

Towards a true EU gas market

2007 marked the end of the formal 10-year project to liberalise EU gas markets. 2008 could see the beginnings of a real gas market for Europe. By Nigel Harris, principal consultant and director, Kingston Energy Consulting



Nigel Harris

THE EUROPEAN Commission embarked on an ambitious programme to reform natural gas markets in 1998. At the time, most of the 27 countries that now make up the EU had a single, vertically integrated gas-supply firm, most of which were state owned. Typically, this company handled the acquisition of gas, its transmission, storage, and supply to consumers or local distribution companies.

The Commission's 1998 Gas Directive laid out a roadmap to achieve an open, competitive market for supply across the EU. In 2003, a second Gas Directive introduced an accelerated timetable and more detailed regulatory rules. By July 2007, the main elements of the programme were in place, the deadlines had been met and the groundwork for a single European gas market had been laid.

With a few local exceptions, EU consumers can choose who delivers their gas. Transmission networks have been unbundled from their vertically integrated owners and are managed by separate operating companies as a resource for all shippers. Most gas-import, transmission and storage infrastructure is open to third-party access (TPA) on an increasingly open and transparent basis. Controlled prices for end users have largely been eliminated. Each national government has appointed a regulator to oversee competition.

The vision remains a dream

But despite this, Europe is far from achieving the Commission's vision of a single market. Although governments and companies eventually complied with the Directives, in many cases they have done so reluctantly. France delayed implementation until forced to do so by a European Court of Justice ruling. This allowed Gaz de France (GdF) to retain a near-monopoly on its home market until 2003, while moving into more rapidly liberalising markets elsewhere in Europe.

In Germany, the incumbent gas companies initially persuaded the government that they could implement an open, liberalised market through voluntary agreements, without formal market regulation. Their idea of an open market proved, unsurprisingly, to favour the status quo, in which a handful of vertically integrated suppliers dominated the market.

Companies seeking to enter Germany were effectively barred by a system of long-term contracts between suppliers, resellers and consumers, and faced practical difficulties in using the complex TPA system to obtain transmission capacity. It was not until 2005 that a regulator was appointed and not until late 2006 that a workable system of TPA and customer access started to emerge.

Table 1 – Top-10 companies by European natural gas sales, 2006

Company	Country	Volume (TWh)
E.On	Germany	936.6
Eni	Italy	844.2
GasTerra	Netherlands	769.9
GdF	France	762.0
Statoil	Norway	588.9
RWE	Germany	360.9
Botas	Turkey	335.6
Gas Natural	Spain	294.5
EdF	France	290.0
Wingas	Germany	228.2

Source: Companies, Prospex Research

In several countries, including France, Spain and Italy, governments maintained a system of controlled end-user prices to protect smaller users from competitive market prices. This created a two-tier market in which eligible customers were open to competitive supply offers, while tariff customers could be supplied only by incumbent companies, under protected terms. These and other distortions of the liberalisation process allowed many incumbents to retain a favoured position during the liberalisation programme.

Throughout Europe, there are examples of even more direct favouritism towards incumbent suppliers, by governments keen to protect and promote their national champions:

- In Germany, electricity supplier E.On was allowed, against the wishes of the competition authority, to merge with the largest gas supplier, Ruhrgas, creating Europe's largest gas supplier (see Table 1);

- In the Netherlands, the dismantling of the gasgebouw public-private partnership that had run the gas industry since the 1960s was done in such a way as to leave the main supplier, GasTerra, with privileged and protected access to Dutch gas production;

- Incumbent wholesale supplier, OMV, formed a joint venture with five regional Austrian utilities to create EconGas, which dominates gas supply and is expanding into Italy and Germany; and

- In Spain, E.On's attempted take-over of gas and power supplier Endesa was, in effect, blocked by the government, which wanted to protect Spanish energy interests against foreign acquisitions.

While some companies lobbied hard to retain a protected status in their domestic market for as long as possible, they have taken advantage of liberalisation elsewhere to gain footholds in other countries:

- Through subsidiaries and shareholdings, E.On is now active in almost all European gas markets.

Although predominantly a wholesale supplier, it has also built or acquired an end-user gas-customer base of 1.3 million in Germany, 2.8 million in the UK and 1.8 million in central Europe; and

- RWE, E.On's main Germany competitor, acquired almost the entire Czech gas industry when it was privatised in 2001. RWE owns the dominant importer, Transgas, the transmission network and six of the country's nine regional distributors. It is the third-largest gas supplier in the UK, as well as its largest electricity supplier, and has also made acquisitions in the Dutch, Hungarian and Polish gas markets.

