

Deliberation of the French Energy Regulatory Commission (CRE) dated 29 May 2013 on the formation of gas prices in the South of France

The following were in attendance: Phillipe de LADOUCKETTE, Chairman, Olivier CHALLAN BELVAL, H  l  ne GASSIN, Jean-Pierre SOTURA and Michel THIOILLIERE, Commissioners.

Since the spring of 2012, an important spread appeared between natural gas prices in the South and the North of France, leading CRE to launch an investigation on price formation conditions in the South of the country. CRE's preliminary findings show that this disconnection is mainly due to the global context of natural gas markets (LNG) and to structural tensions in supply in the South zone.

With regard to the latter point, CRE has undertaken a number of actions to improve the market mechanisms. It has made decisions to optimise the use of facilities in the short term. It has also set guidelines with a view to merging zones, in order to improve the market conditions in the South of France in the long term.

I. Background

1. Legal framework

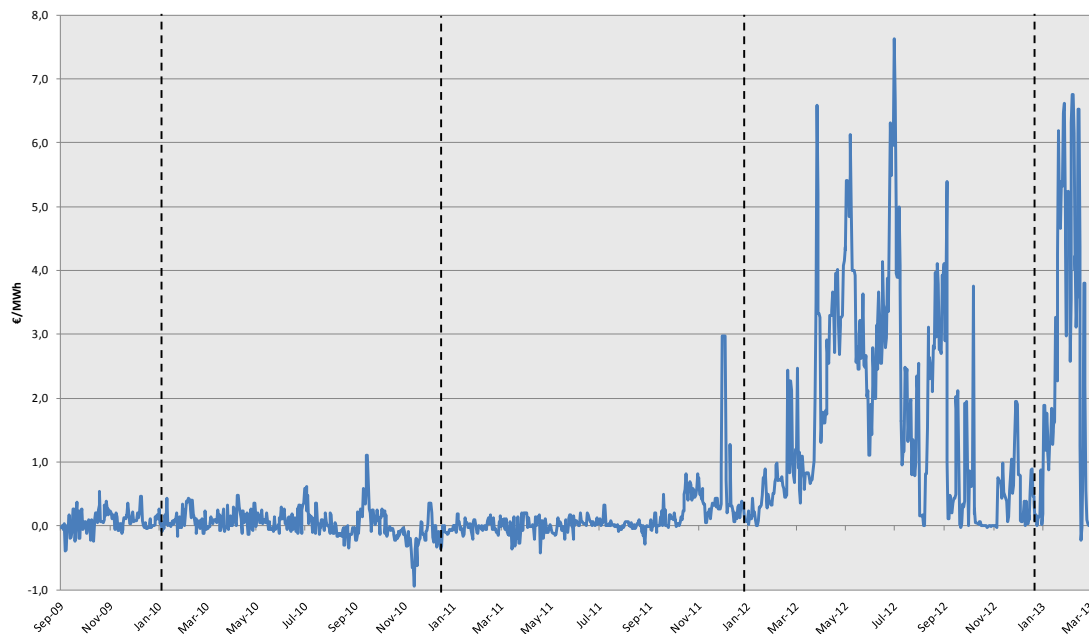
In accordance with Article L.131-2 of the French Energy Code, the French Energy Regulatory Commission (CRE) "*monitors electricity and natural gas transactions carried out between suppliers, traders and producers, transactions carried out on the organised markets as well as cross-border trades. It monitors the consistency of the offers [...] made by producers, traders and suppliers [...] with their economic and technical constraints*". This surveillance mission now falls within the framework of the European regulation REMIT on the transparency and integrity of energy markets. Entered into effect on 28 December 2011, REMIT prohibits market manipulations and insider trading in wholesale energy markets. The provisions pursuant to this Regulation were recently incorporated into the French Energy Code by Law No. 2013-312 dated 15 April 2013¹, of which Article 22 modifies Articles L. 131-2 and L. 134-25 of the Energy Code to entrust CRE with the task of ensuring compliance with REMIT and Cordis the authority to penalize breaches of this Regulation.

