



The Energy Regulatory Commission (CRE) consults the market players.

## **PUBLIC CONSULTATION OF 27 JULY 2017 N° 2017-012 RELATING TO THE CREATION OF A SINGLE GAS MARKET AREA IN FRANCE ON 1<sup>ST</sup> NOVEMBER 2018**

This public consultation concerns the operational conditions for the creation of a single gas market area in France on 1<sup>st</sup> November 2018. It forms part of the roadmap towards a single gas market area in France as defined by the CRE in 2012<sup>1</sup>.

In order to relieve the existing congestion between the GRTgaz network North and South zones and to enable the creation of a single market area common to GRTgaz and TIGF, the CRE adopted, in its deliberation of 7 May 2014, the investment configuration associating the reinforcement of the Val-de-Saône pipeline and the Gascogne-Midi project. These new infrastructures, developed by GRTgaz and TIGF, have been designed to enable the creation of a single zone at an optimised cost. Consequently, in certain network configurations of use, residual congestions could exceptionally occur. This public consultation proposes the contractual mechanisms planned at this stage to relieve this congestion so as to ensure the availability of firm capacity. In order to define the most relevant mechanisms, the TSOs have studied the occurrence of residual congestion and the solutions that could be implemented to remedy them in the Concertation gaz process since September 2016. At the end of this work, the TSOs submitted a joint proposal to the CRE, which is annexed to this public consultation.

In addition, pending the commissioning of new works, and while the 2016-2017 winter was marked by a South-East congestion that resulted in constraints in the nomination of certain players, this public consultation also focuses on the solutions studied by the TSOs in the event that this congestion occurs again in the winter of 2017-2018, as well as the changes in the price of imbalances.

Paris, 27 July 2017.

**For the Energy Regulatory Commission,  
Presiding commissioner in the absence of the Chairman,  
Christine CHAUVET**

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<sup>1</sup> CRE deliberation of 19 July relating to guidelines for gas marketplace evolution in France

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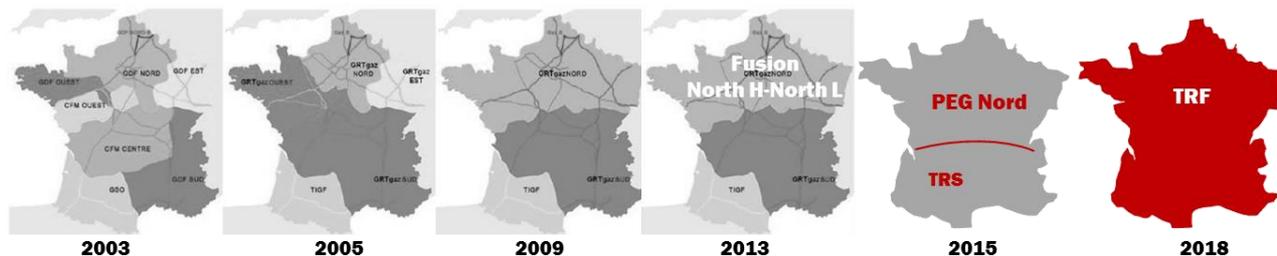
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## **1. CONTEXT: THE OBJECTIVE OF THE CREATION OF A SINGLE MARKETPLACE**

### **1.1 From seven zones in 2003 to a single zone in 2018**

Since 2003, five mergers have enabled simplifying the contractual architecture of the network for the benefit of end users. The French transmission network has moved from seven balancing zones in 2003 to three in 2009. On 1<sup>st</sup> April 2013, the low calorific gas (L gas) zone was added to the perimeter of the PEG Nord gas exchange point. Since 1<sup>st</sup> April 2015, the system has been reduced to two marketplaces, including the *South Trading Region* (TRS), shared by GRTgaz and TIGF. The deliberation of 22 May 2014<sup>2</sup> identified the operating rules of the TRS zone, common to the GRTgaz South and TIGF zones.



These network reconfigurations simplify shippers balancing and enhance the liquidity of wholesale markets. They result in a more straightforward use of the gas network and an increase in the arbitrage possibilities. Consequently, users of the French natural gas networks have gradually been able to access the best price for gas, regardless of their location in France.

### **1.2 The expected benefits of the North and South zone merger**

The French gas market is currently divided into two zones, the PEG Nord and the Trading Region South (TRS). The capacity of the transport pipelines connecting these two zones is insufficient to fully meet the transit needs from one zone to another, from North to South. While the North has significant interconnection capacities with the Norwegian, German and Belgian networks, the North-South link capacity does not cover the entire consumption in the South zone. Consequently, to cover its supply, the South zone depends on about 40% from the Fos-sur-Mer liquefied natural gas (LNG) terminals. However, the price of LNG is subject to the vagaries of world demand and has frequently been higher than gas for several years now. As a result, price spreads between the PEG Nord and TRS zones have widened, per period, to the detriment of users in the South of France.

The creation of a single marketplace will enable:

- the introduction of a single price on French wholesale markets, to the benefit of all French users, particularly those in the South, who are currently penalised by the North and South price differences;
- a more liquid, less volatile and more competitive French market better integrated in the European market;
- the reinforcement of France's security of supply, with improved access to the various gas sources.

### **1.3 The stages in the project to create a single marketplace**

#### **1.3.1 In 2014, an optimised works configuration was decided on, which does not remove all congestion in all configurations**

The deliberation of 19 July 2012<sup>3</sup> set the objective of creating a single market area in France by 2018 at the latest. The studies and extensive consultation conducted in 2012 and 2013 concluded that the creation of a single marketplace in France required easing the North-South congestion via the strengthening of the transport network.

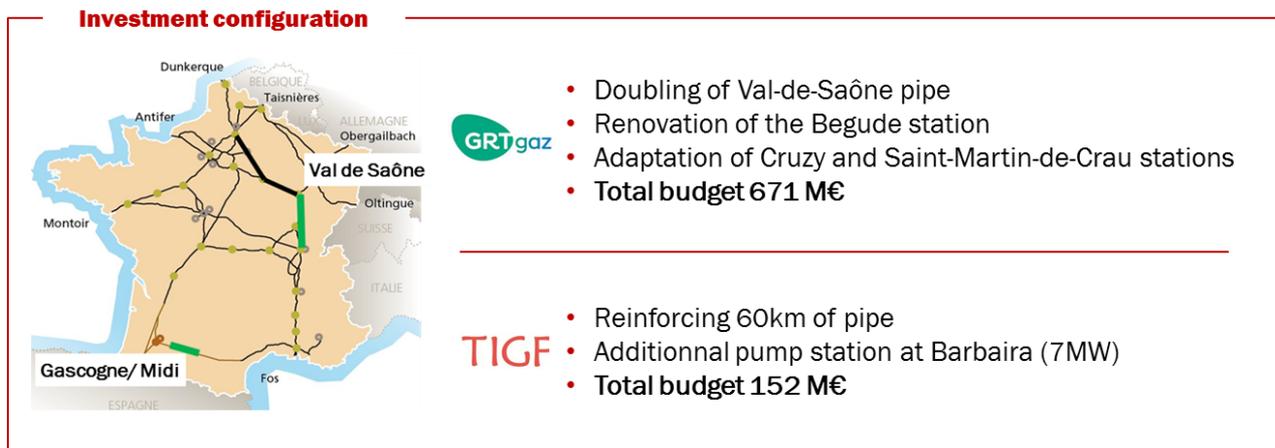
In 2013, the CRE asked Pöyry consulting company to study ways to ease congestion on the North-South link as well as the benefits expected from a single marketplace. The Pöyry study<sup>4</sup> looked at three possible scenarios for the evolution of the gas market, depending on the LNG price in Europe. The economic profitability of the 4 investment schemes was then analysed, according to the three scenarios. Pöyry, with the help of the TSOs, modelled residual congestion in order to compare the contribution of new structures in terms of possible firm flows for each investment scheme.

<sup>2</sup> [Deliberation of the French Energy Regulatory Commission of 22 May 2014 on the decision concerning the operating rules for the marketplace common to the GRTgaz Sud and TIGF zones as at 1 April 2015](#)

<sup>3</sup> [Deliberation of the French Energy Regulatory Commission dated 19 July 2012 relating to guidelines for gas marketplace evolution in France](#)

<sup>4</sup> [Link to the Pöyry study](#)

Following this analysis and the public consultation launched in 2014, the Val de Saône and Gascogne Midi projects, uniting GRTgaz and TIGF, were selected by the deliberation of 7<sup>th</sup> May 2014<sup>5</sup>. The choice of this investment configuration with a total target budget of €823M, is the result of a comparison of the investment costs and the expected benefits in each of the scenarios. An investment scheme that removed all congestion would have been too expensive. The chosen structure, which deals with almost all network configuration use at a lower cost, requires the implementation of contractual congestion relief mechanisms on an ad hoc basis to ensure the use of firm capacities.



In addition, the 30 October 2014<sup>6</sup> deliberation defined the incentive regulation regime applicable to these investments. In particular it provides that GRTgaz and TIGF may receive a premium of up to €16M, €4M respectively if the works are commissioned on 1<sup>st</sup> November 2018. Work on the structures has been initiated and is taking place at this stage according to the planned timetable.

### 1.3.2 The TRS, the last step before the creation of a single marketplace

#### 1.3.2.1 Since 1 April 2015, the TRS combines the former PEG Sud and TIGF

The 22<sup>nd</sup> May 2014 deliberation created a "trading region" type system. This system, defined by ACER in its European target model from 2011<sup>7</sup>, enabled the creation of a joint marketplace for several balancing zones. Consequently, since 1<sup>st</sup> April 2015, the TRS is composed, on the one hand, of a "trading region" comprising the TRS gas exchange point and all the existing interconnection points (PIR, PITS, PITTM) for each TIGF and GRTgaz Sud balancing zone, and on the other hand, two consumption zones, TIGF and GRTgaz Sud. These consumption zones include all delivery points to end users in the TIGF and GRTgaz Sud balancing zones.

#### 1.3.2.2 Reminder of the mechanisms implemented by TIGF and GRTgaz to jointly operate the TRS

- TRS operating rules

Transactions on the single PEG are firm and the exchanged gas is delivered to all points attached to the "trading region".

These transactions are nominated to GRTgaz, who is responsible for managing the PEG.

- Management of the contractual and physical balancing

The contractual imbalance of each shipper is calculated globally on the scale of the whole "trading region". For each shipper, the TSOs distribute this overall imbalance between the two balancing zones using a key specific to each shipper category.

- Maintenance management between the GRTgaz and TIGF networks

Localization of the limitations due to maintenance work takes into account the direction of the gas flow at the interface between the GRTgaz and TIGF networks. If the flow is in the direction GRTgaz Sud to TIGF, the capacity limitations are reported in the TIGF zone (Spain interconnections, Southwest PITS injections). If the flow is in the

<sup>5</sup> Deliberation of the French Energy Regulatory Commission dated 7 May 2014 setting out guidelines for the creation of a single marketplace in France by 2018

<sup>6</sup> Deliberation of the French Energy Regulatory Commission dated October 30, 2014 concerning the decision on the incentive regulatory mechanism for the Val de Saône and Gascogne Midi projects

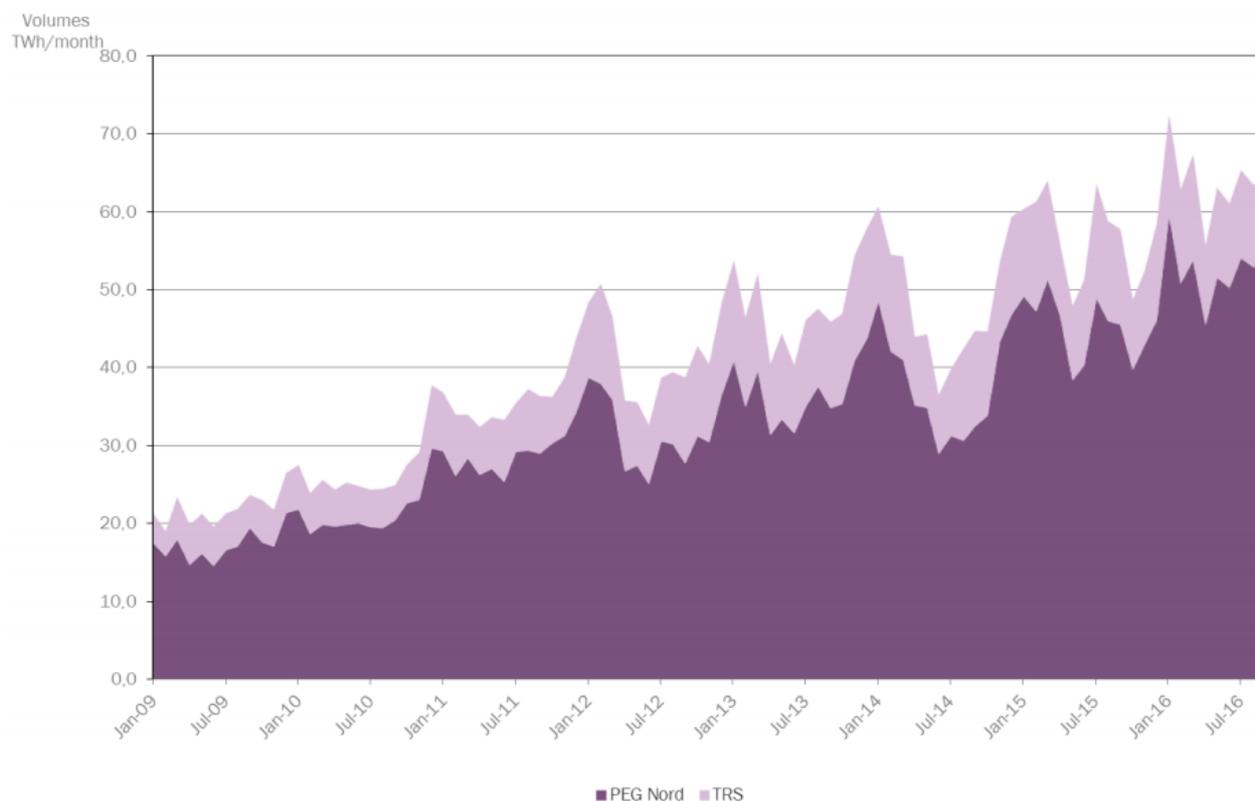
<sup>7</sup> Gas target model for the European market updated in 2015

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direction TIGF to GRTgaz Sud, the capacity limitations are transferred to the GRTgaz Sud zone (South to North link, injections at South Atlantic and Sud Est PITS).

### 1.3.2.3 Impact of the TIGF and GRTgaz Sud marketplace merger

The merger of the TIGF and GRTgaz Sud marketplaces made it possible to simplify the use of the network, balance shippers and has enabled the emergence of a more liquid TRS wholesale market. The boom in gas trade at PEG Nord and the TRS demonstrates the dynamism of the wholesale market and the increase in arbitrage opportunities for shippers.



