



The French Energy Regulatory Commission (CRE) is consulting market participants.

PUBLIC CONSULTATION NO 2019-020 OF 24 OCTOBER 2019 RELATING TO THE FUNCTIONING OF THE SINGLE GAS MARKET AREA IN FRANCE

Translated from the French: only the original in French is authentic

The single gas market area in France, the Trading Region France (TRF) went live as of 1 November 2018, replacing the two previous market areas, the PEG Nord and the Trading Region South (TRS). It enabled the introduction of a single price for the gas market in France, for the benefit of all consumers.

To lift the congestion that existed between the PEG Nord and TRS zones and enable the creation of a single market area common to GRTgaz and Teréga, CRE adopted, in its deliberation of 7 May 2014, an investment scheme associating the reinforcement of the Val-de-Saône pipeline and the Gascogne-Midi project. These new infrastructures, developed by GRTgaz and Teréga, were sized to enable the creation of a single zone at optimal cost. Residual congestions could therefore appear, under certain non-frequent configurations of network use.

The deliberations of 26 October 2017 and 24 July 2018 defined the modalities for implementing the single market zone, and in particular the mechanisms for managing daily congestion.

Following the bottlenecks that appeared at the start of the 2019 gas summer, the first summer since the go-live of the single market area, in April and May, and in particular the episodes of the weekend of 25 and 26 May 2019, CRE developed the mechanisms for managing daily congestions in its deliberation of 29 May 2019.

The purpose of the present public consultation is to provide feedback after an almost full year of the TRF existence and to possibly propose changes to its operation.

In addition, several cases of suspected balancing fraud occurred these last few months in different European countries. Provisions to prevent the occurrence of such cases in the French gas market were made in CRE's deliberation of 15 September 2016. The transmission service operators (TSOs) propose to develop these provisions to make them more effective. The present consultation also addresses these proposals made by the TSOs.

To participate in the consultation

CRE invites interested parties to submit their contributions, by 15 November 2019 at the latest:

- preferably by entering their contribution on the new platform set up by CRE: <https://consultations.cre.fr>;
- or by email at the following address: dr.cp5@cre.fr;

For the purpose of transparency, CRE will publish contributions.

If your contribution contains elements that you wish to keep confidential, you should also provide a version concealing those elements. In that case, only that version will be published. CRE reserves the right to publish elements that could be essential for all participants, provided that they are not secrets protected by law.

In the absence of a redacted version, the full version will be published, except for information falling under secrets protected by law.

Interested parties are invited to provide well-grounded answers to the questions.

Paris, 24 October 2019

For the Energy Regulatory Commission,

A commissioner,

Christine CHAUVET

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1. FEEDBACK ON THE SINGLE MARKET AREA AFTER ITS FIRST YEAR OF EXISTENCE

1.1. A single market area for the benefit of all

The single market area, Trading Region France (TRF), went live as at 1 November 2018 in line with the timetable established in 2014¹. As of that date, there has been a single entry/exit zone in France, and one virtual gas exchange point, the “Point d’Échange Gaz” (PEG), concentrating gas purchases/sales for the entire TRF.

The implementation of the TRF therefore resulted in the disappearance of the North-South link, enabling the introduction of a single wholesale gas market price for all of France, for the benefit of all French consumers, in particular those in the south who were penalised by price differences between the north and the south.

To implement the Trading Region France and lift congestion between the north and south of France, investments were necessary to strengthen the transmission network. The infrastructure in the Val de Saône and Gascogne-Midi projects, commissioned as of 1 November 2018, increased gas shipping capacity from the north to the south of France by roughly 250 GWh/d for a total cost of €872 million.

This optimised infrastructure scheme lifted most of the bottlenecks that existed between the north and the south. An investment scheme removing all bottlenecks, regardless of the network flow configuration, would have been too costly compared to the expected benefits. Therefore, the TSOs and CRE had anticipated that residual congestion could subsist in certain network use configurations. As such, to guarantee the availability of firm capacity, particularly at borders, contractual mechanisms to manage these congestions were defined, following considerable work conducted within Concertation gaz in 2016 and 2017, by CRE’s deliberation of 26 October 2017². Following additional work by Concertation gaz, the deliberation of 24 July 2018³ completed it, specifying certain operating rules for the TRF. Lastly, following the unusual episode observed on the weekend of 25-26 May 2019 (see 3.1 of the present consultation) CRE developed the congestion management mechanisms in its deliberation of 29 May 2019⁴.

1.2. Successful go-live of the Trading Region France

The switch from the old to the new system, despite major challenges in terms of operational implementation, was achieved on 1 November 2018 successfully, with a continuation of gas exchanges in the wholesale market and of entry and exit capacity nominations in the network by shippers. This successful change was possible because of the significant preparatory work performed by TSOs and shippers using the French network.

Therefore, French consumers now have a single wholesale gas price, formed by a more liquid market, thanks to the completion of a major industrial project, which also strengthened security of supply. The south zone, and in particular the south-east, is therefore less isolated and less dependent on solely LNG arrivals at the Fos LNG terminals, thanks to the additional transmission capacity made possible by the Val-De-Saône and Gascogne-Midi projects.

The PEG market globally saw an increase in its liquidity. In the PEGAS spot market, the number of active participants thus increased between 2018 and 2019, from 68 to 79. In addition the bid-ask spread went from €0.13/MWh over the period from 1 November 2017 to 3 March 2018, to €0.08/MWh over the first four months of the TRF, from 1 November 2018 to 3 March 2019. The PEG is globally the fourth leading European market in terms of volumes traded and number of participants, with a major spot market, but a modest futures market. Since the implementation of the TRF, the PEG spot market is close to that of the TTF (gas exchange point of the Netherlands, the main market in Europe), with an average end-of-day spread of €0.04/MWh.

Regarding the functioning of the TRF, almost a year has passed since its go-live, with a full gas winter (from November 2018 to March 2019) and an almost complete gas summer (from April 2019 to October 2019). The first gas winter of the single zone took place as expected and without any specific problem. There were only six days of congestions in winter (red days in the info-watch published by GRTgaz) which were all managed without calls for locational spread.

Moreover, the network did not experience any gas supply tightness, due to the almost full storage levels (see 2.1.2) from the supply point of view, but also mild weather conditions. Consumption in winter 2018-2019 was lower than previous winter consumption averages, and the winter peak was also limited, with maximum daily consumption of 2,773 GWh on 24 January 2019, compared to a peak of 3,253 the previous winter.

However, as expected in the forecast scenarios for the TRF, more bottlenecks emerged in summer. They are analysed below.

