

# Balancing Systems in Europe and in France

## Agenda

### 1. European Balancing

1. European Balancing Background
2. European countries Balancing Systems

### 2. French Balancing (GRTgaz)

1. GRTgaz Balancing rules
2. GRTgaz Balancing tools

## 1 – European Balancing

- **European background**
- **European balancing systems**

### European background

- 2005
- **Guidelines of good practices for gas balancing (GGP-GB)**
    - E05-PC-05 : GGP on Balancing 2005
  - **REGULATION (EC) No 1775/2005 (article 7)**
    - Fair, non-discriminatory and transparent access
    - Imbalance charges shall be cost-reflective to the extent possible
    - Harmonisation of balancing regimes

2006

  - **GGP-GB to harmonise balancing regimes (E06-PC-11)**
    - Implementation of article 7

2008

  - **Monitoring of implementation of GGP-GB (10 December 2008)**

## European background - Monitoring of implementation of GGP-GB (December 08)

### ➤ Objectives

- To assess whether these GGPGB meet the requirements of the shippers and transporters.
- To assess the degree of implementation and hence compliance with GGP and Regulation 1775/2005/EC regarding natural gas balancing (in particular: Article 7)
- To contribute towards the creation of the internal energy market by making recommendations to reduce the differences in natural gas balancing regimes

### ➤ Results presented at the 15th Madrid Forum in November 2008.

- 80% of TSOs have not made any changes to their balancing regime despite the GGP-GB .
- Existing GGP-GB needs to be made more prescriptive and possibly transformed into **legally binding balancing guidelines.**

## European background - ERGEG's findings and recommendations

### ➤ Differences in European balancing regimes = entry barriers

- Different balancing regimes for transit and domestic transport
- Limited access to ancillary services (storage...) needed for balancing purposes

### ➤ Need to harmonise central aspects of balancing regimes for natural gas

- Gas day and balancing periods
- Interconnection point agreements (IPA) / operational balancing accounts (OBA)
- Reduction of balancing zones

### ➤ Determination of cost not always transparent and cost-reflective

### ➤ Management of balance position

- More information should be made available to users in (or closer to) real-time
- Development of Market-based mechanisms for pooling and trading of imbalance positions

### ➤ ERGEG urges NRAs to ensure compliance with regulation 1775/05.

## European balancing systems (1/2)

	Belgium	France	Germany	Italy	The Netherlands	Spain	UK (Great-Britain)
<b>NRA's role about balancing regime</b>	Designing, approving and monitoring implementation	Approving/managing and monitoring implementation	Designing, approving and monitoring (not intolerance or penalty charges)	Approving	Approving (included intolerance and penalty charges)	Designing, approving and monitoring implementation	Designing, approving and monitoring implementation
<b>Balancing period</b>	Day with hourly constraints and hourly steering information	Day	Day	Day	Hourly (discussion to implement a daily system)	Day	Daily balancing interval
<b>Balancing zone</b>	4	3 (GRTgaz + TIGF)	12	1	1	1	1

## European balancing systems (2/2)

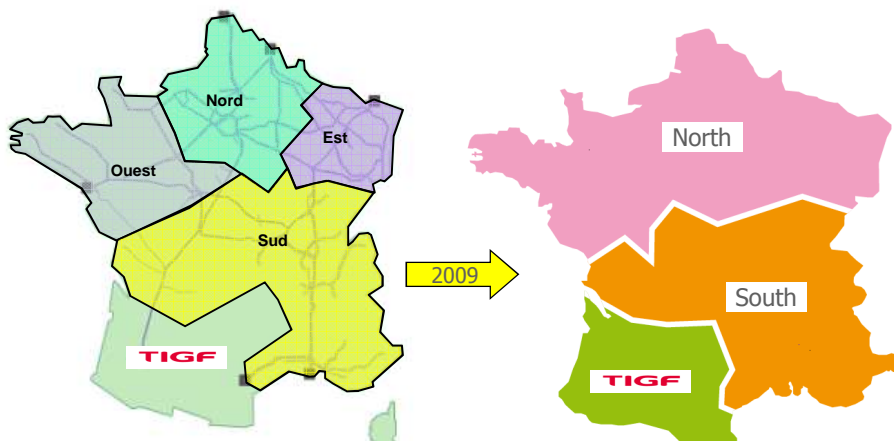
	Belgium	France	Germany	Italy	The Netherlands	Spain	UK (Great-Britain)
<b>Impact of 1775/05 according to NRA</b>	No	Progressive implementation of market-based balancing mechanism	Design of the new balancing regime in compatibility with GGP-GB	No	No but regulatory action in cases where TSOs were non-compliant	No	No
<b>Barriers to new entrants according to NRA</b>	No	No	No (with the new system)	No	Yes Availability of on-line information advantages shippers with a large portfolio.	No	No
<b>Availability of information</b>	Web-tool and securing access to balancing gas	No information regarding overall balancing costs	Information regarding overall balancing cost on TSO web page	Public information is not available	Weak availability	Information regarding overall balancing cost on TSO web page	Information regarding overall balancing cost on TSO web page

