



## DECISION NO. 2018-022

# Deliberation of the French Energy Regulatory Commission of 7 February 2018 deciding on the evolution of the tariff for the use of GRTgaz and TIGF natural gas transmission networks on 1 April 2018

Present: Jean-François CARENCO, President, Catherine EDWIGE, Hélène GASSIN, Jean-Laurent LASTELLE et Jean-Pierre SOTURA, commissioners.

**Translated from the French: only the original in French is authentic**

The tariff for the use of GRTgaz and TIGF natural gas transmission networks (transmission system operators or TSOs) known as "ATRT6", took effect on 1st April 2017 for a period of approximately four years. It provides an update on 1 April of each year, commencing on 1 April 2018, on charges set out in the tariff decision of the French Energy Regulatory Commission on 15 December 2016<sup>1</sup>.

This decision relates to the evolution of the ATRT6 tariff as of 1 April 2018.

CRE consulted the interested parties from 19 October to 10 November 2017, concerning the tariff change request submitted by GRTgaz and TIGF and CRE's preliminary analyses on this request, as well as the various changes in the structure or the tariff framework. The TSOs were heard on 7 December 2017.

### **The main changes set out in this deliberation are as follows:**

#### **Change to the average tariff level**

The average increase in the GRTgaz tariff on 1 April 2018 of +3.0%, compared with an average change of +2.8% envisaged in the ATRT6 trajectory. This trend can be explained, on the one hand, by the decline in capacity subscriptions and, on the other hand, by an increase in allowed revenue (due notably to the change to energy costs, to the development of the GRTgaz 2020 project, and to congestion relief costs). In application of the principles set out in the deliberation of 15 December 2016, these changes will result in an increase in the charges of the main network of the inflation, i.e. +1.0%, and regional network charges of +4.8%. These changes are compared to the planned increases of +1.0% for the charges of the main network and +4.5% for the charges of the regional network in the tariff trajectory.

The average increase in the TIGF tariff on 1 April 2018 of +4.6%, compared with an average change of +4.6% envisaged in the ATRT6 trajectory. This change is due, on the one hand, to an increase in allowed revenue (in particular energy costs and congestion relief costs) and, on the other hand, a stagnation of capacity subscriptions. In application of the principles set out in the deliberation of 15 December 2016, these changes will result in an increase in the charges of the main network of the inflation, i.e. +1.0%, and regional network charges of +5.5%. These changes are compared to the planned increases of +1.0% for the charges of the main network and +5.4%

<sup>1</sup> [Deliberation of the French Energy Regulatory Commission of 15 December 2016 forming a decision on the tariff for the use of GRTgaz and TIGF natural gas transmission networks](#)

for the charges of the regional network in the tariff trajectory.

**Consequences of the creation of the single marketplace scheduled for 1 November 2018**

The deliberation of 15 December 2016 set a number of tariff change principles with effect from the date of creation of the single marketplace, scheduled on 1 November 2018:

- at that time, the tariff charge for the North South link will be abolished, in the North to South direction (€208.04/MWh/d/year) and South to North direction (€50/MWh/d/year);
- the North to South connection charge will be partially reported on the exit charge at Pirineos network inter-connection point (PIR) (€+117.9/MWh/d/year).

This present deliberation also plans the alignment of the tariff charges for the North Atlantic and South Atlantic PITS at the time of the creation of the single market place on those of the other PITS. However, in the interest of clarity of the offer of TSOs, both PITS North Atlantic and South Atlantic will remain commercially separated until 1 April 2019.

Finally, the creation of the single marketplace will eliminate the North-South link, source of the majority of auction surpluses. In this context, CRE simplifies the forecast redistribution system on 1 November 2018 to replace it with an annual repayment post hoc.

The *Conseil Supérieur de l'Énergie*, consulted by CRE on its draft decision, gave its opinion on 1 February 2018.