¹ Deliberation by the French Energy Regulatory Commission of 30 October 2014 deciding on the incentive regulation mechanisms for the Val de Saône and Gascogne/Midi projects

² Deliberation by the French Energy Regulatory Commission of 26 October 2017 on the creation of single gas market area in France as at 1 November 2018

³ Deliberation no 2018-171 by the French Energy Regulatory Commission of 24 July 2018 on the functioning of the single gas market zone in France

⁴ Deliberation no 2019-120 by the French Energy Regulatory Commission of 29 May 2019 on the decision to amend the deliberation of 26 October 2017 on the functioning of the single gas market zone in France

1.3. The congestion management mechanisms function

As anticipated during the preparatory work for the merging of market zones, the gas summer from April to October, and more particularly until September, is the tightest period for the network in terms of congestions, due in particular to injections into storage and the concentration of maintenance operations over this period:

- Major flows are created to supply PITS (transport/storage interface points) exits, particularly in the south of the network. Flows are indeed much more concentrated towards the south-west (storages Atlantique, Lussagnet and exit to Spain) in summer compared to winter: in winter the high consumption is well distributed across the territory and is higher in the north of France.
- In addition, TSOs and operators of other infrastructure (storage, LNG terminals) carry out their maintenance in summer, globally restricting capacity over that period. The north/south and east/west limits identified by the TSOs in the TRF flow scenarios are therefore likely to be reached during injection periods, when injections into storage are at a maximum.

Frequent bottlenecks, sometimes for high volumes thus occurred during the 2019 gas summer, requiring the use of congestion management mechanisms. There were 51 days of bottlenecks in summer, 15 of which were able to be handled only by interrupting interruptible capacity and not selling available firm capacity (interruption of the use-it-or-lose-it (UIOLI) service), without calling for locational spread. The other 36 days were managed by use of locational spread, which enabled the TSOs to handle almost every congestions. Two days ultimately led to mutualised restriction.

Since the main maintenance operations conducted in the network were programmed in the months of June and July 2019, capacity over these months were restricted and as such congestions requiring the use of locational spread were avoided. Locational spreads were therefore concentrated over the months of April-May (start of the storage injection period) and August (restart of the injection programme after the maintenance period). Congestion figures for summer 2019 are as follows:

	April	May	June	July	August	TOTAL April-September
Number of bottleneck days	11	18	6	0	16	51
Number of bottleneck days without use of locational spread	4	5	6	0	0	15
Number of bottleneck days with use of locational spread	7	13	0	0	16	36
Volumes called for through locational spread (GWh)	243 GWh	901 GWh*	0 GWh	0 GWh	736 GWh	1,880 GWh
Weighted average price (€/MWh)	€4.29/MWh	€5.76/MWh*	-	-	€1.82/MWh	€3.99/MWh
Total cost (€ millions)	€0.9 million	€5.0 million	€0 million	€0 million	€1.3 million	€7.2 million
Number of mutualised restrictions	1	1	0	0	0	2

* weekend of 25-26 May alone represents 318 GWh of volume tendered, at an average price of €13.12/MWh. For the rest of the month of May, the volume is therefore 583 GWh at an average price of €2.16/MWh.

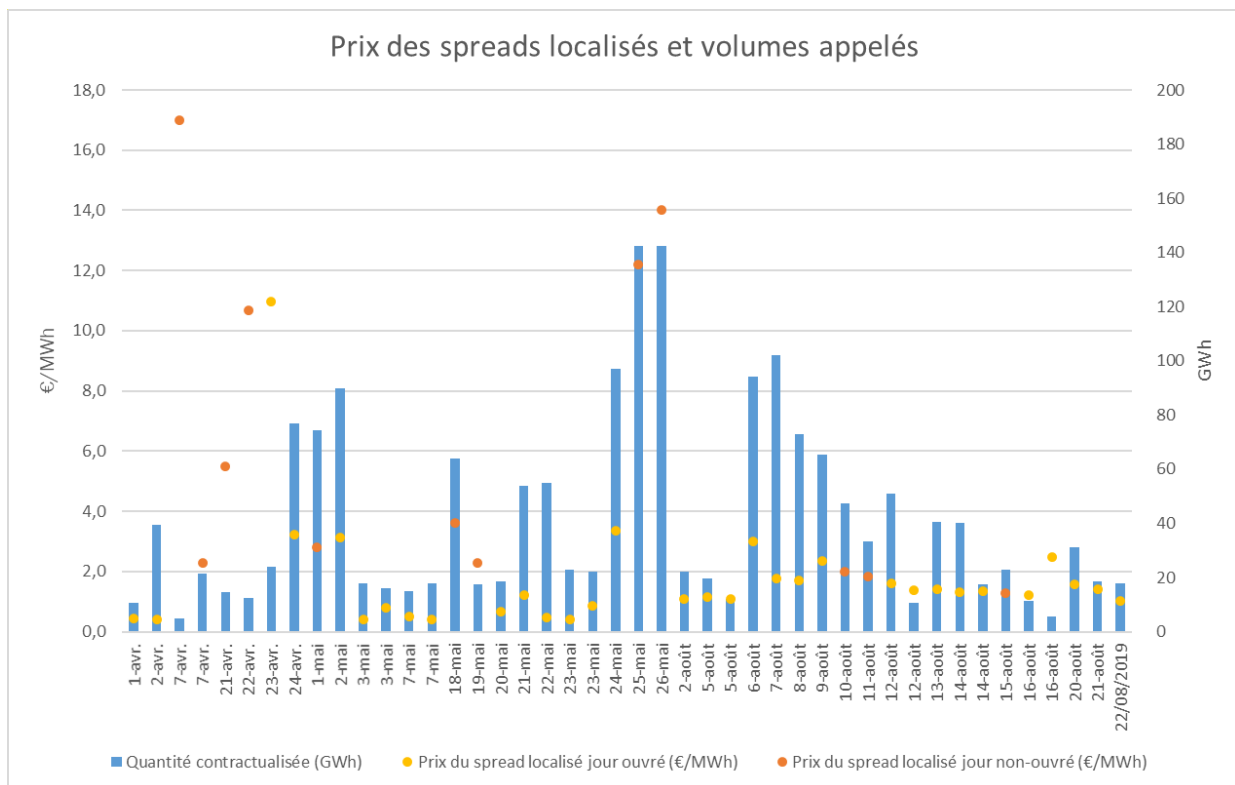
As at 24 October, no other call for locational spread was made since the last occurrence of 22 August 2019.

1.4. Improvement in the functioning of the locational spread product throughout the year

Since the locational spread mechanism was new, some time was needed for the market to become familiar. In April, competition among shippers was low, which can partly explain the high prices of the initial transactions.

Since then, a growing number of participants put in offers for each call, with the level finally becoming stable in the month of August. With regard to the price dynamic observed, CRE noted constant improvement throughout the season with a weighted average price going from €4.29/MWh in April to €1.82/MWh in August.

The following graph traces the evolution of contract prices and the associated volumes:



Moreover, apart from gas market fundamentals and the number of competing shippers, the price of locational spread depends on the parameters implemented in the Pownext platform robot devoted to the selection of offers. On this topic, the two TSOs are working together in a process of continuous improvement.

