

Who should do what to improve the liquidity and efficiency of EU regional gas markets?

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IMPORTANCE OF MARKETS

Functioning gas markets are essential because they provide transparent and reliable price signals for the efficient usage of the existing asset base (gas production/ contracts, transportation and storage capacities) and enable customers to source gas at competitive prices.

The (regional) hub prices are used by market players to optimise their portfolios. Typically, we find all players in the value chain trading at a liquid hub, i.e. upstream, midstream and downstream players as well as financial players plus TSOs to balance their gas grid.

Furthermore, hub prices across Europe are signalling whether bottlenecks exist between markets and whether investments in transportation capacities, storage capacities etc. or other measures should be undertaken.

Within a traded regional gas market, decisions by traders will involve covering the physical position in the cash market (within day/hour), optimising the assets across the curve as well as taking speculative positions based on market views.

Forward prices provide market players with the best view about future supply and demand conditions. Furthermore, prices of different future delivery periods – like Summer 09 against Q1 10 – determine the intrinsic value of seasonal storage. This, plus price volatility, form the basis for pricing storage in a liquid market.

“Are traded markets perfect?”

Across traded regional markets, traders will exploit arbitrage opportunities and thereby push European gas markets to a higher level of efficiency. Connectivity of regional hubs is vital to deliver efficiency on a European level. Price correlation of hub prices can deliver an indication about the degree of interconnectivity.

Are traded markets perfect? This is a rhetorical question. Traded liquid gas markets typically show prices up to three years ahead but this will not cover the typical time horizon for investments in gas production, transportation, storage capacities etc. Therefore, additional procedures should be deployed in order to help TSOs as well as National Regulatory Authorities (NRAs) to determine whether potential investments would be economically viable in the long run. Open Season Procedures could be envisaged to include such economic tests. And if the investment proves to be viable, TSOs should be obliged to meet demand by investing in additional infrastructure help to integrate markets.

WHAT IS THE CURRENT STATUS OF TRADED GAS HUBS IN EUROPE?

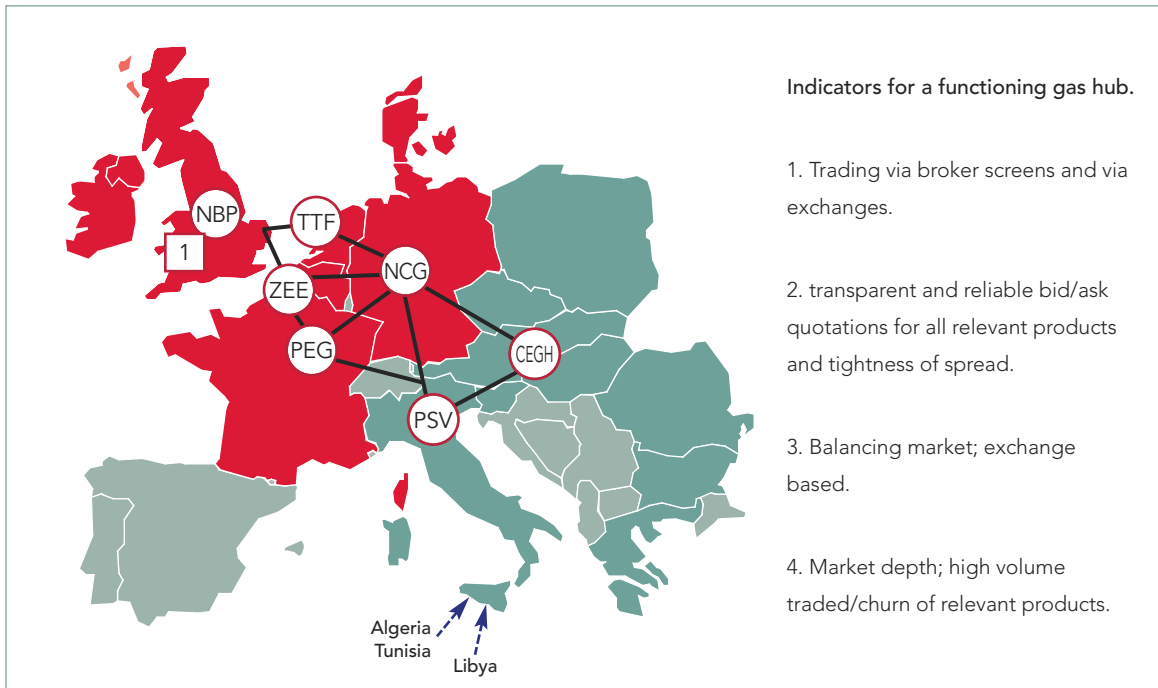
In this paper I want to focus on a) price transparency and b) on traded volumes.

