Find out more about …

The vigilance system and triggering of congestion management mechanisms

The Smart GRTgaz monitoring system allows you to track the status of network congestions in real time.

Since the implementation of the TRF on November 1st 2018, you are able to view the status of the residual limits of the network as well as the mechanisms triggered at each nomination cycle, in particular the locational spread.

Smart **GRT**gaz

The elements described in this sheet comply with the CRE's deliberations on the operation of the single gas market area in France.

Why a monitoring system?

The merging of zones on 1 November 2018 was made possible by a combination of optimised investments in the network, and complementary mechanisms for managing residual limits.
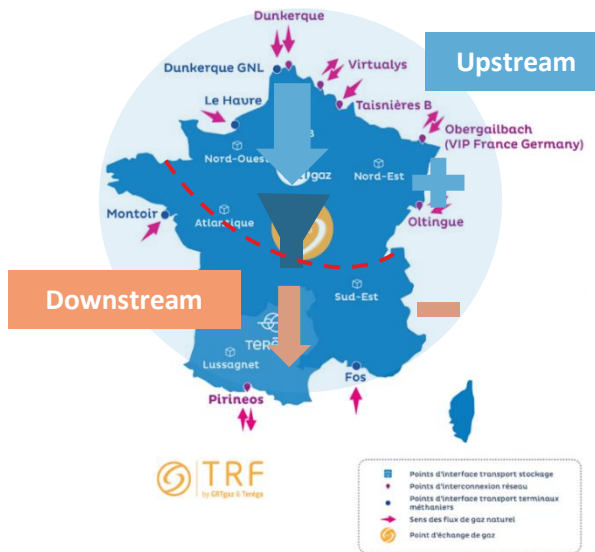
These residual limits are as follows:

What is a limit?

When a **limit** is reached, it means that the network is **congested**, and that it cannot route all gas from " upstream " to " downstream ".

Caution: in this sheet, when referring to upstream or downstream, it means the side with respect to the limit, and not upstream or downstream capacities. For example, the capacities of consumer customers are not affected.

The information is available in Smart GRTgaz, under the "Vigilance Outlook" tab:
http://smart.grtgaz.com/en/infovigilance

Understanding monitoring using Smart GRTgaz

The color code

Each limit is tracked, and is evaluated using the following colour code:

- **Green**: no specific alert.
- **Orange**: the limit has nearly been reached, the network is only able to transport the quantities requested by the shippers.
- **Red**: the limit has been exceeded, the network is not able to transport all shipper requests.
- **Violet**: the limit has been exceeded and the last resort mechanism (mutualised restriction) has been activated.

Monitoring from D+2 to D+5

The state of the network's limits is assessed daily for days D+2 to D+5, based on consumption forecasts and flow forecasts (based in particular on the LNG terminal emission programmes). The Violet level of monitoring is not used at this stage. No mechanism is triggered by the TSOs at this stage, regardless of the level of monitoring displayed. You can consult it here in Smart GRTgaz:

Vigilance Outlook *Last refresh : 30/10/2024 17:16*

| INTRA D | D+1 | D+2 to D+5* |

Limit	01/11/2024 Alert level	02/11/2024 Alert level	03/11/2024 Alert level	04/11/2024 Alert level
NS1	✅	✅	✅	✅
NS2	✅	✅	✅	✅
NS3	✅ 🔧	✅ 🔧	✅ 🔧	✅
NS4	✅ 🔧	✅ 🔧	✅ 🔧	✅ 🔧
EO2	✅ 🔧	✅ 🔧	✅ 🔧	✅
S1	✅ 🔧	✅ 🔧	✅ 🔧	✅ 🔧
SN0	✅	✅	✅	✅
SN1	✅ 🔧	✅ 🔧	✅ 🔧	✅ 🔧
SN3	✅ 🔧	✅ 🔧	✅ 🔧	✅ 🔧
SN4	✅	✅	✅	✅

* D+5 data publication starts on D-5 3.30pm.

MAP OF THE
NORTH ▸ SOUTH AND EAST ▸ WEST LIMITS

MAP OF THE
SOUTH ▸ NORTH LIMITS

Find out more about monitoring system and mechanisms triggering – November 2024

Monitoring at D-Day and D+1

The state of the network's limits is then assessed <u>at each nomination cycle</u> starting at 2 p.m. on D-1. You can consult it here in Smart GRTgaz:

Side of the limit management

Some mechanisms apply only on one side of the limit: either upstream or downstream. If it's upstream, it means that the mechanism applies to network entries upstream of the limit, and if it's downstream, it applies to exits downstream.

Mechanisms concerned:
NS and EO limits: interruption of interruptible/UIOLI capacities and sales shut-down, mutualised restriction, and anticipated restriction.
SN limits: mutualised restriction and anticipated restriction only.

