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Energy Purchasing Strategy Year End Review 2015

THE ENERGY AWARDS 15 WINNER

Energy Buyer of the Year 2015

Dr Tony West

About the Author - Dr Tony West

Dr Tony West has over 30 years' experience in the energy and power industry

Tony has formally been Head of Trading for Scottish Power based in Glasgow and Npower's trading business. Prior to joining Scottish Power, he worked at Sapient as Director of Business Consulting within the Trading and Risk Management practice.

As well as establishing Npower's (National Power's/ Innogy's) trading business, Tony was instrumental in the development of the utility's internal market/asset backed trading model. Tony conceived and led the introduction of many new innovative B2B risk management product offerings; one such campaign was specifically recognised in the Utility Week Industry Achievement Awards, Marketing Initiative of the Year.

Recently Tony worked at Gazprom Marketing & Trading, developing their power activity as well as the power strategy across Europe for Gazprom in Moscow.

Tony has also worked in a variety of senior positions at BP, JP Morgan, RWE Trading, Standard Chartered Bank and smaller trading companies and hedge funds. Tony currently provides trading and risk management oversight for Pulse Business Energy's clientele.

Glossary

Backwardation - Occurs when prices are higher for nearer delivery dates than for forward delivery dates. The opposite of contango.

Base Load - The amount of electric power delivered or required over a given period at a constant rate. Example: 1MW baseload is 1MW/hr every hour for the entirety of the delivery period

Bearish - An expected downward trend in prices, a weak or depressed market sentiment.

Brent - The most commonly traded North Sea crude oil which also acts as a global benchmark for other grades.

Bullishness - An expected upward trend in prices, a strong supportive market sentiment.

Contango - Occurs when prices are higher for forward delivery dates than for nearer delivery dates. The opposite of backwardation.

False Bottom - Occurs when it is believed price has reached its lowest, only for the value of the asset/commodity to decrease further.

Fixed contract - Fixes an agreed price for gas and electricity today which remains for the duration of the contract.

Flexible contract - Involves purchasing wholesale energy in intervals throughout the contract, giving freedom in timing and quantity of energy bought.

Forecast Demand - An estimate of expected demand over a specified future period.

Forward rolling-annual price – The average price for a rolling period of 12 months from specific month. If the first month is January 2016 then the price would be for the whole of 2016, whereas the price for the next month would be the average of 01/ Feb/2016 – 31/Jan/2017 and so on....

Forward Price - The price today for the delivery of a commodity to a specific location on a specified date in the future.

Forward Price Curve - A graph plotted with forward prices that is useful for showing market sentiment.

Gas Storage - Facilities that store natural gas for an indefinite period of time for later consumption

Generation Capacity - The power output rating of a generator measured on an instantaneous basis, typically measured in megawatts.

Groningen Gas Field - It is Europe's largest natural gas field located in the northeastern part of Netherlands.

Hedge - The reduction of risk by covering anticipated commitments with an offsetting trade, which has a market risk opposite to the underlying commitment. These are often, but not always, financially settled trades (i.e. futures, options or swaps/CFDs) that provide a cash-flow impact intended to offset the financial result of the underlying commitment.

Price Curve - Energy prices plotted on a graph to show trends and volatility

Spot Delivery Month- The spot delivery month is the month that a futures contract on a commodity becomes deliverable.

Summer Months - From April to September

Volatility - The degree of fluctuation in prices.

Weighted Average Price - An average in which each quantity to be averaged is assigned a weight. These weightings determine the relative importance of each quantity on the average. Weighted Average Prices are often specifically volume weighted with the average price adjusted to take account of different volumes in different pricing periods.