1.5. CRE’s analysis of the first TRF assessment

The assessment of the first year of operation is globally positive. In particular, feedback for the winter period confirms the robustness of the system implemented for the functioning of the TRF, which, combined with the storage reform, ensure a high level of capacity availability and therefore, security of supply. The previous winters had seen very significant price differences occasionally between the north and south zone. Network reinforcements enabled smooth supply of the south of the territory in winter 2018-2019 within the framework of a single market zone, which was the first objective sought.

In summer, as forecast, the level of congestion is greater due in particular to the considerable volumes to be injected into storage. However, congestion management mechanisms enabled firm capacity to be preserved in almost all cases.

Congestion in summer results from competition among shippers seeking to optimise economic conditions of storage filling. This economic optimisation is in keeping with the general interest but can cause high storage filling flows on certain days, generating congestions, which themselves represent a cost for the community by the use of locational spread or, as a last resort, mutualised restrictions. A balance must therefore be sought to enable the most efficient use of storage without generating congestion costs that are too high.

In sum, CRE makes a positive assessment of the creation of the single zone:

- it improved the security of supply of the French gas system and narrowed the sometimes high price differences between the north and south of France;
- the optimisation possibilities offered to shippers result in congestions in summer whose consequences and costs must be limited for the community.

Question 1 Do you share CRE’s positive assessment of the implementation of the Trading Region France?

2. CAPACITY OF THE SINGLE MARKET AREA REMAIN LIMITED

The French network has limited capacity to ship gas from the north to the network exits. Within this context, CRE had set the objective, for the purpose of sizing the investments necessary for merging the zones, to conserve the existing firm capacity, in particular cross-border interconnection capacity.

As indicated in 1.3, network limits currently appear mainly in summer. The major congestions observed in this season, both in terms of occurrence and volume, in a situation less tight, because of the presence of LNG, than the baseline scenario that had been envisaged when the TRF operating rules were defined, have led to CRE to re-assess the TSOs' capacity to deliver all of the firm capacity currently sold. The following map presents the different bottlenecks that occurred since the beginning of TRF, on 1 November 2018 :



Thus, bottlenecks from North to South (NS2, NS3, NS4, S1) and East to West (E02) were observed.

2.1. Comparison of summer 2019 with the tight "baseline" scenario

Within the framework of work to prepare the single market zone, the TSOs had analysed the occurrence and levels of congestion based on the different possible supply schemes. They modelled the probable scenarios in order to assess residual congestion. These flow scenarios were built based on historical consumption and flow data at network interconnection points (PIR), transport/storage interface points (PITS) and transport/LNG terminal interface points (PITM) from the years 2012 to 2016. These flows were then re-played by changing certain hypotheses, such as PITM entries, CCGT (combined cycle gas turbine) consumption and exits to Spain. In order to limit the assessment to France alone, when the hypotheses considered lead to more network exits, the flows at the PIR of the north of France are increased in the same amount. These scenarios were shared with market participants in Concertation gaz working groups between October 2016 and June 2017.

A baseline scenario representing a tight situation was adopted for the purpose of sizing congestion management mechanisms. It is presented in CRE's public consultation of 2017 and the deliberation of 26 October 2017, and corresponds to the following hypotheses:

		Tight scenario (termed baseline)
Description		LNG expensive and rare, high use of CCGTs
Hypotheses	<p>LNG = technical minimum:</p> <ul style="list-style-type: none"> Fos: 40 GWh/d compared to an average 164 GWh/d in 2016 Montoir: 40 GWh/d <p>Flows to Spain = capacity booked:</p> <ul style="list-style-type: none"> Pirineos winter: 146 GWh/d compared to a historic average of roughly 120 GWh/d Pirineos summer: 146 GWh/d compared to a historic average of roughly 88 GWh/d <p>CCGT = average of the highest consumption:</p> <ul style="list-style-type: none"> CCGT winter: 71% compared to a historic average of roughly 26% CCGT summer: 62% compared to a historic average of roughly 12% 	
Occurrence of congestions (results presented in Concertation gaz)		10.5 % : 38 days per year (29 days in summer, 9 days in winter)

In the baseline scenario, a bottleneck is observed roughly 1 out of 10 days. The distribution of limit occurrences is heterogeneous based on the seasons and years, but limits are reached mostly in spring, at the start of the injection period.

This pessimistic scenario was deemed relevant, because it describes a tighter situation than that observed historically, but which is possible in a merged zone.

In summer 2019 (over the period from 1 April to 30 September), bottlenecks occurred, leading the TSOs to use locational spread, with an occurrence higher than that of the tight scenario (36 compared to 29 over summer). In addition, 2 mutualised restriction occurred.

However, certain parameters observed in 2019 were more favourable for the network than those underlying the baseline scenario:

- average cumulated LNG arrivals of Fos and Montoir totalled 368 GWh/d (and even 386 GWh/d over the period from April to August when all of the bottlenecks occurred), compared to 80 GWh/d in the tight scenario;
- the exit level at Pirineos to Spain was an average 127 GWh/d, compared to 146 GWh/d in the tight scenario;
- the rate of use of CCGTs was 32% in summer 2019, compared to 62% in the tight scenario.

Conversely, other parameters evolved unfavourably (see below).

