

Most EU gas is still traded under long term contracts with prices linked to oil. But according to James Bloom and Mitun Patel of Gas Strategies, more diversity of supply could lead to an increase in “hub” based contract price indexation.

## Trends in European Gas Markets

Europe currently has three main traded gas hubs; the National Balancing Point (NBP) in the UK, Zeehub in Belgium and the Title Transfer Facility (TTF) in The Netherlands. Other smaller hubs include BEB & EGT in Germany and PEG in France.

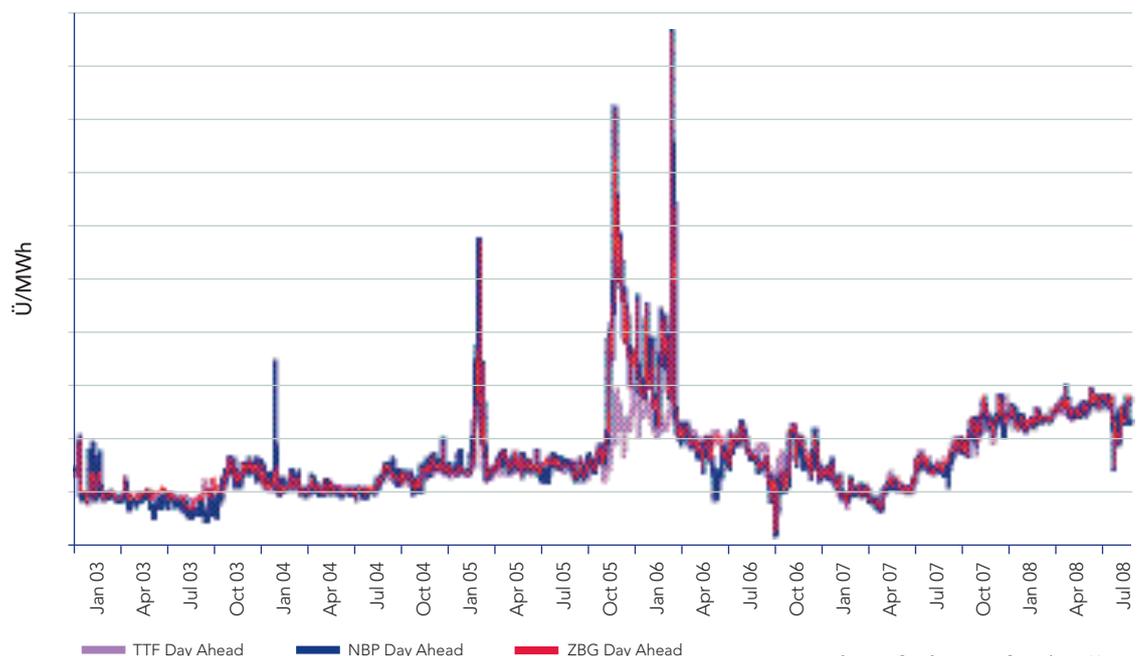
Whilst the UK’s NBP trades mainly on the Intercontinental Exchange (ICE), it also trades alongside Zeehub and the TTF on the Dutch APX exchange. Historically and currently the NBP has been Europe’s most liquidly traded market. With around 50% of long-term contracted supply priced directly at this notional price hub, the NBP, after the US Henry Hub, is the second most liquid traded hub in the world.

The well established NW Europe pipeline network has allowed traders to physically arbitrage short term price differentials. Data from the Gas Strategies Online

database shows that as a consequence of this physical arbitraging, prices at the NBP, Zeehub and TTF prior to 2007 almost fully converged (Chart 1). This was not always the case, as large price differentials were created for short periods when transport capacity between the markets was adversely affected or undergoing maintenance, as in winter 2005-06. Since 2005 physical trading capacity in the Anglo-Benelux region has increased by 42 Bcm/a, thus full price convergence is now more sustainable.

Since 2005, further pipeline capacity has come from four reverse flow interconnector expansions, increasing total capacity from Belgium to Great Britain by 25.5 Bcm/a, from the original 20 Bcm/a allowing the UK to import more gas in Winter months. There has also been the addition of the BBL pipeline, adding a further 16 Bcm/a of UK import capacity from the Netherlands. >

**Chart 1** Convergence of Anglo-Benelux Traded Markets in Recent Years



Source: Gas Strategies Consulting, Heren

Currently, despite having relatively well developed and actively traded markets, North West Continental Europe still purchases a vast majority of gas on long term contracts indexed to oil product prices, traditionally set through inter-fuel competition (e.g. coal, gas oil and fuel oil) in each market sector. This has hindered liquidity at traded hubs such as the TTF and Zeehub where, unlike the NBP, very few contracts are indexed to the hub.

“However, increasing demand for LNG in alternative regional markets looks likely to keep NW Europe short of LNG for the coming years.”

