

All Change in the UK Nuclear Industry – threat or opportunity?

Introduction

Strategists tell us that the best times for a company to grow and make good profits are when the industry you are in is growing or when there is turbulence in the industry. With the possibility of new nuclear plant construction and the creation of the Nuclear Decommissioning Authority both of these are true of the UK Nuclear Industry today.

As key decisions are made and the industry progresses to reach a place of increased stability there will be winners and losers in the corporate battleground. What is your company doing differently to make sure it is a winner?

From Maturity and Stability to Change and Growth

Ten years ago the UK Nuclear Industry, like the nuclear industry in much of the rest of the world, would be considered mature and stable, indeed some could be forgiven for saying it was moving into decline. Nuclear Power Stations were coming towards the end of their useful lives, the THORP plant at Sellafield was operational and there was little prospect of building new nuclear power stations.

BNFL and its' distant parent the UKAEA were examples of stability. For years BNFL was a net contributor to the Treasury. The technology of these two organisations was recognised globally in the industry and led the way to developing new business in the USA and the prospects of more in the Far East. Through the 1990s' a perceived strong financial position and governmental support encouraged an increasingly commercial approach to the business, culminating in the integration of the Magnox fleet and the acquisition of the Westinghouse nuclear business by BNFL. These events laid the foundation of a planned privatisation of BNFL by a PPP process, to follow the apparently successful privatisation of British Energy.

It was however not to be. A series of events challenged the future structure of the UK nuclear industry:

- Falling electricity prices forced a rescue for British Energy
- Poor generating performance and enforced closures caused sustained losses from the Magnox fleet
- Business ventures in the USA delivered significant losses
- Data falsification and adverse regulatory reports on Sellafield caused major cost increases at Sellafield and fatally wounded government confidence in BNFL leadership
- Regulatory and environmental pressure forced continual increases in the potential long term costs of cleaning up the UK nuclear legacy – a process still going on today

The result was cancellation of the PPP, the formation of the Nuclear Decommissioning Authority (NDA) and the break-up of BNFL and the UKAEA.

The NDA, formally launched in 2005, brings together civil nuclear assets and liabilities from the UK nuclear industry. It has a mandate to use the tool of competition, imported from the US DOE, to improve the management of sites in the UK and to reduce the cost of cleaning up the nuclear legacy. This is a major change both in the industry structure and in the dynamics of the market. It is also still a work in progress and it may be a further three or more years before the dust begins to settle.

From the perspective of a supplier it is possible to see the NDA as one customer where there were previously more; on the other hand there will be an increased number of buyers, the site M&O contractors, who have significant buying power.

At the same time as the nuclear legacy issue was being debated and the whole of the UK industry appeared to be on a slow run down the global environment for nuclear was becoming more supportive. The combined drivers of continuing increases in energy demand, reducing CO2 emissions and security of electricity supply have led to the most positive market environment for nuclear in over twenty years;

- Finland 5 is under construction – the first new European plant in a decade
- The US Energy Policy Act, 2005, includes process and economic incentives for new build
- The recent UK white paper is supportive of new build
- In excess of fifty countries are now pro-actively investigating the potential for new build.

The potential exists for sustained growth throughout the nuclear value chain.

What changes are already visible? What are not so visible?

Changes in the UK market structure and the anticipation of growth have already led to significant and visible changes in the supply side of the industry. Most obvious is the materially increased presence of the major US contractors, WGI, Jacobs, Bechtel, etc, who have been directly invited by the NDA to bring their US M&O experience to the UK. Then there are the utilities positioning for new build opportunities, most notably EDF, but also E.ON, RWE and Iberdrola.