Source: CRE (day-ahead and future products)

The French wholesale gas market concentration index HHI (Herfindahl-Hirschman indices) has shown that since 2014, the concentration levels on the North and South of France spot markets are satisfactory for purchase (HHI at a level of almost 600 in the first half of 2015 in PEG Nord and in the TRS zone) and average for sales (HHI at a level of around 1300 at PEG Nord and 1300 in the TRS zone). For the long-term gas markets, concentrations remain high, particularly for sales, in the South of France<sup>8</sup>.

Finally, the integration of PEG Nord with the North-West European markets is very good. The correlation of prices with other marketplaces in the zone is high.

### 1.3.3 2016-2018: The preparation for the merger of zones mobilises all market players

#### 1.3.3.1 The tariff framework relating to the merger of the zones was specified in the deliberation of 15<sup>th</sup> December 2016 on the ATRT6 tariff

The general structure of the gas transport tariffs (ATRT6) at the creation of the single zone was defined by the CRE in the deliberation of 15 December 2016<sup>9</sup>. The precise level of the various tariff terms at the creation of the single zone will be fixed by the CRE in the deliberation setting the annual evolution on 1<sup>st</sup> April 2018, scheduled for the end of 2017. In particular, the ATRT6 tariff stipulates that, on 1<sup>st</sup> November 2018, North-South link capacity charge shall disappear and the exit charge at Pirineos PIR shall increase, but to a lesser extent, so as to reflect the reality of transit costs.

<sup>8</sup> CRE reports on the functioning of wholesale markets

<sup>9</sup> CRE deliberation forming a decision on the next tariff for the use of GRTgaz and TIGF natural gas transmission networks (known as "ATRT6")

### **1.3.3.2 The implementation of works for the creation of a single marketplace**

In 2016, GRTgaz obtained ministerial authorisation for the reinforcement of the Val-de-Saône pipeline and authorization relating to the compression stations. The work to install the Val-de-Saône pipeline and the delivery of the Etrez compressor will take place from April to October 2017. The compressor stations at Saint-Martin-de-Crau should be commissioned at the end of the summer in 2017. 2018 will be dedicated to the testing and commissioning of the Voisines, Palleau and Etrez stations.

TIGF has compiled authorisation files for the Gascogne-Midi pipeline and obtained an inspection permit for installations classified for the protection of the environment (ICPE). In 2018, TIGF will be required to conduct tests, overhaul and commissioning of the Barbaira station and the Gascogne-Midi pipeline.

The TSOs will release a progress report by the end of summer 2017 in order to report any difficulties that could delay the work schedule. At this stage, the objective of putting the works into service by 1<sup>st</sup> November 2018 at the latest is maintained.

The TSOs plan to regularly inform (at least quarterly) the market on the progress of this work, via their websites.

- For TIGF:

<https://www.tigf.fr/nos-projets/projets-transport/projets-en-cours/renforcement-gascogne-midi-rgm.html>

- For GRTgaz:

<http://www.grtgaz.com/grands-projets/le-programme-val-de-saone/presentation.html>

If there is a risk of delay in the date of 1<sup>st</sup> November 2018, whether linked to infrastructure works or to the operational implementation of the TRF, transporters will inform the market players in a specific manner.

### **1.3.3.3 Process for defining the operating rules of the future single market area**

Within the framework of the "contractual structure of the network" working group of 2<sup>nd</sup> June 2016 of the Concertation Gaz process, the TSOs presented in detail the project to create a single marketplace. The creation of a specific "single market place" working group was decided. Ten meetings of this dedicated working group and 4 meetings within the framework of the working group on the "contractual structure of the network" were held between October 2016 and June 2017.

Initially, the approach adopted at these meetings consisted in validating possible market situations and in modeling the residual congestion that could result from them, in order to anticipate it and be able to define the mechanisms necessary to overcome this congestion.

In a second stage, the possible mechanisms for removing residual congestion were studied in detail. The most relevant mechanisms were selected, and the operating rules for the future single market zone were presented.

The TSOs made a serious game<sup>10</sup> available to the market ; shippers can project into the future single market area and act on their capacity portfolio in different flow scenarios to test the various mechanisms considered and evaluate their impacts on congestion.

In addition, on 30<sup>th</sup> June 2017, the CRE published a simulation tool based on a five-year history to estimate the occurrence of residual congestion according to diverse flow assumptions. With this tool, available on the CRE website<sup>11</sup>, market players can evaluate the limits of the gas system by changing the level of certain variables (LNG terminal emissions, CCGT consumption, nominations at certain border points).

A CRE deliberation will establish the necessary elements to clarify the operation of the single area.

## **2. GENERAL OPERATING OF THE SINGLE ZONE**

### **2.1 Conditions for network use in the framework of the single zone**

#### **2.1.1 A trading region model identical to the TRS**

The *Trading Region France* (TRF) will operate a single entry/exit zone, divided into two balancing zones (TIGF and GRTgaz). A virtual gas exchange point, the PEG, shall condense the purchase/sale of gas for the entire trading region.

<sup>10</sup> Game of Flows simulator

<sup>11</sup> Access the residual congestion simulation tool on [the CRE website](#)

### **2.1.2 Disappearance of the North-South link charge**

The TSOs will continue to market capacities on the North-South link in order to allow shippers to access the capacity until the merger is completed, in accordance with the CRE deliberation of 3<sup>rd</sup> February 2016<sup>12</sup>. During the public consultation held from 11<sup>th</sup> December 2015 to 11<sup>th</sup> January 2016, the market players showed their commitment to visibility on the conditions of access in the South of the territory. This marketing enables anticipating the sale of capacities for the month of October 2018, in order to secure their transmission during the month of October 2018 and to guard against delays in commissioning of the works necessary for the merger of zones. As the capacities subscribed are only invoiced monthly post hoc, M+2, this early marketing has no consequences if the merger of the zones takes place according to the planned schedule.

Accordingly, the annual proceeds from 1<sup>st</sup> October 2018 to 30 September 2019 will be auctioned in July 2018; the quarterly income valid from 1<sup>st</sup> October 2018 to 31<sup>st</sup> December 2018 will be auctioned in August 2018 and the monthly proceeds from 1<sup>st</sup> October 2018 to 31<sup>st</sup> October 2018 will be marketed in September 2018.

The sale of JTS and *market coupling* capacities shall no longer take place on the day before the creation of a single market area.

The North-South and South-North capacities will disappear; capacity holders, whatever their maturity, will therefore no longer be invoiced as of that date. Shippers will no longer nominate for the North-South link.

### **2.1.3 Contractual developments**

The transport contracts subscribed with the TSOs are maintained. Client holders of the fixed delivery charge to PEG Nord or the TRS will automatically benefit from access to PEG France, at the fixed price of €500/month and the variable price of €ct1/MWh delivered, as planned in the ATRT6 deliberation tariff.

### **2.1.4 Modification of PITS**

The North Atlantic and South Atlantic PITS, now attached to the northern and southern zones of GRTgaz, will merge into a single PITS, the Atlantic PITS, from the first day of the next storage year, i.e. on 1<sup>st</sup> April 2019.

**Question 1** Are you in favour of the proposed conditions of use of the networks within the framework of the single zone?

## **2.2 Balancing zones and distribution of the imbalance**

GRTgaz will merge the North and South balancing zones; the TIGF balancing zone remains identical. The TSOs propose that the distribution of imbalances between the TIGF zone and the GRTgaz zone be based on the rule adopted for the TRS.

Accordingly, the contractual imbalance of each shipper should be calculated globally on the scale of the whole "trading region". Then, each day, the TSOs shall divide this global imbalance of a portfolio between the two balancing zones, GRTgaz and TIGF. The key to distributing the imbalance would depend on the type of shipper: end client supplier, importer/exporter, PEG trader. This key per type of customer allows the imbalance to be attributed more discerningly to each balancing zone concerned, in order to reflect the responsibility of the shippers in the actions taken by each of the TSOs to restore the balance. Consequently:

- the imbalance of a shipper who delivered gas to end users ("supplier" type shipper) would be divided between the two balancing zones in proportion to their allocations at the delivery points. This key is the most accurate; it takes into account the location of the end clients served by the suppliers.
- the imbalance of a shipper with quantities allocated only as entry and exit of the TRF to the (PIR, PITTM and PITS), i.e. not delivering an end user, ("importer/exporter" type shipper) would be distributed in proportion to the entry and exit allocations of the TRF at PIR, PITTM and PITS. This key is a simplified modelling of the gas flow, enabling to approach the quantities distributed in each of the GRTgaz and TIGF zones.
- the imbalance of a shipper having exclusively conducted transactions at the PEG (trader-type shipper) would be entirely allocated to the GRTgaz zone. If it is not possible to establish the location of the gas delivered to the PEG, the imbalance cannot be affected to one or other of the balancing zones. It is therefore considered by default that the shipper imbalance is fully borne by GRTgaz.

<sup>12</sup> CRE deliberation of 3 February 2016 deciding on the rules for selling transmission capacity at the link between GRTgaz's north and south zones

**Question 2** Are you in favour of the distribution of the imbalance within the TRF, between the TIGF and GRTgaz balancing zones?

## **2.3 Treatment of work in the single marketplace**

### **2.3.1 Improved maintenance process**

At the request of the CRE and to meet the needs of shippers, in 2016, GRTgaz launched a work impact minimisation committee, to optimise maintenance work, with the objective of reducing capacity restrictions by 20%. Two marketing measures have been taken to reduce restrictions on firm capacities:

- the release of (*day-ahead*) capacities as of 1<sup>st</sup> April 2017: the TSO may offer shippers previously announced capacities as unavailable due to maintenance work, if the network allows it in day-ahead.
- the creation, in the summer of 2017, of the *Optiflow* offer, which makes it possible to share restrictions on work superpoints (the composition and operation of the superpoints are detailed in sections 2.3.3 and 2.3.4.1 below).

In addition, since 2016 GRTgaz has ceased to impose restrictions on security searches and has optimised its calculation methods for maintenance works.

As a result, the applied restrictions have decreased by 10% between 2016 and 2017. The target announced was a 20% reduction, but due to major development projects restrictions in 2017 were more frequent than in 2016. Several of these projects were linked to the preparation of the single zone: the Cruzy reverse flow project, repair of a pipeline and the construction of the Val-de-Saône pipeline, but also projects related to the obsolescence of the automated stations and projects related to the new reverse flow marketing offer at Oltingue. Excluding this work, the restrictions would have decreased by about 30% between 2016 and 2017.

### **2.3.2 Programming of works**

The rules defined by ENTSOG<sup>13</sup> require TSOs to publish their works programme with a monthly grid restricted rate in November of the previous year.

GRTgaz publishes a provisional planning in August of the previous year, and then the binding publication takes place in November and is updated in February of year N.

TIGF publishes its planning in November of the previous year and updates it in March, at the same time as the PITS work planning is published.

These work schedules inform shippers of the restrictions that would be applied to interruptible and firm capacities. They allow shippers to implement alternate transmission solutions as required.

TSOs intend to maintain their market information process unchanged.

**Question 3** Are you satisfied with the quality and publication dates of the TSOs work planning?

### **2.3.3 Operating of "superpoints"**

Currently, the work carried out on TSOs' networks affects the availability of interruptible capacities and, on a second place, firm capacities.

On the GRTgaz network, this translates into a capacity reduction on each of the points notably on the North-South interruptibility when maintenance works involve the "core network".

With the creation of the TRS zone in 2015, TIGF changed its offer by introducing a superpoint re-grouping the Lussagnet PITS and Pirineos PIR.

The superpoint consists of a grouping of several points (PIR, PITS or PITTM). Instead of being applied to each of the points, the capacity restriction is shared over all the points constituting a superpoint. For example, a shipper

<sup>13</sup> Since 2011, ENTSOG has been working on the harmonisation of formats and schedules for publication of works on European TSO networks.

who holds capacities on all the points forming the superpoint could choose to nominate up to the capacities available to them on one of the points within the limits of their subscribed capacities on that point or to divide their nomination over several of them. Once the shippers with capacity on the superpoint have nominated to their needs, the remaining capacity within a superpoint is made available and can be allocated by re-nomination<sup>14</sup> to shippers who wish to use capacity beyond their subscription. Superpoints function like communicating vessels to maximise the available capacity based on shipper's choices, rather than imposing restrictions on each point on the network.

Four work superpoints are being created by GRTgaz and will be implemented gradually in the summer of 2017. These superpoints include the following interconnections:

- PIR Dunkerque + PITTM Dunkerque
- PIR Dunkerque + PITTM Dunkerque + PIR Virtualys<sup>15</sup>
- PIR Taisnières H + PIR Obergailbach
- PIR Taisnières H + PIR Obergailbach – PIR Oltingue

As of 1<sup>st</sup> November 2018, the TSOs propose the creation of 5 new superpoints according to the below diagram. The composition of each superpoint is detailed in the following paragraph. It should be noted that the TSOs provide for superpoints that would be activated in the event that maintenance would affect the east-west flows of its network.



### 2.3.4 Impact of maintenance work

GRTgaz's proposition is to affect the maintenance works according to the following rules:

- if the work relates to a particular point, the capacity limitation relates to the point concerned;
- if the works are located on the northern structures of the GRTgaz network (limits N1, N2, N3, NS1 described in the table below), the shared limitation concerns the superpoints located upstream to it
- if the works are located on the southern structures of the GRTgaz network or on the TIGF structures (NS2, NS3, NS4, S1 limits described in the table below), the shared limitation applies to the superpoints located downstream of the limit concerned.

"Mutualised restrictions" apply in proportion to the subscribed capacity. Shippers are informed of this in the previous year, according to the works programme publication schedule described in paragraph 2.3.2. They are effective from the first nomination cycle.

<sup>14</sup> The UIOLI service allows a shipper to nominate capacity beyond their subscription. If the nominated capacity is available (either because it is unsold or because it has been subscribed but not used by its primary owner), it is allocated to the shipper.

<sup>15</sup> A virtual interconnection point for the Taisnières H and Alveringem points, introduced by the CRE deliberation of 2 February 2017 on the creation of a virtual interconnection point (VIP) between France and Belgium and the introduction of an offer for substitution of bundled capacity by unbundled capacity

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Moreover, in exceptional cases where work is carried out outside the summer period, this rule must be declined according to the level of consumption. Certainly, when consumption is very high, restricting all downstream capacities is not sufficient to relieve congestion for work on the NS2, NS3, NS4 and S1 limits:

Consommation France (GWh/j)	Été à hiver doux (consommation inférieure à 1750 GWh/j)	Hiver moyen à froid (consommation comprise entre 1750 et 2800 GWh/j)	Hiver très froid (consommation supérieure à 2800 GWh/j)
N1/2/3 et NS1	Amont		
NS2 et NS3	Aval	Amont	
NS4 et S1	Aval		Amont

The table below lists all studied limits and for each limit, the composition of the upstream and downstream super-points.

