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## European Deregulation: One Year On

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The deregulated European electricity market officially started life in February 1999. Now scarcely 18 months later the face of the European utility industry has changed forever. Although the process to a complete continent-wide free market for all consumers and suppliers is still some way away, most member states and the overwhelming majority of utilities have risen to the challenges of the new market paradigm and implemented market reforms far faster than originally envisioned in the EU competition directive.

The effects are real and far-reaching. Across the continent utilities have been positioning themselves for entry to the new liberalised market. This has meant restructuring and consolidation, and — in some cases — expansion through acquisition and merger. Utilities are making the transition from technology-driven to market-led businesses. Future strategies and investment decisions and ultimately the future of nuclear power itself will depend on the utilities' response to the challenges of the new market.

This paper will look at the background to these reforms and progress to date in their implementation. It will also look ahead to survey the possible future map of Europe and the effects this will have on the electricity industry and on nuclear in particular.

### **Current Status**

On 19 February 1999 the electricity market in thirteen countries in the European Union (EU) and the European Economic Area (EEA) began to open up on an international basis. This heralded the first stage in European region-wide deregulation. By 2001 all EU/EEA countries should be participating.

The requirement to open up the electricity supply markets was set out in EU Directive 96/92. This provides for the progressive introduction of a free market. Commencing in 1999, the directive stipulated that 26% of the market should be open, corresponding to customers with an annual requirement of 40 GWh or more. This competitive threshold was to be progressively reduced to 20 GWh per year in 2000 (equivalent to 30% of the market) and to 9 GWh per year in 2003. Further opening of the supply market was to take place only in 2006, subject then to EU Council of Ministers' approval.

In respect of generation, the directive allows individual countries to choose between alternative systems of tendering or licensing for new capacity. Under the tendering system, a member state issues a tender for new capacity, which enables it to keep overall control over the amount of capacity coming onto the system. Under the licensing system, individual tenders are not issued but generic criteria are set by the member state, for example covering land use/siting, fuel mix and environmental issues.

Different models can also apply in respect of electricity supply. The Third Party Access (TPA) model allows eligible customers and suppliers access to the supply network. Under this model, vertically integrated systems are allowed but separate accounting systems must apply to generation, transmission and distribution. TPA takes two forms, regulated and negotiated third party access. Under regulated TPA, access to the network is based on published regulated tariffs. Most EU States have adopted this model. Negotiated TPA has been adopted in Germany and Portugal and for international transfers into and out of Belgium and Denmark. Under this model all eligible customers and suppliers are able to negotiate access to the network. Indicative access prices are published but these are not binding.

A third alternative is the Single Buyer model. Under this model, eligible consumers are free in principle to contract with independent (or foreign) suppliers but all energy is supplied through the Single Buyer, which in turn buys electricity from the contracted supplier at the agreed price (less any network access tariffs). While no country has elected to adopt this model in its entirety, Portugal and Italy have adopted a mixture of the TPA and Single Buyer systems.

In practice European states have embraced market liberalisation at a far faster pace than envisaged in the original EU directive. Germany, the UK, Norway, Sweden and Finland have fully (or very close to fully) deregulated electricity markets. Overall some 80% of the EU electricity market is now open to competition, compared with the 30% minimum required by 2000 in the directive.

By contrast, France, Italy, Portugal and Greece have been slower to react. Currently only around 30% of the French electricity market is open to competition, which has led to some criticism from neighbouring countries.

On the pan-European level strong support for this process has come from the European Commission and in particular from Loyola de Palacio, Vice President with responsibility for energy and transport. Commissioner de Palacio has pushed not only for greater market liberalisation in member states but also for the establishment of a single internal European electricity market, rather than 15 individual liberalised markets.

One of the key barriers to a truly open European market is cross-border transmission. Here the barriers can be physical or political/economic. In terms of physical constraints, Ireland and Greece are effectively isolated from the rest of the EU and both the UK and Spain have only limited links to the main continental grid system. However this has not prevented UK utilities such as National Power and Eastern Electricity, for example, from participating in the European market through strategic alliances and through mergers and acquisitions, nor has it prevented mainstream European utilities such as Electricité de France (EDF) and Fortum (to name but two) from participating in the UK market.

Political/economic barriers have in some cases proven harder to breach. To meet this challenge, the European Commission has initiated the so-called Florence process, bringing together market participants with representatives from member states and the European Parliament. Three main issues have been identified:

- cross-border pricing,
- market transparency,
- congestion management.

On 1 October 2000 a provisional cross-border pricing mechanism is set to come into force. Initially this is planned to operate for one year. It will provide a mechanism for setting compensation payments between system operators and for exchanging information on available interchange capacities.

Further work is planned by the Commission to improve access for all generators to the European market and to encourage further opening up of the market. Specifically the Commission is working on proposals to:

- Share costs equitably between generators and consumers to ensure a level playing field.
- Complete the internal market, with an emphasis on increasing the number of eligible consumers, improving third party access to the network, and greater unbundling of generation, transmission and distribution accounts.
- Establish guidelines on the allocation of available interconnection capacities, and work towards setting up a European plan for improving interconnections.

The Commission also plans to develop indicators to assess the development of competition in the European market and will carry out a study of pricing systems for network access in member states. The results of this study are due to be presented to the European Council of Ministers in June 2001.

Market liberalisation in Europe does not stop at the borders of the EU. New entrants to the EU from Central and Eastern Europe will also be required to deregulate their markets as part of the process of preparation for entry. Likewise, Switzerland, although not an EU member, is also introducing market reforms. It is expected that Switzerland will probably also negotiate a bilateral electricity trading agreement with the EU.