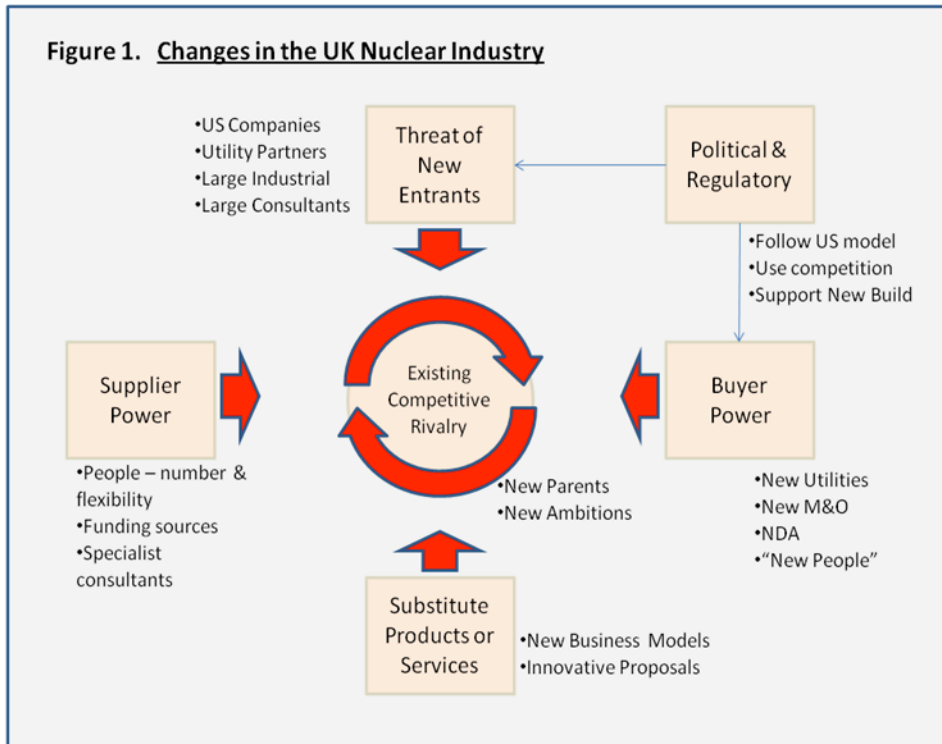
In and around these highly visible events many other aspects of the industry have changed and continue to evolve. These are illustrated in Fig 1.

Three aspects of this that are worth highlighting are the industry consolidation that has taken place, changing customers and funding for the industry.

▪ Industry Consolidation

Over the last three years there have been more than fifteen acquisitions within the UK nuclear industry alone, many more on a global scale. Some of these have been the market entry method of the previously noted large US companies entering the market. Others however have been the route for two major groups of companies to enter or grow in the UK – large industrial companies and large consultancies. Typical of these has been the growth of Babcock International, the Vinci group and SERCO.

The effect of this is that even where the acquired company maintains its' name and existing leadership on acquisition the future strategy will change, more resources will be available and they can be expected to be aggressive in the market place – they have to be to make the acquisition a success.



Many of the acquired companies were small to medium sized companies, specialising in the nuclear industry. With this segment of the market shrinking and larger companies growing the dynamics of the market will change.

▪ **Changing Customers**

Formation of the NDA and its' M&O competitions are a visible demonstration that the names of the customer companies are changing. Similarly the new utilities interested in New Build will be new customers to many in the UK. This visible change however is perhaps not the most important change. Most significant is that there is a major movement of personnel – many of the individuals who have been the buyers are changing.

Some will come with a history in the nuclear industry, but in a different country and with a different culture. Others will not have a nuclear industry background and will bring different practices, say from the defence or large civil contracting industries. Some are likely to be poachers turned gamekeeper.

Whatever the origin of the buyer one thing is clear – building a new set of relationships will be essential to respond to changing processes and changing customer criteria.

▪ **Industry Funding**

Until 2005 funding of the nuclear industry in the UK was significantly impacted by revenue collected by the nuclear generators and by BNFL and then by their business planning, i.e., how they managed their liabilities, what capital they would be spending, etc.

Following the decline of revenues and the formation of the NDA this has changed. The primary source of funding is now the UK Government in its budget for the NDA. As illustrated by a recent National Audit Office report this brings with it two major issues:

- The NDA must be seen to be delivering value for money, thus driving a huge amount of work to monitor, measure and report on the work that is done. Innovation and support of new processes or technology will be hard to justify.
- The total NDA budget will be subject to variation because of changes in governmental budgeting decisions and the annual spending round.