Limits	Upstream Superpoint	Downstream Superpoint
<b>N1</b>	PIR Dunkerque + PITTM Dunkerque LNG	
<b>N2</b>	PIR Dunkerque + PITTM Dunkerque LNG + PIR Virtualys	
<b>N3</b>	PIR Virtualys + PIR Obergailbach	
<b>NS1</b>	PIR Virtualys + PIR Obergailbach + PIR Oltingue	
<b>NS2</b>	PIR Dunkerque + PITTM Dunkerque LNG + PIR Virtualys + PIR Obergailbach + PIR Oltingue + PITS Nord-Est + PITS Nord-Ouest	PITTM Fos + PITTM Montoir + PIR Pirineos + PITS Lussagnet + PITS Atlantique + PITS Sud Est
<b>NS3</b>	PIR Dunkerque + PITTM Dunkerque LNG + PIR Virtualys + PIR Obergailbach + PIR Oltingue + PITS Nord-Est + PITS Nord-Ouest + PITS Sud Est	PITTM Fos + PITTM Montoir + PIR Pirineos + PITS Lussagnet + PITS Atlantique
<b>NS4</b>	PIR Dunkerque + PITTM Dunkerque LNG + PIR Virtualys + PIR Obergailbach + PIR Oltingue + PITS Nord-Est + PITS Nord-Ouest + PITS Sud Est + PITS Atlantique	PITTM Fos + PIR Pirineos + PITS Lussagnet
<b>S1</b>	PIR Dunkerque + PITTM Dunkerque LNG + PIR Virtualys + PIR Obergailbach + PIR Oltingue + PITS Nord-Est + PITS Nord-Ouest + PITS Sud Est + PITS Atlantique + PITTM Fos	PIR Pirineos + PITS Lussagnet
<b>EW1</b>	PIR Obergailbach + PIR Oltingue + PITS Sud Est + PITTM Fos	PIR Virtualys + PIR Dunkerque + PITTM Dunkerque LNG + PITTM Montoir + PIR Pirineos + PITS Nord-Est + PITS Nord-Ouest + PITS Atlantique + PIR Lussagnet
<b>EW2</b>	PIR Obergailbach + PIR Oltingue + PITS Sud Est + PITTM Fos + PITS Nord Est + PITS Nord-Ouest + PITTM Dunkerque LNG + PIR Dunkerque + PIR Virtualys	PITTM Montoir + PIR Pirineos + PITS Atlantique + PITS Lussagnet

TIGF considers that the application of restrictions downstream of the limits leads to a non-even distribution of work impacts on the South of France PITS capacity. It therefore hopes that the balance in the upstream and downstream restrictions will serve as a reference and guide the establishment of multiannual work schedules.

Consequently, TIGF proposes to build maintenance plans through common governance aimed at ensuring an even balance between upstream and downstream and between quantifiable downstream storage capacities using 3 indicators:

- equivalent distribution of upstream and downstream maintenance occurrences;
- equivalent distribution of upstream and downstream limited capacity volumes;
- equivalent distribution of limited downstream capacity volumes between all PITS.

If it turns out that this equity was not respected, TIGF shall propose a change in the restriction distribution key within the Superpoints works, to ensure that the actual capacity of the southern PITS offers enough flexibility to guarantee proper filling of storage facilities.

### **2.3.5 The CRE's preliminary analysis**

The CRE considers that the implementation of superpoints is an improvement for shippers, in that it allows them to enjoy increased availability of capacity on the points that they prefer. This system is favourable to shippers who have capacities on several points of a superpoint. It is also useful for those who only hold one point, since it can generate new capacities via the re-nomination mechanism (or UIOLI). The CRE is therefore in favour of the implementation of new superpoints to manage the impact of the work on the GRTgaz and TIGF networks.

Concerning the repercussion rules governing upstream or downstream mutualised restrictions proposed by the TSOs, the CRE calls to mind that the creation of a single market place must in the one hand make it possible to guarantee the availability of firm capacities, and in the other hand, allow all French consumers to benefit from a single gas price, reflecting the balance between supply and demand.

The figures presented by GRTgaz at the Concertation Gaz show that the upstream/downstream allocation of restrictions as proposed by GRTgaz enables for a balanced repercussion of maintenance between the upstream points and the downstream points on the French network. Furthermore, the restriction of capacity at a given upstream point is likely to lead to an increase in the price of gas. In order to prevent the creation of a significant price spread between the TRF area and the marketplace in Northern Europe, the CRE considers that the repercussion rule should make it possible to minimise the restricted capacity volume to gas entry points on the French network.

The CRE notes TIGF's concern for the availability of southern PITS; it wants the TSOs to present an assessment of the interruptions at the Concertation gaz process. To do this, the indicators proposed by TIGF can be used to inform shippers of the impact of maintenance on the availability of capacities in the southern France PITS. The CRE will also monitor the reduction rates applied to PITS in the TIGF zone using the quality of service indicator on capacity availability.

At this stage, the CRE considers the repercussion of maintenance as proposed by GRTgaz to be relevant. A possible subsequent modification of the allocation rule could be envisaged on the basis of feedback and market demands.

**Question 4** Are you in favour of the rule proposed by GRTgaz for the distribution of mutualised restrictions upstream or downstream of the congestion?

## **2.4 Treatment of maintenance work with an impact of less than 30 GWh/d**

### **2.4.1 TSO's proposal**

Within the framework of the works schedule, the published restriction volume takes into account, on the one hand, the intervention on the structures and, on the other hand, the anticipation of the flow patterns for a given day. In some cases, TSOs restrict capacity in a preventive manner, as they do not believe they can guarantee capacities in a summer flow configuration, taking into account the work in progress.

However, a large part of the work carried out on the GRTgaz network has an impact of less than 30 GWh/d, which currently only results in a reduction the day before of the availability of interruptible capacity of the North South link. GRTgaz estimates the share of these "small jobs" at 50% of all maintenance days.

The TSOs propose to not apply a preventive mutualised restriction when the impact of maintenance is less than 30 GWh/d. They consider that this would generate too many restrictions (between 50% and 80% of the days).

However, they propose to display in their works planning, the capacity volume that will not be available, but without applying any restriction, when defining the annual planning. On D-day, if congestion actually occurs, it will be dealt with by mechanisms for easing congestion, even if they are partly due to maintenance works.

**2.4.2 The CRE's preliminary analysis**

Currently, the capacity restriction is necessary during work, even when the impact is low.

Given that the congestion removal mechanisms will be introduced when the single marketplace is created, the CRE considers at this stage that it would be appropriate to use them to reduce the impact of small-scale maintenance on shippers for which a mutualised restriction would be too restrictive. The CRE considers at this stage that the threshold of 30 GWh/d is appropriate.

Furthermore, the CRE considers it essential that work planning continue to give shippers information on all maintenance, even if the choice is made to treat some by means of mechanisms for congestion removal.

The CRE also stresses the importance of good coordination between the infrastructure operators (GRTgaz, TIGF, Storengy, Elengy, Dunkerque LNG and adjacent transmission system operators) in order to minimise the impact of work on the availability of capacity.

Finally, the CRE considers it essential that feedback from experience be presented at the Concertation gaz in order to measure the cost of this provision and to possibly reassess the 30 GWh/d threshold.

**Question 5** Are you in favour of no mutualised restriction being applied a priori on days when maintenance works have little impact?

**Question 6** Are you in favour of the 30 GWh/d threshold beyond which the works would no longer be dealt with by congestion removal mechanisms?

**3. EVALUATION OF RESIDUAL CONGESTION**

**3.1 Identification of network limits**

After the commissioning of the Val-de-Saône and Gascogne-Midi structures, depending on the flow situation some residual congestion shall continue to exist. It can be of three types: North-South congestion, East-West congestion and South-North congestion.



North-South congestion corresponds to a situation in which the price of LNG is higher than that of gas from the Russian and Norwegian fields. This is reflected in the low use of LNG terminals, notably Fos, and in Spain importing gas from France.

The South-North congestion could be encountered in the case of a low-cost and very available LNG compared to the gas coming from pipes, which would lead to a massive influx of LNG into the South of France, and from Spain. This type of procurement scheme has never been encountered to date.

Finally, East-West congestion could only occur if massive LNG inflows to Fos and Dunkerque were correlated with an LNG shortage in Montoir and Spain. No identified economic scenario would produce this result.

### 3.1.1 Existing flow direction and most likely future situation

In collaboration with shippers, TSOs consider that the most likely congestion during the next few years is congestion in the North-South direction. They are broken up into 4 fronts: NS1, NS2, NS3, NS4, as described on the map below.



GRTgaz and TIGF have established, under certain hypotheses, the maximum quantity that can pass through each of the congested fronts. By comparing these defined quantities with historical flows modified according to various scenarios, the TSOs were able to quantify the occurrence of residual congestion according to these scenarios.

### 3.2 The CRE's preliminary analysis

The CRE shares the TSO's analysis of the most probable congestion in a single market area context. Indeed, although several types of congestion are theoretically possible, a scenario with little LNG in the French terminals and the Iberian Peninsula leading to congestion in the north-to-south direction is the most likely to recur in the coming years.

Shippers who took part in the Concertation gaz process shared this vision. Consequently, the analysis of residual congestion carried out by the TSOs was centred only on congestion in the north-south direction.

**Question 7** Do you agree with the TSOs and CRE analysis on the likely direction of congestion within the single market place?

### 3.3 Quantification of daily residual congestion

#### 3.3.1 Description of the study

The objective of modelling is to analyse occurrences and congestion levels according to shipper supply patterns. Since north to south transport capacities remain limited, TSOs have chosen to model scenarios that are both economically feasible and capable of highlighting residual congestion. Therefore, for the study, only supply scenarios involving particularly large flows from north to south were retained. The numerous other probable supply scenarios present no congestion risk.

Flow scenarios are constructed on the historical consumption and flow data at PIR, PITS and PITTM for the years 2012 to 2016. These flows are then distorted according to assumptions such as entries to the PITTM, consumption of CCGT (combined cycle gas turbine) and exits towards Spain. In order to respect the French balance, when the assumptions under consideration lead to more network exits, the flows to the PIRs in the North of France are increased accordingly.

In order to allow stakeholders to visualise the occurrence of congestion with other hypotheses than those used in these two scenarios, the CRE has published a simulator on its website<sup>16</sup>. This simulator gives results close to those obtained by the TSOs. The differences are due, primarily to the fact that the observation period taken by the TSOs is from 1<sup>st</sup> September 2011 to 30<sup>th</sup> August 2016, whereas the CRE considered full years and had to make some approximations, notably on the consumption of CCGT, in order not to disclose commercially sensitive information in the published file.

Several flow scenarios with increased stress levels were modelled and presented by the TSOs to the shippers. For the subsequent work in the Concertation Gaz process, the TSOs decided to adopt a so-called baseline scenario, which corresponds to a strained situation in the gas system.

### 3.3.2 Baseline scenario

#### 3.3.2.1 Hypotheses and results

The so-called "baseline scenario" represents a strained situation. This scenario was chosen with the aim of sizing the mechanisms for easing congestion. This model is "pessimistic" because it places the network in a strained situation that has never happened in the past:

	Strained scenario (baseline)
Description	Expensive and scarce LNG, heavy use of CCGT
Hypotheses	<p><b>LNG = technical minimum:</b></p> <ul style="list-style-type: none"> <li>Fos: <b>40 GWh/d</b> against 164GWh/d in 2016</li> <li>Montoir: <b>40 GWh/d</b></li> </ul> <p><b>Flow to Spain = subscribed capacity:</b></p> <ul style="list-style-type: none"> <li>Pirineos Winter: <b>146 GWh/d</b> against approximately 120 GWh/d historically</li> <li>Pirineos Summer: <b>146 GWh/d</b> against approximately 88 GWh/d historically</li> </ul> <p><b>CCGT = average of the highest consumption:</b></p> <ul style="list-style-type: none"> <li>CCGT Winter: <b>71%</b> compared to approximately 26% historically</li> <li>CCGT Summer: <b>62%</b> compared to approximately 12% historically</li> </ul>
Occurrence of congestion (Results presented in consultation)	<p><b>10.5%:</b> 38 days per year (29 days in the summer, 9 days in the winter)</p>

In the baseline scenario, congestion is observed in around 1 day out of 10. The distribution of occurrences of limits varies according to the seasons and the years:

- limits are mainly reached in the spring, at the beginning of the injection period;
- for the year 2012, congestion would have appeared in only 3% of the days, whereas in 2016, it would have appeared in about a quarter of the days.

These flow model results are sensitive to gas supplies, the use of CCGT and injections in the storage facilities. Overall, even within the baseline scenario, which considers strained hypotheses, the limits have a relatively small occurrence and occur mainly in the summer.

The TSOs propose to put in place mechanisms to deal with this residual congestion. The sizing of these mechanisms depends on the flow scenario studied. In this context, the TSOs and shippers in the Concertation gaz found the strained scenario called "baseline scenario" described in the above table relevant

<sup>16</sup> The simulation tool is available on the CRE website

### 3.3.2.2 The CRE's preliminary analysis

The results of the strained scenario "baseline scenario" are reassuring in the fact that residual congestion is infrequent and concentrated in the summer period during storage injection. As a result, they will not directly affect gas supply to consumers. However, some shippers will have to delay their injections into storage and bear any additional associated costs.

The "baseline scenario" describes a market situation where LNG is expensive, the long-term subscribed firm capacity at the Pirineos PIR is 100% used, and CCGT operates at 90% seasonal risk. The CRE considers that this situation is much more strained than has been observed historically. However, such a situation is possible in a merged zone. At this stage, the CRE considers that given that the market dynamics within the single marketplace are uncertain, choosing a strained scenario as a sizing scenario is a prudent choice. The CRE is in favour of the strained scenario referred to as "baseline scenario" selected by the TSOs at the Concertation gaz.

**Question 8** Does the baseline scenario proposed by the TSOs to size the mechanisms for easing congestion seem relevant to you?

### 3.3.3 Extreme scenario or "crash test"

The extreme scenario referred to as the "crash test scenario" represents an extreme situation.

This scenario was set up to test the limits of the system in order to prevent transport rupture situations. In particular, it aims at testing the capacity of the system to cope with the total absence of LNG for extended periods coupled with particularly high levels of exports to Spain.

	Extreme scenario (referred to as crash test)
Description	No LNG arrival in France, high use of CCGT, exceptionally high Spanish exits.
Hypotheses	<p><b>LNG = absence:</b></p> <ul style="list-style-type: none"> <li>• Fos: <b>0 GWh/d</b></li> <li>• Montoir: <b>0 GWh/d</b></li> </ul> <p><b>Flow to Spain = firm technical capacity:</b></p> <ul style="list-style-type: none"> <li>• Pirineos winter: <b>165 GWh/d</b></li> <li>• Pirineos summer: <b>165 GWh/d</b></li> </ul> <p><b>CCGT = highest consumption average:</b></p> <ul style="list-style-type: none"> <li>• CCCG winter: <b>71%</b></li> <li>• CCCG summer: <b>62%</b></li> </ul>
Occurrence of congestions (Results presented in Concertation)	<b>30.1 %:</b> 110 days per year (51 days in the summer, 69 days in the winter)

It aims at testing the system's capacity to cope with the total lack of LNG for extended periods coupled with particularly high levels of exports to Spain.