2. Differences in spot prices between the North and South Gas Exchange Points (PEG)

The price differential between the North and South Gas Exchange Points (*Point d'Echange de Gaz* - PEG) on the French gas spot market has increased sharply since 1 April 2012, the price for the South PEG being the higher of the two. On the Pownext Gas Spot exchange, the spread in day-ahead prices averaged at   0.16/MWh in 2011. It reached an average of   2.74/MWh between 1 April and 31 August 2012, exceeding   6/MWh several times. A record   7.62/MWh was reached on 24 July 2012. Prices at the South PEG were also subject to high levels of volatility, fluctuating by more than   5/MWh within a same session.

¹ Law dated 15 April 2013 to prepare the transition towards a sober energy system and setting out various provisions on the pricing of water and wind power

Historical North/South spread (€/MWh)



Source: Powernext. EOD Indices, analysis: CRE

Against this backdrop, CRE launched an investigation on the conditions of price formation in the South of France². During this investigation, CRE obtained, for the period from March to August 2012, all trades made by the major market participants at the South and TIGF PEGs, as well as the data regarding the use of gas infrastructures from the different operators. In addition, CRE requested the market participants' own analysis of the price situation at the South PEG.

II. CRE's analysis

1. The configuration of global gas markets and supply to the South zone favouring the formation of high prices in the South zone

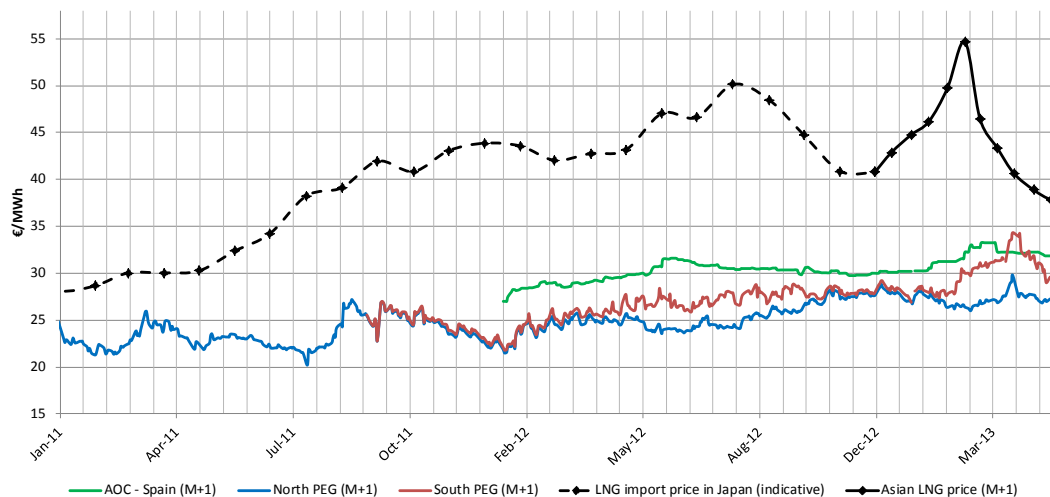
CRE's initial findings show that price trends in the South of France over the summer of 2012 are mainly due to the global situation on gas markets and a structural tension in gas supply.

The sharp increase in LNG prices in Asia, mainly explained by the rise in Japanese demand following the Fukushima nuclear accident in March 2011, favoured a massive diversion of cargoes to these more attractive markets, to the detriment of European markets. LNG imports in Europe dropped by 31% between 2011 and 2012³. In France, the send-out of the Fos-sur-Mer LNG terminals fell by 18% while send-out at the Montoir terminal fell by 55% over the same period.

² CRE press release dated 27 July 2012

³ Source: Euronext. These figures include imports by France, Belgium, the United Kingdom, Spain, Greece, Italy and Portugal.

Natural gas prices in Europe and Asia



Source: Heren, Bloomberg, Analysis: CRE

While all European markets were affected by the drop in LNG imports, the markets for which LNG provides a significant proportion of their supply, such as the South of France and the Iberian Peninsula, experienced higher levels of tension. These physical tensions resulted in higher prices than on other European markets where supply is more diversified and liquidity is higher.