Mechanisms triggered

If these boxes are ticked, this means that the corresponding mechanisms have been triggered for the gas day in question.

Here, the NS2 limit has been reached, the interruptible capacity was curtailed, and downstream capacity sales were shut down, and a locational spread was launched.

Vigilance Outlook *Last refresh : 30/10/2024 17:16*

INTRA D	D+1	D+2 to D+5*

Limit	Alert level	Side of the limit management	Small impact works (GWh 25°C)	Interruption of sales and interruptible/UIOLI	Locational spread	Mutualized restriction
NS1	⚠️	Upstream				
NS2	🔺	Downstream		✓	✓	
NS3	✅	Downstream				
NS4	✅	Downstream	15			
EO2	✅ 🚧	Downstream				
S1	✅	Downstream	15			
SN0	✅	Upstream				
SN1	✅	Upstream	25			
SN3	✅	Upstream	105			
SN4	✅	Upstream				

Small impact works

If a quantity is indicated, this means that work is being carried out on the limit in question, without being subject to a planned capacity restriction. The limit in question, which level is lowered because of this impact, is managed normally.

Here, low-impact work is taking place onNS4, S1, SN1 and SN3.

The Smart API

You can download all the data in .csv and .xls file formats, as well as make requests via the Smart GRTgaz API:

- Request on all Smart data D and D+1: http://smart.grtgaz.com/en/b2b

- Specific request on the monitoring system data:
  https://www.smart.grtgaz.com/api/v1/fr/infovigilance/export.xls?startDate=2020-04-02&endDate=2020-04-07

Limit management mechanisms

The mechanisms for managing limits are triggered based on the following merit order:

	Limits NS1 to NS4, EO2, S1	Limits SN0, SN1, SN3, SN4
1.	Agreements with adjacent operators (or "swaps") : this is completely transparent for customers	
2.		Interruption of "storage UIOLI" upstream of the limit (on D-1 before 13h)
3.	Interruption of interruptible capacities and UIOLI, and shut-down of capacity sales (from D-1 and on D-Day)	
	on the limit management side	on both sides of the limit
4.		"Storage swap": this mechanism is transparent for customers
5.	Locational spread call (only in intra-D)	
6.	Mutualised restriction (only as a last resort, intra-D) on the limit management side	
7.	Anticipated restriction (only in the event of repeated use of mutualised restriction, in D for subsequent days)	

These mechanisms apply only to the main network points: <u>PIR, PITS, PITTM</u>. Delivery capacities to customers are not affected (outside of highly modulated sites in the specific case of locational spread).

Once a mechanism is triggered, it is for all <u>the rest of the gas day</u>.

Beforehand: interruption of "storage UIOLI", of interruptible capacities and UIOLI, and shut-down of sales

At 2 pm on D-1, **in case of an orange or red alert**, long-term interruptible capacities are interrupted (i.e. not given in the CTE).

In the specific case of the SN0, SN1, SN3 and SN4 limits, **in case of a red alert**, the TSOs will also have asked the storage operator(s) concerned to suspend their UIOLI service before 1 pm on D-1 on withdrawals from storage facilities upstream of the limit.

Then, from 2 pm on D-1 and throughout the gas day**, in case of a red alert**, intra-D interruptible capacities and UIOLI are interrupted, and capacity sales are shut down. Intra-D interruptible capacities are:
- On PIRs: either Pirineos (on the Teréga network) or backhaulcapacities (on the GRTgaz network);
- On PITS: some injection capacities.

The mechanisms for interrupting interruptible capacities and UIOLI, and for shutting down sales, apply only to points/directions that strain the limit in question (entries upstream of the limit and/or exits downstream), and :
- For SN0, SN1, SN3 and SN4 limits: simultaneously upstream and downstream of the limit
- For other limits: only on the management side of the limit.

These mechanisms can thus influence the following points:

	Upstream (entries)	Downstream (exits)
Action on the limit management side		
NS1	Virtualys, Obergailbach, Oltingue	-
NS2	Dunkerque GNL Dunkerque Virtualys Obergailbach Oltingue	Sud-Est, Atlantique, Lussagnet, Pirineos
NS3		Atlantique, Lussagnet, Pirineos
EO2		
NS4		Lussagnet Pirineos
S1	-	
Simultaneous action upstream and downstream of the limit		
SN0 and SN1	Pirineos + *"storage UIOLI"* on Lussagnet	Virtualys, Obergailbach, Oltingue, Nord-Est, Nord-Ouest, Sud-Est, Atlantique
SN3 and SN4	Pirineos + *"storage UIOLI"* on Atlantique et Lussagnet	Virtualys, Obergailbach, Oltingue, Nord-Est, Nord-Ouest, Sud-Est

You can view the sales and the UIOLI shutdown on the UBI services status screen on the INGRID portal, "My operations" / "UBI services status" menu:

