Towards a competitive and regulated European electricity and gas market



Opening of the Internal Energy Market: progress so far

The entry into force of the two new Directives¹ will make the enlarged European Union the most integrated energy market in the world. These two Directives adopted in 2003 represent a major step towards the completion of the internal market for electricity and gas. This package gave deadlines for the full opening of the market – 1 July 2004 for all business customers and 1 July 2007 for households. Equally it strengthened the independence of transport system operators from other activities (production and supply), through legal and operational unbundling of these activities.

This key legislation also contains a number of obligations for national regulators. They must monitor the development of competition, levels of investment and, where appropriate, the level of prices. This should lead to more transparency and give operators more ability to predict their evolution.

The first results of the decision to open the market to competition are positive. By the end of 2003, electricity prices for industrial users remained 15% lower in real terms than in 1995. This figure includes the recent increases in the wholesale market linked to higher prices for coal and oil as well as the cost of support to renewable energy, since Europe has given itself ambitious targets for green electricity.

A lot remains to be done to ensure that Europe has an effective and competitive energy market. It is therefore crucial that Member States transpose as soon as possible necessary legislation to implement the Directives. Furthermore, this Community legislation is only the framework that makes competition possible – further efforts must also be made to tackle the question of national dominant positions of the traditional suppliers.

Directive 2003/55/EC of the European Parliament and the Council of 26 June 2003 concerning common rules for the internal gas market; Official Journal L 176, 15/07/2003



¹ Directive 2003/54/EC of the European Parliament and the Council of 26 June 2003 concerning common rules for the internal electricity market; Official Journal L 176, 15/07/2003

The Commission will continue to monitor the future development of the market and it will promote new initiatives, if necessary. National regulators will have a central role to play to ensure the efficient operation of the market. The Commission is increasingly giving national energy regulators the responsibility for monitoring and promoting the development of the market.

The development of the market and prices

The opening of the market differs a lot from one country to the other

Since 2001 the Commission has carried out a detailed evaluation of the situation in the electricity and gas sectors relating to market opening through the Benchmarking reports on the Implementation of the Internal Electricity and Gas Markets². These reports have been compiled using information collected from market players and government agencies following a detailed survey. Beyond the institutional features of the opening of the market related to proper transposition of Community legislation by national governments, what also matters is the impact of the opening of the market in terms of the real number of consumers that have changed supplier. The latest report issued in March indicates an average figure of only around 15 to 20% for large users that changed suppliers since market opening within the EU, with a range of figures from 0% for Greece, 5 to 10% for Belgium towards more than 50% for Nordic countries and the United Kingdom.

According to the March report, the situation is approximately the following:

Level of competition	Electricity	Gas
Not functioning	Greece, Estonia, Latvia	All new Member States, Finland, Portugal, Greece
Initial steps only	Belgium (fr) ³ , Luxembourg, Portugal, Poland, Czech Rep., Slovenia, Slovakia, Lithuania	Germany, Luxembourg, Sweden, Belgium (fr)
Some progress	Germany , Spain, Belgium (nl), Ireland, Italy, France, Hungary	Austria, Belgium (nl), France, Italy, Denmark
Well developed	Austria, Netherlands	Netherlands, Ireland, Spain
Complete	UK, Sweden, Finland, Norway, Denmark	UK

In some Member States the introduction of competition in electricity and gas has been made more difficult by the existence of companies with an excessive degree of market power at national or regional level. The Commission has regularly drawn attention to this issue in its benchmarking reports and in the recent Communication on Energy Infrastructure and Security of Supply⁴. This is a problem that Member States must tackle and there are a number of means available such as measures to promote cross border exchanges and improve inter-connection.

⁴ COM/2003/743 Communication from the Commission to the European Parliament and the Council on Energy Infrastructure and Security of Supply



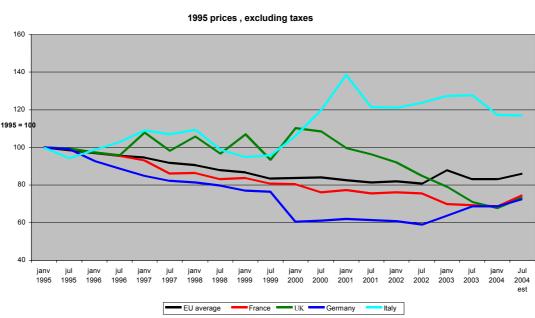
² http://europa.eu.int/comm/energy/electricity/benchmarking/index en.htm

³ Belgium (fr) – francophone Belgium (Brussels and Wallonia), Belgium (nl) = Flanders

Prices fluctuate but overall trend is lower prices

The initial steps in market opening, to the largest consumers, have already helped keep prices down. Electricity prices are currently 15% lower in real terms for large users than in 1995. The chart below shows the trend for the EU15 average and for selected countries. Apart from Italy, which has particular features, prices are significantly lower in all cases⁵.

Indeed, in the years immediately following the opening of the large user market, prices dropped so much that the level would probably be unsustainable over the longer term without leading to shortages of electricity. In recent months, wholesale market prices have increased somewhat and this will have fed through to some end users.