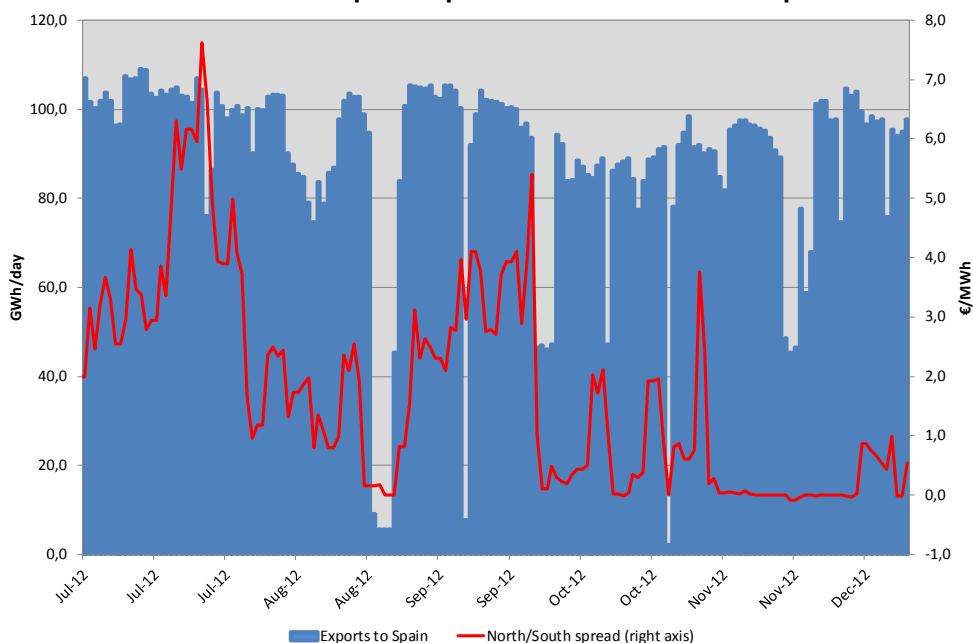
Due to the limited number of supply points, the South of France is particularly dependent on LNG. During the summer of 2012, the drop in LNG imports in Europe had a threefold impact on supply in the South:

- Firstly, the decrease in send-out at the Fos terminals had to be covered by imports from the North zone through the North-South link.
- Secondly, in summer, send-out at the Montoir terminal conditions the availability of interruptible capacity on the North-South link: Montoir's send-out can make up to 190 GWh available per day on the North-to-South link (i.e. almost 45% of its technical capacity).
- Lastly, as the part of LNG in Spanish supply is very high (66% in 2011⁴), tensions affecting the LNG offer in Spain led to an increase in the natural gas imported by pipeline (in the gaseous state) in particular through the interconnections with France (Larrau and Biriadou). French exports to Spain increased by 103% between 2010 and 2011 and by 53% between 2011 and 2012, resulting in the saturation of these interconnections.

CRE observes that the North/South price differential is highly sensitive with regard to exports to Spain (the spread dropped significantly during maintenance to the Larrau interconnection from 27 to 31 August and during the strike action at TIGF from 28 September to 2 October 2012).

⁴ Source: Enagas 2012 annual report on the operation of natural gas systems in Spain
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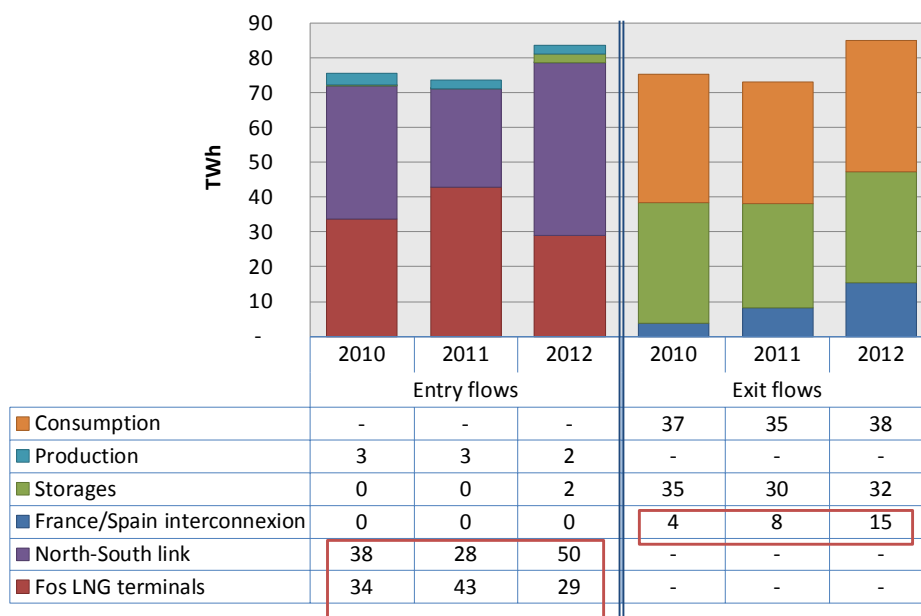
Effect of France-Spain exports on the North/South spread



