JBR HELLAS LTD.
Business Consultants
A member of Horwath
Franchise Consulting Services
Group in association with Eversheds

31, Voukourestiou str.
106 73 Athens, Greece

Tel. +30-210-36 05 002
Fax. +30-210-36 06 935

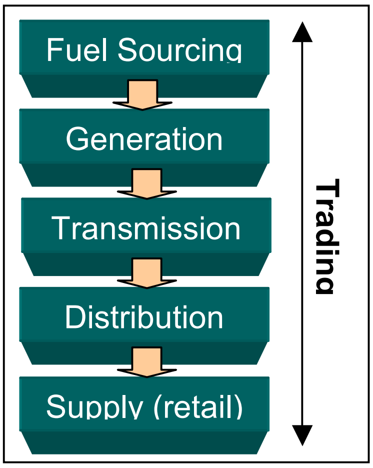
www.jbrhellas.gr

The Changing Energy Landscape

Forces of Revolution

The energy world is moving fast under the pressure of the liberalisation of energy markets. The Energy value chain consists of fuel sourcing, generation, transmission, distribution and retail as displayed in figure 1.

Figure 1: Energy Value Chain



Seven forces are contributing to the changing energy landscape:

1. Deregulation
2. Convergence
3. E-business
4. Globalisation
5. Shareholder pressure
6. Environment / legislation
7. Focus on core business

Ad 1) Deregulation

As deregulated energy markets develop and mature, competitive pricing converges and margins narrow. The product 'energy' will slowly be downgraded to the level of a commodity with little added value.

Open competition will drive greater investment in innovation, new product development, new service creation, energy trading initiatives and process improvements. Moreover, the internet will make price comparison easier. In some countries the internet offers consumers equal and rapid access to all retailers, price differentials will become increasingly difficult to maintain. Retailers will then need to compete on relationships and service.

Ad 2) Convergence

Convergence is playing a major role in transforming energy markets. It is being felt widely as companies race to identify, create and fill new and coherent "market spaces". At the heart of convergence is the application of new technology to the recognition that customer relationships are one of the most valuable and often most unexplored, assets of an enterprise.

Old product and service boundaries are rapidly disappearing as companies seek to gain competitive advantage and capitalise on the synergies now available between energy, retailing, telecom, media, banking, construction and other products and services.

Ad 3) E-business

Technology advances will unlock synergies by creating new ways to strengthen customer relationships, reduce costs and eliminate traditional processes. E-business makes the offerings and pricing of suppliers more transparent with as a result more efficient purchase processes and stimulating competition. Furthermore, much information on clients becomes and has become available. Therefore services can be maximal optimised and tailor made solutions become feasible.

Also new web based intermediaries between supplier and end users are and will become active. End users will be able with the aid of these type of services to compare offerings and match with their needs.

Finally, the physical market will more and more be replaced by an online virtual market where supply and demand can be matched real time. For example: General Motors who does the entire purchase process through e-business.

Ad 4) Globalisation

The geographic boundaries of incumbent energy retailers are being swept aside. Traditional regional or national monopolies are fast becoming competitors on a global stage. Ownerships of energy generation and distribution companies are changing from national to international. The fact that in 1999 92 billion Euro of cross border deals in the energy sector took place speaks for itself. Furthermore, it is also obvious that limited growth perspectives exists on the local markets and therefore energy companies are forced to work internationally.

Ad 5) Shareholder pressure

The demands of shareholders are having a more dominant influence on newly privatised enterprises. Deregulation and privatisation are creating dilemmas in the delivery of shareholder value. Capital market influence means that short term financial performance and shareholder value is all important. This was not the case during the regulated monopoly era where energy companies were driven more by political and social objectives.

Ad 6) Environment / legislation

Many governments set goals for maximising energy efficiency often enforced by the European Union. With tax incentives governments are trying to stimulate energy efficiency and the use of "green" energy forms such as wind and sun energy.