Electricity Prices for large industrial clients 1995-2004

The successful introduction of competition will lead to a more efficient industry. Generators will make better use of their plant in order to retain or extend the number of clients they can cover. Effective regulation of unbundled networks will also encourage cost reduction. Suppliers will interact more efficiently with clients and should offer a greater range of services and contractual arrangements. Over the long term, therefore, a sufficient degree of competition should mean that prices are, on average, lower than they would be under a regulated market.

As with other commodity markets, electricity and gas prices will tend to fluctuate according to the latest information available to the market and to external factors as well such as weather conditions or the price level of imported coal that is used in thermal power plants. This does not, however, mean that consumers should be exposed to such volatility. It is important that consumers have the possibility to choice a wide range of products that may, for example, allow for a more stable price for a suitable period of time. It is usually the task of national regulators to ensure this is the case through monitoring of the market and through conditions in the licences of retail suppliers.

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⁵ Source: Eurostat. The example refers to a client consuming 24GWh/year, equivalent to around 5000 households.

The major elements of the Community legislation

The key role of regulators

The opening of the internal energy market went together with the setting up of national regulators, independent from businesses and governments. These are crucial entities to ensure continued monitoring of market developments and to intervene, if necessary, in order to guarantee the proper running of the market. Member States and the EU are now regulating the market in a different way to the previous monopoly situation and need to identify the institutions and the tools that will best match the new economic game.

For example, through market monitoring and inclusion of specific conditions in the licences of suppliers, national regulators may seek to ensure that several types of contracts are available, including long-term supplying contracts. By laying down the rules of the market, regulators play a key role to allow operators to predict the evolution of prices.

In addition, national governments or regulators can also still exercise significant influence over the electricity generation market. Firstly, all new generators have to be authorised. Certain conditions relating to the location or technology of new plant can therefore be imposed through this process. Member States may also intervene in the generation market by giving certain incentives to accelerate investment. Obviously intervention needs to be carried out with great caution to avoid the risk of undermining the market process and thereby discouraging spontaneous investment.

Both the newly adopted gas security of supply Directive and the similar Directive proposed for electricity (see footnote $n^{\circ}7$ page 6) require Member States to have a transparent policy relating to measures associated with the balance of supply and demand. Possible measures are as follows:

- development of liquid wholesale markets,
- role of transmission system operators in ensuring balance, even at times of highest demand,
- incentives to new investments,
- possible tenders for new capacity,
- obligations on suppliers relating to, for example gas storage or reserve generation capacity.

All these are aspects of "market design" which need to be clarified by regulators in each Member State in order to create a stable investment climate.

Public service obligations

Electricity and gas are not like other products. They have few, if any, real substitutes. The continued availability of electricity at a reasonable price is crucial for both for the economy and the fabric of modern society. What is more, electricity and gas markets are often characterised by dominance of the national market by one or a few companies. The new Directives recognise these facts. Thus the introduction of competition does not imply total deregulation of energy supply or a laissez-faire attitude to market outcomes in terms of price and customer service.

In fact, the Directives require continued close monitoring of the market by Member States and the possibility of introducing a number of key obligations on energy companies relating to public service. Such safeguards are very important during the period of transition from a fully regulated monopoly, to a situation where the market decides important features such as prices and investment decisions.



PUBLIC SERVICE OBLIGATIONS AND CUSTOMER PROTECTION

Universal service includes the right to be connected to the network, to be supplied with electricity and to benefit from high quality services. A nominated company may be required to supply all customers in a given geographic zone.

Protection of vulnerable consumers guarantees proper protection against any unjustified disconnection for aged people, unemployed and disabled people, giving them a real « right to energy ». Without this, competition could, for example, encourage electricity and gas suppliers to discriminate according to the risk of non-payment and only to supply the customers that they deem profitable.

Protection of final consumer relates particularly to transparency regarding contractual terms, for both electricity and gas. Thanks to increased transparency and real and guaranteed access to dispute settlement mechanisms, the position of consumers has been strengthened.

The completion of the internal market means more than only implementing the legislation

The completion of the internal market requires common rules and policies in order to ensure the interoperability of networks, inter-connection and an adequate level of capacity and infrastructure.

A better inter-connection to improve the market and give a more secure market

The implementation of the Regulations governing cross border exchanges of electricity and, eventually, gas⁶ will already increase the scope for competition. However investment in new infrastructure and other measures to reduce concentration are also needed. It will not be an acceptable outcome if the opening of the market to competition is frustrated by companies segmenting the market to their previous national or local boundaries.

The Commission has repeated called for rapid progress to be made on certain network investments, particularly those seeking to increase the integration of national electricity markets. At the Barcelone European Council in March 2002, Member States agreed on precise targets for new investments to improve electricity inter-connection and a list of projects in the framework of the transeuropean network (see list below). Nevertheless results have been very disappointing up to now.