2.1.1. Increase in the exit capacity subscribed at the PITS Sud-Ouest

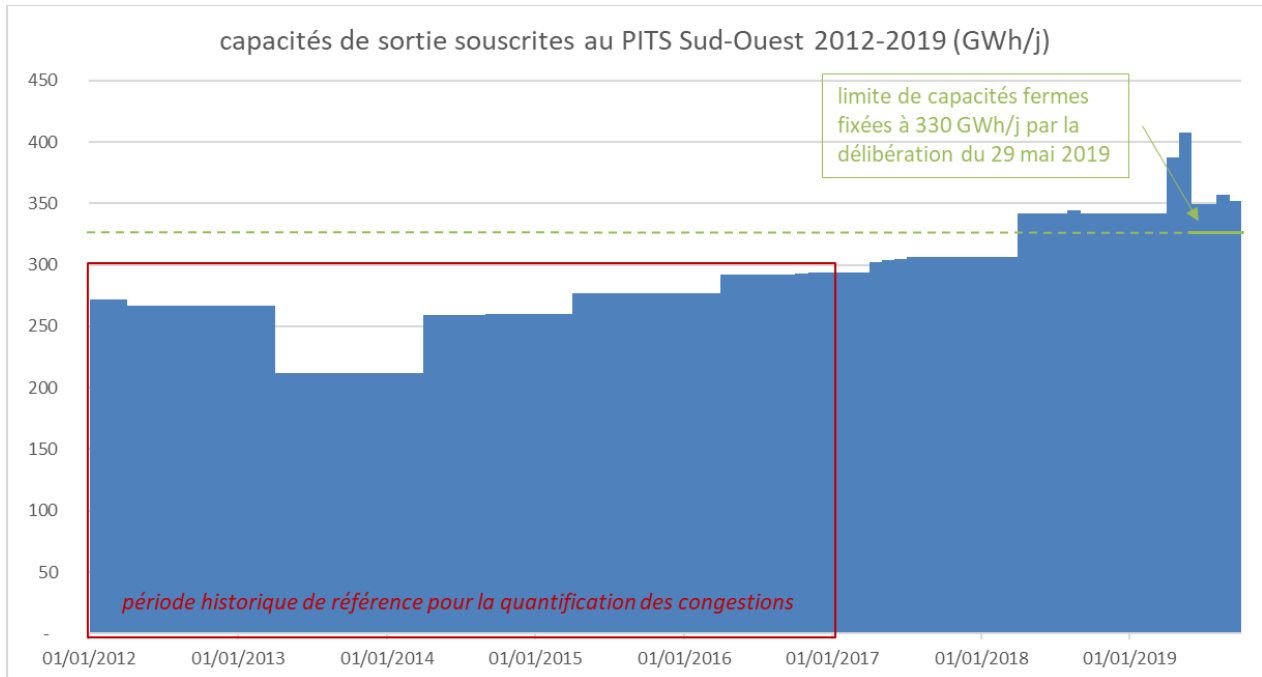
The main development with regard to capacity, compared to the historic period retained for the construction of TRF baseline scenarios, is the increase in exit capacity subscribed at the PITS Sud-Ouest (corresponding to injections into the Lussagnet storage facility):

(GWh/d) per year*	2012	2013	2014	2015	2016	2017	2018	2019
Annual firm capacity sold at Lussagnet	267	277	260	278	292	302	331	331
Additional firm capacity sold as a special service at Lussagnet	46	47	70	70	72	91	100	100
Total injection capacity sold at Lussagnet	313	324	347	348	364	393	431	431

Maximum subscribed capacity**	267	212	260	278	292	306	354	407
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* in storage gas year, from 1 April N to 30 March N+1 (for example for 2012, 1 April 2012 to 30 March 2013). Exits at the PITS occur over the period from 1 April N to 30 October N. The exit capacity at the PITS is automatically granted according to the level of injection capacity subscribed by the shipper at the storage site.

** corresponds to the highest monthly capacity



Exit capacity at the PITS Sud-Ouest was developed by Teréga over the past few years, increasing from 278 GWh/d in 2015, with 70 GWh/d of existing additional capacities, to 331 GWh/d in 2019, with 100 GWh/d of additional capacity. Therefore subscribed capacities strongly grew during this period, reaching 407 GWh/d in May 2019

The flow scenarios used to quantify congestions were not updated by the TSOs to take into account this increase in capacity. However, the PITS Sud-Ouest is located downstream of all of the TRF bottleneck fronts, and an increase in exit capacity at this PITS therefore has a direct impact on congestion.

2.1.2. High replenishment of storage facilities because of the storage reform

Storage injections structure gas flows within the TRF in summer. Shippers fill storage in view of withdrawing gas in winter, to supply France during major consumption periods. They must therefore inject, over the period from April to October, all the gas necessary to fill storage facilities. In addition, each storage site has a different injection rate, which allows it to be filled more or less quickly. Shippers therefore have a certain level of flexibility, maximising injections on days when the price of gas is lowest.

Since the storage reform, storage capacity is sold at auctions at a reserve price of 0. This new system ensures that storage facilities are filled. Consequently, for the next few years, CRE expects booking of all or almost all storage capacity, and of the associated injection rate.

The total storage injection rate booked for 2019-2020 capacity is 1,163 GWh/d, and up to 1,222 GWh/d in May 2019, compared to 793 GWh/d in 2017. These injections represent major transmission network exit flows, which, based on their position in the network, contribute to forming bottlenecks.

In particular, storage facilities at the PITS Atlantique (upstream of NS4 and S1 but downstream of NS3 and E02, see the introductory map of part. 2) and especially at the PITS Sud-Ouest (downstream of the north-south and east-west bottleneck fronts) contribute heavily to gas exits downstream of the French network in summer. The injection rate booked in these storage facilities for summer 2019 was 652 GWh/d, i.e. more than half of total capacity in France, to which was added the additional rate offered by certain services : Teréga’s service booster was subscribed up to 77 GWh/d at the PITS Sud-Ouest, and Storengy’s Flow Plus service up to 54 GWh/d at the PITS Atlantique, leading to a maximum of 783 GWh/d for these two PITS. In comparison, the maximum rate booked at these two

PITS was 549 GWh/d in 2017 (700 GWh/d in 2016). The rate in 2019 is therefore much higher than in the years preceding the storage reform.

With full storage capacity subscription, daily injection rates should remain high, resulting in significant gas flows towards storage facilities downstream of bottleneck fronts. They constitute the main factor of emergence of congestion.

2.1.3. Congestion aggravated by maintenance

Sizing of the network is a major factor, but beyond that, network capacity is frequently reduced because of maintenance, which can be preventive for the upkeep of the network, or curative, following a failure of an element in the network. Maintenance therefore contributes to restricting flows in the network and to the emergence of bottlenecks.

In addition to restrictions published by the TSOs during elaboration of maintenance programmes, CRE's deliberation of 26 October 2017 provided that maintenance with a forecast impact lower than 30 GWh/j on transmission capacity would not give rise to restrictions published ex-ante, but would be handled by congestion management mechanisms.

Therefore, maintenance has an impact on bottlenecks because of the scheduled restrictions which lead to a higher concentration of gas flows outside of restriction periods, but also a direct impact in the case of maintenance lower than 30 GWh/d.

In summer 2019, maintenance occurred on most days, mainly affecting the north-south limits. The capacity restrictions scheduled took place mostly in the months of June and July, particularly affecting during 65 days the capacity of the superpoint downstream of NS3 (all exit capacity at the PIR Pirineos , PITS Sud-Ouest and PITS Atlantique). In particular, at a working group meeting on 15 October 2018 within the framework of Concertation gaz, the TSOs presented significant restriction levels at the PIR Pirineos and the PITS Sud-Ouest and PITS Atlantique, because of work in the network core managed by GRTgaz. Shippers were therefore encouraged to move forward injections to April and May so as to avoid having little margin for filling storage at the end of summer.

In addition, there were 160 days of "minor works" (maintenance lower than 30 GWh/d not giving rise to a capacity restriction) out of the 183 days from 1 April to 30 September, i.e. 87% of the days. Those "minor works" indeed led to a significant reduction of the number of days with scheduled restrictions, but this number is higher than the 146 days observed in 2016, which was used to evaluate the impact on congestion operation costs in the deliberation of 26 October 2017. There were 17 days on which a call for locational spread was made with minor works at the bottlenecks concerned, out of the total 36 days on which there was a call for locational spread (i.e. 47% of the days on which a call for locational spread was made). These "minor works" therefore contributed to increasing bottlenecks.