Winter Months - From October to March

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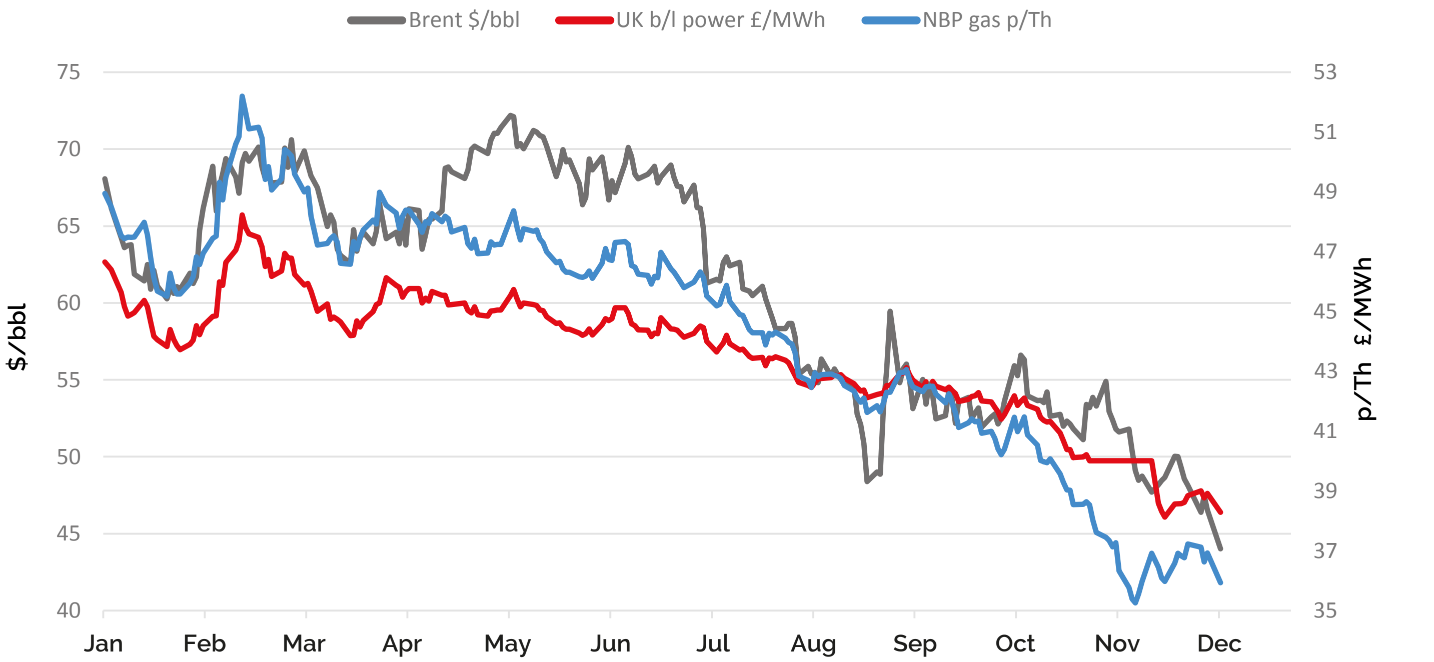
Introductory comment

With the exception of the first half of February 2015 and second March 2015, which appeared to show some signs of bullishness, during 2015, prices generally dropped across the energy sector; Brent even dropped below $40/bbl mid-December, a price not seen since February 2009. Gas prices were generally more volatile than power, due to the closer link to oil, and were also exposed directly to the consequences of political intervention reducing the supply of gas from the Groningen gas field.

Energy Prices for Year +1



As is often the case in declining markets, where new lows are seen on a regular basis, many buyers are tempted to look at historic prices and planning budgets; comparing these against available fixed annual prices to make buying decisions - unfortunately this can reduce the benefit of flexible contracts. While such decisions can ensure budgets are met, it is often a missed opportunity as we have experienced again this year; comparing a purchasing performance against the market is more appropriate and helps ensure competitiveness within a business sector as market prices and structure change.

Whereas annual market prices dropped overall during the middle of the year, as we moved from spring through summer, monthly prices essentially stabilised, just following the forward curve. In view of that, we can explain that annual prices reduced, particularly so for electricity, as a consequence of forward prices falling quicker than nearby prices as the forward curve (for rolling annual prices) moved from contango to backwardation.

Chart 2 shows this dropping in forward prices and change in forward structure as the year progressed; it can be clearly seen that not only did the full price curve drop, but the relative price difference between nearby and 3-year forward prices went from forward years being higher than nearby prices to 3 year forward prices being lower than the first year.

Delaying purchasing decisions will tend to lead to lower prices as the spot delivery month is approached.

