A consistent energy sourcing strategy

Introduction

Energy costs can be substantial and volatile. Determining the energy sourcing strategy can quickly turn into debates on where the market is going and not lead to a consistent energy sourcing strategy. If you are a board member or director responsible for energy sourcing, this paper should give you a solid basis for defining your company specific energy sourcing strategy. It starts with what energy cost consist of, then shows it can be treated as any other inventory item and finally lays out the default strategy of index buying.

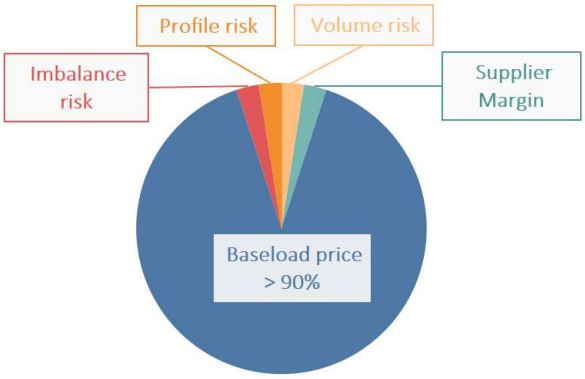
The target audience for this paper is an industrial customer with a stable and predictable load pattern. The paper is generic for both gas and power sourcing. If you have an unpredictable and/or volatile demand some additional analysis may be required to fine tune the sourcing strategy.
If you are a seller of energy the same principles can be applied however the paper is written from a buyer's perspective.

Energy costs

Energy costs generally consist of three components: commodity, transport and taxes. The only way to influence the transport and tax component is by energy savings and a load management program (not through your sourcing strategy).

Of the commodity component, by far the largest cost element (> 90%) is related to the baseload price. The other costs elements are related to profile, imbalance and volume risk. The final element is the supplier margin (Figure 1).

Figure 1: Commodity price elements



Managing risk elements

In your sourcing strategy either you can take the risks yourselves (profile, imbalance and volume) or your supplier will take the risk. In the latter case the supplier will normally charge you an insurance premium for him taking those risks. In general, the guiding principle should be that you only insure if you cannot bear the financial risk. In most cases the financial impact of the risk elements (<10% of overall commodity price) is small and therefore you should take these risks yourselves.

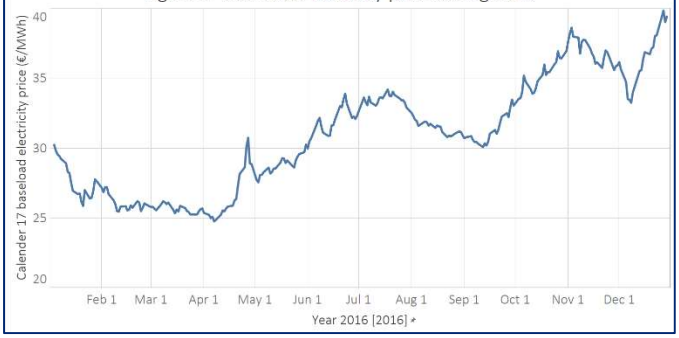
Managing supplier margin

You can minimize the supplier margin by competitive tendering. In competitive energy markets the supplier margin is around 1-2% of the energy price.

Managing baseload price

The baseload price is the main component of your sourcing strategy. The baseload price is volatile, so you should consider your sourcing strategy carefully! The changes in baseload price can be more than 50% (Figure 2) and thus far outweigh the risk elements mention previously. The remainder of this white paper will set out the key elements of your baseload price management strategy.

Figure 2: Baseload electricity price during 2016



The main aim of a sourcing strategy is to manage volatility and ensure that you can achieve or approach budget certainty. Buying forward protects you from price shocks and contributes to budget certainty. However, it does not protect you against long term trends in the energy market, i.e. if the prices are going up then eventually you will be exposed to the higher prices, no matter how far ahead in time you source your energy. The longer the period of budget certainty you require and / or the more time you need to adapt your business (e.g. cost cutting), the more forward you should buy.

Energy as Inventory

You can consider energy as any other inventory item that you stock for your business. On a day to day basis you are consuming energy and reducing your inventory. A forward buy is an addition to your inventory. Having an inventory protects you from price shocks and increases budget certainty. The key element of your energy sourcing strategy then comes down to two core elements:

1. Inventory level
2. Additions to inventory

In considering both elements, the key guiding principle is:

Predicting future energy prices is next to impossible and not your core business, do not try to beat the market.

1: The level of inventory is a strategic decision based on your need for budget certainty. It should not be influenced by your expectation of the market. It should be a long term decision.

2: For adding to your inventory (=buying), there are various options available such as yearly tenders, clicking blocks or indexing on market average. For yearly tenders or clicking blocks your inventory level changes in jumps. However, if you index you can keep your inventory level constant. Yearly tenders and/or clicking essentially come down to trying to beat the market average.