While the days and the bottleneck fronts affected by maintenance and "minor works" are published by the TSOs, this is not the case for the quantitative impact of minor work on the level of congestion.

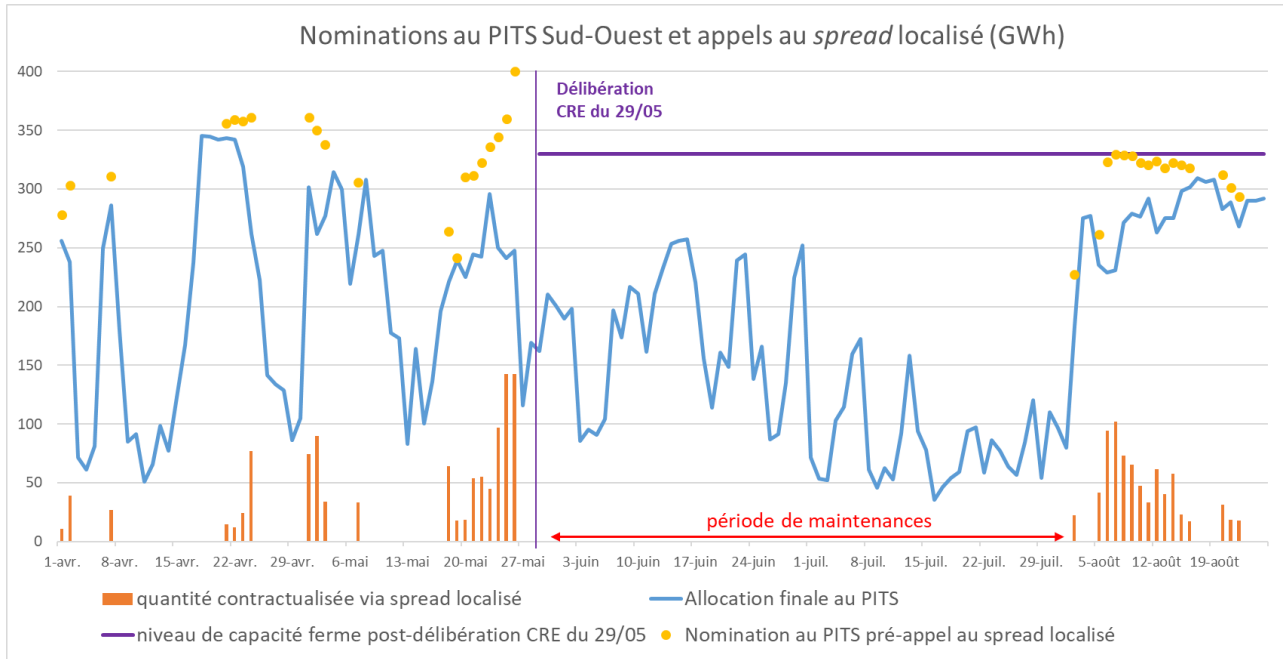
2.2. Level of firm capacity actually available

2.2.1. PITS Sud-Ouest

CRE studied the record of nominations by shippers and the capacity actually allocated at these two PITS for the 2019 injection season.

The following graph presents, for the PITS Sud-Ouest:

- nominations in the half-hour preceding calls for locational spread;
- the locational spread volume transactions;
- final allocations.

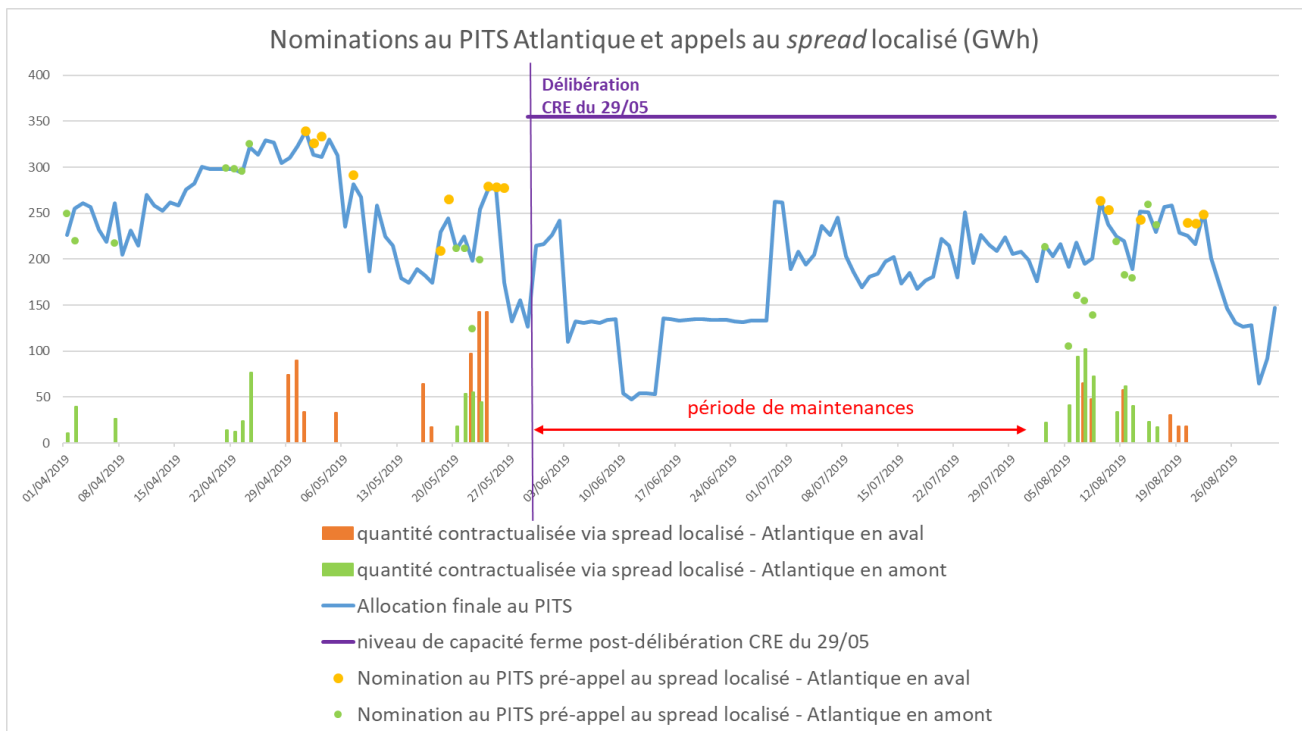


This graph shows a strong correlation between the high nominations at the PITS Sud-Ouest at the start of the bottleneck day (orange points) and the use of locational spread (orange bars). It can be seen that of the 38 days for which the market showed an interest in injections at Lussagnet exceeding 300 GWh/d, 30 of them saw the TSOs use locational spread ultimately leading to a delivery lower than 300 GWh/d, i.e. 79% of the time. In addition, the ratio is identical beyond 330 GWh/d, with 11 days of use of locational spread for 14 days of market interest (i.e. 79% of the time).