Ad 7) Focus on core business

There is a tendency among European companies to focus on core business depending on the strategic risk involved and depending on the desired extent of control. Activities where little control is necessary the focus will be on the lowest price. Activities where much control is required (like industrial activities) companies will seek partnership and alliances in order to come to the most efficient solution.

M&A activity

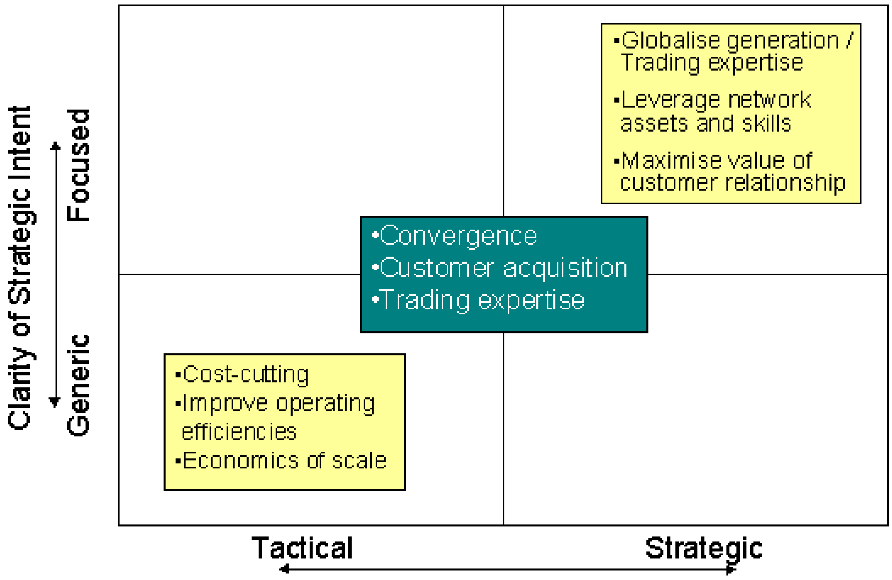
The value of M&A deals in the utilities industry exploded in 1999 in the US and in Europe, including a significant number of cross border deals.

The forces of globalisation and market liberalisation, combined with the emergence of new information technologies are driving the trend towards consolidation. Growth through M&A enables increased competitiveness through reduced costs and faster entry into new and converging products and geographic markets. Record setting values are being set in M&A deals in network businesses like banking, transportation, telecommunications and media. These industries are characterised by high fixed costs, rapid rates of obsolescence, and converging markets and, therefore, will benefit the most from increased scale and scope in terms of both assets and capabilities. The utilities industry faces the same pressures. What magnifies the impact of these forces, however, is the industry's history of regulation and monopolistic structure. For the first time, utilities are being forced to compete for their customers.

The revolution taking place in the utilities industry is causing an unbundling of the traditional value chain (figure 7 above) and the redefinition of the different roles and relationships between market participants. Utilities will no longer be valued in terms of a "utilities" multiple, but instead, investors will compare its generation business with other generators, its network business with other networks etc.

This is also the reason that new, small energy companies are able to survive in a market of giants. Therefore, merging with another integrated utility just to be bigger will not necessarily increase a company's attractiveness to investors - even with the promise of cost savings through economies of scale. Besides, these "strategies" are more tactical than strategic in nature.