PRICE TRANSPARENCY

We can see traded products via broker screens and gas exchanges. There are also prices published by daily newsletters such as Argus, Platts, ICIS Heren etc. The methodology used, however, is sometimes not fully defined, and it is certainly not the same across newsletters (different time frame etc.) and therefore they can sometimes be misleading. However, these published prices are still used in gas contracts as an index; for example Heren Day Ahead or Month Ahead.

LEBA, the London Energy Brokers' Association, launched a benchmark index for gas markets such as the LEBA TTF Pricing Index. Last but not least, the gas exchanges provide reliable and transparent price information.

Chart A – EU Gas Trading Hubs



Overall, several European gas hubs – NBP, TTF, ZEE, NCG, PEG, CEGH, PSV (see Chart A above) – provide transparent prices, but not for all relevant products and with different degrees of transparency reflecting the overall liquidity of the hub.

The markets need transparent prices for all relevant products based on a clear and transparent methodology, at best based on anonymous records of standardised products and based on the publishing of data on OTC trades near real time (and not on d+1 as in newsletters). We are moving in that direction, but there is still room for improvement.

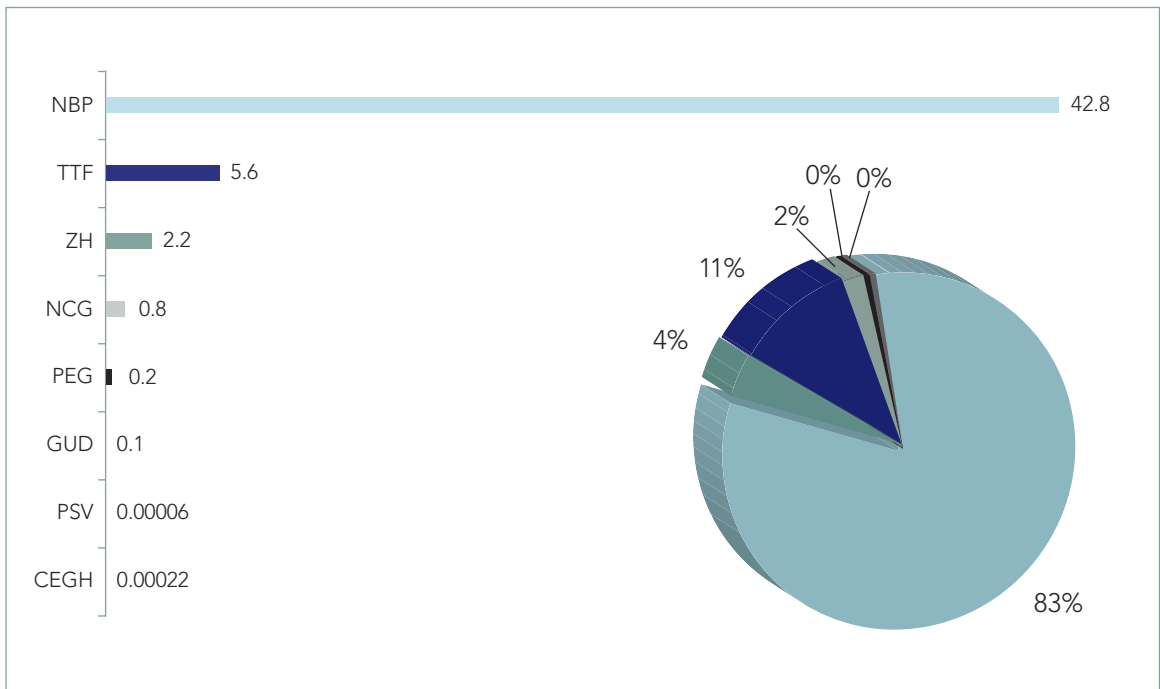
TRADED VOLUMES

Typically volumes as published by the TSO are used to assess the liquidity of a gas hub. However, there are drawbacks: TSO data reflects the nominated volumes at the respective hub for delivery in a given month but nominated volumes do not reflect all contracts, whether standard traded products or long term contracts (LTC).

Therefore, TSO figures do not give a fair reflection of traded standard products, which should be the basis for any liquidity assessment. Furthermore, TSOs use different methodologies. For example, we can find a gross and a net nomination rule. Example: if trader A sells to B 100 units April 09 and next day trader A buys from B 100 units April 09, then on a gross basis we see 200 as nominated volume and on a net basis 0. Gross nominations are used, for instance, at the NBP and net nominations at the Zeebrugge Hub.