Source: TIGF, Powernext, Analysis: CRE

The drop in send-out at the Fos and Montoir terminals and the increase in exports to Spain created a supply tension in the South of France and led to increased use of the North-South link. This link was saturated for most of the summer from North to South, with a 94% rate of use over the summer of 2012, compared to 61% in 2011.

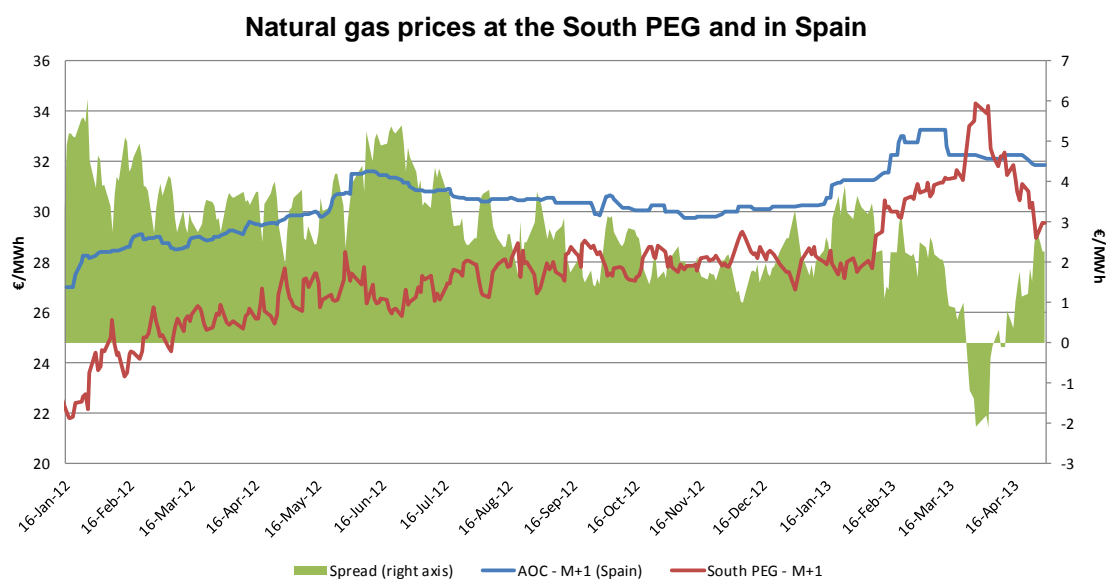
Supply and outlets in the South of France in summer (2010 – 2012)



Source: GRTgaz, TIGF, Analysis: CRE

This structural saturation resulted in a persistent price differential between the South/TIGF PEGs and the North PEG over the summer of 2012. The differential was extended to futures contracts: the price of M+1 contracts at the South PEG was € 2.27/MWh above the price at the North PEG between April and August

2012. The South PEG reached prices similar to those on the Spanish market, the latter driven upwards by LNG prices in Asia.



Source: ICIS Heren, Analysis: CRE

2. Specific factors likely to increase tensions on prices in the South zone

In addition to the general price context and the limited number of supply points in the South of France, CRE has noted a number of specific factors that may have heightened tensions on prices in these zones.

a) An increased need for storage injections over the summer of 2012

The injection requirements on storage located in the South and TIGF zones were relatively high during the summer of 2012 due to the very low stock levels after the 2011/2012 winter. The cold spell in February 2012, then the strike action on French LNG terminals from 17 to 23 April 2012, led to increased withdrawals from storages, particularly in the South, and very low stock levels during the last days of April 2012.

b) Late commercialisation of monthly interruptible capacity on the North-South link in May