**Question 9** Does the extreme flow scenario proposed by the TSOs seem relevant to you?

### **3.4 Storage filling downstream of Summer congestion**

#### **3.4.1 Summary of the study carried out by the TSOs and presented at the Concertation gaz working groups**

The new structures are expected to increase the injection capacity of the storage facilities in southern France (Lussagnet, Saline and Atlantique) by an average of 50 TWh.

In the baseline scenario, the capacities made available every day in summer allow for more injections into the South of France storage facilities than the quantities historically injected (2016) downstream of each limit. The quantities injected in summer in the South of France storage facilities are sufficient to avoid the onset of winter congestion or to allow them to be resolved via calls for tender, without risk to the continuity of transport.

In the extreme scenario, the available capacity enables the injection into storage in the summer as much as in 2016, not more. However, this study assumes that shippers shall use all the injection capacities available, whereas in reality shippers make economic arbitrages on a daily basis.

Consequently, in the extreme scenario (no LNG at Fos, CCGT operating at full capacity and firm flow to Spain at its maximum level), the network transport capacity may not be sufficient to fill the South of France storage facilities to a level equivalent to those observed in the past.

#### **3.4.2 The CRE's preliminary analysis**

The CRE considers that it is the responsibility of shippers to carry out economic arbitrage in order to favour or not the filling of storage in the summer. The TSO study is reassuring in the vast majority of cases; nonetheless it shows that in extreme scenarios storage downstream of the limits (south of France) may be poorly filled in early winter.

**Question 10** Do you agree with the TSO and CRE conclusions on the conditions for filling storage facilities in the summer downstream of congestion limits?

## **4. CONGESTION REMOVAL MECHANISMS**

### **4.1 Principles**

If congestion occurs, or is anticipated, the TSOs will use mechanisms. The purpose of these mechanisms is to guarantee that all subscribed firm capacity is available for the shippers to use. These mechanisms are based on flexibilities available to the TSOs themselves, adjacent TSOs, storage operators and shippers.

If congestion occurs, the working principle is to voluntarily alter scheduled flows upstream and/or downstream of the congestion, to reposition them in time and space.

A cost-benefit balance must be achieved when choosing a mechanism. Consequently, great care must be taken to the choice of mechanism, its size, trigger criteria and operator compensation conditions.

To define these mechanisms, the TSOs carried out work in the Concertation Gaz to create a sub-working group of the "Market Structure" working group, called the "Single Marketplace" working group. The "Single Marketplace" working group met ten times between October 2016 and June 2017, alternating plenary sessions with in-depth study workshops.

The TSOs also developed and introduced a "Game of Flows"<sup>17</sup> simulator for working group participants to present the mechanisms, help shippers appreciate their advantages and drawbacks, combine them and propose amendments.

The following sections present the operating principles for each anticipated mechanism, as well as the implementation measures and their economic relevance.

### **4.2 Daily congestion**

#### **4.2.1 Mechanisms the TSOs propose retaining**

##### **4.2.1.1 Interruption of interruptible capacities on D-1**

- **Operating principles**

<sup>17</sup> Access to [game of flows](#)

TSOs trade interruptible capacities (gas transportation capacities that can be interrupted by the TSOs). Interruption criteria is based on flow diagrams and network constraints. These are set out in the Operational Network Code (CORE), which can be consulted on the TSO's websites<sup>18</sup>.

In the event of congestion, if interrupting interruptible capacities ensures continuity of supply, it is triggered ahead of any other mechanisms.

- **Implementation measures**

Effective technical capacity on the GRTgaz network is made available to shippers at 3pm on D-1. Those with interruptible capacities are subsequently informed the day before their capacities are interrupted. On the TIGF network, the potential reduction rate is updated at each programme cycle.

The rules to calculate interruptions could be amended to account for new flow plans, particularly when congestion occurring on Day-D is detected on D-1 before 2pm, in which case interruptible capacity would be interrupted within the limit of the level of the anticipated congestion.

- **The CRE's preliminary analysis**

Interruptible capacities are sold at a lower price than firm capacities to compensate for the risk of seeing capacity interrupted. The CRE considers that it would be unfair to trigger mechanisms incurring a public cost before interrupting interruptible capacities. At this stage, the CRE therefore considers that interrupting interruptible capacities should be a priority before using any other mechanism.

**Question 11** Are you in favour of interrupting interruptible capacities before triggering any other decongestion mechanism that has a public cost?

#### 4.2.1.2 Non-trading of unsubscribed capacities on D-1 and D-Day

- **Operating principles**

If a bottleneck materialises, the TSOs cannot trade unsubscribed capacities on congestion-related points. In such situations, the TSOs cannot guarantee these newly sold capacities. Furthermore, if rising physical flows to the points concerned were to exacerbate congestion, not selling available firm capacities is an effective way of restricting it.

- **Implementation measures**

Trading unsubscribed capacities on D-1, or during the day would be cancelled, if required. The TSOs should inform shippers why short-term sales have been cancelled, in accordance with the European REMIT regulation.

However, all unused subscribed capacities should remain available, especially in accordance with the UBI mechanism (use it or buy it), which enables other shippers to use subscribed capacity that has not been nominated by its owner.

- **The CRE's preliminary analysis**

Cancelling the trade of daily available capacities can result in lost revenue for the TSOs and a lost opportunity for shippers. Nevertheless, in theory, revenue from the sale of daily capacity is lower than the cost of applying another market decongestion mechanism. Furthermore, there is a good chance that a shipper purchasing these capacities cannot use them. The CRE therefore considers is preferable to not trade unsubscribed capacities likely to exacerbate congestion before introducing market mechanisms.

**Question 12** Are you in favour of not trading unsubscribed capacities when congestion occurs, which would be exacerbated by rising flows to the points concerned?

<sup>18</sup> The TSO operational network code is available [here](#) and that for the TIGF [here](#)

#### 4.2.1.2 Locational spread

- **Operating principles**

In contrast to notional products delivered to a virtual transfer points (PEG Nord, TRS), locational products consist in buying or selling gas delivered to a specific point in the network (e.g. a transaction focusing on the purchase of 20 GWh, physically delivered to the PITS South-East). The counterparty to the transaction must subsequently amend their nomination at a given point, within a limited time, to ensure a physical flow of gas to the planned location. At present, GRTgaz already uses these products on a trial basis to meet its needs in the event of critical network imbalances, in accordance with the CRE deliberation of 10<sup>th</sup> September 2015<sup>19</sup>.

Locational spread is a variant of this principle tailored to congestion. TSOs would simultaneously contract the purchase of gas downstream of the congestion and the sale of gas upstream of it. These two operations may result in a reduced quantity transiting through the bottleneck. These two 'legs' of the locational spread can be established with two different shippers. The purchase and sale of gas is settled between the purchaser and seller at the PEG, while nominations by the shippers involved in the locational spread enter their balance perimeters but take a neutral position on it, i.e. no rebalancing is required when participating in a locational spread as long as the physical movement is equal to the volume purchased or sold for the contracting partner. The nomination made by a shipper either side of the congestion, at the entry or exit point, is matched by a movement at the TSOs' PEG. They act as intermediaries for strictly identical quantities of nominations made on the other side. As such, the mechanism has a neutral effect on balancing each contracting party and on balancing the overall network.

- **Implementation rules**

*Contractual framework*

Firstly, interested shippers sign a framework contract with the TSOs, based on the model used for transactions of locational products to balance the GRTgaz network. This contract stipulates each party's obligations. The shipping contracting parties should also be registered with the Powernext platform. To simplify procedures, the TSOs propose that shippers having already signed a locational product contract for balancing be allowed to submit offers for locational spreads using a simple contract amendment.

*Tendering procedure*

Where there is a risk of congestion on the eve of the next day and ongoing into the day, the TSOs plan to issue a call for tenders for a locational spread, by specifying the points identified upstream and downstream (these two sets of points form superpoints) and the required volume in MWh/h.

The TSOs propose that these tendering procedures can be issued throughout the Day-D concerned by the congestion, beginning on D-1, but preferably, where possible, during the working day, so that as many participants as possible can submit offers.

Regulated shippers would submit offers comprising volumes and prices (in € per MWh/h), by purchasing upstream of the congestion and/or selling downstream of it. These offers will be submitted anonymously on the Powernext platform's dedicated screen.

If, at the beginning of the cycle, once nominations have been processed, the congestion indicator confirms that TSOs are required, the latter inform the shippers that a call for tenders is going to be closed. Shippers then have a deadline to amend or propose new offers. The suppliers select the cheapest offers to reach the required volume. Finally, the successful shippers re-nominate at the end of the cycle to amend their programme and the ECC clearing house would play the role of counter-party for each transaction.

*Re-nomination restrictions*

From the moment a shipper's offer has been selected, the total sum of their nominations for the points referred to must not:

- when buying from a TSO upstream of the congestion: exceed the initial nomination level, minus the quantity purchased from the TSO;
- when selling to a TSO downstream of the congestion: go below a set initial nomination level defined as the total of the initial nomination level and the quantity sold to the TSO.

These re-nomination restrictions apply until the end of the gas day and are vital to ensure the process is effective. The successful shipper cannot simultaneously sell on gas to the TSO and then acquire it by re-creating the congestion.

<sup>19</sup> [Deliberation of the CRE of 10 September 2015 on changes to the balancing rules of gas transmission networks on 1 October 2015](#)

To do this, when assigned a batch of purchased gas from the TSOs upstream of the congestion, the total sum of nominations to the points upstream of the congestion is less or equal to the previous programme cycle, minus the volume purchased from the TSO.

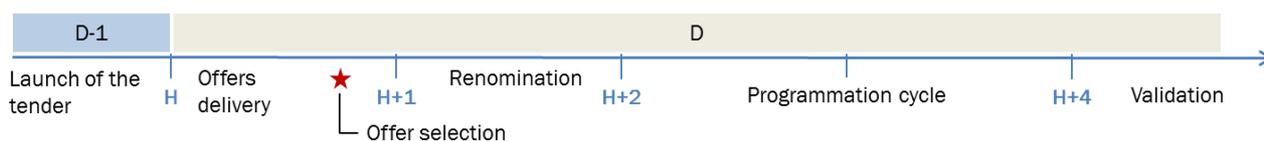
Similarly, when assigned a batch of sold gas to the TSOs downstream of the congestion, the total sum of nominations to points downstream of the congestion is greater, or equal, to the previous programme cycle, plus the volume sold to the TSO.

*Deadline for issuing re-nomination calls for tenders*

The TSOs identify the need to trigger the mechanism after processing nominations at the beginning of the cycle. They subsequently inform the shippers that the mechanism will be triggered and the remaining time in the cycle is split into two equal periods:

- a first period to allow shippers to make amendments or post new offers. This period ends with the TSOs selecting the best offers;
- a second period at the end of the cycle to allow the selected shippers to nominate subsequent contracted volumes.

The volumes featuring in the contracts are therefore included in the following cycle, and programmed two hours later. The TSOs will have to set the threshold for triggering the call for tenders so as to keep enough linepack to maintain the network in operational conditions for at least two hours, the time between the congestion occurring and the mechanism taking effect.



*Penalties for non-compliance with restrictions*

The TSOs propose applying a penalty when a shipper winning the tender does not comply with the aforementioned terms and conditions. This penalty would be proportional to the volume concerned and at the transaction price, plus 25%.

*The CRE's preliminary analysis*

The CRE considers that the benefit of locational spread primarily lies on its ease of use. As such, issuing tenders in MWh/h enables operators to submit offers several hours in advance without regard to *prorata temporis*. Similarly, applying the mechanism between 10am and 6pm would help gather a maximum number of respondents. The Powernext trading platform is well-known by most of the market players and using its clearing house helps transfer energy risk-free from one player to another anonymously.

The CRE considers that the restriction on re-nomination is vital to allow the mechanism to be effective. It ensures that gas will be delivered downstream of the congestion and not upstream.

At this stage, the CRE is in favour of the operational measures proposed by the TSOs.

**Question 13** Are you in favour of the operational measures concerning calls for locational spreads as proposed by the TSOs? Do you have any comments to make them more effective?

**Question 14** Are you in favour of TSOs notifying shippers about the risk of reaching a limit from D-1 and offering them the possibility to submit an offer at the time of this notification? What would be the best time for such a notification?

*Operational procedures for a bottleneck*

Locational spread can apply to all network entry points, such as PITS entries, PITTM exits, PIR entries and a large number of exit points, such as PITS transfers and PIR exits. As a result, this process effectively addresses the four bottlenecks identified:

**PUBLIC CONSULTATION OF 27 JULY 2017 N 2017-012 RELATING TO THE CREATION OF A SINGLE GAS MARKET AREA IN FRANCE ON 1ST NOVEMBER 2018**

July 2017

	<b>Possible offers upstream of the congestion</b>	<b>Possible offers downstream of the congestion</b>
NS1 Congestion	<ul style="list-style-type: none"> <li>- Reduced entries at PIR Taisnières H</li> <li>- Reduced entries at PIR Obergailbach</li> <li>- Increased consumption at CCGTs located upstream of the bottleneck (Blénod, Saint-Avold, Pont-sur-Sambre, Toul, Bouchain)</li> <li>- Increased exits at PIR Oltingue</li> </ul>	<ul style="list-style-type: none"> <li>- In summer: reduced entries at PITS North-East, North-West, Atlantic, South East or TIGF. In winter: increased withdrawals at PITS North-East, North-West, Atlantic, South-East or TIGF.</li> <li>- Increased entries at PIR Dunkerque</li> <li>- increased emissions at PITTM Dunkerque LNG, Montoir or Fos</li> <li>- Reduced exits at PIRs Jura and Pirineos</li> <li>- Reduced consumption at CCGTs located downstream of the bottleneck (Bayet, Combigolfe, Cycofos, DK6, Martigues, Montoir, Gennevilliers, Montereau)</li> </ul>
NS2 Congestion	<ul style="list-style-type: none"> <li>- Increased entries at PIR Taisnières H</li> <li>- Reduced entries at PIR Obergailbach</li> <li>- Reduced entries and PIR Dunkerque</li> <li>- Increased exits at PIR Oltingue</li> <li>- In summer: increased entries at PITS North-East and North-West. In winter: reduced withdrawals at PITS North-East and North-West.</li> <li>- Reduced emissions at PITTM Dunkerque LNG</li> <li>- Increased consumption at CCGTs located upstream of the bottleneck (Blénod, DK6, Saint-Avold, Pont-sur-Sambre, Toul, Bouchain, Gennevilliers, Montereau)</li> </ul>	<ul style="list-style-type: none"> <li>- In summer: reduced entries at PITS Atlantic, South-East or TIGF. In winter: increased withdrawals at PITS Atlantic, South-East or TIGF.</li> <li>- Increased emissions at PITTM Montoir or Fos</li> <li>- Reduced exits at PIRs Jura and Pirineos</li> <li>- Reduced consumption at CCGTs located downstream of the bottleneck (Bayet, Combigolfe, Cycofos, Martigues, Montoir)</li> </ul>
NS3 Congestion	<ul style="list-style-type: none"> <li>- Reduced entries at PIR Taisnières H</li> <li>- Reduced entries at PIR Obergailbach</li> <li>- Reduced entries at PIR Dunkerque</li> <li>- Increased exits at PIR Oltingue and Jura</li> <li>- In summer: increased entries at PITS North-East, North-West and South-East. In winter: reduced withdrawals at PITS North-East, North-West and South-East.</li> <li>- Reduced emissions at PITTMs Dunkerque LNG or Montoir</li> <li>- Increased consumption at CCGTs located upstream of the bottleneck (Blénod, DK6, Saint-Avold, Pont-sur-Sambre, Toul, Bouchain, Gennevilliers, Montereau)</li> </ul>	<ul style="list-style-type: none"> <li>- In summer: reduced entries at PITS Atlantic or TIGF. In winter: increased withdrawals at PITS Atlantic or TIGF.</li> <li>- Increased emissions at PITTM Fos</li> <li>- Reduced exits at PIRs Jura and Pirineos</li> <li>- Reduced consumption at CCGTs located downstream of the bottleneck (Bayet, Combigolfe, Cycofos, Martigues, Montoir)</li> </ul>
NS4 Congestion	<ul style="list-style-type: none"> <li>- Reduced entries at PIR Taisnières H</li> <li>- Reduced entries at PIR Obergailbach</li> <li>- Reduced entries at PIR Dunkerque</li> <li>- Increased exits at PIR Oltingue</li> <li>- In summer: increased entries at PITS North-</li> </ul>	<ul style="list-style-type: none"> <li>- In summer: reduced entries at PITS TIGF. In winter : increased withdrawals at PITS TIGF</li> <li>- Rise in emissions at PITTM Fos</li> <li>- Reduced exits at PIR Pirineos</li> <li>- Reduced consumption at CCGTs located</li> </ul>