I would recommend using trades done via broker screens and exchanges. These market channels reflect 80-95% of traded volumes for standard products. These traded volumes are a fair reflection of volumes actually traded during the reporting month. Delivery of these volumes might be in that month or in future periods. The development of the volumes also show trends in the market (e.g. Does the financial crisis have an impact on liquidity? or How are the regional hubs relative to each other developing? etc.).

Chart B – Traded volumes total in TWh/trading day – 2008



SOME OBSERVATIONS:

NBP is the unrivalled No1 gas hub in Europe in terms of trade volumes (**See chart B above**), products traded, tightness of bid/offer spread. TTF and NCG on a lower level are picking up.

Recently, PEG is improving due to the merger of market areas and introduction of gas exchange (Powernext). Roughly, TTF is trading around 15% of NBP volumes, NCG roughly 20% of TTF volumes. All other gas hubs show much lower trading volumes. Recent developments of trade volumes indicate that liquidity at continental hubs is increasing, while liquidity at NBP is stagnating/decreasing.

Correlation of Day Ahead prices across European hubs is good with the exception of the PSV. (**See chart C opposite**)

POTENTIAL IMPROVEMENTS

NBP could serve as role model throughout Europe on how to set up a gas hub. Main features are an entry/exit model encompassing the downstream market, i.e. exiting NBP provides access to end customers.

It is important to note that the connection of the hub to the regional downstream market is one important element for the successful development of a hub, as well as for the opening of the various downstream markets including access to supply and flexibility.

The hubs in Belgium and Austria, for example, do not currently encompass the respective downstream markets, i.e. the exit points of the hub are not customer exit points such as industrials, power plants, LDC etc.

OVERALL THE EUROPEAN GAS HUBS SHOW SIGNIFICANT POTENTIAL FOR IMPROVEMENT:

NL: Allow total Dutch downstream market accessible by TTF and investigate abolition of city gate as delivery point (as implemented in Germany). It is foreseen to expand TTF reach from currently around 25% of Dutch downstream market to 100% by 2009/10.

