

TIGF annex to the CRE's public consultation on the roadmap for changes to the TIGF and GRTgaz balancing systems

Introduction.....	2
Supply of information.....	3
About the TIGF network.....	3
About the GrdF and Regaz networks.....	3
About other gas distributors.....	4
Consumption forecasts.....	4
Provisional imbalance indicator.....	5
Balancing advice.....	5
Arrangements for settling shipper imbalances.....	5
Changes to price P1.....	5
Changes to P2 price and tolerances.....	7
Arrangements for intervention by TIGF in the market.....	7
Situation prior to 1 January 2014.....	7
Intervention arrangements from 1 January 2014.....	8
Interventions on the South Gas Exchange Point instead of the TIGF Gas Exchange Point.....	9
Balance of balancing account.....	10

Introduction

At the beginning of 2013, the CRE met to consider the roadmap for changes to the TIGF and GRTgaz balancing systems under the European network code project. During 2013, transporters submitted additional proposals to Concertation Gaz. This document sets out the roadmap which TIGF intends to introduce during 2014. It will be annexed to the public consultation to be conducted by CRE during the first quarter of 2014.

Development and operating costs associated with the roadmap for change in TIGF's balancing system will be covered by the tariff.

Supply of information

About the TIGF network

First of all, TIGF wishes to point out that a project to provide information to shippers concerning within-day consumption by customers directly connected to its network (Consumer Interface Points – PICs) and within-day gas deliveries to distribution networks (Distribution-Transport Interface Points – PITDs) was implemented at the start of December 2012. Data are published on the DATAGAS website.

(<http://tetra.tigf.fr/SBT/public/DonneesIntraJPublique.do?action=liste>)

- This service enables shippers to access detailed information on PICs and PITDs at four-hourly intervals.
- Hourly provision covering PICs was progressively rolled out during 2013.

Under the balancing rules, there is no provision for PITDs to be changed over to an hourly reading frequency.

About the GrdF and Regaz networks

TIGF plans to work with distribution grid operators GrdF and Regaz to develop three projects to provide consumption information for consumers connected to those networks:

- the first is to do with the gross daily consumption forecast for profiled customers. That information, to meet one of the requirements of the code, shall be provided in an approved format, broken down by shipper, at 13:00 hours on the previous day, then updated twice during the course of the day;
- the second is to do with consumption from the start of the day for non-profiled customers. That information, which was the subject of a deliberation¹, shall be made available twice during the course of the day in an approved format and broken down by shipper; Provided that such information is in its possession by 12:00 and 16:00, TIGF shall forward it to its shipper customers at 13:00 and 17:00 respectively.
- the third is to do with the provision of a k0 coefficient, allowing adjustment of the gross daily consumption forecast for profiled customers. That coefficient shall be calculated from TIGF's daily consumption forecasts and shipper forecasts for non-profiled customers. k0 coefficients and profiled distribution customer forecasts for each shipper shall be published and updated with each nomination cycle.

¹ CRE Deliberation of 21 June 2012 including approval for changes to the balancing rules for the GRTgaz and TIGF gas transport networks.

TIGF plans to deliver those new services covering distribution consumption as follows:

- no later than April 2014 for profiled customers and the k0 coefficient;
- no later than the end of 2014 for non-profiled customers.

NB: TIGF also proposes to publish the shippers' aggregated forecasts for non-profiled customers which have been used to calculate the k0 coefficient, indicating the proportion substituted by TIGF in the absence of nominations. The substitution rule consists of replacing the missing shipper's nomination for gas day D by the quantity allocated to that same shipper for profiled clients for gas day D-7 if D is a Saturday or a Monday, and for gas day D-1 if D is any other day.

About other gas distributors

In the TIGF area there are gas distributors other than GrdF and Regaz.

TIGF proposes to investigate with those operators during the course of 2014 how they could fulfil their obligations on the supply of information about profiled and non-profiled customers.

At the national level, TIGF will take part in the work to define a limited mechanism for supplying such information.

Consumption forecasts

In 2012, TIGF initiated a new project aimed at producing daily consumption forecasts for its area. That project was deployed in Spring 2013 and data are published by DATAGAS.