CRE considers that the firm capacity allocated must correspond to the capacity that the network is effectively able to deliver in all situations. However, when the nominal level of injection capacity at the PITS Sud-Ouest exit currently set at 330 GWh/d by the deliberation of 29 May 2019 is reached, bottlenecks emerge in more than three out of four cases.

2.2.2. PITS Atlantique

In addition, CRE carried out a similar analysis on the PITS Atlantique. The graph obtained is as follows:

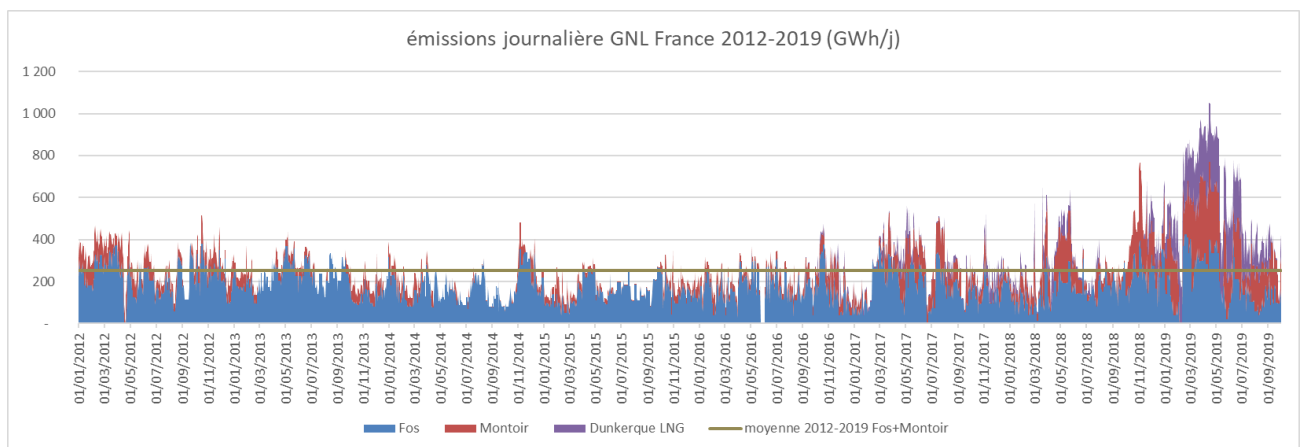


The graph for the PITS Atlantique is less insightful than that obtained for the PITS Atlantique. However, it can be seen in certain network configurations, for example for the first days of the month of May, that high injection levels at the PITS Atlantique contributed to triggering locational spreads. Moreover, the nominal level currently defined at 355 GWh/d seems relatively high compared to the market’s use of this storage facility (daily maximum at 340 GWh/d and average over all the months of April-May-August of 233 GWh/d).

In addition, contrary to the PITS Sud-Ouest, the PITS Atlantique is sometimes downstream of limits (in the NS3 and EO2 configurations, see the introductory map of part. 2) but also sometimes upstream of the limits (NS4 and S1 configurations, see the introductory map of part. 2). When the PITS Atlantique is upstream, injection flexibility possibly at its disposal is useful for the network since it enables the selling of the excess gas north of the front via upward re-nominations. On the graph, these situations correspond to bottleneck days for which final allocations (blue curve) are higher than start-of-day nominations (orange points), which can be observed the first two weeks of the month of August.

2.2.3. Lower LNG arrivals would increase congestions

Bottlenecks in the TRF depend on gas flows within the zone, with one of the main variables corresponding to gas entries from the LNG terminals. These gas entries however vary considerably depending on the level of the LNG price in the global market (see Annex 1).



Daily gas send-out in the French network from the LNG terminals over 2012-2019, in GWh (larger graph in Annex 1)

Gas send-out from the LNG terminals reached a historically high level in 2019 since 2012. In particular, there was an average 368 GWh/d at Fos and Montoir, a level significantly higher than the average for all of the summers of the 2012-2019 period, 249 GWh/d. There was almost no send-out at Montoir in 2014 and 2015, and it reached its maximum in 2019, at a level higher than at Fos for the first time in the 2012-2019 period. Indeed, with two market areas, once north-south capacity in France was insufficient to supply the south of France (TRS zone), the price in this zone was higher, and therefore more attractive for LNG cargo, than in the north zone. Gas price spreads of several €/MWh therefore frequently emerged between the PEG Nord and the TRS over the last few years. With the merging of these two market areas, the specific attractiveness of the Fos terminals compared to that of Montoir disappeared.

In addition, LNG supply at global level developed, with the recent appearance of LNG coming from the USA and Russia. For these cargoes, the Atlantic coast (Montoir) and the North Sea (Dunkirk) are the preferred destinations compared to the Mediterranean coast (Fos). Rebalancing between the two terminals can be sought.

Question 2 Do you share CRE’s analyses of the firm capacity actually available at the PITS Sud-Ouest and Atlantique?

3. FEEDBACK ON MEASURES TAKEN IN 2019 AND MEASURES ENVISAGED FOR 2020

Following the analysis conducted in the present public consultation, it appears that this first summer of the merged area saw a high frequency of calls for locational spread despite an average level of network constraint, and even favourable conditions for the network. The TSOs also had to activate two mutualised restrictions, the detrimental last resort mechanism.



Within this context, CRE considers that the proper sizing of firm capacity sold downstream of limits at PITS exits, is a major factor, initially to guarantee to transmission network users the availability of the firm capacity that they book, and secondly to avoid the systematic use of locational spread to remedy the oversizing of the firm capacity offer.

3.1. Emergency measures taken in summer 2019

The episodes of 25 and 26 May 2019 led CRE and the TSOs to look into the sizing of injection capacity at the storage facilities downstream of the network.

Locational spread was called on for large quantities on those two days, 146 GWh and 172 GWh respectively. The bids were able to cover 142 GWh for each of these calls, at high prices of €12.2 and €14/MWh, generating a total cost of €3.7 million over that weekend alone, and a mutualised restriction on 26 May.

These days were marked by particularly low French consumption and therefore particularly high incentive for shippers to inject into storage, particularly downstream: high injection demands were observed at the PITS Sud-Ouest, and to a lesser extent at the PITS Atlantique. These injections caused major bottlenecks, especially since LNG contributions from Fos were low on those two days (going from 106 GWh on Friday 24 to 57 GWh on Saturday 25, then 20 GWh on Sunday 26).