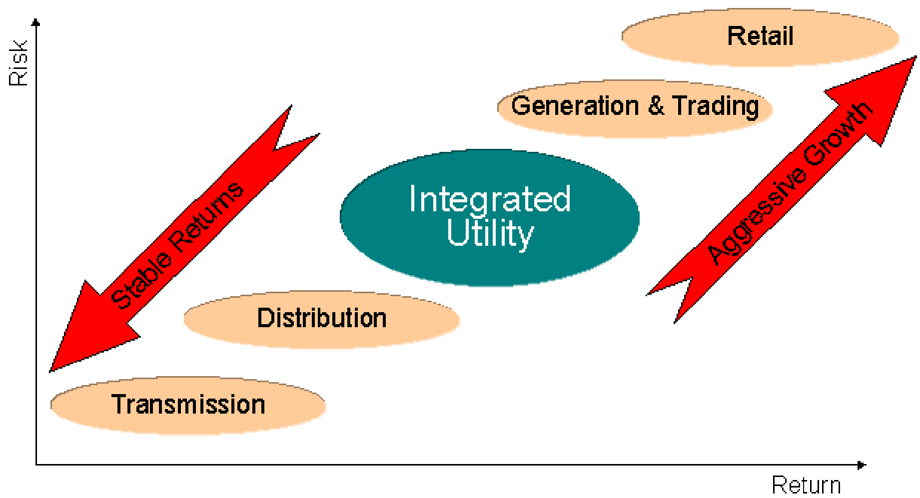
Figure 2: Strategic versus tactical reasons for M&A



The merger of two integrated utilities to form just a bigger integrated utility does not provide an insight on how the merged utility will compete and address the challenges in the new industry.

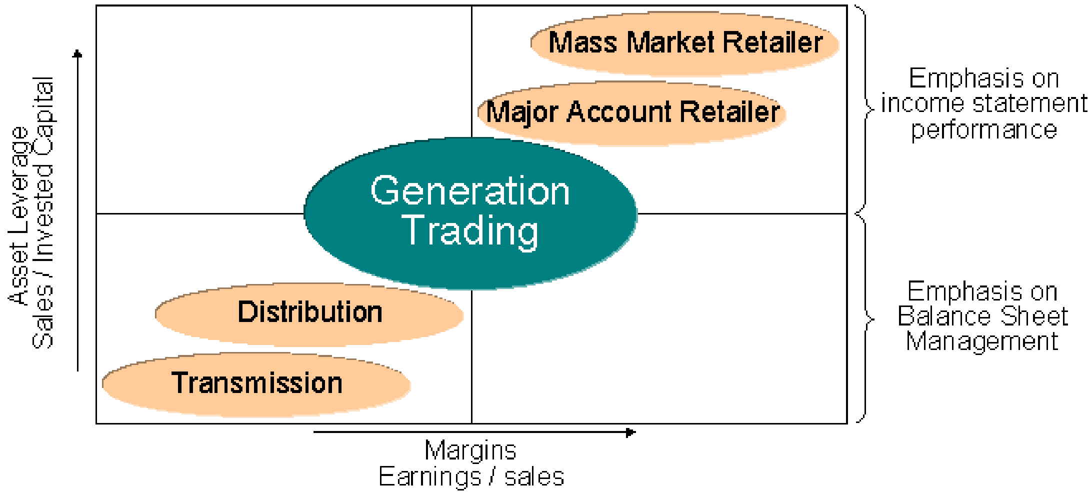
Furthermore, the unbundled value chain has different risk and reward profiles as displayed in figure 3.

Figure 3: Different risk and reward profiles



A utility choosing to be in the generation / trading business for example needs to strive for excellence relative to other generators.

Figure 4: Key value drivers



Another example: keeping the cost of capital low by taking advantage of borrowing capacity in the networks business can be more important in such business, whereas going after customer volumes while minimising customer acquisition costs can be one of the keys to success in mass market retail.

Retail Segmentation

Energy retailing embraces a long list of end user types - large volume industrial users, commercial building, supermarkets, hospitals, small businesses, government departments, and residential consumers, to name a few. When other parameters such as demographics, psychographics, and profitability are also considered, segmentation possibilities seem endless. At the highest level, however, some retailers will focus on large industrial and commercial consumers and others on the mass market.

a) Mass market consumers

A range of new players is likely to enter the mass-market energy retailing scene. Incumbents will compete against major brand "bricks and mortar" retailers from other markets and also against e-tailers. Partnering, in the form of joint ventures or strategic alliances, is likely to be a popular strategy. Very few retailers, if any, will have the ability to compete successfully across all the products and services of future market spaces. Examples of potential horizontally-integrated mass market retailers offering coherent product and service bundles are:

- Utility home products and services companies (energy, telecom, home security)
- Broad energy companies (energy, gasoline, credit cards, loyalty programs, fast food)
- Financial institutions (energy, credit cards, financial products, retail products, telecom, banking)
- Major brand retailers (energy, gasoline, loyalty programs, financial products, retail products, telecom, banking)

For risk management reasons, generators will also enter mass-market retailing.