# SUMMARY

<b>1. METHODOLOGY</b> .....	<b>6</b>
1.1 REMINDER OF THE GENERAL PRINCIPLES IN FORCE IN THE ATRT6 TARIFF .....	6
1.2 CHANGES IN THE TARIFF FRAMEWORK: COVERAGE OF CONGESTION RELIEF COSTS .....	7
1.3 CHANGES IN THE TARIFF STRUCTURE .....	7
1.3.1 Consequences of the creation of the single market zone in France scheduled for 1 November 2018.....	7
1.3.1.1 Reminder of the provisions of the deliberation of 15 December 2016 .....	7
1.3.1.2 Treatment of North Atlantic and South Atlantic PITS from the creation of the single market zone.....	7
1.3.1.3 Change of the level of charges to the PITS linked to the loss of attractiveness for storage in the south of France in the year of creation of the single market zone .....	8
1.3.1.4 Summary of tariff changes planned 1 April at the time of creation of the single market place on the main network.....	9
1.3.2 Implementation of PIV France Belgium .....	9
1.3.3 Creation of the entry charge at PIR Oltingue.....	10
1.3.4 Changes to the PITTM offering.....	10
1.3.5 Change of the fee paid by Fluxys to GRTgaz for transmission from the Dunkirk LNG terminal to the Belgian border.....	10
1.3.6 Change to the redistribution method of auction surpluses.....	11
1.4 INCENTIVE REGULATION FOR QUALITY OF SERVICE .....	11
1.4.1 Recap of the mechanism in force .....	11
1.4.2 TIGF Request.....	11
<b>2. PARAMETERS AND CHANGE TO THE EVOLUTION TARIFF OF GRTGAZ AND TIGF NATURAL GAS TRANSMISSION NETWORKS AS OF 1 APRIL 2018</b> .....	<b>13</b>
2.1 2018 ALLOWED REVENUE OF GRT .....	13
2.1.1 Capital charges .....	13
2.1.2 Net operating expenses (excluding energy) .....	13
2.1.3 "Energy and CO <sub>2</sub> quotas" item .....	14
2.1.4 Calculation of the CRCP.....	16
2.1.5 Inter-operator repayment annuity.....	18
2.1.6 Additional hedge requests.....	18
2.1.7 2018 allowed revenue .....	20
2.2 ASSUMPTIONS OF CAPACITY SUBSCRIPTIONS FOR THE YEAR 2018.....	21
2.2.1 GRTgaz .....	21
2.2.2 TIGF.....	22
2.2.3 Total France (main network) .....	23
2.3 TARIFF CHANGE ON 1 APRIL 2018 .....	23
2.3.1 GRTgaz .....	23
2.3.2 TIGF.....	23
<b>3. RATE OF USE OF GRTGAZ AND TIGF NATURAL GAS TRANSMISSION NETWORKS, EFFECTIVE 1 APRIL 2018</b> .....	<b>24</b>
3.1 TARIFF RULES.....	24
3.1.1 Definitions .....	24
3.1.2 Capacity subscription .....	25
• PIR capacity subscription at auctions.....	25