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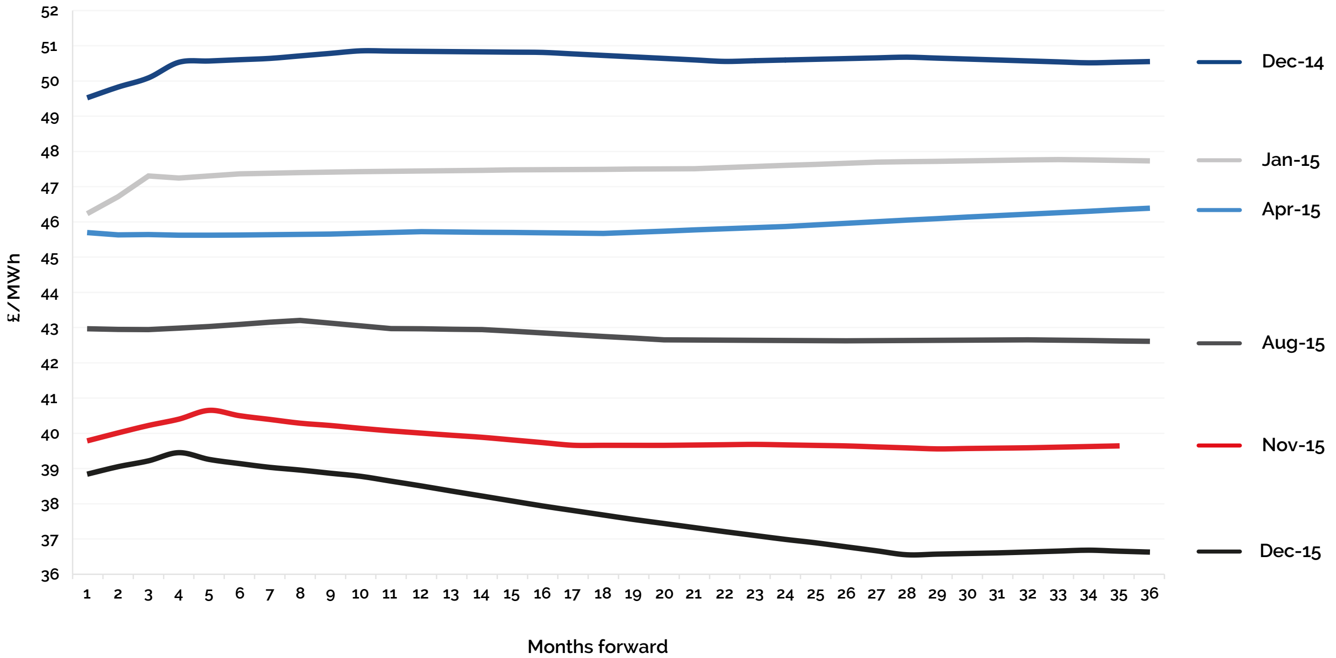
Forward rolling - Annual power price



Energy buyers, such as Pulse Business Energy, who do not automatically fix prices for the year prior to the beginning of the year, will have been able to pass the benefit of these structural market changes on to their clients. Of course, any clients that preferred to fix prices for the balance of the year in March, or even subsequently, in order to meet budget targets rather than beat the market, will also have missed out of the resulting lower costs. However, as a response to this change in forward market structure, buyers now need to consider the best approach in a backwardated market, bearing in mind these structural changes are predominantly driven by changing fundamentals and perceptions of changing sentiment.

Comment on PBE's strategy

Pulse's energy default purchase strategy is predicated on the basis that the UK energy supply system is designed to comfortably meet peak demand. Therefore by definition, except when there are extreme non-seasonal weather patterns or other unexpected events, for base-load demand there should normally be a surplus of supply capacity. In such a situation, delaying purchasing decisions will tend to lead to lower prices as the spot delivery month is approached. The contango structure of the market at the beginning of the year supports this situation. Of course, on any day to day basis, demand will vary in relation to normal anticipated patterns and this can create volatility in prices at the time of purchase decisions; meaning on any specific day if forecast demand is increased, higher prices will result. The counter factor to the strategy of delaying purchases is that volatility increases as delivery approaches. However, as the market moves to a backwardated structure (where forward prices are lower and so do not necessarily support delaying purchases) buyers will need to anticipate increasing prices as delivery approaches.

Pulse appear to have considered this by making some purchases earlier than they would have done in previous years. In 2015, this may have forgone some of the benefit of buying later but has gained from buying in to the backwardation where forward prices are cheaper than nearby, reducing the risk of price increases.