	<p>East, North-West, Atlantic and South-East. In winter: reduced withdrawals at PITS North-East, North-West, Atlantic and South-East</p> <ul style="list-style-type: none"> <li>- Reduced emissions at PITTMs Dunkerque LNG or Montoir</li> <li>- Increased consumption at CCGTs located upstream of the bottleneck (Blénod, DK6, Saint-Avoid, Pont-sur-Sambre, Toul, Montoir, Bouchain, Gennevilliers, Montereau)</li> </ul>	<p>downstream of the bottleneck (Bayet, Combigolfe, Cycofos, Martigues)</p>
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*Infrastructure operators and consumer participation*

The table above also includes CCGTs. Subject to RTE approval and technical feasibility ratified by the sites themselves and GRTgaz, the TSOs propose including them in calls for tenders. The sites already submit their hourly schedules that serve as benchmarks to control rises or reductions in their consumption, but are not concerned by nominations.

**Question 15** Are you in favour of CCGTs taking part in calls for tenders on locational spreads?

Similarly, TSOs propose studying the possibility for shippers supplying gas to industrial sites being included in calls for tenders on locational spreads. Their offer would consist of reducing gas consumption at a facility situated downstream of the congestion, without amending entry nominations. Currently, these facilities submit neither hourly consumption schedules nor nominations. The implementation measures must therefore be specified within the Concertation Gaz procedure and submitted to the CRE.

**Question 16** Are you in favour of investigating industrial sites connected to the transmission network for calls for tenders on locational spreads?

Finally, a storage operator informed the Concertation Gaz of their desire to take part in calls for tenders on locational spreads. At this stage, the CRE considers that the contribution of storage operators to the smooth running of this mechanism must primarily be through a dynamic commercial offer that provides greater flexibility to subscribed storage capacity shippers. It is not, in theory, economically justifiable to retain capacities or flexibility for the sole use of congestion, as a higher value can be secured by trading them. At this stage, the CRE is therefore not in favour of storage operators taking part in calls for tenders on locational spreads.

**Question 17** Are you, like the CRE, not in favour of storage operators taking part in calls for tenders on locational spreads?

*Mechanism cost*

The annual cost of locational spread varies considerably, based on:

- the number of congestion days;
- congestion volume;
- prices submitted by shippers.

The simulations below are based on frequency and volume simulations produced using the tool available to shippers on the CRE website. They assume complete coverage of the volume required to resolve simulated congestions by locational spread. The price used is a standard €3/MWh in summer and €10/MWh in winter. This is an approximation validated by consultation, even though it is a very rough outline.

Scenario considered	Annual estimated cost of locational spread
Strained “baseline” scenario (38 days of congestion per year)	€3.8 M
Extreme scenario (110 days of congestion per year)	€40.6 M

*Price cap*

The TSOs propose introducing a price cap, above which offers cannot be selected even if requirements are not covered. If the price of offers exceeds the price cap, the TSOs will have no option but to use mutualised restriction to remove congestion.

*The CRE’s preliminary analysis*

At this stage, the CRE considers it necessary to set a price cap to limit the risk, firstly, of data entry errors and secondly, that using locational spread leads to unduly high costs for the group of shippers, benefiting one operator in a dominant position when there are calls for tenders. This price cap must be sufficiently high so that a signal price emerges that reflects tension in the network and constitutes a real attraction for potential participants. The TSOs also want a cap set for total daily expenditure to reflect their cash-flow constraints.

**Question 18** Are you in favour of setting a price cap? If yes, what level do you consider appropriate?

- **The CRE’s preliminary analysis**

The CRE notes that locational spread is an effective tool for several bottlenecks. It is open to a large number of shippers, which, through the interplay between supply and demand, can help establish the right price for them.

By way of comparison, the use of locational products six times during winter 2015-2016 and 2016-2017 did not lead to absurd prices and ran without major hitch. The experience gained by operators helps implement the locational spread process more quickly and easily.

Nevertheless, the CRE also notes that this mechanism is only effective when a large enough number of shippers are involved. It encourages the TSOs to find the best compromise in terms of operating hours and operational constraints, to enable the largest number of operators possible to offer their flexibility (CCGTs, industrial sites). Use of the mutualised restriction mechanism must be on a one-off basis, as a last resort.

With this in mind, the CRE also considers that the price cap has to be sufficiently high to ensure that shippers benefit from participating in calls for tenders on locational spreads.

The CRE wants the TSOs to pursue their consultation work to involve shippers in the operational implementation of locational spread.

**Question 19** Are you in favour of using locational spreads to remove residual congestion?

**4.2.1.3 Agreements with adjacent infrastructure operators**

- **Operating principles**

For a similar contractual framework, splitting flows between different physical points can affect network. This is why GRTgaz sometimes uses optimising arrangements or (“swaps”) between operators, based on everyone making reasonable efforts. This principle could be used to remove congestion, at least partially.

If NS1-level congestion occurs, GRTgaz, could, for instance, ask Fluxys to reduce entry flows at Taisnières H and transfer equivalent entry flows to Alveringem. With the bottleneck sitting on both sides of the two PIRs, this agreement could help resolve NS1-level congestion. Using this mechanism would have no consequences on other limits as volumes delivered upstream of NS2, NS3 and NS4 would remain unchanged.

Similarly, such an agreement could be devised with Storengy when the facilities of one PITS straddle bottlenecks, i.e. PITS North-East for NS1 and PITS South-East for NS3 and NS4 congestions.

- **Implementation measures**

The possibility of making inter-operator swaps depends on nominated capacities at the contractual point and both operators own constraints. There is therefore no guarantee it will work in all conditions.

- **The CRE's preliminary analysis**

This mechanism is part of an inter-operator agreement. Without a financial contribution, it is tailored to the reasonable efforts of both parties.

The CRE considers that the agreement with Fluxys is an effective way of removing NS1 congestion, without constraining the shippers, nor generating additional costs for the public. Consequently, the CRE is in favour of using it as a priority when NS1-level congestion occurs, subject to its feasibility at the given time.

**Question 20** Are you in favour of using optimisation arrangements with adjacent operators to resolve certain congestion situations?

#### **4.2.2 Mutualised nomination restrictions in a congestion situation**

- **Operating principles**

If all other mechanisms used fail to remove the congestion, the TSOs could not ensure deliveries and would be forced to introduce restrictions on firm capacities. Firm capacities should be partially interrupted as a last resort. Failing that, if normal network operating conditions are not complied with, the TSOs would be obliged to introduce emergency measures set out in the Gas Emergency Plan<sup>20</sup> and, ultimately, cut off certain customers.

- **Implementation measures**

This mechanism helps ensure that limits are not exceeded, either by restricting entries upstream of the limit, or exits downstream of it.

This mechanism would only be applied if necessary as a last resort, i.e. after other mechanisms fail. The TSOs would introduce an overall mutualised pro rata nomination restriction of subscribed capacities on entry points upstream of the limit, or on exit points downstream (super-point network). The shippers would therefore be free to use their capacities, within their own limits, and at each point in their overall limit at all the points.

This mechanism would be used during the day, once the failure of other mechanisms to remove the congestion had been noted. As long as bids to calls for tenders help cover the stated need, mutualised restriction is not used. When a call for tenders goes unanswered, or when there are not enough bids to meet needs, the TSOs stop the process and trigger a mutualised nomination restriction during the following cycle.

The TSOs presented volumes (in GWh/day) to be interrupted when addressing congestion events. These are based on the choice of interrupting capacities upstream and downstream, according to consumption in France. The aim of the TSOs is to limit the volume of capacities interrupted to remove congestion. Nevertheless, this rule must be implemented based on consumption levels. From a certain level of consumption, restricting all capacities downstream is not sufficient to resolve NS2, NS3 and NS4 congestion. It therefore appears that:

- for NS1 congestion, mutualised restriction would focus on points located upstream of the congestion;
- for NS2 congestion, mutualised restriction would focus on points located upstream of the congestion in summer and mild winters and downstream during average to harsh winters;
- for NS3 congestion, mutualised restriction would focus on points located downstream of the congestion in summers and mild winters and upstream in average to harsh winters;
- for NS4 congestion, mutualised restriction would focus on points located downstream of the congestion.

<sup>20</sup> The Gas Emergency Plan, adopted by decree on 28 November 2013, was undertaken in accordance with Regulation (EC) No. 994/2010 of the European Parliament and the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Directive 2004/67/EC of the Council.

<b>Consumption France (GWh/d)</b>	Summer to warm winter (consumption lesser than 1750 GWh/d)	Mild to cold winter (consumption from 1750 to 2800 GWh/d)	Very cold winter (consumption greater than 2800 GWh/d)
NS1	Upstream		
NS2 & NS3	Downstream	Upstream	
NS4	Downstream		Upstream

- **Payment**

In the event of a mutualised restriction, the TSOs want no financial compensation to be paid to penalised shippers.

- **The CRE's preliminary analysis**

At this stage, the CRE considers that the partial interruption of firm capacities is an effective solution and preferable to cutting off network customers.

In addition, mutualised restrictions have the advantage of leaving each shipper with capacities at several points upstream and downstream of the congestion and scope to decide which points to favour. Similarly, a shipper with capacity at a single super-point can benefit from a higher availability rate by using the over-nomination mechanism (or UIOLI), if other points in the super-point are less demanded by the other shippers.

Furthermore, the CRE considers that compensating the shippers concerned by the mutualised restriction could compete with locational spread calls for tenders. A shipper might prefer the ex-ante-defined compensation rate compared to the price set by the call for tenders. Also, if the mutualised restriction was to involve compensation, those shippers benefiting from it would need to be defined. In the current circumstances, the CRE considers the TSOs proposal to be appropriate, i.e. a last resort mechanism to reabsorb congestion.

**Question 21** Are you in favour of using mutualised restriction when other mechanisms fail to reabsorb congestion?

#### 4.2.3 Mechanisms that the TSOs propose removing

##### 4.2.5.1 Swap storage

- **Operating principles**

Swap storage consists of injecting and withdrawing gas from storage facilities located either side of the bottleneck.

TSOs enter into a contract with storage operators on an annual amount made up of ultra-rapid withdrawal facilities. The TSOs purchase or lease the gas.

- **Implementation measures**

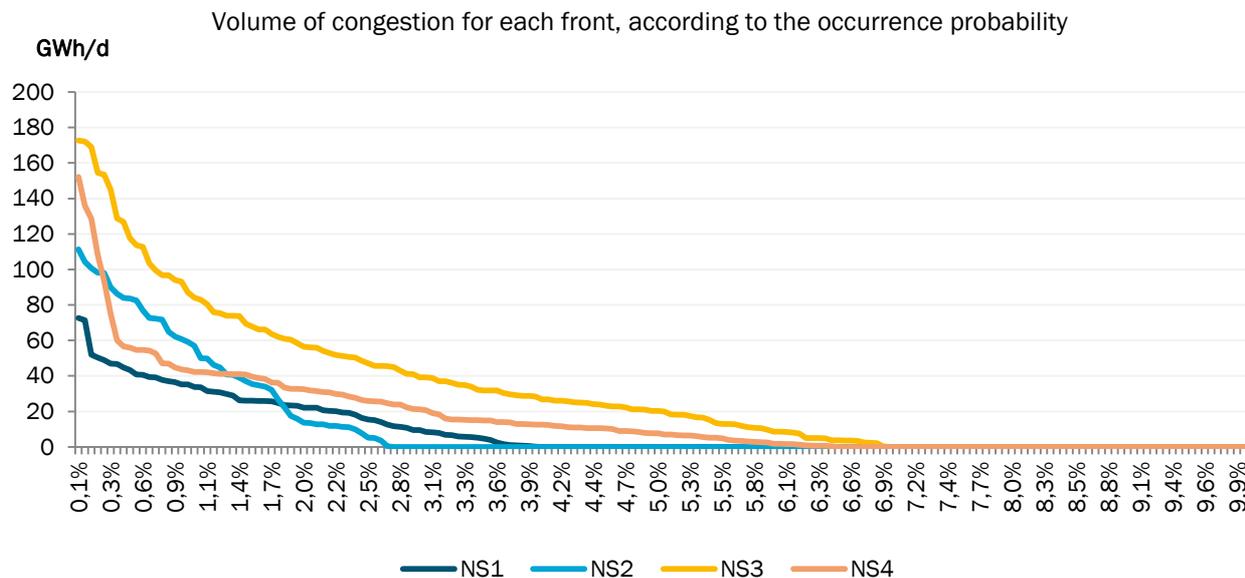
Available injection or withdrawal capacities for swap storage are boosted on D-1, or even during the day depending on how firm the selected offer is:

- the 100% firm option provides comprehensive service availability and the volume can be adjusted during the day;
- interruptible options allow for capacities to be boosted on D-1, based on the physical capacities available and those not used by their holders. The TSOs must identify volumes to be transferred from one storage facility to another by 8pm the day before.

When a limit appears, the TSOs send their storage operators requests to activate the service for a defined volume at a given point. The storage operators inject gas downstream of the congestion and withdraw it upstream.