- Capacity subscription at the Dunkerque and Jura PIRs ..... 25
- Capacity subscription at the PITS ..... 25
- Capacity subscription at the PITTMs..... 25
- Capacity subscription at exit points from the main network and on the regional network ..... 26
- Capacity subscription at the North-South link for GRTgaz ..... 26
- 3.1.3 Redistribution of surplus auction capacity revenue ..... 27
  - 3.1.3.1 Surplus auction revenue..... 27
  - 3.1.3.2 Reminder on the calculation of unit amounts applicable from 1 October 2017 to 30 September 2018  
27
  - 3.1.3.3 Balance of the current system ..... 27
  - 3.1.3.4 Redistribution for the period 1 November 2018 to 30 September 2019..... 28
- 3.1.4 Transfer of transmission capacity on the GRTgaz and TIGF networks ..... 29
- 3.2 USAGE TARIFF SCHEDULE FOR GRTGAZ AND TIGF NETWORKS APPLICABLE FROM 1 APRIL 2017 ..... 29
  - 3.2.1 Allowed revenues to be collected by the transmission tariff..... 29
    - 2018 allowed revenue of GRTgaz..... 29
  - 3.2.2 Tariffs applicable to annual subscriptions for daily transmission and delivery capacity..... 30
    - 3.2.2.1 Pricing for Network Interconnection Points (PIRs) ..... 30
    - 3.2.2.2 Pricing for LNG Terminal Transmission Interface Points (PITTMs)..... 31
    - 3.2.2.3 Pricing for the link between the GRTgaz North and South balancing zones ..... 31
    - 3.2.2.4 Pricing at Transport Storage Interface Point (PITS)..... 31
    - 3.2.2.5 Pricing of the exit capacity from the main network to delivery points ..... 32
    - 3.2.2.6 Pricing for regional network transmission ..... 32
  - 3.2.3 Tariff multipliers for transmission and delivery capacity subscriptions lasting less than one year..... 34
    - 3.2.3.1 At the Network Interconnection Points (PIRs) ..... 34
    - 3.2.3.2 At the LNG Terminal Transmission Interface Points (PITTMs)..... 34
    - 3.2.3.3 At the link between the GRTgaz North and South balancing zones..... 34
    - 3.2.3.4 At the Transport Storage Interface Points (PITS)..... 35
    - 3.2.3.5 At the main network exit, on the regional network, and at delivery..... 35
  - 3.2.4 Applicable tariffs for annual capacity subscriptions for gas injections into the transmission system from a gas production facility..... 35
  - 3.2.5 Pricing for notional gas exchange points..... 35
  - 3.2.6 Intra-day flexibility service for highly modulated sites ..... 36
  - 3.2.7 Short-notice interruptible transmission offers ..... 36
    - 3.2.7.1 GRTgaz short-notice interruptible transmission offer ..... 36
    - 3.2.7.2 Temporary short-notice interruptible transmission offer in the GRTgaz South zone ..... 37
  - 3.2.8 Proximity charge..... 37
  - 3.2.9 Gas quality conversion ..... 38
    - 3.2.9.1 H gas to B gas conversion service ..... 38
    - 3.2.9.2 B gas to H gas conversion service ..... 38
    - 3.2.9.3 Contractual post hoc B to H conversion rate..... 38
    - 3.2.9.4 Inspection of nominations on the B gas physical infrastructure:..... 39
  - 3.2.10 Balancing service based on line pack ..... 39
  - 3.2.11 Penalties for exceeding capacity..... 39
    - 3.2.11.1 Penalties for exceeding daily capacity ..... 39



- Penalty calculation methods for exceeding daily capacity ..... 39
- Calculation methods for daily capacity overruns ..... 39
- Penalties for exceeding hourly capacity ..... 40
- Annual redistribution of penalties for exceeding capacity ..... 40

3.3 UPDATE OF THE PRICE LIST OF TSOS TO ACCOUNT FROM 1 APRIL 2018 ..... 40

- 3.3.1 Update of normative capital charges..... 40
- 3.3.2 Update of net operating expenses..... 40
- 3.3.3 Update of capacity subscription assumptions ..... 41
- 3.3.4 Taking into account the balance of the CRCP ..... 41

**4. DECISION..... 42**

**ANNEX 1: APPENDIX 1: TARIFF SCHEDULE SUMMARY TABLE APPLICABLE FROM 1 APRIL 2018 ..... 43**

**ANNEX 1BIS: TARIFF SCHEDULE SUMMARY TABLE APPLICABLE FROM THE CREATION DATE OF THE SINGLE MARKET PLACE (PLANNED FOR 1 NOVEMBER 2018)..... 45**

**ANNEX 2: INDICATORS FOR MONITORING TSO SERVICE QUALITY ..... 47**

**ANNEX 3: LIST OF NTRS BY SITE..... 57**

**ANNEX 4: DATA PUBLISHED BY THE TSOS ..... 57**



## **1. METHODOLOGY**

### **1.1 Reminder of the general principles in force in the ATRT6 tariff**

Articles L.452-2 and L.452-3 of the French Energy Code determine CRE's tariff competencies. Article L.452-2 stipulates that CRE sets the methods used to establish the tariffs for use of natural gas networks. Article L.452-3 specifies that *"The Energy Regulatory Commission shall deliberate on tariff changes as well as those relating to ancillary services carried out exclusively by the operators of these networks or installations, with, where appropriate, the changes in the level and structure of the tariffs which it considers justified, particularly in view of the analysis of operators' accounts and the foreseeable change of operating and investment expenses. These deliberations [...] may plan a multi-year framework for the change of tariffs as well as appropriate incentives in the short or long term to encourage operators to improve their performance, particularly as regards the quality of service rendered, the integration of the internal gas market, security of supply and the search for productivity efforts."*

Article L.452-3 also states that CRE *"shall, in accordance with procedures it determines, consult the energy market participants"*.