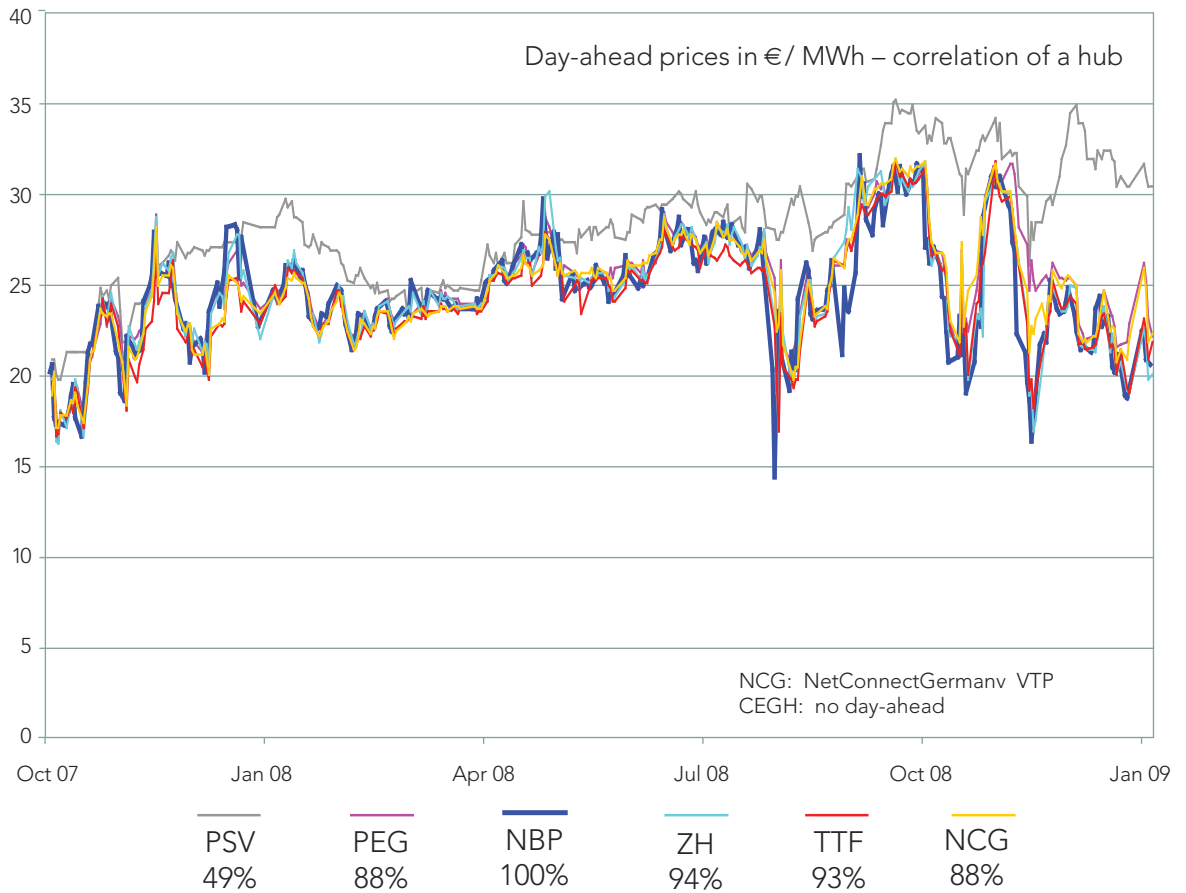
GER: Promote merger of further market areas in Germany.

F: Promote merger of further market areas in France.

B: Zeebrugge hub – expand the hub to a full entry/exit system with full coverage of Belgium downstream market and virtual trading point.



Chart C – Price Convergence at Market Hubs



AU: CEGH/Baumgarten hub – expand it to a “real” virtual trading point from several single flanges connected by services of hub company and connect it to the downstream market. Access to different sources of supply is/could be a potential issue, i.e. diversity of upstream players/sources.

I: PSV – entry/exit model for Italian system, but very low liquidity. Market access seems to be critical as well as access to different sources of supply.

MARKET MAKING

Market making is crucial to develop a traded market. The commitment of E.ON to undertake market making of relevant products at the NCG hub, plus the fact that other companies stepped into market making over time, was a decisive element in the development of trading and liquidity at the NCG hub.

I would recommend that in markets with relatively low liquidity strong players in the respective market take over this important function to develop trading and liquidity. Of course it is material that the bid/ask spreads are relatively tight in order to stimulate trading.

Ongoing initiatives in order to improve connectivity between markets (areas) as well as usage of capacity are important to foster the integration of European gas markets. However, trade offs between existing commercial rights and integration improvements have to be carefully analysed in order to avoid the downturns needed to outweigh potential upturns of any new regulatory regime. To honour existing rights is paramount to keep up trust in the markets.

Last, but not least, harmonisation across Europe with respect to TSO systems and processes will lower the barriers for traders to enter markets as well as encourage mergers/co-operation of exchanges. Currently, companies are facing high costs to conduct trading across Europe.