Given the anticipated size, the TSOs can use the service for 10 consecutive days, then they must renew their stocks before re-using it. Flow rates of 50 and 35 GWh/day would respectively cover 63% and 50% of exceeded NS2, NS3 and NS4 limits in the 'strained' benchmark scenario. The volume proposed is 500 GWh, which would cover swap storage for 10 consecutive days.

The graph below features congestion volumes for each limit, distributed on the basis of likelihood of occurrence. The simulation tool available on the CRE website updates this graph using scenario parameters (emissions from LNG terminals, CCGT consumption and exports to Spain).



• **The CRE's preliminary analysis**

*Effectiveness according to the bottleneck*

Swap storage is effective for NS2, NS3 and NS4 limits. However, without a full PITS upstream of NS1 limits, swap storage cannot be used to remove congestion. Although a part of gas storage at Cerville is located upstream from NS1, it does not provide enough flexibility for swap storage.

Alternatively, Storengy has an offer exclusively tailored to deal with NS2 and NS3 limits.

In all cases, the size proposed by the TSOs (50 GWh or 35 GWh) would not cover all congestion situations, as some events reach 180 GWh, according to the model. Consequently, if it were chosen, swap storage alone would not be enough and should be supplemented by a short-term mechanism.

*Price aspects*

The cost of swap storage depends on:

- its size, in volume and the number of storage facilities involved;
- its availability, from 100% firm to 100% interruptible.

To curb its cost, the TSOs propose limiting it to a volume of 35 to 50 GWh/day, which would not meet needs in the event of a higher limit.

Size	100% firm	50% firm	100% interruptible	100% interruptible, NS2 and NS3 only
Fixed cost for 50 GWh/day	Storengy: €26.4 M TIGF: €10.5 M <b>Set total: €36,9 M€</b>	Storengy: €10.5 M TIGF: €7.9 M <b>Set total: €18.4 M</b>	Storengy: €9.1 M TIGF: €6.4 M <b>Set total: €15.5 M</b>	Storengy: €11.4 M <b>Set total: €11.4 M</b>
Fixed cost for 35 GWh/day	Storengy: €18.5 M€ TIGF: €7.4 M <b>Set total: €25.9 M</b>	Storengy: €7.6 M TIGF: €5.6 M <b>Set total: €13.2 M</b>	Storengy: €6,7 M TIGF: €4.5 M <b>Set total: €11.2 M</b>	Storengy: €8.2 M <b>Set total: €8.2 M</b>
Variable cost	Storengy: €0.47 /MWh/cycling TIGF: €0.45 /MWh/cycling			Storengy: €0.94/MWh/cycling

Swap storage uses storage facility locations to remove congestion, without placing limits on shippers. Nevertheless, its effectiveness on NS2, NS3 and NS4 congestion is not perfect, as the contracted volume would need to be very important to cover all congestion situations.

Furthermore, swap storage must be registered in advance; which poses a problem of cost and size. By definition, swap storage would be flawed. If it was over-sized it would be an unnecessary public cost and if it was under-sized, it would necessarily lead to the use of other short-term mechanisms.

Swap storage, as proposed by the storage operators also represents a 'de-optimisation' based on storage volumes. The anticipated mechanism consists of reserving a single-use product when congestion occurs, depriving these capacities of their value for other uses (balancing, securing supply) For these reasons, the CRE is not in favour of using swap storage, such as envisaged by the TSOs and storage operators.

Nevertheless, the CRE does consider that using storage could be reviewed if the conditions concerning the storage operators' offer changed, especially in relation to the regulatory framework, or if locational spread could not remove congestion appropriately.

**Question 22** Do you consider, like the CRE, that swap storage must be ruled out at this stage?

#### 4.2.3.2 Nomination buy-back

- **Operating principles**

Nomination buy-back helps reach a limit by employing the shippers' arbitration abilities to alter their supply system on a given day. Nomination buy-back by the TSOs concerns all entry points located upstream of a limit, or all exit points downstream of a limit.

- **Implementation measures**

When warnings are issued by the TSOs, shippers could submit offers in advance. The shippers could propose buy-back tariffs for their nominations. When congestion occurs, the TSOs could activate the best sounding offers until they reached the volume required to remove the congestion. In practice, they would buy back, and reduce a proportion of their nominations requested by the shippers. This would be based on the cheapest offers until the total nominations matched the network's physical limit.

This mechanism has been ruled out in the Concertation Gaz process, in favour of locational spread as it was deemed to be too complex.

- **The CRE's preliminary analysis**

The effectiveness of this particular mechanism is unclear. Nomination buy-back only deals with one side of the limit. Furthermore, this mechanism bears a risk in the event of rebalancing at the PEG, if the counter-party delivers the gas from the same entry point. These two pitfalls can be avoided by locational spread, which uses a rationale similar to that of nomination buy-back. This consists of paying an operator to alter their delivery. Consequently, nomination buy-back does not appear to be effective and the CRE considers at this stage that using it must be ruled out in favour of locational spread.

**Question 23** Do you consider, like the CRE, that the nomination buy-back mechanism must be ruled out at this stage?

#### 4.2.3.3 Converting firm capacities into conditional, or point-to-point, capacities

- **Operating principles**

The TSO's capacity offer comprises firm and interruptible capacities based on the transmission network conditions of use. Two new types of capacity could be introduced, in the form of conditional capacities, which can be interrupted in the event of congestion, and point-to-point capacities which can only be used for certain supply routes.

- **Implementation measures**

The TSOs would convert part of the existing firm capacities into conditional capacities. The degree of firmness would be in between that of firm capacities and interruptible capacities. These capacities would be available according to forecasting parameters (temperature, consumption forecasts, nomination the day before at 2pm), and pinpointed later in the day, ready for the next day. Capacities would only be interrupted when the limit is reached.

Alternatively, The TSOs could convert firm capacities into “point-to-point”, conditional capacities. Point-to-point capacities are only firm when the entry and exit points are on the same side of the bottleneck and conditional to access other trading points in the single market zone. Availability of the conditional proportion (access to the single marketplace) of these capacities is based on forecasting parameters and identified later in the day, ready for the next day. They would only be interrupted if the entry and exit points were on each side of the bottleneck and when the limit is reached for a given day.

The TSOs would issue a call for tenders and interested shippers would respond by submitting the capacity volume they are able to make conditional, together with the tariff they deem appropriate. The TSOs would select the best sounding offers in the limit of the target volume. The cost of the procedure would depend on the auction outcome.

- **The CRE's preliminary analysis**

It is operationally possible to convert firm capacities into conditional capacities, on points upstream, on injection/withdrawal storage capacities and export capacities (PIR Oltingue and Pirineos). To be effective, this mechanism would need to convert a large capacity volume since its size is not dependent on use on a given day (nominations), but theoretically, to contain a priori flows to resolve hypothetical congestion situations. As a result, all existing unsubscribed capacities and part of existing subscribed capacities must be converted to conditional capacities. The further away from entry points, the greater the capacity volume to be converted to ensure the mechanism's effectiveness.

The cost of the mechanism and the cost for network users would therefore be disproportionate if this mechanism were to be selected for congestions far from network entry points (NS2, NS3 and NS4). Consequently, converting firm capacities into conditional capacities could only be reasonably applied to deal with NS1 congestion situations.

In principle, the TSOs and the CRE are not in favour of creating a new type of capacity in addition to firm and interruptible capacities. A new type of capacity, consolidated by new criteria, would lead to increased complexity for network users. In addition, the CRE is not in favour of constraining a priori long-term use of the network. The single market area model enables shippers to supply gas from all destinations into the area, without price spreads. Consequently, at this stage, the CRE considers converting firm capacities into conditional or point-to-point capacities, must be ruled out.

**Question 24** Do you consider, like the CRE, that converting firm capacities into conditional or point-to-point capacities must be ruled out?

#### 4.2.4 Summary

At this stage, the CRE considers that the measures available to the TSOs to reabsorb congestion at no extra cost to the community of shippers and without reducing firm capacity supply, must be applied as a priority. Also, if congestion occurs that could be exacerbated by a rise in flows to a given point, interruptible capacities must be interrupted. Available firm capacities must therefore not be sold. Nevertheless, if the congestion is localised at NS1 level, and if conditions allow, the CRE is in favour of using the inter-operator mechanism, with Fluxys, also without public cost.

If required, once these measures have been unrolled for all congestion fronts, the CRE is in favour of TSOs using locational spread at this stage. The CRE considers that locational spread helps remove all congestion in theory, so long as the market players respond. From this standpoint, implementing a single market mechanism helps avoid dispersing liquidity.

Finally, if the TSOs fail to meet their needs by locational spread, they will proceed to a mutualised restriction on points upstream, in the case of NS1 and NS2 congestions, and on points downstream in the event of NS3 and NS4 congestions. This mechanism is the TSOs last resort before being forced to trigger power-cutting measures, such as those set out in the gas emergency plan.

NS1

NS2

NS3

NS4

In the event of daily constraints	<ol style="list-style-type: none"> <li>1. Implementation, if possible, of inter-operator mechanisms, particularly with Fluxys</li> <li>2. Interruption of interruptible capacities</li> <li>3. Non-trading of available firm capacities</li> <li>4. Locational spread</li> </ol>	<ol style="list-style-type: none"> <li>1. Interruption of interruptible capacities</li> <li>2. Non-trading of available firm capacities</li> <li>3. Locational spread</li> </ol>
In the event of the mechanisms failing	Mutualised restriction	

**Question 25** Are you in favour of the decongestion mechanisms and their prioritisation envisaged at this stage by the CRE?

**4.3 Rules for triggering mechanisms**

**4.3.1 Continuous alert system**

- Forecast D+5

The TSOs propose publishing five-day forecasts to inform the market of the risks of congestion occurring. This forecast would be updated daily, using weather data, consumption forecasts and LNG terminal emission programmes.

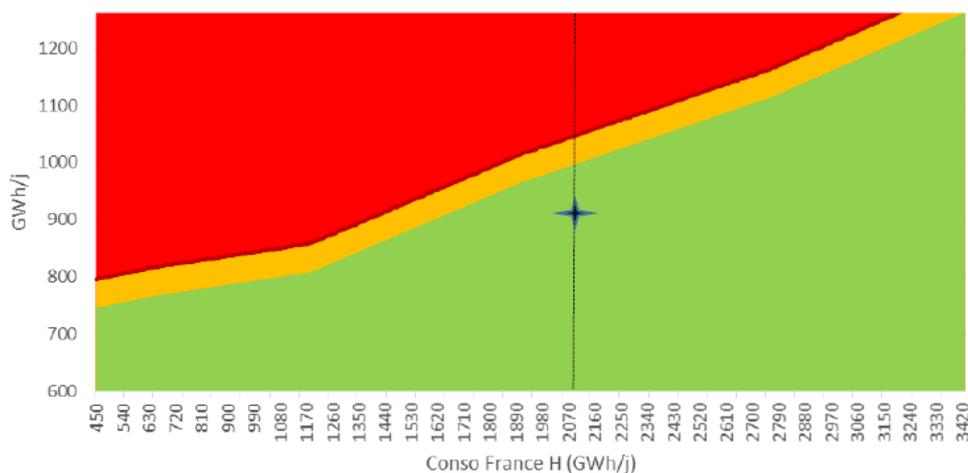
- Short-term alert

The TSOs propose that monitoring should be carried out at each nomination cycle to assess the situation based on consumption forecasts and available inter-operator tools.

The congestion indicator takes account of the latest nomination cycle, TSOs' consumption forecasts and the state of the network (availability of inter-operator swaps, work in progress, which determine the red alert level).

- If the situation presents no imminent risk of congestion occurring, it is classified as green.
- If the TSOs expect an imminent likelihood (approximately 50 GWh/day) of congestion, it is classified as orange.
- If congestion is proven, a red alert is given.
- A black alert is triggered if the TSOs cannot ensure continuity of supply due to the identified congestion.

The graph below would therefore be updated for each nomination cycle to reflect the TSOs best consumption forecasts. It would be published on the TSO's public websites, as well as those of smart GRTgaz and Datagas TIGF.



#### 4.3.2 Level-specific actions for D-1 alert

The TSOs propose triggering the following actions based alert levels:

- On the day before (D-1), at 2pm, when shippers' nominations are reliable, if the alert level is red, interruptible capacities to the points affected by the congestion are interrupted.
- On the day before (D-1), after 2pm, if there is an orange alert, the TSOs will issue a call for tenders for locational spread, the shippers submit their offers but the TSOs do not select them yet, while they wait for the congestion to improve. If there is a red alert, interruptible capacities are interrupted and unsubscribed capacities for the next day are not traded.

#### 4.3.3 Level-specific actions for D-Day alert

The TSOs propose triggering the following actions based on alert levels:

- The same day (D), from 6am, if there is an orange alert, the TSOs will issue a call for tenders for locational spread. If there is a red alert, the TSOs ask the shippers to finalise their offers then select previously submitted offers by the shippers.
- In the event of a black alert, the TSOs proceed with a mutualised restriction of capacities at the relevant super-points. This level of alert should not only be reached if decongestion mechanisms fail.

	D-1		D
	2pm	After 2pm	
Green	No action		
Orange	No action	Locational spread call for tenders issued	Locational spread call for tenders issued
Red	Interruptible interruption	- Locational spread call for tenders issued - Non-trading of unsubscribed capacities	Request for locational spread offers to be updated Selection of locational spread offers
Black	No action		Mutualised restriction

**Question 26** Are you in favour of the proposal to deliver actions related to alert levels on the day before and same day?

### 4.4 Information provided to shippers to assess congestion risks

#### 4.4.1 One year in advance: maintenance schedules

The GRTgaz works schedule is published in August for the year Y+1 and updated in November of the year N-1 for year N. TIGF's works schedule is published in November of the year N-1 for year N. GRTgaz publishes baseline works schedules in February for the year N at and TIGF in March. These can be amended up to two months before the date for maintenance work. Each month (M), daily capacity reduction rates are published for month M+2. These rates are then reviewed up to D-5, in the form of a spread and the final restriction rate is made available on D-1 at 3pm.

These publications will remain unchanged. The schedules feature the capacity volume that will be restricted at the corresponding points and super-points. Furthermore, the CRE wants the TSOs to prepare and present coordinated maintenance schedules as work by each TSO will have repercussions on the offer of adjacent operators.

Work which impact on capacity availability is less than 30 GWh/day will feature in these schedules, even though they are not intended to cause mutualised restrictions to be published.

#### **4.4.2 Publication of the “Winter Outlook” in preparation for winter**

Until 2016, operators published a forecast of winter network operating conditions, in October. From 2017 and subsequent years, the TSOs have brought this forward to May to give the market greater visibility during the storage filling campaign. The “Winter Outlook” is published on 31<sup>st</sup> May 2017 and available on the GRTgaz<sup>21</sup> and TIGF<sup>22</sup> websites. This publication is then updated in October to refine projections for storage filling rates and weather forecasts.