COM/2003/0741 Proposal for a regulation of the European Parliament and the Council on conditions for access to the network for cross-border exchanges in gas



 $^{^6}$ Regulation (EC) n° 1228/2003 of the European Parliament and the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity; OJ n° L 176 of 15/07/2003

Status of key priority interconnection projects

Past:

Siersdorf/Oberzier (DE)- Maasbracht (NL) Greece- Italy submarine cable

Vigy (FR) – Uchtelfangen (DE)

Cartelle (ES) -Lindoso II (PT)

Waiting list:

Avelin (FR) – Avelgem (BE) line

Moulaine (FR) – Aubange (BE) line

Lienz (AT) – Cordignano (IT) line

New interconnection between Italy and Slovenia

Udine Ovest (IT) – Okroglo line (SI)

St. Peter (AT) – Tauern (AT) line

Südburgenland (AT) - Kainachtal (AT) line

S. Fiorano (IT) – Robbia (CH) line

Austria - Italy (Thaur-Brixen) interconnection through the Brenner railway tunnel

Sentmenat (ES) – Bescanó (ES) – Baixas (FR) line

Valdigem (PT) - Douro Internacional (PT) - Aldeadávila (ES) line and Douro Internacional facilities

Philippi (GR) – Hamidabad (TR) line

Submarine cable England (UK) and Netherlands

Submarine cable Ireland – Wales (UK)

Kasso (DK) - Hamburg/Dollern (DE) line

Submarine cable Skagerrak 4 (DK) – (NO)

Poland – Lithuania link, including necessary reinforcements of the Polish electricity network

Submarine cable Finland – Estonia (Estlink)

Subsea cable Fennoscan between Finland and Sweden

The Commission recently proposed a Directive on Electricity Infrastructure and Security of Supply⁷ which would increase the level of co-ordination between Member States in approving such investments and the level of funding through the transeuropean network programme. If these proposals were agreed it would provide a strong impetus to complete key projects aimed at improving the degree of competition in European electricity markets in particular.

Most recent major incidents affecting customers are the result of problems with network operation rather than being the result of a lack of investment, either in the network or in generation. For example the black outs in Italy occurred in the middle of the night where there was plenty of generation capacity available. However such incidents have underlined the fact that, as markets become more affected by cross border exchanges, there is a clear need to develop Europe-wide operational rules. This encouraged the Commission also to propose new regulations last year on cross border exchanges of electricity and gas.

Work is already underway in this respect. System operators in the Nordic region already have a detailed set of rules. A similar handbook is being developed for the main continental block of countries which rationalises the existing set of obligations. Such rules would most likely have prevented the black out experienced in Italy in September 2003.

COM/2003/740 Proposal for a Directive of the European Parliament and the Council concerning measures to safeguard security of electricity supply and infrastructure investment



⁷ Directive 2004/67/EC of the European Parliament and Council of 26 April 2004 concerning measures to safeguard security of gas supply; OJ n° L 127 of 29/04/2004.

Investments needed to meet demand

The introduction of competition clearly implies a change in the way investment decisions are made. Previously, regulated monopolies would construct new capacity on a "predict and provide" basis. Such decisions often have led to overcapacity and also embedded the idea of inexorable increases in energy demand. In a competitive market investors will make their decisions on the basis of price signals coming from electricity markets and their expectations about the longer term.

Despite the relative immaturity of market opening, investments are already being realised in many Member States in response to current price levels. Substantial amounts of generation plant have already been constructed in Spain and Italy. Plans for a new nuclear plant in Finland are progressing. Similarly several projects to increase gas import capacity, especially LNG terminals, are well advanced.

Companies with a large portfolio of end user customers are in fact well motivated to invest in new capacity since other wise they risk being exposed to volatile spot market prices. Another major benefit of competition is that anybody is permitted to build new generation capacity. Large customers may even construct their own generation facilities or participate in projects to import gas. The idea that the established companies could push up prices by delaying investment is not a strategy that could succeed in the long term. They would gradually lose their market.

Important projects recently completed or construction in progress (Source: Power in Europe: new plant tracker)

Electricity

<u>Italy</u>, various CCGT projects (8300MW)
<u>Spain/Portugal</u>, various CCGT projects (11 400MW)
<u>Belgium / Netherlands</u>

Rijnmond (795MW) Zandvliet (385MW) Antwerp (120MW)

France

Gonfreville (260MW) Dunkerke (788MW)

Germany

Duisburg-Hamborn (255MW) Goldisthal (1065MW) Duisburg-Wannheim (240MW) Munich (417MW) Niehl (400MW) Sandreuth (180MW) Ludwigshaven (400MW)

Nordic market

Horns rev wind (160MW) Nysted wind (165MW) Olkiluoto (1600MW)

UK/Ireland

Huntstown (343)
Ballylumford (600MW)
Baglan Bay (525MW)
Immingham (760MW)
Spalding (860MW)
Coolkeeragh (400MW)
Various wind projects (up to 120MW)

Gas

Langled Pipeline (Norway – UK) Terminals GNL - Brindisi (IT), Zeebrugge (BE), Isle of Grain, Milford Haven (UK)

MEMO is prepared by the Strategy, Coordination, Information and Communication Unit of DG Energy and

Transport. Don't hesitate to contact us for further information (tel +32 2 2968 042)

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