Figure 3 shows what happens in a typical case where you have a sourcing strategy involving clicking of blocks. At certain times a decision is made to click which results in a jump up in your inventory. Relative to the market index you are either lagging (i.e. short, shown in red) or ahead (i.e. long, shown in blue). Essentially by clicking at the right moment you are trying to beat the market average.

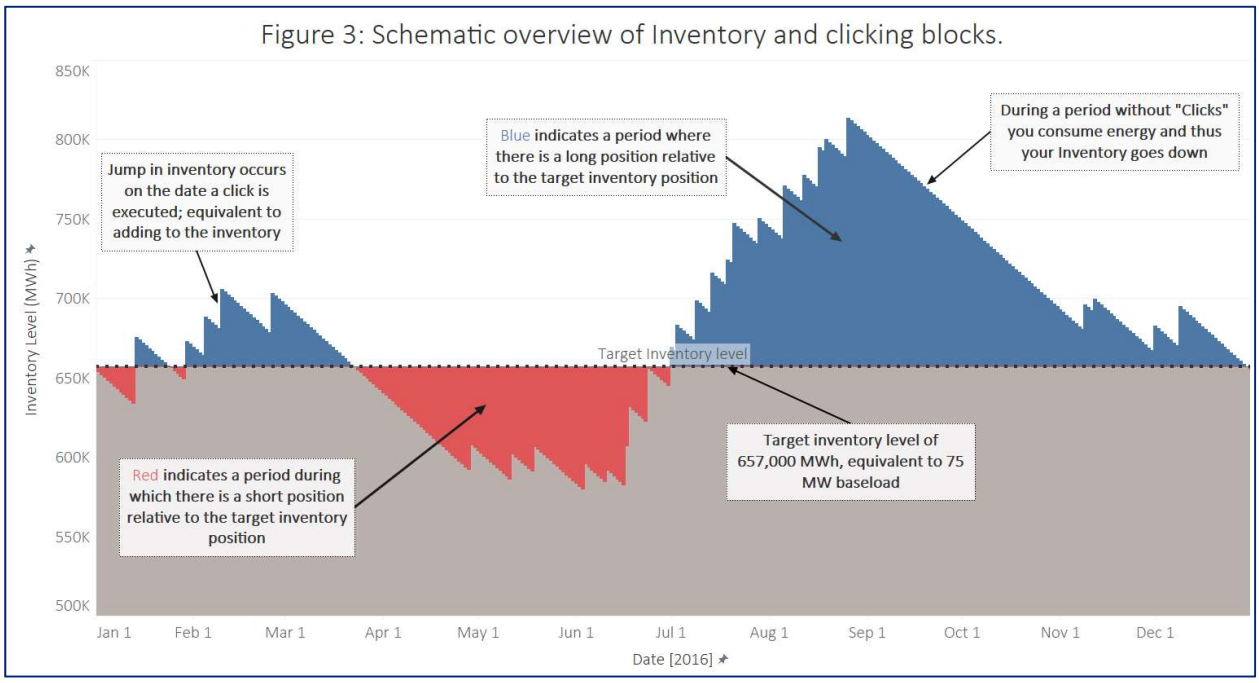


Figure 3: Schematic overview of Inventory and clicking blocks.

Default sourcing strategy

Beating the market

Various studies (Bloomberg, Investopedia) have shown that it is very difficult to beat the stock market index by picking individual stocks. Only a very few seasoned professionals succeed. In the energy market the same logic applies if you try to beat the market index by picking individual dates. The default sourcing strategy should therefore be to buy at the average index price. Which index you choose (e.g. Month Ahead, Quarter Ahead, Year Ahead etc.) determines your inventory level.

If you choose to follow a different strategy make sure that you at least define a benchmark (i.e. market average and inventory level) so you can evaluate your strategy from time to time. .

Other benefits

There are several additional benefits from following this default sourcing strategy:

- Your administration becomes much simpler.
- The number of contracts is drastically reduced.
- No long discussions in hedging committees on where the market is going.
- Much simpler risk mandates and controls.
- Transparent costs (e.g. no hidden bid-ask spreads in clicks).

Implementation

Once you have decided on your inventory level and index you need to implement your strategy. Implementation can be achieved in various ways.

- Full service : You can tender for a full service supply contract based on market average prices.
- ISDA : You can buy all your energy on a spot market basis and manage your inventory via financial hedges under an ISDA.
- EFET : You buy your residual load spot from a supplier and source forward blocks against market average price under an EFET. You would have to make provisions to ensure that these forward blocks are delivered to your residual load supplier.

The choice of implementation depends on existing framework contracts (ISDA and / or EFET's) in place and the credit lines that you have available.

The key take away

The default energy sourcing strategy is to buy on a market index in such a manner that you buy the same amount as you daily consume. The level of your energy inventory depends on the length of the period for which you need budget certainty. Energy sourcing is not about trying to beat the market but about being consistent and tracking your own performance!

About the author:

VDV Energy is an energy consulting and interim management company founded in 2008 and focused on the wholesale European energy market. The white paper is the result of numerous client engagements and discussions. The white paper may be freely distributed as long as the source is clearly identified.