**Question 27** Are you satisfied with the information system proposed by the TSOs?

### **4.5 Monitoring storage filling storage levels downstream of congestion and eventual means of action**

#### **4.5.1 TSOs proposal**

##### **4.5.1.1 The purpose of a monitoring process for storage filling levels downstream of bottlenecks**

Various forms of flexibility can be employed to ensure continuity of supply downstream of North-South congestion. These include, storage, LNG terminals and imports from Spain, while the locational spread mechanism helps the TSOs to mobilise these resources on a daily basis.

Nevertheless, should there be simultaneous tension in both France and Spain, it may not be possible to reduce exports to Spain. Similarly, rising output from LNG terminals can only be harnessed in the short-term if LNG is available in storage tanks. Consequently, the only form of flexibility that TSOs could count on is storage, within the limit of the flow allowed by the filling of storage facilities downstream of the congestion.

In these circumstances, the TSOs propose monitoring storage levels daily downstream of each bottleneck, to ensure locational spread offers are properly available in the short-term.

This monitoring system would pre-empt insufficient filling levels in storage facilities to guarantee flow rates needed to address congestion that may occur in the short-term. The filling level monitored would therefore match the volume to cover the daily flow rate required to remove the congestion, but not that required to ensure continuity of supply, which is the suppliers’ responsibility.

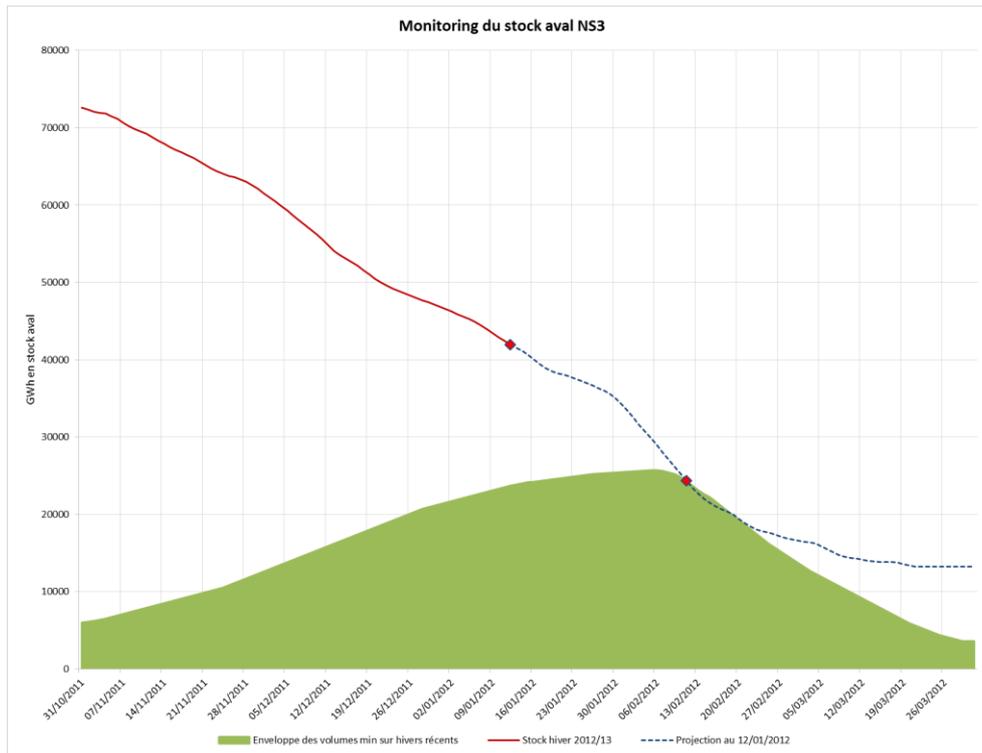
##### **4.5.1.1 Downstream storage filling monitoring principles**

The TSOs seek to base this monitoring process on the principles described below, which will be specified in the Concertation Gaz working groups:

- At the start of winter, the TSOs determine the minimum flow rate for each day of the winter season to be withdrawn from storage facilities to deliver gas downstream of congestions. This assumes the absence of all LNG at Fos and sustained exports to Spain. Based on the flow rate, the TSOs would calculate the minimum storage level required. Where gas volumes in stock are greater than this minimum volume, the TSOs know that if congestion occurs, they have offers to deal with an eventual locational spread. This minimum volume is illustrated by the green curve in the graph below.
- Each day during winter, according to the gas effectively in storage on a specific date (see red line below), the TSOs propose calculating a projection for stored gas volumes based on an ‘extreme’ scenario for the rest of the winter downstream of each congestion event. This projection is illustrated by the blue dotted line and includes:
  - anticipated consumption in the short-term based on weather, LNG terminal emission schedules and LNG stocks present;
  - an ‘extreme’ long-term scenario (very cold winter, high CCGT consumption, shortage of LNG and sustained exports to Spain).

<sup>21</sup> Winter Outlook 2017

<sup>22</sup> Winter Outlook 2017 on the TIGF website



**4.5.1.2 Actions implemented to ensure downstream storage filling levels to remove congestion**

If, a month ahead, projected gas volumes in stock are less than the minimum volumes calculated by the TSOs, the TSOs are considering two solutions, to be enforced simultaneously:

- If necessary, use locational spreads to limit the withdrawal of stored gas downstream of the bottleneck;
- temporarily interrupt the marketing of interruptible capacities downstream of congestions (PIR Pirineos). This situation would be illustrated by the green line and the dotted blue line intersecting more than one month ahead.

These measures would be maintained as long as the volume projections of stored gas, more than one month ahead, are less than the minimum volumes of gas in storage, as calculated by the TSOs at the start of winter.

Finally, if the filling level projection predicts in one month that the filling level will not be enough to cover the required flow rate to be withdrawn from storage facilities, the TSOs could trigger a call for tenders for a flow commitment which would ensure that gas arrives downstream of congestions (LNG at Fos or imports from Spain to France). This situation would be illustrated by the green line and the blue dotted line intersecting less than one-month ahead.

**4.5.2 The CRE's preliminary analysis**

The CRE considers that the scheme proposed by the TSOs anticipates critical medium-term congestion events that threaten continuity of supply. Although this situation is highly unlikely, it must be planned for and this is why the CRE is in favour of a monitoring system being introduced.

It considers that the scheme must be developed in the Concertation Gaz process and specified to define exactly how it will operate.

It agrees with the analysis of the TSOs, who judge unnecessary to implement measures before the start of winter. But it considers that the monitoring must trigger appropriate measures when there are risks to continuity of supply, related to the size of the network.

The CRE considers that the market mechanisms seek solely to ensure continuity of firm transport offers. Consequently, at this stage, the CRE concludes that it is not possible to use flow commitment to ensure the interruptible offer, especially at the PIR Pirineos. As a result, firstly, marketing the interruptible product should be suspended as a preventive measure. Secondly, when possible (especially on days when the network is not congested), the use of

locational spread to limit storage withdrawals downstream of the bottleneck can also offset a critical situation. Finally, flow commitment would be reserved to address this type of situation one month ahead.

**Question 28** Are you in favour of monitoring downstream storage filling levels during winter?

**Question 29** Are you in favour of the mechanisms that the CRE proposes to select and study?

**Question 30** Are you in favour of the proposed priorities to make use of them?

#### 4.5.3 Flow commitment principles

- **Operating principles**

Flow commitment is a medium-term mechanism that consists of a contract between the TSOs and one or several shippers who commit to delivering an identified volume of gas to a given location in the network. Flows are guaranteed during a pre-determined period.

- **Implementation measures**

In contrast to locational spread, flow commitment is a medium-term mechanism. It seeks to supply gas downstream of the bottlenecks on a long-notice basis (approximately one month) and for a pre-determined period (e.g. also one month).

Flow commitment would be set out contractually, based on a call for tenders to those counter-parties likely to physically supply gas in the medium-term downstream of congestion events.

The gas delivered using this mechanism would remain the property of the shipper, which would only be paid for delivering it to a given point within a given deadline. It would therefore remain within the shipper's balancing perimeter, to be used as they want (to be consumed in the area, injected into storage facilities, exported to a neighbouring country, or resold to a PEG).

- **The CRE's preliminary analysis**

The advantage of flow commitment is that it provides a pro-active guarantee to deliver gas in an area at a pre-agreed price. Planning ahead in this way could help target this mechanism on LNG emissions at Fos, or on flows to PIR Pirineos. Short-term mechanisms requested on the same day or the day before for the following day, only use immediately available flexibility from the shippers. By contrast, flow commitment is compatible with deadlines specific to the LNG supply chain.

As specified, based on filling records of storage facilities in the South of France located downstream of all congestion, the TSOs consider there to be enough gas to meet locational spread requests, according to the baseline scenario. Nevertheless, on the assumption of a particularly low level of filling storage facilities, a call for flow commitment could, if required, ensure continuity of supply up to one month ahead.

**Question 31** Do you, like the CRE, want flow commitment to be studied in the event of threats to continuity of supply in the medium-term, particularly due to filling levels in storage facilities downstream of congestion being too low?

## 5. FINANCIAL COVERAGE FOR DECONGESTION MECHANISMS

### 5.1 TSOs proposals: creation of a rapid recovery neutrality account

#### 5.1.1 Costs incurred by congestion management

The operators propose that costs incurred from congestion management are recorded in a recovery account, a congestion neutrality account. Shippers would be invoiced by this account on a M+2 monthly basis, using a daily distribution key dependent on the quantities delivered in France and transited to interconnectors.

The TSOs propose that this distribution key be based on the use of the main network. Costs incurred for each gas day would be split on a pro rata basis from the net exit flows from the main network to PIRs and the regional network.

GRTgaz also proposes an alternative option in which exit flows to PITS would be included calculating the distribution key for short-term mechanisms.

### **5.1.2 Costs incurred by congestion management on 'minor work' days**

GRTgaz wants congestion management costs on works maintenance days to be covered in the same way as those when no work is undertaken. By contrast, TIGF considers that the costs must be isolated and treated separately.

### **5.1.3 The CRE's preliminary analysis**

At this stage, the CRE considers that the use of a neutrality account presents the advantage of rapidly covering TSO expenditure on congestion events. It nevertheless considers that a neutrality account, with monthly invoicing, adds to the complexity for shippers.

## **5.2 An alternative: covering costs in the ATRT6 tariff**

### **5.2.1 Operating principle**

The ATRT6 tariff stipulates that, *"in the case where, based on mechanisms that have been put through a market consultation and been approved by CRE, the TSOs would have to sign contracts with consideration clauses to ensure the decumulation of residual congestion following the creation of the single marketplace, the corresponding expenditure and revenue will be taken into account during the annual tariff adjustment."* (page 12 of the aforementioned deliberation).

Costs borne by the TSOs could subsequently be included in the tariff, in the form of an annual trajectory. This trajectory would be defined in a deliberation on revising tariffs on 1<sup>st</sup> April 2018, by including an assessment of the cost of mechanisms and estimations of how frequently they occur. Market players would be asked for their opinion on setting the trajectory as part of the public consultation exercise to be launched in autumn 2017.

At first, discrepancies in the trajectory would be fully incorporated into the Income and Expenditure Regulation Account (CRCP), to spread the cost should there be a strong variation in costs from one year to the next. This account is cleared annually of the amount of discrepancies spread over four years.

### **5.2.2 The CRE's preliminary analysis**

Covering costs in the ATRT tariff is justified by their nature, i.e. mechanisms implemented to cut investment in developing new facilities. These averted costs would have been covered by the tariff and, as such, it seems appropriate to cover them in the same way.

The system, however, has the drawback of creating a potential gap in recovery for the TSOs. They are therefore in favour of introducing a rapid recovery neutrality account.

Furthermore, at present, shippers have had no contractual obligation to help remove congestions and do not always have the means required to do this. There is, therefore, no reason to charge individually incurred costs to them, as allowed for in the balancing neutrality account.

Finally, the advantage of this solution is its simplicity. It enables the TSOs to recover costs incurred by congestion management, while protecting shippers from wide variations, with amounts being spread over four years. The CRE is therefore in favour of this system.

**Question 32** Are you in favour of covering costs in the ATRT6 tariff?

**Question 33** If an ad hoc neutrality account is introduced, do you find the proposed distribution key between shippers suitable?

## **6. SPECIFIC MEASURES FOR WINTER 2017-2018**

The current transmission network configuration cannot supply the South-East of France by Spain or the TIGF zone. In winter, consumption in the South-East is such that the Rhône artery cannot cover total consumption. Therefore flows from Fos and storage facilities in the South-East are required. Without flows from Fos or storage facilities, the South-East zone can experience congestion. GRTgaz cannot supply all the gas required, even if there is enough in the TRS zone.

### **6.1 A South-East congestion occurred in winter 2016-2017**

Winter 2016-2017 was marked by congestion in the South-East, caused by low LNG supplies in the South of France, coupled with high consumption in this zone.

To make up for this shortfall of LNG, heavy use was made of storage facilities in the South-East, all the more so due to very low temperatures from late December. The Salin storage facilities were subsequently hit by lower filling levels than had been recorded in other years.

Although the LNG shortage led to a rise in prices in the South of France, in January 2017, in the end LNG supplies were more substantial in February and in March. During a certain number of days in January, GRTgaz warned shippers of congestion in the South-East, threatening supplies to customers locally.

To resolve this congestion, GRTgaz used Operational Instruction Notice six-times (for a total of 188 GWh). Back-up storage was used during 11 days (for a total of 210 GWh).

### **6.2 Assessing the congestion risk**

Building facilities to help merge GRTgaz's North and South zones has not been completed and the risk of congestion for winter 2017-2018 remains.

Furthermore, the TSOs think there might be a risk of congestion in the North zone, in the form of a local deficit which appears in the event of:

- large supplies to the North (PIR and PITTM Dunkerque, Obergailbach, Taisnières H);
- low withdrawals at PITS North-West and North-Atlantic;
- low emissions from the Montoir terminal;
- heavy demands on the North-South link.

This congestion leads to transits being saturated in the North zone, in a North to South direction. Two bottlenecks can appear, upstream and downstream from the Parisian region.

The bottlenecks that could materialise in winter 2017-2018 are featured on the map below:



### **6.3 Envisaged solutions to address congestions risks**

#### **6.3.1 Improved information to market players**

The TSOs want to improve information given to the market players on the state of tension in the network, to enable them to take appropriate measures.

GRTgaz and TIGF have jointly published their observatory of market conditions for the winter (*Winter Outlook*) in May 2017, instead of November, as is usual. This first publication will be updated in November.

If tensions appear in the network, the TSOs will communicate this via their public websites (Smart GRTgaz and Datagas TIGF), as well as by press releases sent to their shipping clients (ShipOnline).

### 6.3.2 TSOs have levers to avoid congestion situations

Should congestion happen in winter 2017-2018, GRTgaz would proceed in a similar way to the planned procedure envisaged for the single market area, firstly by interrupting interruptible capacities where reduced flows are beneficial. In the event of congestion in the South-East, the interruptible proportion of capacities to the North-South link would be entirely or partially interrupted if it helps reduce congestion.