### **Market Consequences**

Electricity market deregulation in Europe has resulted in price reductions, especially in the wholesale market. The extent to which these have been passed on to consumers (and especially domestic consumers) varies considerably from country to country and depends strongly on the degree of market opening in that country. Interestingly, the only EU country to report a net increase in electricity prices last year was Greece — which has been the slowest to implement market reforms.

Taking the UK as an example, the process of market deregulation started in 1990 with the establishment of the electricity trading pool. By mid 1999 the electricity and gas markets in England and Wales were fully deregulated. Electricity markets in Scotland and Northern Ireland are also in the process of opening up but this is not quite as advanced as in England and Wales.

Since 1990, UK average prices in the industrial sector have fallen by 23% in real terms and in the domestic sector by 21% over the same period. Further changes are expected as the New Electricity Trading Arrangements (NETA) are introduced into the UK market, which is due to take place in November 2000. This will have the effect of depressing prices still further. Already, in

anticipation of this change, wholesale prices in the UK have slumped to an all time low. August 2000 baseload power for example was traded at £17.30/MWh (about US\$26/MWh) — which is substantially less than British Energy's operating cost of £19.90/MWh in financial year 1999–2000.

In Germany, where the transition to an open market was much more rapid, the price shock has been even greater. Prior to April 1998 there was effectively no competition in the German market. Transition to a 100% deregulated market was effectively completed in 1999. Wholesale prices of electricity in Germany have fallen by more than 40% since the start of this process.

### **Utility Response**

The response of utilities has been swift and dramatic. A sea change has swept across Europe. In a relatively short period of time we have seen a system based on regional or national monopolies and regulated prices replaced by a free market culture, worthy of Adam Smith himself. In many cases this has been accompanied by large-scale privatisation, de-municipalisation, and increasingly a globalisation of ownership.

Old style thinking where Price = Full Costs + Profit has been replaced by a new paradigm where price is set by the market and utilities must live with that — or go out of business. A conventional strategy of trimming costs here and there to meet a slightly lower budget will not suffice in the aggressive free market that is now developing. Instead utilities are having to adopt a more radical approach. This entails:

- strategic repositioning in the market,
- improving business efficiency,
- thinking the unthinkable.

In the new paradigm, costs and revenues are not ends in themselves. It is a company's overall performance, its bottom line, and of course its shareholder value, that are now the critical factors.

### **Strategic Repositioning in the Market**

First we need to reinvent the market — or rather to decide which market we are in. For some utilities this has meant transitioning from electricity generators to energy companies and from energy companies to multi-utility service providers.

For UK generators such as National Power and PowerGen, a key strategic move has been to capture a share of the UK retail market through acquisition of distribution companies. These same companies have also branched out from electricity to multi-utility services, offering packaging with gas, telecommunications, internet access and other services.

A similar picture can be seen right across the European landscape. Where utilities already had a strong retail presence, for example through regional monopolies, they have moved swiftly to attract customers in neighbouring areas — as soon as the market barriers came down — while seeking to retain the loyalty of their existing customer bases. As the market evolves into a truly European-wide arena, so players are strategically positioning themselves to

compete either through mergers and acquisitions (M&A) or through strategic alliances.

In Germany, the M&A process began even before market liberalisation got underway. As far back as 1997, Badenwerk and Energie Versorgung Schwaben (EVS) merged to form EnBW. Neckarwerke Stuttgart (NWS) was formed at about the same time from Neckarwerke and Technische Werke Stuttgart. Now with the formation of E.ON Energie, the assimilation of VEW into RWE and the purchases by Vattenfall of Sweden and EDF into HEW (Hamburg) and EnBW respectively, the German market is rapidly consolidating. The eight remaining major nuclear utilities will soon be four, only two of which will be under majority German control.

### **Improving Business Efficiency**

Takeover and consolidation strategies can fit neatly with an overall objective of increasing business efficiency. But alone it is not sufficient. Utilities are reviewing business processes and eliminating inefficiencies. While this often means substantial staff reductions, this is not the only outcome. Many other benefits, for example reductions in lead times and working capital, can also result from business process improvement. Or it may result in simply providing a better service to the customer (and so increasing market share).

### **Thinking the Unthinkable**

So here you are. Efficient and effective. You now control a substantial share of the retail market in your home country. Your takeover of utility X in country A and your strategic alliance with a major gas combine in country B have positioned you well to compete in the deregulated European energy market. But the wholesale electricity price continues to fall, as on the one hand large nuclear generators compete desperately to retain their baseload generation market, and on the other hand new combined cycle gas turbine (CCGT) plants — with thermal efficiencies of 60% or more — enter the market and compete head on.

This is the position of many utilities today. Those who can “think the unthinkable” will be the ones that thrive. Those who cannot may disappear. At the annual McGraw-Hill Global Power Markets Conference in April 2000, Jean Louis Poirier predicted that the current universe of 250 major utilities worldwide will shrink dramatically to around 35–40 dominant players. He is not alone in that. A recent PriceWaterhouseCoopers’ survey of 300 European utility leaders found that 90% of those interviewed believed their companies would form part of a larger combined entity, either through merger, acquisition or strategic alliance.

Right now it appears that the trend is towards the mega-utility. Clear frontrunners appear to be emerging; but at the end of the day there is no perfect strategy. The market is not a simple engineering algorithm. Creative utilities, with adaptable and responsive strategies and business models to match will be ones to watch in the new market. Cast your mind back 65 million years: it was the small furry (but crafty) mammals that survived — not the massive dinosaurs.