In addition, the reduced number of points at which shippers could submit bids upstream of the locational spread (since all storage in the north were already at their maximum injection level at the time of the call) led to particularly high prices. The correlation of these two factors finally made these two operations quite costly.

CRE also noted that the use of additional storage injection flexibility available to shippers, through short-term PITS exit subscriptions, contributed to putting at risk the proper functioning of the network.

In its deliberation of 29 May 2019, CRE therefore added to the list of congestion management mechanisms, exit capacity interruption at the PITS beyond the nominal levels. As from that date, on a day of congestion, firm capacity at the PITS Sud-Ouest and PITS Atlantique were therefore capped at 330 GWh/d and 355 GWh/d respectively, which guaranteed firmness of the nominal capacity that had been sold at auctions by storage operators.

In the Concertation gaz meeting of 30 September 2019, the two TSOs presented the results obtained by “re-playing” the past injection season, by applying as of 1 April :

- on the one hand the deliberation of 29 May 2019,
- on the other hand the elimination of the operational margin they had included for security purposes in the volumes called for in locational spread.

Keeping an identical price for each transaction, the total cost of locational spread in 2019 would have dropped to €4.3 million (instead of €7.2 million) and the two mutualised restrictions would have been unnecessary.

Question 3 Do you have any comments to make about the emergency measures taken by CRE in its deliberation of 29 May 2019?

At the end of the injection season, and given the previous analyses, CRE however considers that these measures must be adapted.

3.2. Measures envisaged for 2020

3.2.1. Firm exit capacity at the PITS Sud-Ouest and Atlantique

The analysis presented in 2.2 tends to show that the network cannot deliver the firm levels adopted in CRE's deliberation of 29 March 2019 in most cases, particularly given the limits and maintenance in the GRTgaz network.

In addition, while maintaining storage levels and withdrawal rates (which cover the national consumption peak in winter) appears to be essential, it is not the same for injection rates for which the highest possible rate brings flexibility at the time of injection but is not a factor in security of supply. CRE considers that firm capacity levels at these points must be consistent with what the network is effectively able to supply in most cases. It must however be ensured that the level adopted enables storage facilities to be filled within the allotted time, to ensure security of supply in winter.

The injection period stretches from 1 April to 31 October, i.e. 214 days from which CRE considers that it is reasonable, given the history, to withdraw 30 days to take into account annual restrictions for maintenance during the summer period. The maximum duration of the injection period is therefore 184 days.

To date, the actual injection duration of the two storage facilities (that is the time necessary to fill them considering the nominal injection capacity) is 106 days for Sud-Ouest and 151 days for Atlantique. Both of them were 95% filled as at 1 September 2019.

Assuming the PITS Sud-Ouest switches to a firm exit capacity level of 300 GWh/d, and the PITS Atlantique to 340 GWh/d, the actual injection durations would then be 117 days for Sud-Ouest and 170 days for Atlantique respectively (for Atlantique, based on a total volume of 47,5 TWh, against 45 TWh sold in 2019). Even if bottlenecks were to appear every day, such a change would leave a comfortable margin at the PITS Sud-Ouest and quite a limited residual margin for Atlantique but which would nevertheless be sufficient to fill the storage within the given timeframe. In addition, apart from this firm capacity, interruptible capacity would be allocated and could be used on days when there are no bottlenecks.

In the light of these elements, CRE therefore envisages lowering the nominal PITS exit level, to 300 GWh/d for the PITS Sud-Ouest and to 340 GWh/d for the PITS Atlantique respectively.

CRE, in its public consultation of 23 July 2019⁵, envisaged pricing firm and interruptible exit capacity at the PITS to respond to these limits. CRE therefore envisages the following firm and interruptible capacity levels:

Exit capacity at the PITS, in GWh/d	Firm exit capacity	Interruptible exit capacity*
Nord B	115	10
Nord-Ouest	145	20
Nord-Est	115	35
Sud-Est	145	35
Atlantique	340	60
Sud-Ouest	300	96

* When there are no bottlenecks, or the PITS is upstream of the bottleneck, no capacity is interrupted.

Since the actual injection time necessary to fill storage is a major issue, these levels defined by CRE are likely to change again in the future if there is a development in the storage volumes sold by operators, especially if they increase, in order to ensure that the rate chosen fills the volumes sold during the gas summer.

Only the level of capacity necessary to manage the congestion could be interrupted for both PITS in proportion to the interruptible capacity nominations at all PITS.

- Question 4** Are you in favour of the setting of firm exit capacity at the PITS Atlantique at 340 GWh/d?
- Question 5** Are you in favour of the setting of firm exit capacity at the PITS Sud-Ouest at 300 GWh/d?
- Question 6** Do you have any other comments on exit capacity at the PITS?

3.2.2. Measures regarding maintenance

At this stage, CRE does not intend to modify the handling of minor maintenance lower than 30 GWh/d, since that would lead to publishing numerous capacity restrictions once more, which would penalise shippers.

It is however important for GRTgaz to work to optimise management of its network. The goal must be to reduce the impact of maintenance and failures on flows, without affecting the security of the network.

CRE therefore intends to request the TSOs to publish afterwards, each time a congestion occurs when there is "minor maintenance", the impact of this minor maintenance on the volume of gas lacking downstream of the bottleneck.

Depending on the results observed, CRE considers introducing an indicator in the incentive regulation for the quality of GRTgaz's service during the ATRT7 tariff.

In addition, CRE intends to request to the gas infrastructures operators (transmission, storage, LNG terminals) to publish a single joint annual maintenance programme. This programme would give a better visibility to market participants.

⁵ Public consultation No 2019-013 of 23 July 2019 on the next tariff for the use of the GRTgaz and Teréga natural gas transmission network

- Question 7** Are you in favour of the publication by the TSOs of the impact of maintenance lower than 30 GWh/d on the volume of gas lacking downstream of bottleneck?
- Question 8** Are you in favour of the publication of a single joint annual maintenance programme by gas transmission, storage and LNG terminals operators?

3.2.3. Use of the L gas to H gas conversion point to respond to locational spread

Apart from the first calls for locational spread, the highest prices (over €12/MWh) were observed when the volumes called for are high (over 140 GWh), in particular because of the lack of solutions for shippers to respond upstream of the bottlenecks. To increase the response possibilities, CRE intends to add to the points that can respond upstream, the virtual point corresponding to the L gas to H gas conversion service. The last resort mechanism to remove congestion, mutualised nominations restrictions, would then also apply to this point, if the locational spread is unsuccessful.

- Question 9** Are you in favour of the inclusion of the L gas to H gas conversion service among the points concerned by the congestion removal mechanisms?

4. FINANCIAL SECURITY: FINANCIAL GUARANTEES AND SUSPENSION OF THE TRANSMISSION CONTRACT

At the end of 2018 and in the first half of 2019, several cases of suspected balancing fraud occurred in different European countries (Germany, the Netherlands, Spain, Poland), for significant amounts (several dozens of millions of euros).