(<http://tetra.tigf.fr/SBT/public/Prevision.do?action=listePrevision>)

The information is broken down by segment (PIC, PITD and PIC + PITD). It is made available once on the day before the gas day in question, at 13:00, and updated once during the course of the gas day in question, at 13:00.

From 1 April 2014, area level consumption forecasts shall be covered by an incentive mechanism linked to service quality. TIGF is studying the possibility of improving the consumption forecast service based on four proposals:

- to publish information linked to the uncertainty of the forecast,
- extend the forecast period to 5 days (D+5),
- increase the frequency of forecasts,
- use hourly models as a basis for the calculation of daily forecasts.

Those improvements will be introduced in the 2014/2015 period.

Provisional imbalance indicator

Since November 2013, TIGF has been publishing a provisional imbalance indicator at the end of the day on DATAGAS. (<http://tetra.tigf.fr/SBT/public/Equilibrage.do?action=listeDesequilibre>)

That indicator is intended to trigger TIGF's interventions in the markets. (For more detail, refer to the chapter on "arrangements for intervention by TIGF in the market"). That indicator shall be calculated at area level on the basis of TIGF's daily consumption forecasts and shippers' nominations at the interconnection points with the adjacent Enagas and GRTgaz transport networks and TIGF's storage infrastructure. It is published every hour, updated in line with the most recent data.

Balancing advice

By the end of 2014, TIGF plans to provide each shipper with a notice containing information which will be of use in balancing their portfolio. That advice shall comprise three parts:

1. global data (public, and therefore common to all contracts)
 - k0 values
 - end of day imbalance indicators
 - global consumption forecasts (PIC, PITD, PIC + PITD, profiled, non-profiled)
 - average and marginal balancing prices (conditional)
2. daily data specific to the transmission contract in question
 - a reminder of non-profiled consumption forecasts sent to us by the shipper
 - profiled consumption forecasts for that contract, as estimated by TIGF
3. intraday data specific to the transmission contract in question, by contract point
 - actual intraday performance of PICs under the contract + PIC Total data
 - Non-profiled intraday performance of PITDs + PITD Remote Read Total data

The advice shall be sent at each nomination cycle, as is the case with the scheduling advice.

Arrangements for settling shipper imbalances

Changes to price P1

For shippers who do not have tolerances in place for the settlement of their imbalances, TIGF buys or sells the quantities of their imbalances at the end of the day at price P1. That price constitutes a full

discharge, and includes a 20% penalty. From 1 January 2012, it has included the average price of transactions carried out by TIGF on the market for residual shipper balancing.²

From 1 May 2014, TIGF proposes replacing price P1 by a marginal price³(P marginal)

A marginal selling price and marginal buying price will be calculated for each gas day using the following method:

- a) The marginal selling price is the lowest of the following two prices:
 - i) the lowest price for all sales of WD, DA and WE products on Powernext in which TIGF has been involved as part of the TIGF Gas Exchange Point balancing scheme, for delivery on said gas day; or
 - ii) the average gas price (P average) for the gas day in question, from which an adjustment of 10% is subtracted;
- b) The marginal buying price is the highest of the following two prices:
 - i) the highest price for all purchases of WD, DA and WE products on Powernext in which TIGF has been involved as part of the TIGF Gas Exchange Point balancing scheme, for delivery on said gas day; or
 - ii) the average gas price (P average) for the gas day in question, to which an adjustment of 10% is added.

The average gas price (P average) for the gas day is equal to the average weighed price based on WD product transactions on Powernext at the TIGF Gas Exchange Point for delivery on said gas day (for Saturdays, Sundays and bank holidays, that average price shall be the price of WE or BH maturing interventions for delivery on the WE or BH concerned ... provided that the stock exchange has no WD opening during those periods).

- Should there be no transactions on Powernext at the TIGF Gas Exchange Point for delivery on said gas day, TIGF shall consider as an average gas price the **Powernext Gas Spot DAP (Daily Average Price) price reference** at the South Gas Exchange Point for delivery on said gas day, supplemented by a transmission charge of 0.14 euros/MWh (tariff as of 1 April 2014).

The penalties shall no longer apply from 1 May 2014.

² When TIGF does not intervene, the price is based on the EOD reference figure for delivery on the day in question at the South Gas Exchange Point. The EOD reference figure is published by Powernext.