In this summary, I have not assessed whether the strategy is appropriate or otherwise for any specific

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customers, but whether the strategy itself can be deemed successful on the assumption the customers knowingly chose to price their energy via a flexible contracting approach in order to achieve better pricing. Performance is generally measured against an alternative of fixing the contract price up-front (for a full 12 month 'period') on a single day; such day of fixing the annual price being more a matter of 'feeling', or because it suits the supplier, than judgement and so comes inherent with its own risk; the contracting day for the up-front fixed prices may not be the best day to contract or provide the customer with the most suitable benchmark against their competitive position or budgetary considerations.

This summary does not consider the initial shape and balancing trade and so only looks at the base-load fixing price.

Pulse comparative performance, 2015 electricity:

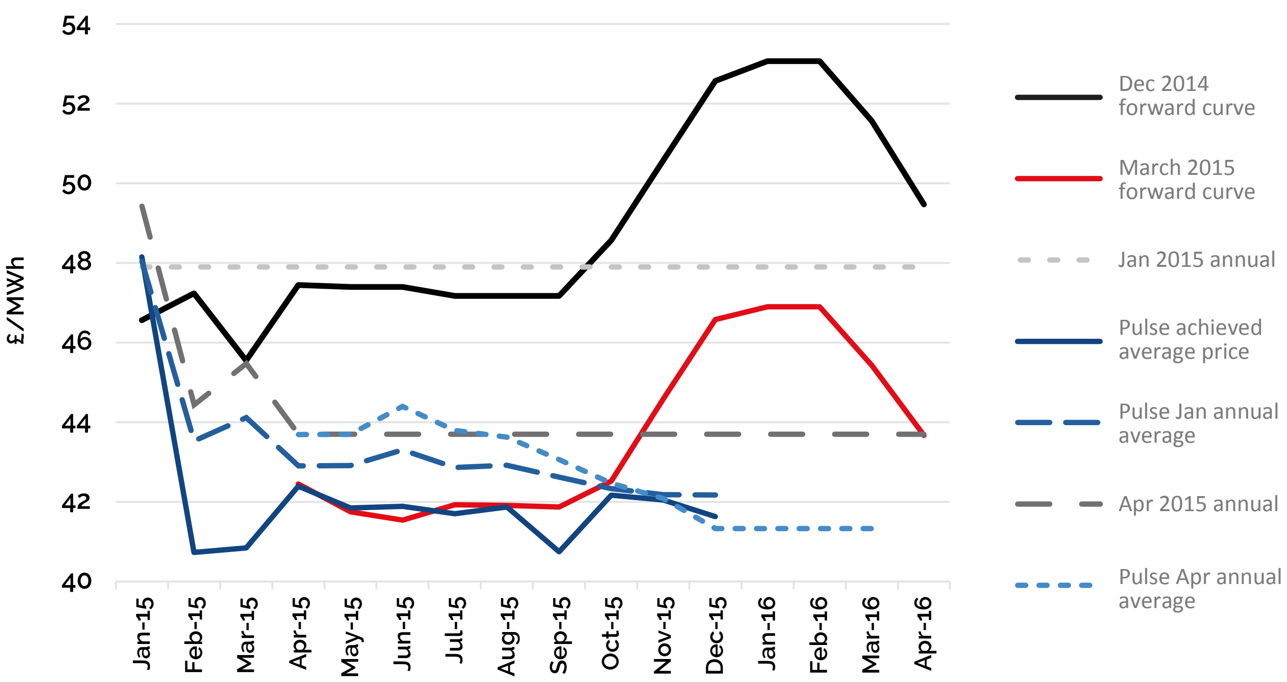

Figure 1. Pulse Business Energy 2015 electricity purchase performance:
The chart shows the wholesale market forward curves for power in December 2014 and March 2015 together with the associate annual fixed price for January 2015 and April 2015 starts. For comparison, the chart includes Pulse's average purchase prices throughout the year and the resulting average cost Pulse achieved for its electricity customers (base-load basis).