Most other large incumbent gas suppliers are looking to expand abroad, while doing their best to maintain their dominant domestic market shares. Italy's Eni has acquired market stakes in France, Germany, Portugal and Spain, and is also looking to expand operations in Austria, Turkey and the UK. GasTerra now makes more than 60% of its gas sales outside the Netherlands and its export sales are growing faster than its domestic market share is shrinking. GdF has supply positions in Belgium, Germany, Hungary, Italy, the Netherlands, Romania, Slovakia and the UK.

For would-be new entrants to the European gas markets, these large incumbents present enormous problems. Not only do they act as formidable competitors both at home and abroad, but they also tie up much of the available gas supply. Europe relies on a small number of producers – Russia, Algeria, Norway and the Netherlands – and a large proportion of imports were purchased many years ago under long-term contracts. New entrants have been forced to secure their own supplies, often in nascent, volatile spot markets in which only small gas volumes are traded.

The incumbents also own the transmission capacity. Long-term capacity reservation, particularly at border crossings and other key points on the network, is a significant barrier to market entry. Having TPA to a network is useless if capacity was pre-booked years earlier. But the advantage of the incumbents is increasingly being broken down by: widespread regulatory enforcement of secondary capacity-trading markets; so-called use-it-or-lose-it rules to prevent hoarding of

unused capacity; and a backpack principle, whereby new suppliers are able to take over the capacity reservations needed to supply their customers.

Above all, gas trade in the EU remains resolutely national in scope. Each country's market is open to competition, but each remains different and separate from the markets of adjoining states. Each country has made it (more or less) possible for new market entrants to sell gas to end-users and to gain access to transmission networks, but little attention has been paid to cross-border gas trade and transmission.

So it seems 10 years of liberalisation has brought us to a starting point, rather than an end point. The Commission recognises this and is rolling out a third legislative package for energy markets, with new rules intended to consolidate progress so far, but also to focus much more on cross-border trading and the development of pan-European energy markets.

New legislation will tighten rules on the ownership and operation of infrastructure to eliminate competitive advantage and improve TPA to storage facilities and LNG terminals. It will strengthen the powers of regulators and introduce new measures designed to promote pan-European and cross-border trade, including an agency to provide regulatory oversight.

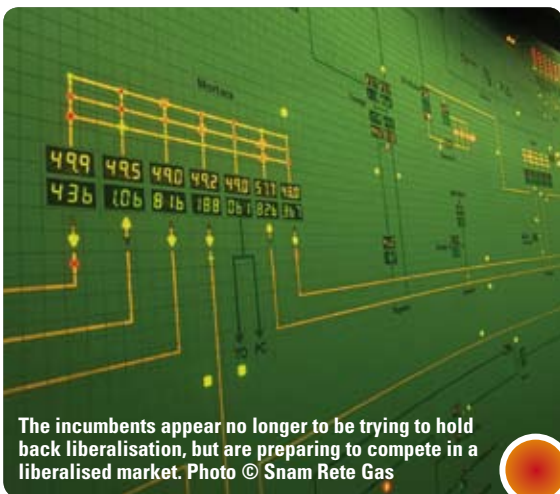
There are encouraging signs that Europe's largest gas-supply companies also viewed 2007 as a starting point. The incumbents appear no longer to be trying to hold back liberalisation, but are preparing to compete in a liberalised market. Many of the privileges they enjoyed during the market-opening process have been removed, but they remain strong and, in some cases, stronger than when they were a purely national player. Companies that previously spurned the spot markets are becoming significant players, as they seek to establish dominant positions in developing markets.

Improved regulatory landscape

New market entrants are also now able to start taking advantage of the improved regulatory landscape. Now that most European countries have completed their implementation of the Gas Directives, there is more uniformity and stability in the implementation of TPA across different networks. With the widespread adoption of regulators' guidelines, transparency of information about capacity and gas flows has increased substantially. Practical and regulatory barriers to trade and transport are becoming more manageable.

The net result of all these changes is that 2006 and 2007 saw rapid growth in spot trading. Volumes at the established hubs in the UK and northwest Europe set new records, while activity at other locations throughout Europe also grew significantly.

The UK is by far the most active gas market in Europe (see Table 2). Most volumes are traded through the virtual National Balancing Point (NBP), where the legal title to gas changes hands. Introduced in 1996, the NBP model has been instrumental in allowing the growth of trading liquidity and the virtual trading-point concept has now been replicated in some form on most national gas networks in Europe.



The incumbents appear no longer to be trying to hold back liberalisation, but are preparing to compete in a liberalised market. Photo © Snam Rete Gas

The daily volume of gas traded at NBP is around 10 times the UK's consumption. Gas is traded for delivery up to two-to-three years ahead on the Ice futures exchange and in over-the-counter (OTC) bilateral trading, and is also traded for day-ahead and within-day delivery in bilateral trade and in the on-the-day commodity market (OCM) balancing market.