CP ↑	Direction ↑	SP available UBI	SP total requests	CP available UBI	CP total requests	UBI status	Capacity sales opened
IR0006	REC			0	0	CLOSED	YES
IR0010	DEL			0	0	OPEN	NO
IR0010	REC			0	0	CLOSED	YES
IR0011	DEL			0	0	CLOSED	YES
IR0011	REC			0	0	CLOSED	YES
IR0060	DEL			1 442 746	73 200 038	OPEN	NO
IR0060	REC			0	0	CLOSED	YES
IT0004	REC			187 656 328	151 541	OPEN	YES

UBI Service Status — UBI Cycle 15h - 17h — Gas Day D / D+1 — 12 / 12 results

Locational spread: the main mechanism for managing limits

If the previous mechanisms have not been sufficient, the TSOs launch a call for tenders via the locational spread. The latter has effects on both sides of the limit simultaneously (upstream and downstream).

This mechanism is open to all shippers, and you will find all the information you need to take part in it in the Learn more about Locational Spread sheet of the Transmission Toolbox.

When calling for the locational spread, TSOs can exclude eligible physical points, in particular points already used as part of the "storage swap" mechanism.

You can consult the history of all locational spreads launched in the Smart Vigilance Outlook section, "Locational spread" tab".

Mutualised restriction: as a last resort

Mutualised restriction is triggered as a last resort, only if the locational spread call for tenders was not sufficient for managing the limit. It consists in a partial restriction of firm capacity, pro rata to the subscribed capacities, pooled if possible on a group of points called a Superpoint (see the "Find out more about Superpoints" sheet). A restriction at the superpoint level allows greater flexibility to be left to the shipper.

A mutualised restriction can be applied either upstream (restriction of upstream entries) or downstream (restriction of downstream exits). The choice was made by the CRE to apply the mutualised restriction downstream as soon as it is possible, in order to minimise the impact on the price of the PEG. But from a certain level of consumption, restricting downstream exits is no longer sufficient; the mutualised restriction then applies upstream. The application side of the mutualised restriction on a given day corresponds to the management side of the limit published for that day.

The mutualised restriction is applied equally to all points (upstream inputs or downstream outputs) located on the management side of the limit; as an exception, when activated upstream of the SN0, SN1, SN3 and SN4 limits, the restriction first applies to PITS entries (up to the technical minimum of the infrastructure), and only then to other entry points (PIR and PITTM).

In case of a mutualised restriction, you will be informed by e-mail that a mutualised restriction will be applied from the start of the following hour on a given superpoint. This e-mail will invite you to consult your guaranteed COA in Ingrid, in the "My operations" / "My operational capacity notices" menu, where you can view your rights for the day following this intraday restriction (see the "Find out more about guaranteed COA" page).

Mutualised restrictions do not give rise to financial compensation.

Anticipated restriction: in case of repeated use of the mutualised restriction

Anticipated restriction has been designed as a very last resort mechanism in the event of repeated failure of the current decongestion mechanisms, leading to mutualised restrictions for several days in a row. It consists in the application of a partial restriction of firm capacity, pro rata to the subscribed capacities, applied according to the same modalities as the mutualised restriction, but anticipated the day before for the following day.

The TSOs will trigger an anticipated restriction for the next gas day if mutualised restrictions have been triggered for at least 5 consecutive days, the last day being a working day (if the 5th consecutive day of mutualised restriction is a Saturday, Sunday or bank holiday, the anticipated restriction will only be activated if a mutualised restriction is triggered on the following working day).

In this case, you will be informed by e-mail and on Smart GRTgaz that the TSOs are switching to this anticipated restriction congestion management mode, for as long as the network is experiencing congestion: the TSOs will stop applying an anticipated restriction for the following day when the vigilance monitoring returns to green; any congestion to follow will then be handled again using conventional mechanisms.

During the anticipated restriction period, the applicable restriction rates will be published the day before the following day. They will be communicated by e-mail, and you will be able to consult them on Ingrid, menu "My operations" / "Work schedule". In addition, the TSOs will communicate each day an indication of the possible restriction rates for the following days.

Anticipated restrictions do not give rise to financial compensation.

How can I know that a mechanism has been triggered?

You are informed on Smart GRTgaz at the beginning of each hour (around H+10 min.) of the mechanisms that have been triggered since the start of the gas day (see previous table: Intra-D/D+1 vigilance).

In addition, you'll receive an e-mail if a locational spread is triggered (if you have signed a locational spread participation agreement), and in case of a mutualised or anticipated restriction.

Finally, the market will be informed via Urgent Market Messages (UMM) in case of interruptible/UIOLI or sales shut-down, and in the event of mutualised or anticipated restriction.

Link: https://transparency.entsog.eu/#/umm