

## GRTgaz's interventions on the Powernext Gas Spot Exchange

GRTgaz makes daily trades on the Powernext Gas Spot Exchange. These interventions are consistent with the Balancing Network Code fully that came into force on October 1st, 2015.

The price outcome of these transactions is also used to calculate the reference prices used to determine the imbalance cash-out prices payable by shippers.

### Principles

GRTgaz carries out daily trades on the Powernext Gas Spot Exchange in order to “*maintain the transmission network within its operational limits and to achieve an end of day line pack position in the transmission network different from the one anticipated on the basis of expected inputs and off-takes for that gas day, consistent with economic and efficient operation of the transmission network*” (extract from article 6 of Balancing Network Code).

There are two types of balancing products:

- The notional products that are the ones used first,
- Locational products that are used in the event of a critical imbalance and without proven benefit from the first interventions on the market.

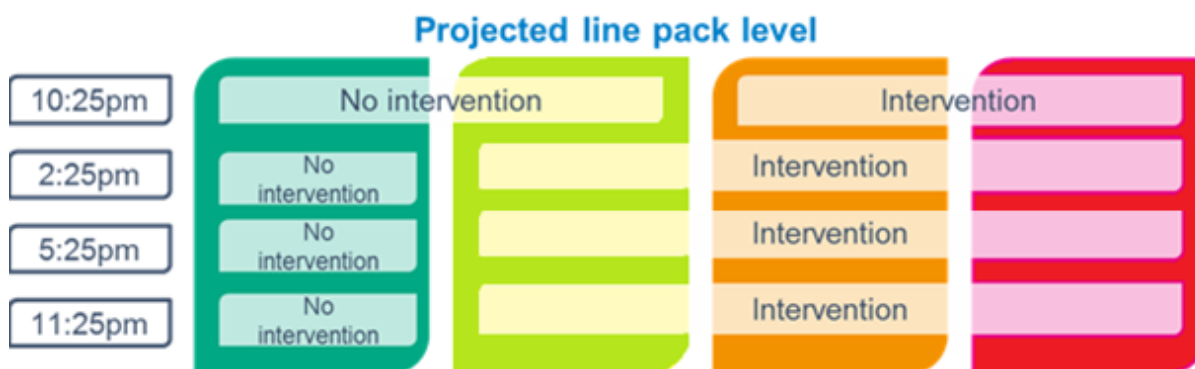
The price applied to shippers' imbalances reflects the costs borne by GRTgaz in balancing its transmission system by purchasing/selling gas on these two products.

## Notional product

### GRTgaz trading windows

After the establishment of a need by GRTgaz, the intervention itself is executed by a computer algorithm on the conventional Powernext Gas Spot Exchange. Each intervention is designed to ensure that the prices selected by the algorithm are adapted to GRTgaz's level of intervention. Therefore, the need of GRTgaz may not be fully covered.

GRTgaz can trade seven days a week between 10:25 am and 10:45 am, between 2:25 pm and 2:45 pm, between 5:25 pm and 5:45 pm and between 11:25 pm and 11:45 pm on the Within-Day product. Effective action depends on “Projected Closing Line pack” position and schedule.



Within these trading windows, GRTgaz’s purchase or sell orders will take place at arbitrary times. GRTgaz intervenes several times in each trading window to cover its balancing gas needs.

### GRTgaz modes of intervention

As “Projected Closing Line pack” position shows the stress of its transmission network, GRTgaz has defined several modes of intervention depending on position and schedule.

The aggressiveness of the intervention mode evolves increasingly according to the time of intervention and the degree of tension on the network.

The more aggressive the mode is, the more the price obtained by GRTgaz may move away from the estimated market price during the trading window. In connection with French Regulation Authority (CRE), GRTgaz defined, for each mode, limits to this potential spread.

## Locational product

### Application context for locational products

Interventions via locational products are triggered when the network remains highly unbalanced (position of the "Projected Driving Stock" indicator in the orange or red zone) while interventions via notional products have already taken place since the beginning of the day.

### GRTgaz trading windows

After the establishment of a need, GRTgaz operates on Powernext's dedicated "Locational" platform for locational products. Each intervention is designed to ensure that the prices selected by the algorithm are adapted to GRTgaz's level of intervention. Therefore, the need of GRTgaz may not be fully covered.

GRTgaz can trade seven days a week between 6:30 pm and 6:40 pm and between 9:30 pm and 9:40 pm on the Within-Day product.

### GRTgaz modes of intervention

The network tension situation, giving place to the use of the locational product, justifies an intervention level that may lead to an intervention price of GRTgaz which may reasonably deviate from the estimated market price at the time of the intervention window.