³ The marginal price is defined in the European network code on balancing rules.

Changes to P2 price and tolerances

For shippers who deliver gas to end consumers in the TIGF area and benefit from tolerances in settling their imbalances, the P1 price only applies to end-of-day imbalance quantities which exceed their tolerances.

Tolerances allow day to day imbalances to accumulate to some extent. At the end of each month, the total discrepancy account for each shipper is reset to zero by TIGF, who buys or sells the residual quantity from or to that shipper at price P2. Price P2 is an average price⁴. It constitutes a full discharge and carries no penalty. Tolerances are of two kinds:

- a Daily Discrepancy Tolerance (TEJ) equal to 20% of the total subscribed daily delivery capacity in the 0 to 1000 MWh/d range and 5% for the portion above that.
The TEJ applies to daily discrepancies;
- a Total Discrepancy Tolerance (TEC) equal to three times the Daily Discrepancy Tolerance (TEC = 2xTEJ).
The TEC applies to the total discrepancy account.

TIGF proposes the following adjustments, to apply from 1 May 2014:

- at the CRE's request, to reset the cumulative discrepancy account to zero on 31 March 2015, and no longer at the end of each month (under consideration).
- resetting the cumulative discrepancy account to zero on 31 March 2015 will be settled by the average price on 31 March 2015, such as the price used for determining marginal price.
- to reduce the TEC to 1xTEJ instead of 2xTEJ
- to halve the TEJ by applying a Daily Discrepancy Tolerance (TEJ) equal to 10% of the total subscribed daily delivery capacity in the 0 to 1000 MWh/d range and 2.5% for the portion above that. That adjustment shall result in a change to the overall TEJ from about 19.4 GWh/d to 9.7 GWh/d.

Arrangements for intervention by TIGF in the market

Situation prior to 1 January 2014

Since 1 January 2012, TIGF has been buying and selling Day-Ahead (DA) and Weekend (WE) products on the TIGF Gas Exchange Point for shippers' residual imbalances. The quantities involved correspond to the shippers' residual imbalances. TIGF does not always intervene in the market; in particular, TIGF does not intervene when the quantities are less than the smallest contract which can be negotiated on

⁴ The price is based on the arithmetic mean of EOD reference figures for delivery over the last 7 days of the month on the South Gas Exchange Point as published by Powernext.

Powernext⁵. Transactions are effected by TIGF personnel in accordance with the intervention arrangements notified to the CRE and presented to Concertation Gaz. For each delivery day, intervention prices are averaged and incorporated into the P1 price for the day in question.

- Information about prices, quantities and directions of the transactions are provided on DATAGAS. (<http://tetra.tigf.fr/SBT/public/Equilibrage.do?action=listeTransaction>)

TIGF makes no profits or losses through its transactions on Powernext and shippers' settlements under the balancing system. A financial neutrality table, updated every month, is provided on the TIGF website. (<http://www.tigf.fr/nos-publications/publications-transport/reglement-des-desequilibres.html>).

It shows buying and selling between TIGF and Powernext and the shippers as part of its balancing operations, along with total penalty amounts.

- The financial neutrality table is balanced at the start of the year using DA products and in accordance with the intervention arrangements applicable to balancing.
- In June n+1, the balance on the balancing account for calendar year n is charged or paid out to shippers by TIGF in proportion to their delivery capacity subscriptions for year n.

At the end of October 2013, the amount to be redistributed was estimated to be approximately 410,000 euros.

Intervention arrangements from 1 January 2014

From 1 January 2014, TIGF proposes modifying the way it intervenes to buy or sell Within-Day (WD), Day-Ahead (DA) and Weekend (WE) products according to the value of the provisional imbalance indicator published on DATAGAS. TIGF buys/sells quantities of gas on POWERNEXT at the TIGF Gas Exchange Point.

Interventions are carried out by staff at TIGF's Business Management department. TIGF's traders are authorised to negotiate deals worth up to 100,000 euros/day under the balancing system. Transactions are conducted in accordance with the intervention arrangements presented to Concertation Gaz.