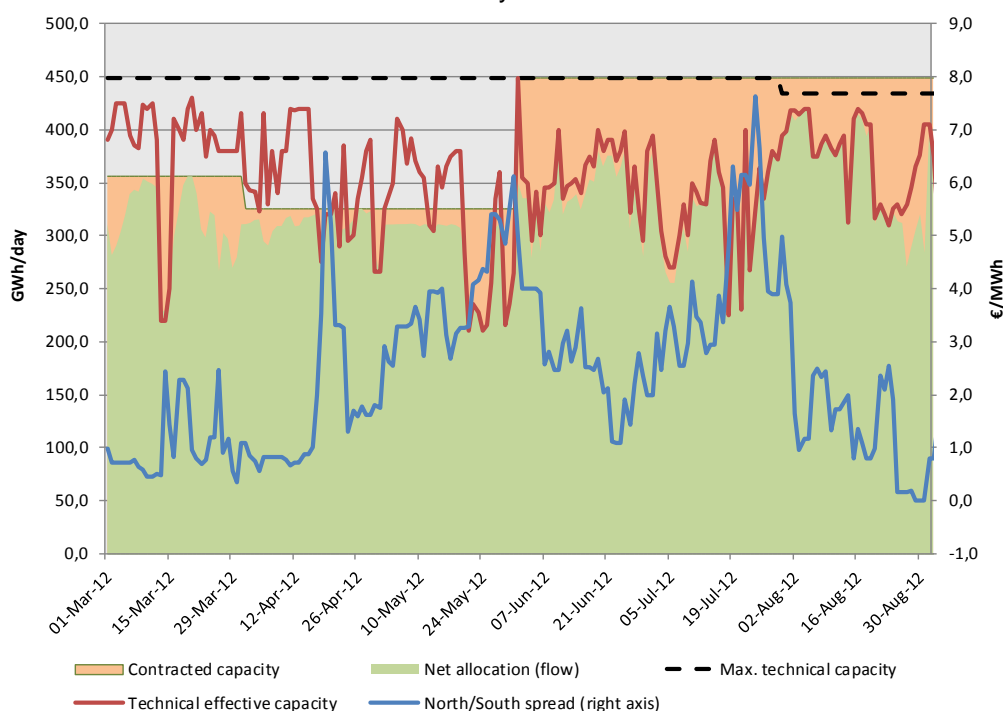
During the capacity subscription period at the North-South link at the end of 2011, some annual interruptible capacity remained unsold (at the time there was no tension on the North-South link). In its Tariff Deliberation dated 22 November 2011, applicable as of 1 April 2012⁵, CRE introduced the option that GRTgaz could market monthly interruptible capacity on the North-South link. Due to the necessary changes to its information system, GRTgaz was only able to market this capacity as of 1 June 2012. Due to this, some available capacity was not marketed in April and May 2012, despite spread levels exceeding €3/MWh. At the time the utilization rate of technically available capacity varied between 70% and 100%.

c) Low visibility with regard to actual availability on the North-South link

CRE's preliminary findings show that, when there is congestion between the North and South of France, the North/South spread trend is correlated to the availability on GRTgaz's North-to-South link. This availability depends in particular on maintenance works scheduled by GRTgaz, shippers nominations at the Montoir LNG terminal transmission interface (PITTM) and at the North-Atlantic transport storage interface point (PITS), and on weather conditions.

⁵ Part V / Section 1.2 of CRE's deliberation dated 22 November 2011 updating the tariffs for the use of the natural gas transmission networks

Utilization of the North/South link over the summer of 2012 - Daily data -



Source: GRTgaz, Analysis: CRE

Maintenance works on the transmission network are generally scheduled for the summer period, when gas consumption is lower. With regard to the summer of 2012, the maintenance works scheduled by GRTgaz were revised by the operator in order to optimise availability on the link given the tension⁶. According to the operator, these efforts resulted in a release of almost 70 GWh/d on average between July and August 2012.

CRE notes that maintenances on the North/South link were less significant than previous years. Between 1 April and 30 September, availability on the North/South link was 74.5% in 2012, against 62.3% in 2011 and 69.6% in 2010.

CRE has, however, observed that visibility for market participants on actual availability at the North/South link is particularly low before D-1: the capacity reduction ranges planned by GRTgaz could reach up to 220 GWh/day, i.e. roughly 50% of maximum technical capacity. During the tensions of the summer of 2012, such a situation may have increased market participants' uncertainty and therefore spot price volatility at the South PEG.

d) Insufficient transparency on the use of LNG terminals and the diversion of LNG cargoes

As stated above, the send-out levels of the three French LNG terminals in operation are a key factor of the supply/demand balance. Send-out is directly dependent on programmes (shipment unloading and reloading operations) scheduled by shippers who have booked regasification capacities on the terminals.