MORE SUPPLY DIVERSITY

Gas Strategies views an increase in gas supply to the region coming from diverse sources as the main catalyst for NW European hubs to become more liquidly traded. With additional gas supplies added to these hubs, we estimate there could be periods of oversupply which, together with stored Winter supply, could force the annual average of traded hub prices to fall below

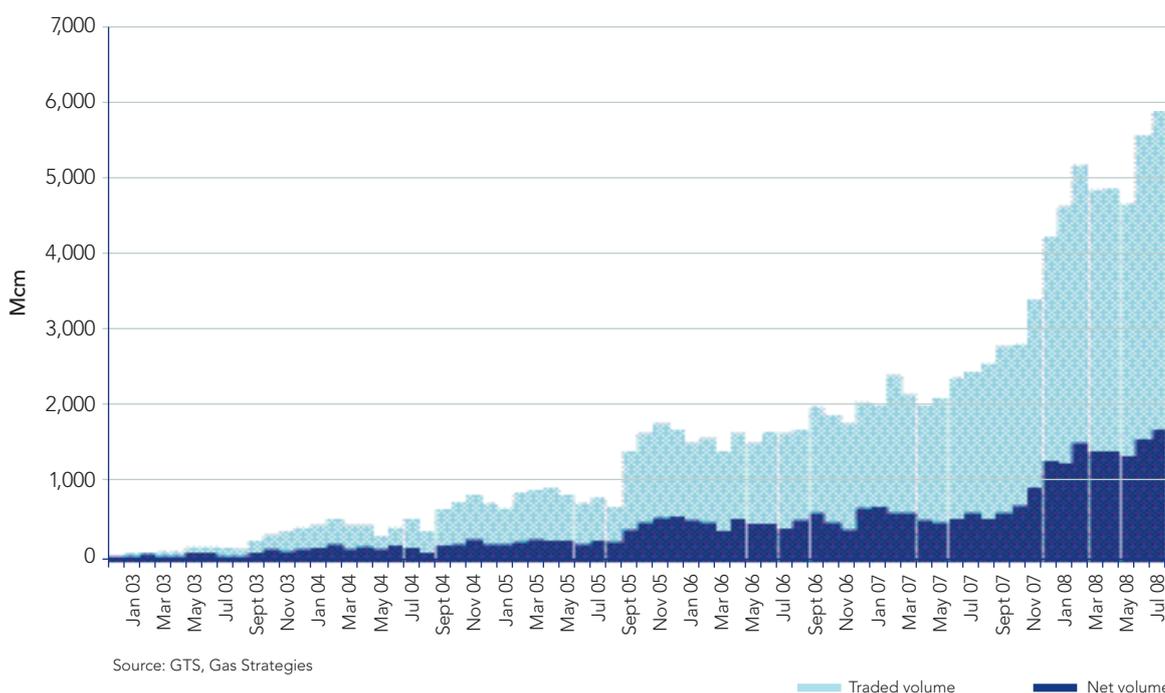
long term annual contract price levels. This could encourage buyers to index more of their supply portfolios to traded hub prices, thereby increasing liquidity at these hubs. This is one of our model scenarios for liberalised pricing in the region post-2014.

Recently some of the larger players on the continent have directly indexed parts of their long term contract price (albeit small portions) to the TTF, EGT and Zeehub. In this current strong sellers’ market, oversupply, and further steps towards gas price indexation look less likely than they did in the buyers market earlier this decade.

IMPACT OF MORE LNG

LNG supply from the Atlantic Basin and the Middle East could add further supply between 2008 and 2015. There has been heavy investment in LNG receiving facilities in NW Europe since 2005. In the UK, the Isle of Grain LNG terminal (4.5 Bcm/a) opened in 2005 and has a further two expansions under construction, increasing capacity by 16 Bcm/a. Belgium’s Zeebrugge doubled its capacity from 4.5 Bcm/a to 9 Bcm/a earlier this year whilst in the Netherlands the GATE LNG terminal (12 Bcm/a) is under construction and a further two facilities are proposed (LionGas, Eemshaven).

Chart 2 Traded Volumes on the TTF, 2003 - 2008



However, increasing demand for LNG in alternative regional markets looks likely to keep NW Europe short of LNG for the coming years. Asian demand remains strong, with reliance on imported LNG, and Asian buyers are prepared to pay significantly higher prices in times of production shortages. There are few other options for increased pipeline gas supply to NW Europe which could diversify reliance on Russia and Norway; the most likely is the Nabucco pipeline project, which still lacks committed gas supply.

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#### IMPACT ON PRICE VOLATILITY

Buyers could collectively implement changes in their long term contracts from oil to gas indexation but many are still reluctant, given the certainty of the recent firm oil price movements compared to the more volatile gas price. If gas hubs were to become more liquidly traded, market supply and demand fundamentals could correct volatility and return prices to ‘normal’ levels more quickly.

In the future it is plausible to assume that the TTF will become more actively traded, as trade has increased since mid-2006 (Chart 2). The increase is largely due to the Netherlands as a key supplier to neighbouring countries, including the UK; as well as an important transit country in the region; and has the potential for major new LNG import capacity by 2012.