Buying/Selling of DA or WE products in the 17:15-17:45 window

- if the provisional imbalance indicator published at 17:00 on D-1 > 20 GWh (< -20 GWh), then TIGF sells (buys) a quantity of gas equal to 1 GWh for DA products or 250 MWh for WE products.
- TIGF will intervene on products with the shortest maturity.

⁵ The smallest contract negotiable on Powernext is 240 MWh.

Buying/Selling of WD products in the 15:45-16:15 window

- if the provisional imbalance indicator published at 15:00 on D > 2500 MWh (< -2500 MWh), then TIGF sells (buys) a quantity of gas equal to 10% of the provisional imbalance, rounded to the nearest multiple of 250 MWh, and capped at 2 GWh.
- TIGF plans to intervene within a 30 minute window, 15 minutes being judged as leaving too little leeway for manual interventions.
- For WD interventions, initiator mode for fifteen minutes.
- For DA interventions, aggressor mode for 5 minutes, then initiator mode for the following twenty-five minutes.

Operations in aggressor mode and initiator mode

Aggressor mode: TIGF aggressively executes bid or ask orders in the order book at the TIGF Gas Exchange Point, in order of economic precedence, provided that the Bid-Ask difference shown on screen is less than X euros/MWh; where X is set randomly each day by TIGF at between 0.5 and 1 euro/MWh.

Initiator mode: TIGF intervenes as follows:

- if Bid-Ask is less than X euros/MWh, TIGF aggressively executes the orders present;
- in the absence of a Bid-Ask difference of less than X euros/MWh, TIGF submits intermediary orders using the ascending-bid (as buyer) or descending-bid (as seller) technique;
- in the case of there being no Bid-Ask difference, TIGF submits orders using the ascending-bid (as buyer) or descending-bid (as seller) technique. The level of orders submitted is then chosen by TIGF according to orders present on the South Gas Exchange Point, adjusted by a South Gas Exchange Point and TIGF Gas Exchange Point transmission charge of 0.28 euros/MWh (based on ATRT5). TIGF reserves the right to return to aggressor mode when its order is close to that of other orders on the book.

Interventions on the South Gas Exchange Point instead of the TIGF Gas Exchange Point

In its deliberation of 5 February 2013 concerning Within-Day products, the CRE suggests building in the possibility of intervening on adjacent markets showing greater liquidity than the TIGF Gas Exchange Point and with which there is no structural congestion. The CRE goes on to state its view that only the South Gas Exchange Point fulfils those criteria for the moment. At the Concertation Gaz meeting of 28 November 2013, the CRE asked TIGF to study that possibility for 2014.

A transporter's interventions on adjacent markets under the balancing scheme are covered by a paragraph in the network code. In particular, the stipulation is made that the implementation of such

arrangements should not limit shippers' access to capacities at the interconnection point in question, nor its use by them.

At the CRE's request, TIGF proposes implementing arrangements to intervene on the South Gas Exchange Point on 1 May 2014 (under consideration)

Balance of balancing account

From 1 January 2014, TIGF proposes to start balancing the balancing account on a monthly basis rather than annually. The balancing arrangements are as follows:

At the end of month M+1, TIGF calculates the surplus/deficit balancing account quantity for month M. Surplus (deficit) quantities are sold (bought) by TIGF by means of DA products during the first fortnight of month M+2. The intervention arrangements are those applicable within TIGF for balancing operations. Detailed figures on transactions concerning balancing account surpluses/deficits are not published on DATAGAS. Those transactions make it possible to calculate an average price, which is applied to the surplus/deficit quantity to give its value in euros. That amount is distributed across the shippers in proportion to their subscribed delivery capacities for month M.

- Each neutrality account monthly table is provided on the TIGF website. It is published around day 20 of month M+2.
- Each shipper is informed by e-mail at around day 20 of month M+2 of the monthly total allocated to them.

The invoicing of balances distributed across shippers is not being automated in 2014 by TIGF, because changes are foreseen by the end of 2015 which will affect the distribution method. During this transitional period, TIGF proposes invoicing balancing account balances on a quarterly basis.

The need to proceed with the physical balancing operation described above depends on the surplus or deficit quantities for the month in question. If those quantities are too small to be processed by means of a daily contract on Powernext Gas Spot, they shall be valued at the average balancing price.