The unloading and reloading operations for LNG cargoes scheduled on LNG terminals are subject to many modifications according to market opportunities and unforeseen factors in the supply chain. These modifications, in principle known in advance by a limited number of participants, are likely to modify LNG terminal send-out programmes, which under some circumstances could have a significant impact on prices on the wholesale market.

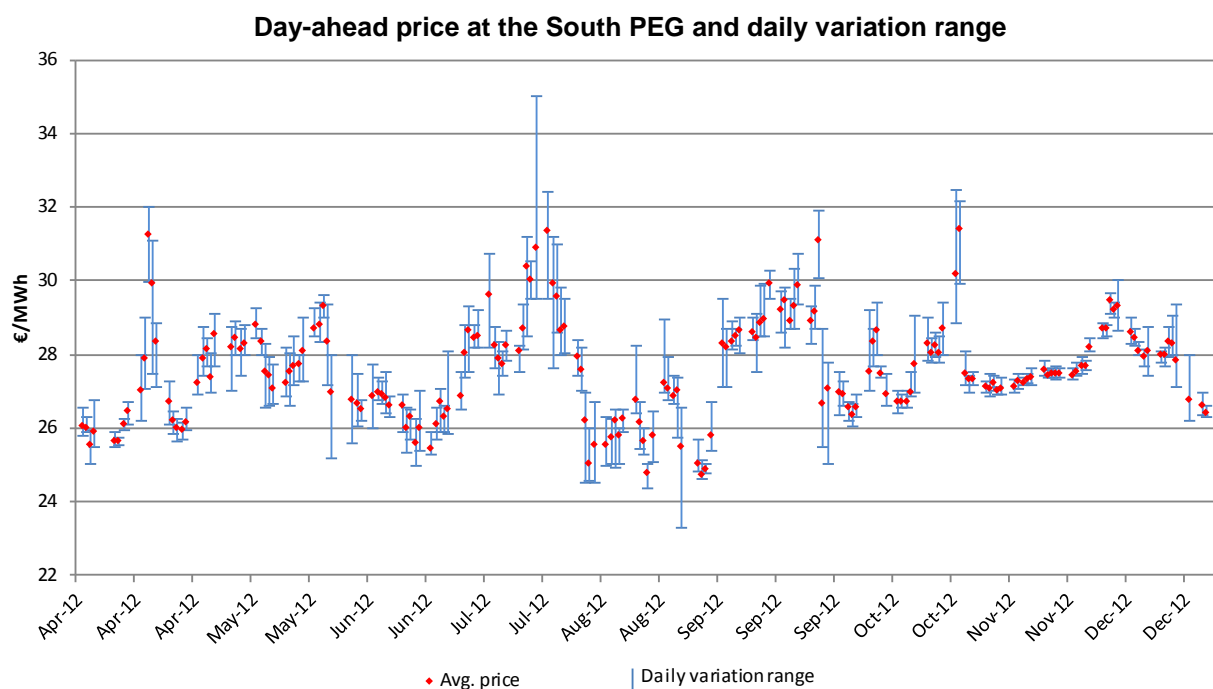
Against the backdrop of tension over the summer of 2012, such a situation may have further increased participants' uncertainty and therefore the volatility of spot prices at the South PEG.

⁶ GRTgaz press release dated 8 June 2012
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e) Liquidity problems and the market coupling mechanism

Due to the low number of gas supply points and limited consumption⁷ in the balancing zones for the South and TIGF PEGs, the number of participants and the volumes of gas traded on these markets are insufficient and create liquidity problems. The effect of this is the lack of sufficiently clear price signals, especially in situations of tension, during which price formation in the South zone becomes particularly sensitive to the factors stated above. These conditions also heighten spot price volatility.

CRE also notes that the futures market for the South and TIGF PEGs remains very limited⁸, a sign of the difficulty participants have with anticipation in this zone.



Source: Powernext, Brokers, Analysis: CRE

More specifically, and going beyond the difficulties caused by this situation for market participants, CRE has observed that liquidity and price volatility problems have adversely affected the functioning of Powernext's market coupling mechanism at a time when it had a large market share on the spot market.