Products aimed at increasing customer loyalty could include online metering / billing, tariff customisation / optimisation, basic info on services for house management etc. Products aimed at increasing customer profitability could be appliance services, home automation (monitoring / control), security services, financial services, entertainment and health etc.

b) Large industrial and commercial consumers

For these end users, energy as part of their cost of goods sold ranges from just a few percent to well into the 10 to 20 per-cent range. Wherever consumers may sit in this range, the sourcing of cheaper energy that meets their security and quality needs is just too important to their own competitiveness and profits to procrastinate or hold to traditional loyalties.

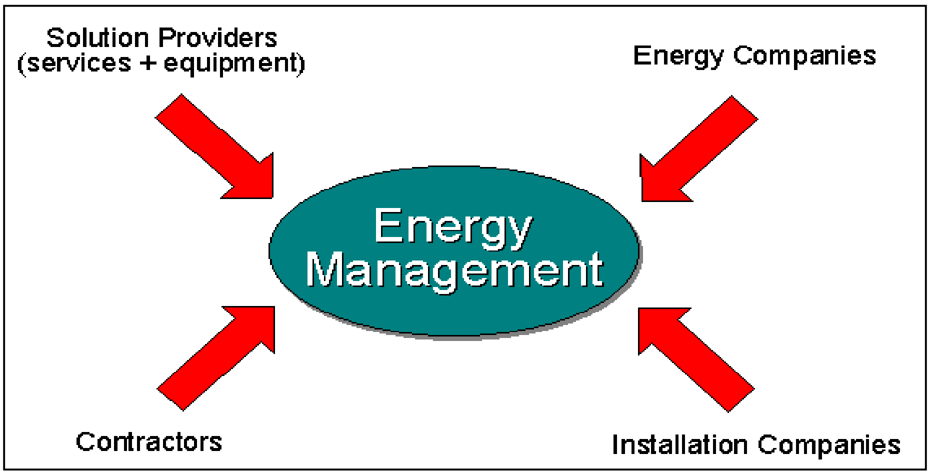
Specialist services will be required to meet the diverse needs of these consumers. Some larger industrial sites will have access to on-site or co-site generation.

Retailers choosing to operate in this business-to-business market segment will develop national, international, or global footprints and provide energy products and energy management services customised to individual customers. They will be able to aggregate the energy needs of companies with multiple, geographically dispersed sites and will provide specialised services such as consolidated billing, dual fuel billing, risk mitigation products and consulting services to improve energy efficiency. They are likely to acquire the largest consumers of this segment by providing energy products and services beyond the capabilities of the smaller incumbent retailers.

Energy Management

Energy Management has raised the interest of several parties as displayed in figure 5:

Figure 5: Energy Management attracts interest of a variety of players



Energy management contains energy audit services, on site generation services, operation & maintenance services and project finance services.

The industry sector might focus on on-site generation or energy audit services in order to optimise the energy consumption. Outsourcing energy need for parts of the operation could be possible as well resulting in substantial savings.

For the commercial building sector companies could for example outsource their entire energy need to ensure the maximum efficiency against the lowest costs, including the technical management and maintenance of installations in order to maximise results.

Energy management concepts are currently driven by:

- the tendency to focus on core business
- the need to reduce energy costs
- the deregulation of energy markets
- environmental guidelines.

Energy management concepts are very well suitable for large energy consumers like:

- Industrial (chemicals, manufacturing and thermal processes)
- Commercial (offices and commercial premises
- Institutional (universities, hospitals, district heating and other public buildings)

In our next article Energy management services will be described.