Electricity

On comparison of Pulse's 2015 achieved weighted average price with an annual January 2015 start fixed prices, agreed at the outset of the contractual arrangement, Pulse's achieved prices were approximately 12% lower, with a range of between 9% -13% lower. In comparison to April 2015 start fixed price contracts, Pulse's weighted average prices are less beneficial but still approximately 5% better; the primary reasons for this were (i) as mentioned previously, during summer the month-ahead prices generally followed the forward curve so demonstrated little weakness and (ii) the forward structure of prices, i.e. contango to backwardation, did not change during the summer months – in essence the 5% benefit has been achieved during the second half of the

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year and there are still 3 more months to go. NB: this is an improvement in comparison to the mid-year assessment. Nevertheless, it is also worth noting that at no time would it have been possible to buy a fixed price April start annual contract lower than the prices being achieved by Pulse – but recognising this full year fixed price contract would only have been available to customers prior to the contract period starting. NB: I have not analysed for partial fixed purchases (say 2 X 6month period contracts, 4x3month periods or rolling 12 month periods) as the possibilities are endless. Of course, in hindsight Pulse did not manage to buy at the lowest price possible, however, Pulse did continue to buy in the lower half of the range that each contract traded in. Theoretically, if Pulse had carried out a strategy of strictly buying each delivery month as late as practically possible, the achieved price would have been slightly lower though the volatility would have significantly increased – this would have been a very aggressive approach and the potential for increased volatility would not have been suitable for Pulse's clients.

Accordingly, with the market trading at prices making continued historic lows for much of the year, a trade-off has to be made as to when to buy. This should be considered at a time when most commentators were suggesting prices could not get lower and concerns regarding UK gas storage and supply of gas from Groningen were prominent – actions had to be prudent. It should be remembered that the 'false-bottom' in March encouraged many in the market to lock in annual prices at that time, with large volumes traded, though Pulse's strategy to hold off somewhat paid dividends as summer ended lower and the fundamentals of over supply eventually told.

Gas

Throughout the year, gas prices were more volatile than electricity, making it more appropriate for Pulse to buy some volumes forward rather than leave purchasing decisions until the month ahead. The consequence of this was that Pulse's achieved gas prices for Jan 2015 start annuals were approximately 8%-9% lower than the fixed price alternative, whereas for April 2015 start annuals Pulse is already achieving 6-7%. Again, at no time did the full up-front annual contract period trade below the price achieved by Pulse. NB: Again, I have not analysed for partial fixed purchases (say 2 X 6month period contracts, 4x3month periods or rolling 12 month periods) as the possibilities are endless. It is noticeable that Pulse did not just fix all forward gas, wanting to achieve some benefit from the falling prices, though in buying some volumes forward, they did reduce the risk for their clients.

As is often the case in volatile markets when making purchasing decisions, there are trade-offs to make and the slight difference in results for gas and electricity are evidence of this. For gas, in order to mitigate the impact of the volatility, specifically that created by the political intervention in gas production from Groningen, Pulse made some earlier purchases as compared to electricity and the consequence is a better electricity performance for the January start comparisons and a better gas performance for April start comparisons. One of the other main reasons for this is that the electricity market is demonstrating a greater structural change from contango to backwardation, which is perhaps indicative of a potential growing supply concern for electricity, because of a continuing reduction in generation capacity – primarily coal – whereas gas supply concerns are less prominent (Groningen apart). Furthermore, oil prices remain under pressure and this has a more direct impact on gas compared to electricity.

One final point that should be made here, which applies to both electricity and gas, is that in this report we are unable to compare quantitatively with the performance of other TPIs (Third Party Intermediaries), except to say that Pulse have still maintained a flexible purchasing strategy. It would seem, based on various media outlets, that many other TPIs appear to have been recommending during most of the early part of the year, and subsequently, to fix hedge requirements forward. If such a strategy had been enacted for January 2015, April 2015 (and even July or October 2015 starts) there would seem little doubt that opportunity would have been lost.

All being taken in to account, Pulse's strategy can be considered very successful for their clients and certainly,

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preferable to fixing a 'reasonable' price ahead of the year; risk was managed down by fixing in some of the forward levels when the market sentiment was undecided, albeit with the result of not necessarily achieving the cheapest price possible but nevertheless a lower price.