On the continent, the main spot markets are at Zeebrugge, Belgium, and the TTF virtual trading point on the Dutch network. Both markets have been established for several years, with the TTF showing much stronger growth than Zeebrugge in recent years. Gas trading at TTF, which includes a small amount of trading in gas futures on the Endex exchange as well

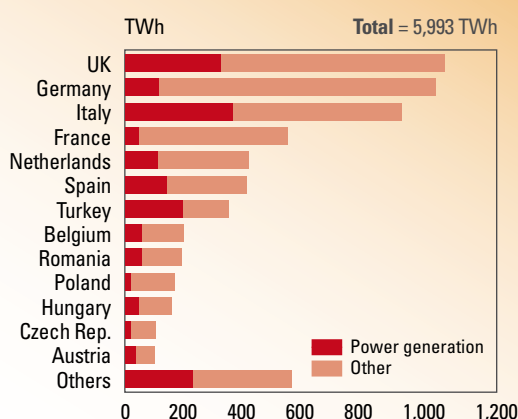
as the main OTC bilateral trading market, overtook the Zeebrugge in total volumes in 2006. But traded Dutch volumes still amounted to less than twice the country's consumption, and the amount of gas changing hands was less than 3% of NBP trade.

The highest percentage growth in spot-market trading between 2005 and 2007 has been seen in Austria, Germany and Italy. All three markets have grown very fast, but from tiny starting volumes:

- Austria's Baumgarten is a physical pipeline hub near the border with Slovakia, where huge volumes of Russian gas enter the country for local use and for onward transmission. Trading is facilitated by an OMY subsidiary that operates an electronic spot market. Participants include large French, German and Italian traders, and many local players. In 2006 and 2007, the market saw the highest growth rate of any in Europe and, although still small, has the potential to become an important trading hub for central Europe;

- Germany has the second-largest physical gas consumption in Europe, after the UK (see Figure 1), but until recently there was almost no spot trading activity. Trading was severely hampered by the difficulty of obtaining transmission capacity and by regulatory uncertainty. Since October 2006, when new TPA arrangements were introduced, gas trading has

Figure 1 – European gas consumption, 2006



Source: National statistics; Prospex Research

Table 2 – Recorded, traded natural gas volumes at European hubs and exchanges

Market	Location	Type	2006	% chg over 2005
NBP	UK	Virtual	7,058.0	22
Ice	UK	Futures	536.7	36
Zeebrugge	Belgium	Physical hub	500.6	8
MS-ATR	Spain	Electronic OTC	281.6	8
TTF	Netherlands	Virtual	201.3	64
OCM	UK	Balancing market	147.8	19
CEGH	Austria	Physical hub	98.7	1,061
PSV	Italy	Virtual	78.6	170
PEGs	France	Virtual	77.7	73
BEB	Germany	Virtual	13.5	170
Endex	Netherlands	Futures	12.0	na
GTS	Germany	Virtual	3.5	na
GDFDT	Germany	Virtual	0.9	na
APX NL	Netherlands	Spot exchange	0.2	-20
APX Zee	Belgium	Spot exchange	0.0	na
Total			9,011.1	25

Note: this table shows only trades executed on exchanges or trading platforms, or notified to hub operators and recorded by them. In some countries, substantial additional trading volumes occur in unrecorded bilateral OTC trading.

Source: Regulators; Hub operators; Exchanges; Prospex Research

● Practical and regulatory barriers to trade and transport are becoming more manageable ●

grown sharply. There are two main markets, based on virtual trading points on the BEB network (northern Germany) and on E.On's EGT network (primarily western Germany). As well as a growing market in bilateral OTC trading, futures trading was introduced by the EEX exchange in July 2007. With the main German incumbent suppliers now participating in the spot markets, further, substantial growth can be expected; and

- Traded volumes in Italy have been very low until recently. There is a single virtual trading point, PSV, where gas for delivery anywhere in the country can be traded. Trading has been severely limited by a lack of available volumes. Most of the imported gas and the transmission capacity to deliver it, is tied up in long-term contracts with Eni. The regulator forced the firm to reduce its market share, but Eni preferred to dispose of excess supply abroad. Consequently, most Italian wholesale trading takes the form of cross-border acquisitions under term deals, rather than spot trade, although PSV volumes grew by 170% in 2006.

Total gas trading volumes across Europe rose by just over 40% between 2005 and 2006. But this reflects different growth rates in different regions. UK volumes rose by around one-third, while trading in continental Europe doubled. And while trading volumes in the established hubs of Zeebrugge and TTF increased by around 45%, volumes elsewhere in Europe were up by an average 250%. All these trends continued in 2007, with accelerated growth rates in some areas. ●