

Position Paper: *Functioning of the natural gas market*

Contact: Peter Claes (Febeliec) - +32 496 59 36 20 - febeliec@febeliec.be

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Description

The European gas market was gradually opened up for international competition from the second half of the 90s onwards. The first directive in 1998 (ref. 98/30/EC) and its transposition into national legislation initiated the transition from (in most member states) regulated and monopolistic gas sectors to a unified natural gas market throughout the entire European Union. Later on, the European legislation was further refined with new additional directives and regulations. Since 2006, the further liberalisation of the natural gas market has moreover been organised through regional initiatives, mainly in order not to unnecessarily slow down the development of the “fastest” regions compared to the slower ones.

After the 18th Madrid Forum in September 2010, European regulators started a process to establish a target model for the European gas market. Since then, an intensive dialogue with all stakeholders was organized in view of achieving the internal gas market. For more information, see <http://www.acer.europa.eu/Gas/Gas-Target-Model/Pages/Main.aspx>.

Although natural gas as a commodity is much more similar to other industrial basic products, and therefore does not encounter the same disadvantages as electricity as regards market liberalisation, we can still not speak today of an efficiently working natural gas market at European or even at regional level. Indeed, as for electricity, the market remains essentially nationally organised, with limited opportunities for competition across the borders. The causes are, despite substantial differences between both commodities, often remarkably similar:

- Upstream, the natural gas sector is in the hands of an oligopoly (although little organised), where the worldwide gas reserves are concentrated around a few players (according to the IEA, the International Energy Agency, Russia, Iran and Qatar jointly possess 54% of the worldwide proven conventional reserves); the most important gas producers remain moreover selective as regards accepting new customers and generally aim at cast-iron contracts such as the ‘take or pay’ type, where one must also pay when the contract volumes are not (completely) met. Gas prices were traditionally indexed to oil prices, which for many years has been an obstacle for direct gas-to-gas-competition, but this link has gradually weakened in Europe during the last years.
- The very fast development of shale gas, essentially in the United States, during the last several years, fundamentally changed the global gas scene: unconventional gas resources not only seem to be about as important as conventional ones; moreover, they seem to be available in more and different countries than conventional reserves. For the U.S., the fast exploration of unconventional resources led to a significant price decrease of natural gas and to a much more attractive investment climate for gas intensive and ultimately energy intensive activities.
- Although dominance by historical monopolists or incumbents in some countries remains significant, newcomers gradually find their way to the market. Major obstacles remain lack of available transport capacities, restrictive rules regarding balancing and back-up and portfolio effects.
- The limited capacity for transport (both cross-border and national) is still not sufficiently allocated in view of a better market functioning. In most EU member states, the secondary market for transport capacity does hardly work or does even not work at all.
- The price fixing on the wholesale and retail markets is little transparent. Here also, take-or-pay formulas are still pushed for, though alternatives (e.g. HUB based prices) have gradually become more and more accessible.
- Authorities hesitate to liberalise completely the gas market and wish to keep some control over it. In this way, the authorities continue to be very closely implicated in the development and the management of infrastructure (transport, distribution, LNG-terminalling, storage facilities, ...), amongst others by delivering

permits, financing and management. In some countries, the authorities continue to play an important role in decisions concerning the act of buying natural gas, which is often considered as strategically important at the political and economic level.

In the meantime, the European Commission finished a large-scale study (Quo Vadis?) on the future of the gas market in Europe (see <http://ec.europa.eu/energy/en/studies/study-quo-vadis-gas-market-regulatory-framework>). Proposals for a revision of the European gas directive were put on the table by the Commission (see https://ec.europa.eu/info/news/commission-proposes-update-gas-directive-2017-nov-08_en). On February 12, 2019 a proposal by the Commission was approved in order to guarantee that the pipelines from/towards the non-EU member states be compatible with the rules of the internal gas market (see [http://europa.eu/rapid/press-release_IP-19-1069_en.htm?utm_source=ENERGY+-+dpa+IEU+Monitoring&utm_campaign=5400c8c92c-ENERGY+IEU+Monitoring+COPY+01&utm_medium=email&utm_term=0_73300ffdc3-5400c8c92c-87388341&ct=t\(ENERGY+IEU+COPY+01\)&mc_cid=5400c8c92c&mc_eid=aa9501a2c3](http://europa.eu/rapid/press-release_IP-19-1069_en.htm?utm_source=ENERGY+-+dpa+IEU+Monitoring&utm_campaign=5400c8c92c-ENERGY+IEU+Monitoring+COPY+01&utm_medium=email&utm_term=0_73300ffdc3-5400c8c92c-87388341&ct=t(ENERGY+IEU+COPY+01)&mc_cid=5400c8c92c&mc_eid=aa9501a2c3)).