The operating rules of the coupling mechanism require several constraints, based on the *bid-ask* spread of North-South spread contracts, that ensures that GRTgaz' interventions are consistent with market prices. During the particular conditions of the tension experienced in the summer of 2012, these restrictions significantly limited the sale of capacity offered by GRTgaz through the standard mechanisms (Aggressor and Initiator of orders) during Powernext's End-Of-Day window.

Therefore, while almost all volumes devoted to the market coupling (14.5 GWh/d) were sold over the period, most (almost 82% on average) were sold via the complementary mechanism, which operates as a descending auction following the Powernext End-Of-Day window. Large volumes were sold as North/South spread contracts at prices up to more than 50% below the EOD reference prices. These interventions resulted in a shift of liquidity following the EOD period, disrupted relevance of Powernext indices and heightened EOD price variations. By means of example, the price of transactions of day-ahead North/South spread products for the day of 19 April 2012 dropped from € 5.15/MWh at 16.43pm to € 2.33/MWh at 17.30pm, while the EOD spread was € 5.19/MWh. For this day, all market coupling capacities (14.5 GWh/d) were sold during the descending auction after 16.30pm.

⁷ Lower than the reference volume of 20 Gm³ per year, as stated in ACER's *target model*

⁸ Powernext Gas does not offer a futures segment on the South or TIGF PEGs, and all volumes traded via brokers account for less than 15% of volumes traded at the North PEG

3. Market participants' analyses

In the analyses made by market participants and sent to CRE, the fundamentals and specific factors mentioned above stand out as the main reasons behind the development of these price differentials. Most market participants believe that the situation on the South PEG could persist or appear again in the medium or long-term given the specific features of the South of France and the current conditions of the global natural gas market. Infrastructure operators and several market participants believe that the revision of maintenance works on the North/South link (June 2012), the creation of the stock transfer service between Sediane Littoral and Serene Sud, and the option to book monthly interruptible capacity on the North/South link as of June prevented an even higher North/South spread over the summer of 2012. Some participants explain that the unavailability of the North/South link, for the summer of 2012, had a considerable impact on the North/South spread and believe that maintenance programmes and visibility of the link's actual availability can be improved.

4. Assessment of the individual actions of some participants

CRE is also continuing in-depth assessments of the actions of participants with regard to their market positions and their use of gas infrastructure. This process is made official and is specified by Articles L. 135-3 to L. 135-11 of the French Energy Code governing CRE's investigative powers. At this stage of its assessments, CRE has not detected any abnormal behaviour.

III. Main actions conducted or planned to improve gas market design in the South of France

1. Structural improvement of market design in the South of France

In its deliberations dated 19 July 2012 and 13 December 2012, CRE set out the guidelines on the continuation of structural improvements to French gas marketplaces.

On 1 April 2015, a joint marketplace (PEG) will be created for the GRTgaz South and TIGF balancing zones. This development is the first step in creating a single French PEG and is part of the European drive for market integration.

After this date, CRE has concluded that it will be necessary to strengthen the transmission network significantly before a single French PEG may be created. It has set the objective of a French PEG for 2018, after the Val de Saône pipeline has been doubled and additional contractual mechanisms have been implemented. The creation of a single PEG for France will mark the end of price differentials between the North and the South of France and will thereby create convergence to a single gas price for the entire country. It will improve efficiency on the French gas wholesale market by simplifying market access for shippers to the transmission network, concentrating liquidity on a single marketplace and creating direct competition between gas supply sources.

Given the importance of the investments required, CRE launched a cost-benefit analysis of the investments necessary for the creation of the single French PEG by 2018. GRTgaz is currently conducting a public debate procedure with regard to these investments. The final investment decision will be made during the first half of 2014.

2. Optimisation of how the market functions in its existing structure, in particular by improving participant visibility of infrastructure operations

CRE has assessed all measures likely to improve how the gas market functions in the South of France, in particular to limit the impact of price differentials on gas consumers in this zone.

a) Optimisation of the use of infrastructures and capacities on the North-South link

- Allocation in November 2012 of North-South capacities for the period from 1 April 2013 to 30 March 2014

Up to 2012, capacity on the North-South link was allocated through an open subscription period on a pro rata basis. For 2013, due to the level of congestion noted on the North-South link, CRE, in its deliberation dated 15 November 2012, decided to improve the pro rata allocation rules by considering shipper's physical delivery commitments. The results of this allocation have been satisfactory, with 46 shippers obtaining capacity.