Site M&O companies and their suppliers will have to live with year to year budget variances, both at a site and between sites (e.g., as has happened between Sellafield and other sites this year). Similarly companies who have innovative concepts to propose to the NDA will most probably have to demonstrate that they have their own sources of finance where it goes outside an annual budget.

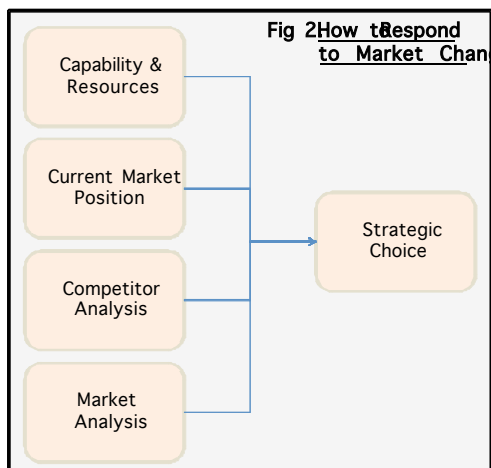
For New Build opportunities the government has said ‘It will be for energy companies to fund, develop and build new nuclear power stations in the UK, including meeting the full cost of decommissioning and their full share of waste management costs’. Utilities will therefore need to have funding sources established early in the project process and this need to have funding and manage cash flow is likely to cascade through a new build project team and its supply chain.

Meeting the Challenge

The level of change sweeping through the UK nuclear industry is creating significant opportunity. With this inevitably comes significant threat. In these circumstances one thing is clear – if a company does not change in response to the industry then it will suffer. The choice is between being a leader in the change or a follower. Whichever you choose you will need to be doing something different, either in what you do or in the way that you do it. How is your company going to differentiate itself?

The choice here is specific to your company. It will depend on your capabilities, your market position today, the people and financial resources available to you, your view on risk management and a detailed analysis of the industry from your viewpoint rather than the general picture above. This choice is illustrated in Fig 2.

This figure shows the typical factors that go into any strategic analysis and choice. The key for participants in the UK Nuclear Industry is to make this a dynamic choice, i.e., one that



recognises the market is still changing significantly and quite rapidly. This involves for example:

- Identifying and understanding important market trends, e.g., increasing numbers of people who want to work as flexible contractors rather than direct staff.
- Recognising the changes that are most important to your business, e.g., changing the structure, re-arranging profit distribution, etc.
- Understanding clearly what it is you want to be in 2012 or what you want to achieve over the next three to five years.
- Recognising your company weaknesses in responding to market changes, e.g., do you have enough capital, do you need a wider range of products and services or maybe you need to focus on what you are really good at.
- Identifying and being clear on your current and anticipated future sources of differentiation.

Some in the UK nuclear industry have already done this, for example Studsvik are investing in a new facility for processing materials for the NDA, Babcock International are using skills developed in the defence sector to integrate acquisitions and grow in the commercial nuclear market and SERCO are leveraging their asset management record (such as the NPL contract) to exploit a political desire to bring private sector management skills into the industry.

Is it possible to see a time when the current rate of change will diminish?

In simple terms, yes. Within the next three years the NDA is due to have completed its' process of competition for M&O contracts and new operators should be in place. Similarly if new nuclear build is to develop on a timescale to be a significant part of the future UK energy mix interested utilities will have made the first key steps and consortia to deliver the plants will be in place by the end of 2011.

This three year period is what will initially determine the corporate winners and losers in the UK nuclear industry. After that it is possible that a second round of consolidation will occur.

In conclusion

The UK nuclear industry is experiencing the highest rate of change it has seen for more than twenty years. Both the supply and demand side of the industry are changing and this is driving change in the structure of the industry and the business models that it uses. It is however possible to see a time when winners and losers will emerge from this process of change, and this will itself probably lead to further change and industry consolidation. Companies who wish to emerge as one of the winners and to be in prime position for that second phase of change need to recognise and pro-actively respond to this market change in what they do and how they do it.

