducing costs.
Enhance effectiveness by focussing on core business	By transferring operational problems to a service provider some key staff for example in engineering, may be freed up to focus more on production processes and problems rather than the utility area
Transform the organisation	Outsourcing energy management can bring in new ideas, processes and investment that contribute to transforming the organisation.
Reduce investment in assets, freeing up resources for other purposes	Using an energy service provider to invest in utility projects can liberate investment capital for other uses such as investment in new production equipment or marketing.
Improve risk management	A major benefit of outsourcing energy services is transferring some of the energy related risks to a service provider.
Gain market access and business opportunities through the provider's network	Through energy outsourcing with a utility owned energy service provider a customer could gain access to the expertise needed to package and sell carbon emission credits gained through participation in schemes such as the EU Emissions Trading Scheme.

Table 5.1 *Continued*

Improve management and control	Utilities may be poorly controlled due to lack of resources and management. Often Service Levels of internally managed utility operations are not be defined and even considering outsourcing can lead to a clearer definition of Service Levels.
Gain market access and business opportunities through the provider's network	There may be strategic deals that can be done in which a customer accesses the providers marketing networks. An example may involve the customer utilising a utility owned Energy Service Company's marketing database to sell its products to the utility's domestic customers.
Improve credibility and image by associating with superior providers (gain new assets that improve credibility/image)	This may be appropriate for smaller and mid-size companies who could gain profile, credibility and image from entering into a partnership with a large, utility backed energy service provider. More directly of course they could gain new utility assets which help reduce costs and assist in creating a good image to their customers.
Expand sales and production capacity during periods when such expansion could not be financed	An example of this would be entering into an energy services contract in which the provider supplies capital for utility infrastructure investment which is needed to increase system capacity in order to support and increase production throughput. This may be appropriate for both smaller, growing companies where capital is tight, and for larger organisations strategically moving out of direct involvement in energy issues.
Turn fixed costs into variable costs	Total utility costs are made up of fixed costs for example labour and variable costs such as energy input. Some forms of utility outsourcing can switch fixed costs into variable costs for example if utilities are sold at a unit rate covering all costs such as labour and capital. This does, however, involve some form of risk transfer to the service provider who will need to be protected by 'minimum take' clauses. These ensure a minimum level of revenue irrespective of the volume of utility consumed.
Commercially exploit existing skills	A customer may have skills in-house that can be exploited by a joint venture with an Energy Service Company in new areas.
Acquire innovative ideas	A company which is focussing on its core business is unlikely to create, or adapt innovative ideas in the energy/utility area. Although it is unlikely to be an innovator in the sense of developing new technologies, an energy service company can bring with it the ability to spot new opportunities and package existing technologies in a new way for example effluent treatment plants optimised for bio-gas production and then using bio-gas as an energy source.

Table 5.1 *Continued*

Give employees a stronger career path	Utility employees in most companies have a limited career path unless they move out of the utilities area. For those people who are interested in and committed to a career in this area, the 'glass ceiling' effect can be frustrating. By joining an energy service provider, particularly if it is part of a large O&M/FM or utility group, can open up new career paths. Often training, other than mandatory training on issues such as Health & Safety or Electrical systems, will not be freely available to utilities staff and any budgets for training are cut to the minimum. In a dedicated utility or energy service provider, additional training options will be available. RWE, for instance offers all operational staff mandatory training, professional development training and aspirational training. In several cases staff who were apparently 'stuck' at an operational level have moved onto other roles. Even if promotion is not possible or available, being part of a large energy service company will offer opportunities for re-location or experience within different industrial sectors.
Increase commitment and energy in non-core (but important) areas	Energy is often seen as being of low importance and therefore it becomes of low importance. A service provider can re-focus attention on it without taking away resources from the organisation's core mission
Generate cash by transferring assets to the provider	Selling utility assets to the service provider will generate cash on the first day of the outsourcing project. This, combined with on-going savings, can bring about a highly cash positive position on the whole outsourcing contract.
Accelerate expansion by tapping into the providers resources, capacity, systems and processes	As well as freeing up capital for investment in the core business there may be opportunities to use a suppliers marketing and customer database to promote the customer's product directly to a new or different market.
Increase product and service value, customer satisfaction and share holder value	By reducing total utility costs outsourcing can increase the value of a product and service. By reducing environmental impact through reduced energy use, customer satisfaction can be enhanced through their beliefs or perceptions that reduced environmental impact is a positive feature.

Another barrier is the belief that engineering staff have already optimised the process or building(s). This view has to be seriously questioned, especially in the current period when we have experienced a large increase in energy prices after a long period of relatively low prices, which has to mean that there is new potential for cost-effective projects. Also in-house engineers, as well as consulting engineers of most varieties, will tend to design systems in

the way they have always been designed: inherent conservatism is built in to the engineering design and specification process. Have they really considered 'information-based engineering sizing' and 'holistic design' (see Chapter 8) in designing new process plant, or have they just optimised individual system components? Have they really considered alternative, possibly radical alternatives, such as on-site renewable generation?

Negativity and lack of credibility can be a major problem. This is characterised by comments such as 'management will never follow through on this' or 'they talk about it but we can never get the investment capital' or 'we tried all this five/ten/fifteen years ago and it didn't work then'. Senior management have to work hard to demonstrate that they are serious in any energy management programme, whether it be in house or outsourced.

In many large, multi-national organisations there is an inherent tension between central, head office support staff and on-site operational people. Central staff, particularly in functions such as energy buying, which in many companies is now organised on a pan-European basis, are keen to demonstrate their effectiveness, sometimes by seeking to buy pan-European energy and energy efficiency deals. The reality from the supplier's side is that there is no one who can currently offer this kind of integrated pan-European deal. Some pan-European utilities come close but the differing regulatory frameworks make a unified approach on power and gas sales difficult. Furthermore, the central HQ staff have not always engaged the individual sites sufficiently to make a programme happen. An outsourcing programme driven entirely by the centre but without support from individual sites is not going to move forward. The sites concerned have to be fully engaged and motivated. At the end of the day production units are the source of profits and hence usually the real power to get things moving.

Another major barrier is the view that 'we can't have outsiders touching the process'. This is clearly a real concern that needs to be addressed by a clear definition of roles and responsibilities plus careful selection of an energy partner. It becomes a more valid concern as the energy intensity and the linkages between process and energy use increase, for example, in industries such as glass, cement and chemicals.

The decision to outsource any activity should always be strategically driven. Energy outsourcing has most often been undertaken in a tactical way, aimed at achieving tactical results, and this can lead to under-performance, disappointment and total failure.