- Allocation of North-South capacity for the period from 1 April 2014 to 30 September 2018

After the in-depth assessments of the Concertation Gaz working group, CRE will launch a public consultation at the beginning of June 2013 on the capacity allocation rules on the North-South link for the 2014-2018 period.

To prepare this public consultation, CRE considered the requests from participants within the Concertation Gaz working group to have multi-year visibility of North-South capacity allocation. It also considered the European network code on capacity allocation (CAM code) which had just been adopted and will be applicable as of November 2015.

CRE aims to ensure that the new allocation rules minimise the consequences that the current congestion on the North-South link has on gas prices for consumers in the South of France.

- Additional firm daily capacity on the North-to-South link

In April 2013, GRTgaz submitted to CRE a proposal to market up to 15 GWh/d of additional firm daily capacity on the North-South link over the summer of 2013. This proposal is based on GRTgaz and Storengy's work to optimise the use of transmission and gas storage infrastructures in the North of France. In its deliberation dated 23 May 2013, CRE stated that it was in favour of this initiative and authorised GRTgaz to market these additional capacities as of 1 June 2013.

- Conversion of interruptible capacity into firm capacity on the North-South link

In summer, a large proportion of interruptible capacity on the North-South link (190 GWh/d) may be converted into firm capacity thanks to the send-out of the Montoir terminal. The current global LNG market situation has resulted in a decrease in send-out at the Montoir terminal and therefore of the quantity of North-South interruptible capacity converted into firm capacity.

Elengy has proposed to CRE measures to encourage shippers with capacity on the Montoir terminal to increase shipment unloading operations in summer. GRTgaz has also proposed to CRE measures with the same objective.

CRE has analysed these proposals that will be included in the consultation on North-South capacity allocation rules launched in June.

b) Improvement of transparency with regard to the use of infrastructures

- Ongoing work on LNG terminals

Due to the role of LNG in supply, send-out on the French LNG terminals has an impact on price formations at the South PEG. At this stage, CRE believes that the level of transparency required by Regulation (EC) No. 715/2009 and the ATTM4 tariff decision is currently insufficient and that some information concerning the use of LNG terminals may constitute insider information under REMIT. On 12 April 2013, it launched a public consultation on its planned guidelines to reinforce transparency with regard to the use of LNG terminals.

- Ongoing/future work on maintenance schedules

In June 2012, GRTgaz revised its provisional maintenance schedule for the summer in order to reduce

congestion on the North-south link (see above).

For the summer of 2013, CRE has asked GRTgaz to continue and step up its action to limit the consequences of its maintenance work and improve its projections for North-South capacity unavailability.

c) Improvement of market functioning

- Improvement of the market coupling mechanism

Powernext's market coupling is an implicit allocation mechanism for transmission capacity used to purchase gas simultaneously in the North zone or in the South zone and to sell it on the other side of the North-South link on a given day, for the day ahead.

In order to improve market coupling functioning, several developments have been implemented in recent months, following consultation with participants and CRE's approval, in particular the extension of the basic mechanism's duration and the adaptation of the contract's sale conditions.

Moreover, the introduction on 1 April 2013 of the new UBI ("Use it and buy it") service means that all physically available capacity can be used by shippers, regardless of the result of market coupling.

IV. Conclusions

CRE believes that the structural tension affecting supply to the South of France and more generally the LNG market are the reasons behind the formation of a considerable price differential between the North and South PEGs. It is also continuing its analyses on the individual actions of market participants. At this stage of its assessments, CRE has not detected any abnormal behaviour.

In addition, CRE is working with infrastructure operators and all market participants on a series of measures aimed at improving the situation on the gas market in the South of France, in both the short term and in the long term. However, the effects of these measures on the prices in the South zone remain conditioned by the global configuration of prices and the LNG market. In the short term, the optimisation of the use of existing infrastructures and increased transparency are likely to improve the price formation process in the South zone and reduce price volatility. In the longer term, the investments required to reduce congestion on the transmission network under the guidelines set by CRE with a view to creating a single French PEG will provide a long-term solution to supply difficulties in the South of France.

Executed in Paris, on 29 May 2013

On behalf of the French Energy Regulatory
Commission (CRE),

The Chairman,

Philippe de LADOUCETTE