Secondly, the TSOs could alter the flow at Cruzy. Derogations to the allocation rule for flows to the interface between the GRTgaz and TIGF networks will be continued as necessary. Some facilities, built to prepare the single market zone, could be used to create backflows to Cruzy. These flows could reach a maximum of 35 GWh/day and performance trials on facilities will be conducted. This offer made by TIGF is only available depending on weather conditions, at an estimated cost of €20 k/day.

### 6.3.3 Use of locational spread for winter 2017-2018

If congestion occurs in winter 2017-2018, the TSOs propose buying and selling locational spread. This mechanism, described in paragraph 4.2.1.3, consists of simultaneously buying and selling a locational product on both sides of the congestion front. This product subsequently guarantees that the surplus gas upstream of the bottleneck is taken out and, at the same time, the same quantity of gas is transported downstream of the bottleneck.

The TSOs propose that operational arrangements for triggering and selecting the offers are identical to those to create the single market zone, as described in paragraph 4.2.1.3. The constraints and penalties applicable to the candidates will be the same as those proposed below. The terms and conditions for calls for tenders and renomination obligations will be identical to those of locational products for balancing. The identified points nevertheless differ from those foreseen, as of 1<sup>st</sup> November 2018. In winter 2017-2018, GRTgaz propose that calls for tenders on locational spreads focus on aspects featured in the table below:

<b>Congestion</b>	<b>Variant</b>	<b>Downstream (= purchase by GRTgaz)</b>	<b>Upstream (= sale by GRTgaz)</b>
North Congestion	North 1	PIR Dunkerque + PITTM Dunkerque + PITTM Montoir + PITS North-East* + PITS North-West + PITS North-Atlantic (+ North-South link)	PIV Virtualys+ PIR Obergaibach + PIR Oltingue + PITS North-East*
	North 2	PITTM Montoir + PITS North-East* + PITS North-West + PITS North-Atlantic (+ North-South link)	PIR Dunkerque + PITTM Dunkerque + PIV Virtualys + PIR Obergaibach + PIR Oltingue + PITS North-East *
South-East Congestion	South-East 1	PTTM Fos + PITS South-East**	PITS South-East** + PIR Jura + PITS South-Atlantic + PITS Lussagnet + PIR Pirineos (+ North-South link)
	South-East 2	PITTM Fos + PITS South-East + PIR Jura	South-Atlantic + Lussagnet + Pirineos (+ North-South link)

\* The PITS North-East, straddling North 1 & 2 congestions (upstream of Cerville and downstream of Germigny) could be positioned upstream and downstream of North congestions according to operational flexibility at each available storage facility on that day and agreed with Storengy.

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*\*\* the PITS South-East, straddling South-East 1 congestion (Etrez/upstream and Manosque downstream) could be positioned upstream and downstream of the South-East 1 congestion according to operational flexibility at each available storage facility on that day and agreed with Storengy.*

In the event of South-East congestion, calls for tenders will only focus on two points downstream of the congestion, i.e. PITS South-East and PITTM Fos. Consequently, to maximise supplying needs, the TSOs propose that 2 to 3 trading windows be used to issue requests to the market, within tradeable hours and out of TSOs balancing intervention windows (10.25am, 2.25pm, 5.25pm and 11.25pm).

This will help sequence TSO activity on the markets and subsequently limits the operational complexity of the initial locational spreads, for both TSOs and shippers.

#### **6.3.4 The CRE's preliminary analysis**

The CRE is in favour of the early implementation of the locational spread mechanism. In contrast to operational instruction notices, this mechanism helps increase flows to the PITS South-East and Fos, based on volunteering and paying the operators for the service.

Nevertheless, this mechanism will only be fully effective if gas is present in the South-East storage facilities or at Fos.

**Question 34** Are you in favour of using locational spread buying and selling in the event of congestion in winter 2017-2018?

#### **6.4 Costs coverage**

The TSOs propose that costs incurred by using locational spread are reduced by a neutrality account identical to that proposed in paragraph 6.1.

Alternatively, the costs could be covered by the ATRT, in the same conditions as those described in paragraph 6.2.

For the sake of simplicity and consistency, the CRE wants the cost coverage ratio to be the same for winter 2017-2018 and for subsequent decongestion to create a single marketplace.

#### **6.5 Increase of GRTgaz security stock**

GRTgaz has a security stock with Storengy, in the Tersanne saline storage facility. As a preventive measure French state has asked GRTgaz to increase it of 1 TWh before winter 2017-2018, in the saline storage facility so as to contribute to security of supply if needed. Its location in the Manosque storage facility could help to reduce the risk of congestion in the South-East in case congestion is not entirely resolved through the tenders on localised spread.

#### **6.6 Risk of a shortfall in total volume**

Following the storage capacity marketing campaign for winter 2017-2018, subscription levels hit a historic low.

The TSOs presented several high consumption scenarios in the Concertation Gaz process and "Winter Outlook":

- In the event of a 2% risk cold spell (3 consecutive cold days, as occurs once every 50 years), current entry capacity subscription levels at boundary points at LNG terminals are not enough. A significant reduction in exports and/or a rise in entry subscriptions would be essential to ensure gas supplies in France.
- In the event of a cold spell lasting 10 consecutive days (e.g. 2012), France's gas supply would not be guaranteed without the rapid arrival of LNG, if subscription levels in storage facilities recorded to date do not rise.
- In the case of a 2% risk cold winter (the entire winter as occurs once every 50 years), a sharp increase in LNG imports would be needed to supply consumers with natural gas, if subscription levels in storage facilities recorded to date do not rise.

The TSOs estimate the overall deficit to be 341 GWh/day. This situation could be exacerbated by low LNG supplies.

#### **6.7 Changes to balancing rules for winter 2017-2018**

The low level of storage subscriptions could result in significant and recurring imbalances for some shippers. Consequently, the CRE considers it necessary to give the TSOs more scope to cover their residue balancing needs,

with either notional or localised products. The costs incurred should be included in the imbalances clearing price so that the signal price properly reflects tensions in the network.

### **6.7.1 TSO market intervention arrangements for balancing**

Currently, GRTgaz has 4 trading windows (10.25am, 15.25pm, 17.25pm, 23.25pm) and scope to trade outside these times to optimise the outcomes of its trading interventions. GRTgaz's market trading is done by an automated system managed by the stock market operator, Powernext.

TIGF uses the same automated system to trade exclusively in the 5.25pm window every day, including non-working days.

Although the TSOs can both purchase or sell imbalance days simultaneously, the way imbalances are allocated between the two balancing zones makes it impossible for a TSO to sell while the other buys. Consequently, the CRE considers that the TSO trading windows should remain unchanged.

Nevertheless, so as to reflect tensions in the network, the CRE wants to slightly amend the automated buying and selling parameters, which are currently restricted to avoid excessively high purchasing and low selling prices. Although a limit should be maintained, the CRE wants this to be more flexible to enable TSOs to meet their needs in critical imbalance situations. Sufficient liquidity and improved trading methods now mean that price constraints can be relaxed without fear of manipulation or errors.

### **6.7.2 Imbalance settlement prices**

In its deliberation of 10<sup>th</sup> September 2015<sup>23</sup>, the CRE authorised GRTgaz, to use locational products to balance its network should notional products fail to meet their needs. Since then, the TSOs have used these products on 6 occasions, during winters 2015-2016 and 2016-2017. 15 suppliers are authorised to take part in calls for tenders and 4 have submitted bids for the aforementioned tenders. The resulting purchase prices from these calls for tenders have been an approximately 10% higher than market prices on the day. The CRE also offered TIGF the option of using locational products.

Furthermore, using locational products will be even more important if tension appears during next winter. In light of these developments, the CRE considers that the trial should be closed and locational product be permanently included in the TSOs levers to settle imbalances. Given that the TSOs could request locational products, and more on an experimental basis, the CRE considers that trade prices must be included in imbalance settlement prices on the days when the TSOs buy and sell locational products. This inclusion will foster the emergence of a clear signal price via the imbalance settlement price on days when the network is under significant strain.

**Question 35** Are you in favour of maintaining trials on locational products in the long-term?

**Question 36** Are you in favour of including locational product buying and selling prices in the imbalance settlement price?

## **6.8 Removal of the gas circulation service**

### **6.8.1 GRTgaz proposal**

GRTgaz proposes not to resume the gas circulation system, provided for in the CRE deliberation of 25<sup>th</sup> September 2014<sup>24</sup>, for next winter.

This system enables GRTgaz to spread the availability of North-South interruptible capacity over periods when there is low availability in the North-South link and GRTgaz's stored gas in LNG tanks at the Fos terminal is withdrawn to improve availability in the link. During high availability periods in the North-South link, availability in the link is reduced to renew liquefied natural gas (LNG) stocks from storage facilities upstream of the congestion. Physical LNG stocks in tanks are replenished by limiting emissions from the Fos terminals.

GRTgaz considers that the purpose of this system is inconsistent with the desired effect on North-South congestion. It helps increase shipments from the North to the South, but when South-East congestion occurs, withdrawals from storage facilities in the South and emissions from the Fos terminals need to be increased.

Furthermore, the effectiveness of this mechanism is governed by availability in the North-South link at the beginning of winter. During the winters of 2015-2016 and 2016-2017, the North-South link was saturated and GRTgaz

<sup>23</sup> Deliberation by the CRE of 10 September 2015 on developments in balancing rules of gas transmission networks on 1 October 2015

<sup>24</sup> Deliberation by the CRE of 25 September 2014 on the decision relating to the change to the ATRT5 tariff concerning transitional measures before the creation of a single gas exchange point by 2018.

could not dispatch gas to the South at the beginning of this period. Consequently, the gas circulation service could not operate for two winters and doubts remain about its effectiveness for next winter.

### 6.8.2 The CRE's preliminary analysis

Based on the TSOs' analysis the CRE considers that the gas circulation system has failed to achieve its aim. Furthermore, the CRE agrees with the GRTgaz's analysis, which considers that in the event of South-East congestion occurring, interruptible capacity in the North-South link should be interrupted to encourage shippers to dispatch gas to the South using the PITS and the PITTM at Fos.

**Question 37** Are you in favour, like the CRE, of ending the gas circulation system?

## 7. SUMMARY OF QUESTIONS

- Question 1** Are you in favour of the proposed conditions of use of the networks within the framework of the single zone?
- Question 2** Are you in favour of the distribution of the imbalance within the TRF between the TIGF and GRTgaz balancing zones?
- Question 3** Are you satisfied with the quality and publication dates of the TSO work programmes?
- Question 4** Are you in favour of the rule proposed by GRTgaz for the distribution of mutualised restrictions upstream or downstream of the congestion?
- Question 5** Are you in favour of no mutualised restriction being applied a priori on days when maintenance works have little impact?
- Question 6** Are you in favour of the 30 GWh/d threshold beyond which the works would no longer be dealt with by congestion removal mechanisms?
- Question 7** Do you agree with the TSO and CRE analysis of the likely direction of congestion within the single market place?
- Question 8** Does the baseline scenario proposed by the TSOs to size the mechanisms for easing congestion seem relevant to you?
- Question 9** Does the extreme flow scenario proposed by the TSOs seem relevant to you?
- Question 10** Do you agree with the TSO and CRE conclusions for filling storage facilities in the summer, downstream of congestion limits?
- Question 11** Are you in favour of interrupting interruptible capacities before triggering any other decongestion mechanism that has a public cost?
- Question 12** Are you in favour of not trading unsubscribed capacities when congestion occurs, which would be exacerbated by rising flows to the points concerned?
- Question 13** Are you in favour of the operational measures concerning calls for locational spreads as proposed by the TSOs? Do you have any comments to make them more effective?
- Question 14** Are you in favour of TSOs notifying shippers about the risk of reaching a limit from D-1 and offer them the possibility to submit an offer at the time of this notification? What would be the best time for such a notification?
- Question 15** Are you in favour of CCGTs taking part in calls for tenders on locational spreads?

- Question 16** Are you in favour of investigating industrial sites connected to the transmission network for calls for tenders on locational spreads?
- Question 17** Are you, like the CRE, not in favour of storage operators taking part in calls for tenders on locational spreads?
- Question 18** Are you in favour of setting a price cap? If yes, what level do you consider appropriate?
- Question 19** Are you in favour of using locational spreads to remove residual congestion?
- Question 20** Are you in favour of using optimisation arrangements with adjacent operators to resolve certain congestion situations?
- Question 21** Are you in favour of using mutualised restriction when other mechanisms fail to reabsorb congestion?
- Question 22** Do you consider, like the CRE, that swap storage must be ruled out at this stage?
- Question 23** Do you consider, like the CRE, that the nomination buy-back mechanism must be ruled out at this stage?
- Question 24** Do you consider, like the CRE, that converting firm capacities into conditional or point-to-point capacities must be ruled out?
- Question 25** Are you in favour of the decongestion mechanisms and their prioritisation envisaged at this stage by the CRE?
- Question 26** Are you in favour of the proposal to deliver actions related to alert levels on the day before and same day?
- Question 27** Are you satisfied with the information system proposed by the TSOs?
- Question 28** Are you in favour of monitoring downstream storage filling levels during winter?
- Question 29** Are you in favour of the mechanisms that the CRE proposes to select and study?
- Question 30** Are you in favour of the proposed priorities to make use of them?
- Question 31** Do you, like the CRE, want flow commitment to be studied in the event of threats to continuity of supply in the medium-term, particularly due to filling levels in storage facilities downstream of congestion being too low?
- Question 32** Are you in favour of covering costs in the ATRT6 tariff?
- Question 33** If an ad hoc neutrality account is introduced, do you find the proposed distribution key between shippers suitable?
- Question 34** Are you in favour of using locational spread buying and selling in the event of congestion in winter 2017-2018?
- Question 35** Are you in favour of maintaining trials on locational products in the long-term?
- Question 36** Are you in favour of including locational product buying and selling prices in the imbalance settlement price?
- Question 37** Are you in favour, like the CRE, of ending the gas circulation system?

## **8. PUBLIC CONSULTATION RESPONSE PROCEDURES**

The CRE invites interested parties to submit their contributions no later than 15 September 2017:

- by email to the following address: [dr.cp2@cre.fr](mailto:dr.cp2@cre.fr);
- by submission directly on the CRE website ([www.cre.fr](http://www.cre.fr)), under the heading “Documents / Public consultations”;
- by post to: 15, rue Pasquier - F-75379 Paris Cedex 08;

## **PUBLIC CONSULTATION OF 27 JULY 2017 N 2017-012 RELATING TO THE CREATION OF A SINGLE GAS MARKET AREA IN FRANCE ON 1ST NOVEMBER 2018**

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July 2017

- by telephoning the Networks Department on: + 33.1.44.50.41.90;
- by asking to be heard by the Committee.

The CRE will publish the contributions, so please indicate those parts that you want to remain confidential. Interested parties are invited to answer the following questions giving reasons for their responses.

### [Appendices:](#)

Technical note by the TSOs, dated 17 July 2017