Pulse comparative performance, 2015 gas:

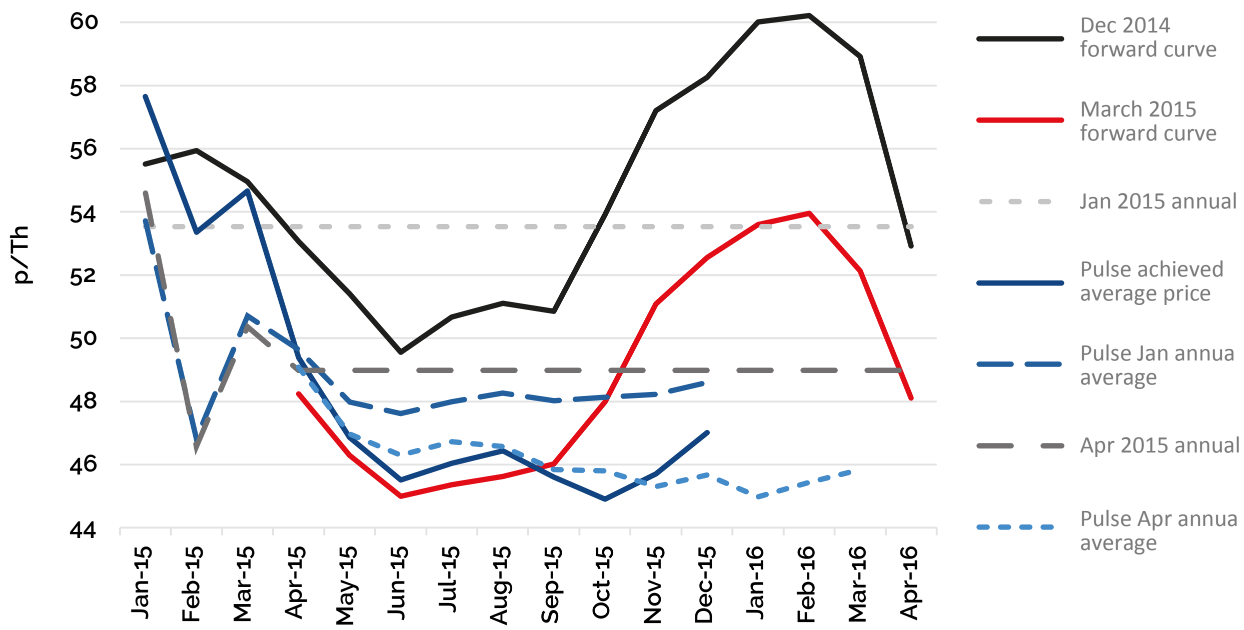

Figure 2. Pulse Business Energy 2015 gas purchase performance:
The chart shows the wholesale market forward curves for gas in December 2014 and March 2015 together with the associate annual fixed price for January 2015 and April 2015 starts. For comparison, the chart includes Pulse's average purchase prices throughout the year and the resulting average cost Pulse achieved for its gas customers (base-load basis).

Aims for 2016

During the closing months of 2015, we have seen the signs of a slight change in sentiment for electricity and throughout 2015 there has been nervousness in the gas market about the seemingly low level of prices. This potential for a change in sentiment is evident by electricity forward curves for rolling annual prices recently flipping from contango to backwardation. However, it is perhaps still too early to say the market is showing any real conviction for a sustained upward move in prices. Nevertheless, the change in market structure and shifting fundamental supply position for electricity, though less evident in gas, could suggest that it may be appropriate to gradually move the default purchasing strategy from month ahead to also acquiring a greater proportion of forward cover. This would be driven mainly from a risk management perspective in an attempt to maintain competitiveness and dampen volatility should the market turn but with the potential sacrifice of achieving the lowest possible price. Of course, gas is still the primary influence on electricity prices and so long as there is sufficient generating capacity, and the growth in uncontrollable/intermittent renewables continues, prompt electricity prices will still tend to be under downward pressure close to delivery (from month ahead). Should we see a strong contango develop in the gas market, supported by fundamental tightening of the supply/demand balance, we would recommend a further review and shift of strategy.

DR TONY WEST – ENERGY TRADING DIRECTOR

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Dr Tony West and Ben Dhesi of Pulse Business Energy provide insights into their energy buying strategies. This is an opportunity not to be missed for those working in energy procurement. This will be a small interactive workshop. Attendees can learn how their "Beat the Market" buying strategies can be implemented by anyone and what the key factors they look for when negotiating supply contracts.

The workshop will also cover:

- Managing Risk and how strategies might need to change over time;
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- How to interpret forward markets;
- Factors that will influence supply/demand and pricing going forward;
- Risk in context of company turnover/profits.

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