The current tariff for the use of the natural gas transmission systems of the transmission system operators (TSO), GRTgaz and TIGF, known as the "ATRT6 tariff", came into effect on 1 April 2017 for a period of approximately four years.

The deliberation of 15 December 2016 deciding on the tariff for the use of GRTgaz and TIGF natural gas transmission systems sets a certain number of parameters for this period, notably:

- the trajectory of operating expenses;
- the trajectory of normative capital charges;
- the principles of construction of the allowed revenue of the operators;
- the principles of the change of the various tariff charges of the transmission system during tariff updates;
- the main tariff consequences of the creation of the single market area on 1 November 2018.

In addition, the ATRT6 tariff includes incentive regulation mechanisms covering four different aspects:

- an incentive regulation relating to investment costs:
  - introduction of an incentive to control "non-network" investment expenditure;
  - reinforcement of the incentive to control the costs of major transmission system development projects by setting a target budget for projects over € 20M;
  - modification of the incentive scheme for the development of interconnections based on a financial bonus-malus that will be paid on the date of effective commissioning of the infrastructures;
- incentive regulation of operating expenses: the net operating expenses of the TSOs change every year starting from the level chosen for 2017, according to an index equal to the sum of inflation and an annual change coefficient that integrates an efficiency objective covering a constant scope of activity compared to the ATRT5 period. Productivity gains or losses that could be made in relation to this trajectory are retained by each TSO;
- incentive regulation of research and development (R&D) expenditure: amounts allocated to R&D that have not been committed will be returned to users at the end of the tariff period via the Revenues and expenses clawback account (CRCP). If the TSOs exceed the four-year trajectory, the differences will remain at their expense;
- a quality of service incentive regulation aimed at improving the quality of service provided to users of transmission networks in areas considered important for the proper functioning of the market.

The ATRT6 tariff plans an update on 1 April each year of the fee schedule of both TSOs on charges set forth in the tariff decision of CRE of 15 December 2016:

- taking into account the defined allowed revenue trajectory for four years, consisting of:
  - the trajectory of normative capital charges defined by CRE;
  - the trajectory of operating expenses set by CRE, which evolves each year with inflation and an annual change coefficient;
  - the update of the specific item "Energy and CO<sub>2</sub> quotas";
  - the projected annuity of the inter-operator repayment;

- the four-year income smoothing charge, corresponding to the annual difference between the projected revenue trajectory and the TSO's projected revenue stream;
- clearing of one-quarter of the overall CRCP balance calculated on 31 December of year N-1;
- updating the capacity subscription assumptions;
- changes in the tariff structure linked to the establishment on 1 November 2018 of the single marketplace in France, with a specific tariff movement occurring on that date;
- other possible changes to the tariff structure decided by CRE, particularly in the context of the implementation of European network codes and the change to the offer of the TSOs.

## **1.2 Changes in the tariff framework: coverage of congestion relief costs**

The ATRT6 tariff stipulates that *"in the event that, on the basis of the mechanism(s) which were the subject of a market consultation and approved by CRE, the TSOs should conclude contracts with counterparties to ensure the elimination of residual congestion resulting from the creation of the single marketplace, the additional charges and revenues will be taken into account during the annual change of the tariff."*

As decided in the deliberation of CRE of 26 October 2017 concerning the creation of a gas single market zone in France on 1 November 2018, *"the costs of congestion management will be incorporated into the transport tariff in the form of an annual trajectory. The deviations from the trajectory will be included in the Revenues and expenses clawback account (CRCP). The congestion management costs on "small works" days will be treated in the same way.*

The costs incurred by the TSOs will thus be integrated into the tariff, in the form of an annual trajectory defined by taking into account the cost change of the mechanisms and the estimates of their frequency of occurrence and on the basis of the feedback of the years realised. They will be updated during each annual update of the ATRT6 tariff, based on the TSOs' best estimates. The deviations from the trajectory will be integrated at 100% in the Revenues and expenses clawback account (CRCP), in order to smooth the load in the event of a sharp variation in costs from one year to the next.

