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MARK THROWER MANAGING EDITOR

MODULE FOUR
UTILITY PURCHASING

Successful utility purchasing

By Mervyn Bowden, managing director, Intuitive Energy Solutions Ltd

The importance of informed utility purchasing to organisations of all sizes, and in all sectors of the economy, is growing as energy and water increase in cost year-on-year. This adds significance to everyone's budgets for operating expenses and ultimately their profitability.

A critical indicator of utility purchasing importance to the organisation is taking any cost increase in energy/water over the year and projecting what this equates to in additional sales of their products and/or services. Simply illustrated, if the increased energy cost is £1m and the margin on sales is 10 per cent they will need to produce an additional £10m worth of sales just to cover the increase.

For those concerned in more energy intensive industries the need will always be particularly high to understand in detail all the many factors which can influence bills, how to ensure their accuracy, and check they have been billed in accordance with agreed contract terms.

The relative importance of each of the criteria below will most likely be determined by its size, value, complexity and the impact of energy costs on competitive edge – could they potentially put you at a commercial advantage/ disadvantage against competitors?

It may be decided, particularly for a large energy and water spend, that assistance is needed from industry experts such as Third Party Intermediaries (brokers) who can provide guidance through the complexities of energy procurement and provide services such as market monitoring and billing validation. However, do take great care in ensuring that whoever is chosen complies with the forthcoming



OFGEM Code of Conduct which will govern the way such companies operate and check that they comply with the prescribed industry practices. Ensure retention of final decision making or have a clear and written governance process for any outsourced financial practices.

Key issues to consider

As a general rule, UK energy policy is driven by two key pillars – aspiration for a low/zero carbon supply and ensuring sufficient generation for future national needs. It is worth keeping these policy issues in mind throughout as they explain many of the key components behind energy procurement.

So let's take a look at the key things to consider for those with the responsibility for any aspect of utility purchasing.

Before a meaningful discussion can be held with a potential supplier about providing an energy supply it's necessary to provide them with a lot of information about the organisation; how it has used energy in the past (at least 12 months), its current usage patterns and what it is likely to use over the duration of any contract. This in turn will be used to produce a "profile shape" – usually the upturned bath-tub graph for core day-time operations reflecting how much energy they used, on average, during each half-hour period throughout the year.

Potential suppliers will advise what they'll need but it will certainly include all relevant information on the organisation's buildings, their hours of operation, key activities performed there, the types and size of the supply they need, both of which should be listed on current bills. They will also need the types of meters in place or planned - ideally half-hourly data so that consumption can be forensically

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monitored and analysed, alongside key energy-consuming services and processes performed in the building and, these days very importantly, whether there is any on-site energy generation, like Solar Photo-Voltaic panels or biomass boilers, along with all the details of what they contribute and when.

All data will need to be checked, at least at high level, to ensure the client side is happy with it. No-one will thank you for paying someone else's energy/water bill for years! It does happen.

Make sure data includes projected savings from ongoing energy efficiency schemes/investment and the impacts of development and new additions in terms of both buildings and processes.

Keep information up to date

Most importantly, having gone to the trouble of accumulating all this information, make sure it is kept up to date regularly. Avoid as many potential sources of billing error up front – and there are many. It's worth doing some reading about what may be wrong on each bill – potentially anything which is on, or influences, the bill could be incorrect.

Training and awareness on all aspects of the procurement of energy, and increasingly water, are vital as many of the factors are constantly changing – legislation, new charges, carbon taxation, de-regulation, Codes of Conduct, among many more. The amount and depth of not only initial training but also CPD will depend on many factors, not least as concerns the scale and complexity of your own operation.

It is critical that those involved in any aspect of the procurement of energy understand how the markets function in the countries where they operate. What are the factors which impact on market prices? Are these within your own country or subject to external geo-political influence? How is information published? What charges other than the market-driven components will appear on bills? Who are the best advisors to ensure everything is kept up to date?

A key factor of the energy markets, as with all commodities, is the speed at which prices can change, often catching participants unawares. Those who are well prepared tend to have planned for these events in advance and placed limits on their exposure to extreme price movements to protect their business.

It also helps to understand how Government policy looks and where it is going in terms of impact, particularly on future costs. Policy is being fundamentally changed by the Energy Act 2014 which incorporates measures such as the Electricity Market Reform which sets out to subsidise and encourage both nuclear generation and renewables under Contracts for Difference with a view to helping to ensure future energy supply security in the UK.

An organisation's appetite for financial risk exposure from its energy contracts/purchasing may be critical factors in determining how they go about purchasing the energy used and the types of contracts between them and their energy suppliers.

Appetite for risk may sometimes be described as "need for cost certainty". Many large energy users like a high degree of cost certainty well into the future where they are unable to pass on additional costs to customers or others, as this will directly affect their profitability. Generally these are also organisations which are unable to easily manipulate energy demand, such as retailers with shops which have to trade during published hours.