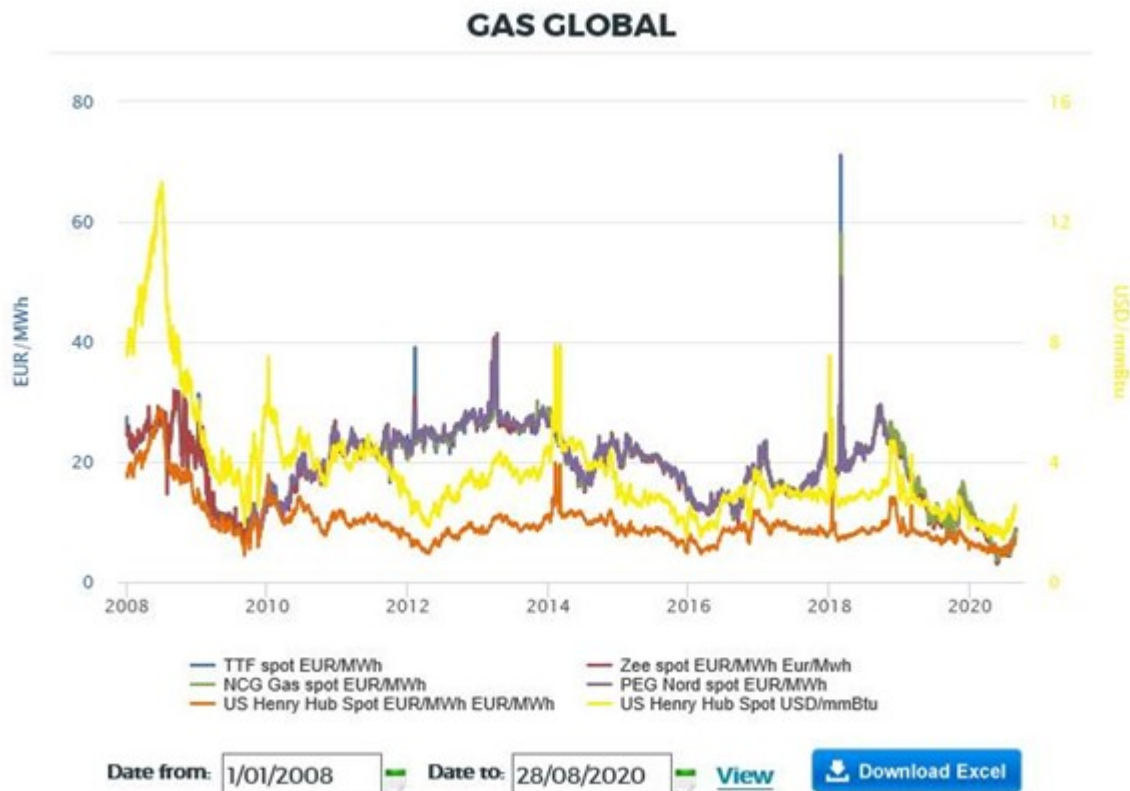
Proposals of Febeliec

Upstream gas market

On a global level, and thanks to the fast discoveries of additional, essentially unconventional, gas resources, global gas reserves are estimated at some 800 tcm¹, or about 230 years of current annual production rate. This makes the supply/demand balance fundamentally different from the one for oil, although there too, unconventional reserves appear to be much bigger than estimated some years ago.

Traditionally, natural gas was considered to be an alternative for oil or oil products, and the pricing therefore in large parts of the world was linked to the oil price. In recent years, and depending on local developments (e.g. exploration of shale gas in the U.S.), natural gas prices tend to diverge more and more, compared to oil prices in some parts of the world.

The graph below gives a clear view on how gas prices evolved in some parts of the Western world since 2008:



Source: Energy Cockpit

¹ 1 tcm = 1 trillion m³

From the graph above, it is clear that there is still no global market for natural gas (although the corona crisis did lead to a temporary convergence), and prices can diverge significantly between global price zones. This is essentially because transportation costs for gas are relatively high, especially for long distance transportation overseas, which is mostly done by LNG-carriers. The cost of liquefying and transporting gas overseas is estimated at some 10€/MWh².