## 2 – French Balancing System

- GRTgaz Balancing rules
- GRTgaz Balancing tools

### GRTgaz Balancing rules

- Daily balancing into 2 balancing areas



## GRTgaz Balancing rules

### ➤ 2 balancing tolerance services

- Daily balancing tolerance service
- Cumulated balancing tolerance service

### ➤ Composition of tolerance service

- Standard tolerance (allocated automatically)
- Optional tolerance

### ➤ For each service (standard & optional)

- An authorised Negative or Positive Daily Imbalance (Daily tolerance)
- A Maximum Positive or Negative Cumulative Daily Imbalance

## GRTgaz Balancing rules

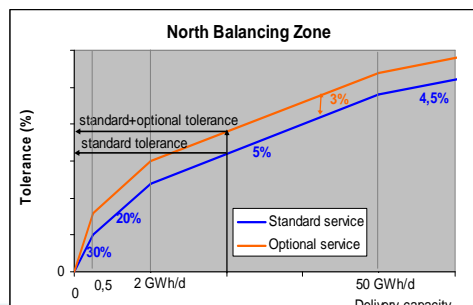
### ➤ Daily tolerance – Standard service

- Depends on portfolio's size of shippers and balancing zone

### ➤ Daily tolerance – optional service (up to 3% of capacity)

- 17 €/MWh/day/year (Independent of capacity)

Standard Balancing Tolerance	Calculation Basis of Balancing Tolerances in the Balancing Zone				
	Up to 500	From 500 to 1,000	From 2,000 to 50,000	From 2,000 to 50,000	Above 50,000
in MWh/d					
North zone (L-gas quality)	+/- 30%	+/- 20%	+/- 5%	+/- 5%	+/- 5%
North zone (H-gas quality)	+/- 30%	+/- 20%	+/- 20%	+/- 5%	+/- 4.5%
South zone	+/- 30%	+/- 20%	+/- 20%	+/- 5.5%	+/- 5%



## GRTgaz Balancing rules

### ➤ Treatment of daily imbalances depends on its size

- Imbalance < Maximum Daily Imbalance (EBJ)
  - aggregated each Day in a Cumulative Imbalance account
- EBJ < Imbalance < Authorised Daily Imbalance (Tolerance)
  - Quantities above EBJ purchased/sold at a market price "P1"
- Imbalance > Tolerance
  - Quantities above tolerance purchased/sold at a market price "P2" =  $P1 * (1 + 30\%)$

## GRTgaz Balancing rules

### ➤ EBJ (Mid-range)

- Define the Daily Imbalance part
- Defining as % of daily tolerance (winter 70%; summer 55%)

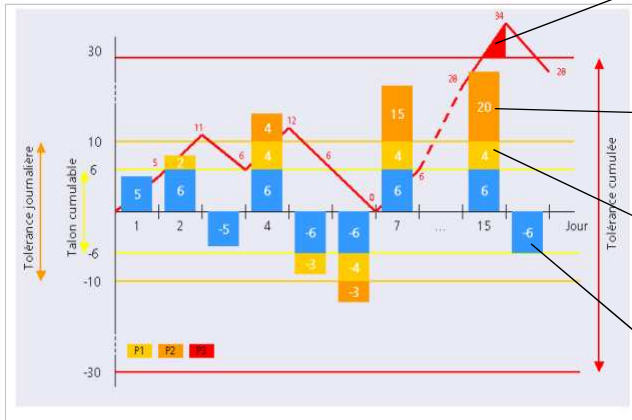
### ➤ Limits to the Cumulative Imbalance

- Authorised Cumulative Imbalances (EBC) =  $\pm 5 * [EBJ]$
- Above, penalties P3 (but not dealt with by a purchase/sale mechanism)

### ➤ Market prices come from balancing platform (Pownertxt)

## GRTgaz Balancing rules

➤ Example : Daily tolerance : +/-10 %



Authorised Cumulative Imbalances =  $5 \times 6 = \pm 30$   
Above, Penalties P3

purchased/sold at a market price "P2"

purchased/sold at a market price "P1"

Aggregated in the Cumulative Imbalance account

## GRTgaz Balancing tools

- Line pack
- Access to storage (flexibility contract concluded with Storengy)
- Market tools

- Powernext balancing platform allowing GRTgaz to buy/sell imbalances
- Average price of transaction -> P1