Conversely, higher procurement risk appetites may be displayed by those organisations, like property owners/landlords, who are able to pass on costs through property service charges to tenants though actual practice varies significantly across different organisations.

Without doubt, cost certainty is more likely to be achieved by committing to long-term relationships/contracts with suppliers, as will hedging significant proportions of energy needs on the market, maybe a year ahead of using it.

It is also important to define and understand what the "worst case scenarios" might look like, i.e. where prices rise unexpectedly and rapidly as they did in 2008, and to produce a risk management plan detailing what proportion of total volumes will need to have been bought, and by which dates. This, along with defined stop-loss limits, will usually provide significant protection from the worst excesses of market movement.

Many organisations do not allow "unlocking" of trades made as they view this as speculation, though for many others it is a key tool to adjust their overall position in a market, unlocking at higher price levels and assuming lower future price levels, re-locking to reduce the cost of the portfolio.

It's worth knowing that there are a range of financial derivative products available from the major banks and specialist companies which can effectively insure the budget, at a cost, but for some organisations this will be money well spent. FCA accreditation is normally required from the provider of these products and independent specialist advice is highly desirable before taking them up.



In all cases, when talking to potential energy suppliers, be aware of your organisation's credit rating as this will also impact some of the procurement and contract options available to it. The CFO, or Treasury Department if there is one, can provide help on this.

Well before your existing energy supply contracts expire, it is good practice to carry out some research on the types of contracts available from each of the major suppliers and to have initial discussions with them to identify which most fit with your own needs. It is sometimes useful to check which suppliers other similar clients have and to discuss relative supplier capabilities with a professional network and professional bodies in this space, like the Energy Institute and Chartered Institute of Purchasing & Supply.

Use the views of TPIs

It is useful here to consult independent TPIs for their views on the suitability of suppliers for your needs and this should include all the services which they can provide and you may need. Examples would be added-value websites which allow analysis of your consumption and procurement situation; some suppliers provide this automatically as part of the contract, others may charge extra for it or indeed not provide it at all.

Undoubtedly a lawyer will be needed to get through the assessment and agreement of a contract with the supplier. Usually energy supply contracts are complex documents which contain many and varied commercial and legal terms. If your organisation has a legal resource it's worth asking them whether they're comfortable dealing with energy contracts given their often very high value, significant length and vulnerability to things like changes in legislation and respective credit positions on both sides.

A lot of time needs to be spent on the old chestnuts around how you can vary or indeed terminate the agreement.

There are many good, specialist

energy contract lawyers out there who may not be cheap to use but do consider the ultimate cost of not using them.

There are far too many variants to capture them all here. They are worthy of research in their own right. Generally they will vary from a defined fixed-price contract for a fixed term to a very flexible contract where the market component, energy, can be purchased when you choose and at times when you feel the price is right.

The length of contract is critical in allowing continuous trading/buying of future volumes – never allow a contract to expire before renewing.

These days most energy contracts cover supplier management charges, define (but don't necessarily include) trading fees, may not include the energy itself – under flexible contracts you need to buy this separately – and are very unlikely to include all the "pass-through" elements such as taxation, distribution and transmission charges, power factor surcharges and many more. As at July 2014 these pass-through charges account for some 55 per cent of the total delivered price of electricity. Not only is it important to form an understanding of how these are made up but being challenging of your TPI broker is also a good idea. Audit trails are needed because of the scale of the charges and the fact that this proportion is set to rise in coming years as the costs of upgrading the national grid, introduction of smart metering and continued subsidies to renewable generation are factored in.

Charging regimes

A number of organisations provide regular updates on where charging regimes are going and it is very worthwhile to ensure that these are recognized and included within forward budgets – not an easy task but highly necessary.

It is necessary for considerable caution when considering impacts and pricing arrangements of both on- and off-site renewable generation contracts, often purchased via separate power purchase agreements (PPAs). These may have completely different terms to the main supply contract but will need to be carefully considered when producing budgets and determining projected returns on investment (ROIs) on energy efficiency.

It's worth remembering that with "flexible" procurement contracts you aren't actually buying any energy up front or as part of the contract itself – you're setting up a legal and contractual process which enables you to buy (and sell) energy under controlled conditions and with defined governance procedures.

Seems a silly question but there are many different forms of each type of energy. Let's take electricity as an example.