1) Febeliec recommendations for improvement of the upstream market functioning:

- Europe should make sure that there is sufficient import capacity (total import capacity should exceed current import levels). The extra cost of the infrastructure should be more than compensated for by the lower commodity price.
- Febeliec suggests abandoning all reservation systems for transport capacity. In a regulated systems, reservations were introduced to make sure additional gas pipelines would be sufficiently used in order to make them profitable. In a liberalized market with regulation of infrastructure, transmission tariffs should and will be sufficiently high in order to guarantee a fair return to TSOs (transmission system operators).
- Shale gas gave the United States a huge competitive advantage compared to the rest of the world (US gas prices are about a third of European prices and less than a fourth of Japanese). Europe should have an open mind for shale gas developments on its own territory, looking at its economic potential by respecting fair environmental and health protection standards.
- Europe should make sure to diversify as much as possible its supply options. Additional pipelines and LNG-infrastructure are very costly, but allow the E.U. to put potential suppliers into competition and to get the best possible price. Moreover, such diversification is better for security of supply.
- On a global scale, gas-to-gas competition should as soon as possible replace the still rather dominant oil indexation. In a competitive environment, the market should give sufficient impetus in this direction, but if necessary European authorities should give it a push.
- Gas exporting countries should respect WTO-rules (World Trade Organisation), e.g. on destination clauses and double pricing.

2) Febeliec recommendations for improvement of the EU gas market:

Together with IFIEC Europe, Febeliec supports the implementation of the EU gas target model, especially on the following issues:

- ✓ The functioning of the wholesale market in the EU must be improved, a.o. by:
 - implementing entry/exit-models, with separate nomination for entry into and exit out of the gas system throughout the EU (creating the virtual gas lake);
 - increasing liquidity in the market (sufficient number of players, moderate concentration ratios);
 - diversifying gas supply sources;
 - increasing the churn ratios of the gas hubs;
 - increasing market transparency, a.o. by introducing REMIT and data exchange and interoperability regulations.
- ✓ Existing regional wholesale markets must be interconnected as soon and as efficiently as possible, a.o. by:
 - stimulating market integration;
 - implementing effective and efficient network codes, a.o. on capacity allocation (CAM), congestion management (CMP) and balancing;
- ✓ Grid development and other infrastructure should be stimulated in order to stimulate market functioning and improve security of supply. New capacity should be introduced on market based principles.

Due to the high tensions between Ukraine and Russia and their possible impact on European security of supply, a series of additional measures were proposed these last few months in order to accelerate the realization of the gas target model and to increase the energy independency of the EU.

² In Europe, gas prices are generally expressed in €/MWh, in the U.S. in USD/MMBtu. 1MWh = +/- 3,41MMBtu.

3) Febeliec recommendations for improvement of the Belgian gas market:

As from October 1st, 2012, Fluxys introduced a new entry/exit-model for the Belgian gas market, that not only is largely compliant with the European requirements, but also to a large extent meets earlier recommendations from Febeliec and other market parties. Febeliec therefore welcomes the introduction of this model as a significant step forward towards a competitive and efficient natural gas market in Belgium. In order to further improve the market, Febeliec would like to propose the following measures:

- ✓ As for the global and European gas markets, the system of capacity reservations should be phased out. Efficient primary and secondary capacity allocation markets should take its place;
- ✓ Liquidity at the Zeebrugge Hub (ZTP or Zeebrugge Trading Point) must be further increased. A more intensive interaction with Zeebrugge Beach should be encouraged. As long as liquidity on the hub is insufficient, hub activity could be stimulated by putting in place a balanced pricing panel in order to publish daily reference prices for the Belgian market;
- ✓ The balancing regime of the current E/E-system is highly effective, but transparency on the market positions and the balancing costs still needs to be further improved; Febeliec, for instance, insists on Fluxys to publish (ex post) the total of positive and the total of negative imbalances on an hourly basis (on top of the cumulative sum of both as published today); this would allow end consumers to assess the specific cost “caused” by him/her of each imbalance;
- ✓ Market transparency should be improved by implementing as soon as possible transparency regulations (REMIT, ...);
- ✓ For storage, Febeliec acknowledges Fluxys’ efforts to develop new products which are more suitable for end users; Febeliec invites Fluxys to continue these efforts (short term products, facilities for L-gas storage, ...);
- ✓ Low cal gas remains a concern for consumers established in the L-zone in Belgium. With the announcement of the Dutch monopolistic producer of L-gas of the accelerated phasing out of L-gas production in Groningen, Belgian authorities should consider an accelerated, cost-effective conversion of the L-gas zone to H-gas.