CRE requested the TSOs to analyse the risk of such a situation occurring in France with the financial security conditions in effect. They concluded that it is necessary to strengthen these conditions to deal with this type of behaviour. In that regard, they provided CRE with some proposals to change the mechanism, aimed, on the one hand, at improving reactivity in the case of a risk situation, and on the other hand, at better adapting the financial guarantee amount. They presented these proposals within Concertation Gaz on 30 September 2019.

4.1. Rules in effect

In 2015, CRE requested the TSOs to work to improve the financial security of the balancing system. Several working group meetings in Concertation gaz led to proposals by the TSOs. After running a public consultation in summer 2016, CRE approved the TSOs' proposals in its deliberation of 15 September 2016⁶.

A financial guarantee already existed, the sum of which covered the TSOs against the risk of a payment default by a shipper, especially for the capacity booked. However, this guarantee was not enough to cover against the risks of default or of a fraudulent behaviour by a shipper within the framework of network balancing.

The deliberation of 15 September 2016 specifies that the TSOs must calculate a balancing liability level for each shipper, and that they must implement actions based on the breach level of the different thresholds of this liability.

The balancing liability level, expressed as a percentage, calculates as the ratio between:

- the total amount of daily imbalances multiplied by the imbalance settlement price of the day;
- the level of financial guarantee or the theoretical level of the financial guarantee, which corresponds to the guarantee or cash deposit that would have been made by the shipper if they were not exempt due to their financial rating (in this last case, the balancing liability level calculates as compared to a theoretical level of guarantee).

Depending on the breach level of the different thresholds of this guarantee, observed on a daily basis, the TSOs implement the following actions:

- the first warning threshold, defined and configured by the TSO, triggers a reminder to the shipper of further measures, by telephone or email;

⁶ Deliberation by the French Energy Regulatory Commission of 15 September 2016 approving the changes to the natural gas transmission network balancing rules as at 1 October 2016

- the second alert threshold, set at 50% of the liability guarantee, leads to a formal notification to the shipper of the breach of the threshold;
- above the third threshold, set at 90% of the guarantee, the TSO can request the shipper to make an advance down-payment on the recorded imbalance, within two working days;
- after three consecutive days above a 100% breach of the guarantee, the TSO has the possibility of suspending the transmission contract within two days after a formal notice to pay has been ignored. Suspension of the contract bans the shipper from booking new capacity and nominating quantities in the TSOs' network, but does not release them from their contractual obligations and in particular, that of paying any invoices owing. It applies without prejudice to the exercise of the other rights acquired under the transmission contract.

In addition, the calculation of the financial guarantee was also set by the deliberation of 15 September 2016. The amount calculated is equal to the sum of the two highest monthly transmission invoices, outside of balancing settlements, if that amount is higher. The financial guarantee amount is only revised every six months, in October and April. Lastly, shippers have the possibility of voluntarily adjusting the level of their guarantee to a level higher than that required. This voluntary upward adjustment enables them in return to have a higher balancing liability.

4.2. TSOs' proposal for modifying financial security conditions

4.2.1. Suspension of the transmission contract

In the abovementioned cases of suspected fraud, the events occurred over several days with unpaid amounts estimated at several million euros per day. It therefore appears necessary for the TSOs to terminate exceptionally imbalanced positions not covered by financial guarantees as soon as they occur.

The TSOs consider that the current timeframe of at least five days to suspend the transmission contract in the event of a 100% breach of the balancing liability guarantee is too long. It enables shippers to go over this threshold for three consecutive days, before they can receive a formal notice by the TSO to pay within an additional deadline of two days.

In the event of an exceptional imbalance that may suggest a case of fraud, the process should be more responsive, to protect the TSOs and the shipper community (according to the European network code "balancing"⁷, there is a mutualisation of the loss born by the TSO). Thus, TSOs propose that the suspension shall have to be possible as soon as a 100% breach is reached and without prior notice. It would therefore be possible to suspend the transmission contract of a shipper having a suspicious activity as of the first day.

Moreover, the current transmission contract only provides for a full suspension. The suspended shipper therefore cannot continue to deliver to their customers or correct their balancing situation through gas purchases or imports from network interface points. The TSOs wish to be able to partially suspend the transmission contract, enabling in certain cases the suspension of the transmission contract with an excessive breach to be limited to the nominations of the shipper in question at the PEG exit or entry interface points (PIR, PITS), to prevent them from exacerbating their imbalance.

CRE's analysis

CRE is in favour of these proposals by the TSOs to strengthen the financial security of the system for the benefit of all (customers, shippers, operators) by avoiding potential cases of fraud occurring over several days, which can be very costly. The changes proposed allow the TSOs to react rapidly. Interruption as soon as a 100% breach of the guarantee liability on a given day is reached does not appear to be too restrictive given the historic conditions. Moreover, since the previous thresholds are maintained, shippers will continue to be warned as soon as their breach levels deteriorates.

4.2.2. Calculation of the minimum financial guarantee amount

The TSOs also wish to modify the minimum financial guarantee amount by integrating the amount of balancing payments. The TSOs propose that the financial guarantee be consistent with the risk associated with the shipper's imbalance, against which they seek to protect themselves.

CRE is in favour of such a development.

Question 10 Are you in favour of the TSOs' proposal to change the financial guarantee calculation and the conditions for suspending the transmission contract?

⁷ COMMISSION REGULATION (EU) No 312/2014 of 26 March 2014 establishing a Network Code on Gas Balancing of Transmission Networks

5. SUMMARY OF QUESTIONS

- Question 1** Do you share CRE's positive assessment of the implementation of the Trading Region France?
- Question 2** Do you share CRE's analyses of the firm capacity actually available at the PITS Sud-Ouest and the PITS Atlantique?
- Question 3** Do you have any comments to make about the emergency measures taken by CRE in its deliberation of 29 May 2019?
- Question 4** Are you in favour of the setting of firm exit capacity at the PITS Atlantique at 340 GWh/d?
- Question 5** Are you in favour of the setting of firm exit capacity at the PITS Sud-Ouest at 300 GWh/d?
- Question 6** Do you have any other comments on exit capacity at the PITS?
- Question 7** Are you in favour of the publication by the TSOs of the impact of maintenance lower than 30 GWh/d on the volume of gas lacking downstream of bottleneck fronts?
- Question 8** Are you in favour of the publication of a single joint annual maintenance programme by gas transmission, storage and LNG terminals operators?
- Question 9** Are you in favour of the inclusion of the L gas to H gas conversion service among the points concerned by the congestion removal mechanisms?
- Question 10** Are you in favour of the TSOs' proposal to change the financial guarantee calculation and the conditions for suspending the transmission contract?

ANNEX

Annex 1 – gas entries in the transmission network at PITTM (LNG terminal send-out), 2012-2019