Types of electricity procured tend to be driven by the carbon emissions factors for their generation. Therefore, renewables, wind, solar p.v., anaerobic digestion, etc, are classed as "zero carbon"; nuclear is included as "zero carbon" but clearly has other issues with disposal of generation by-products; Combined heating and power generation is "low carbon" and the last group, fossil fuels, will be generated from natural gas, coal, oil, etc, each having their own, but much higher carbon footprint. It is possible to procure electricity from either remote, or indeed connected, sites via specific power purchase agreements (PPAs). Low & zero forms of electricity have their own tax exemptions/advantages, usually reflected in LECs (Climate Change Levy Exemption Certificates) and REGOs (Renewable Electricity Guarantee of Origin certificate) as well as Government subsidies like Feed In Tariffs and Renewable Obligation Certificates; Renewable Heat Incentive for approved forms of heat generation. Another advantageous scheme for users is to have a Climate Change Agreement which exempts certain processes from Climate Change Levy.



"Length of contract is critical in allowing continuous trading/buying of future volumes. Never allow a contract to expire before renewing"

If you don't have any specific "type" requirements a "grid average" mix will be provided which will depend on the types of generation used at any particular moment.

As with all procurement, relative offerings from potential suppliers should be tested either through negotiation or through tendering. For either the most important pricing factor is to ensure that comparisons are made on an "apples for apples" basis. A specialist advisor/broker may be needed here.

Once your energy supply contract has been agreed and achieved appropriate sign-offs from the prescribed parties in the organisation it is vital to communicate the fundamentals of the contract, like how energy is charged, to those who use energy directly and a wide and diverse group of stakeholders both internally and externally to ensure that best value is achieved. The most important stakeholders are likely to be those who run the core business operations and those who are putting forward business cases for capital investment in demand reduction schemes. Both, particularly the former, can make a serious difference to profitability through demand efficiency.

Property people, and their lawyers, also need to be kept closely in the loop to ensure that tenancy and landlord agreements reflect accurately the contract stipulations and they should reciprocate by feeding information through to the procurer of energy contracts of changes in use, rateable values, and tenant operations, but will need to be advised in detail of those needs and probably reminded at regular intervals.

Once the contracts are in place there's a major piece of work to establish what the operating budgets should be for energy and water. These are complex and need to incorporate most, if not all, of the factors mentioned above, depending on the nature of the operation.

They need to go hand in hand with a robust review process which holistically embraces both supply and demand (usage) along with any bespoke factors for the organisation. Any variance needs to be understood and actions taken to prevent recurrence, as well as being communicated to those who need to know within the organisation.

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ENTRY FORM

Utility Purchasing

Please mark your answers on the sheet below by placing a cross in the box next to the correct answer. Only mark one box for each question. You may find it helpful to mark the answers in pencil first before filling in the final answers in ink. Once you have completed the answer sheet in ink, return it to the address below. Photocopies are acceptable.

QUESTIONS

Q1. How are the cost/volume for electricity commodity market trades normally expressed?
- ☐ p/kWh
- ☐ £/mWh
- ☐ p/mWh
- ☐ £/tWh

Q2. Which of these indicates that a unit of electricity is from a renewable source?
- ☐ REGO
- ☐ kWh
- ☐ LEC
- ☐ CRC

Q3. What is the frequency of data readings normally used for measuring electricity consumption?
- ☐ 15 min
- ☐ 30 min
- ☐ 60 min
- ☐ 240 min

Q4. What proportion of the delivered cost of electricity is from non-commodity charges?
- ☐ 10 per cent
- ☐ 55 per cent
- ☐ 45 per cent
- ☐ 35 per cent

Q5. What management charge do most energy suppliers charge on large electricity supply contracts?
- ☐ 2 per cent
- ☐ <10 per cent
- ☐ < 15 per cent
- ☐ <20 per cent

Q6. Ensuring that appropriate risk management and compliances processes are in place for energy is called?
- ☐ Sense-check
- ☐ Governance
- ☐ Auditing
- ☐ Procurement

Q7. Which group of companies will shortly be covered by a new OFGEM-led Code of Conduct to ensure transparency of their offerings and ensure adequate staff training?
- ☐ Energy suppliers
- ☐ Customers
- ☐ Contractors
- ☐ TPI's

Q8. How far back can you claim for energy billing errors?
- ☐ 6 years
- ☐ 1 year
- ☐ 3 years
- ☐ 6 months

Q9. How often are water companies obliged to read your water meter?
- ☐ Monthly
- ☐ Quarterly
- ☐ Every 2 years
- ☐ Annually

Q10. Which of these describes a market situation where the futures (forward) price is expected to be higher than the spot price?
- ☐ Backwardated
- ☐ Bear
- ☐ Bull
- ☐ Cantango

Please complete your details below in block capitals

Name ..... (Mr. Mrs, Ms) .....

Business .....

Business Address .....

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Post Code .....

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Completed answers should be mailed to:

The Education Department, Energy in Buildings & Industry,
P.O. Box 825, GUILDFORD, GU4 8WQ

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This is the fourth module in the twelfth series and focuses on utility purchasing. It is accompanied by a set of multiple-choice questions.

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