## **1.3 Changes in the tariff structure**

### **1.3.1 Consequences of the creation of the single market place in France scheduled for 1 November 2018**

#### **1.3.1.1 Reminder of the provisions of the deliberation of 15 December 2016**

The deliberation of 15 December 2016 adopted a number of tariff change principles with effect from the date of creation of the single market zone, scheduled on 1 November 2018:

- at that time, the tariff charge for the North South link will be abolished, in the North to South direction (€208.04/MWh/d/year) and South to North (€50/MWh/d/year);
- the North to South link charge will be partially reported on the Pirineos PIR exit charge (+117.9 €/MWh/d/year), in order to align the costs of the two France to Spain and France to Italy transit routes at the time of the creation of the single market place.

The following paragraphs provide details on the treatment of North and South Atlantic PITS and PITS in the South of France at the time of the creation of the single market place.

#### **1.3.1.2 Treatment of North Atlantic and South Atlantic PITS from the creation of the single market zone**

The GRTgaz North Atlantic and South Atlantic Transport Storage Interface Point (PITS) are located on both sides of the North to South link. The North Atlantic PITS is currently attached to the North PEG market area, while the South Atlantic PITS is attached to the TRS (Trading Region South), while both are physically located in the same location.

This distinction had been introduced because of the existence of several balancing zones in France. From the creation of the single place, this distinction will no longer be necessary.

The creation of the single area still take place on 1 November 2018, that is to say in the middle of the 2018-2019 storage year. To ensure greater clarity to users of storage facilities, GRTgaz proposes the conservation of the North Atlantic and South Atlantic distinction until 1 April 2019, start of the following storage year and effective date of the next update of the ATRT tariff.

In the public consultation of 19 October 2017, CRE observed that the commercial merger or the maintenance of two separate PITS had no impact from a tariff point of view, and had no objection to GRTgaz maintaining two separate North Atlantic and South Atlantic PITS until 31 March 2019.

The majority of the participants who responded to the public consultation is in favour of the maintenance of two separate North Atlantic and South Atlantic PITS until 1 April 2019. They consider that this would facilitate the legibility and the operational management of these two PITS.

Only one participant wants the PITS in question to be merged as of 1 November 2018.

Consequently, CRE holds that GRTgaz maintains two North Atlantic and South Atlantic PITS until 31 March 2019, so as not to degrade the readability of the commercial offer. Both PITS will be merged with the update on 1 April 2019 of the ATRT6 tariff.

In addition, the commissioning of infrastructures related to the creation of the single market area will get the capacities at North Atlantic and South Atlantic PITS firm (they are now partially interruptible): consequently, as of 1 November 2018, the tariff charge at the North Atlantic and South Atlantic PITS will be aligned with that of the other PITS.

### **1.3.1.3 Change of the level of charges to the PITS linked to the loss of attractiveness for storage in the south of France in the year of creation of the single market zone**

In the year of the creation of the single market zone, shippers who will be withdrawing gas from storage in the south in winter 2018-2019 will sell their gas at a single France price (PEG) which is likely to be around the current North PEG price. Nevertheless, they will have injected this gas during the filling period in summer 2018, while the two market zones will still be present. However, the PEG North price is historically lower than the TRS price.

TIGF notes that there is a risk that this change of market place during the storage year will make southern storages less attractive. In its tariff dossier, TIGF underlines that storage subscribers in the South will support:

- the additional costs associated with the North to South link, which will disappear on the date of creation of the single market place, for the volumes injected from the North PEG;
- an impairment loss related to the market price differential (shippers will capture the PEG winter-TRS summer differential, while other things being equal, they would have captured the TRS winter-TRS summer differential).

TIGF considers that this loss of value could be disincentive to the subscription in the storages of the South of France for 2018-2019, and mandated a consultant to evaluate the loss of value of the storages from the South of France, who estimated it at €1/MWh stored. This estimate leads TIGF to ask CRE to compensate for this loss of value.

In its public consultation, CRE observed, as TIGF did, that the existence of a North to South spread on winter-summer spread products at the time of storage reservations is likely to make the storages of the TRS less competitive. However, it pointed out that this observation should be qualified, as it is unlikely that a PEG North - TRS spread will materialise in the summer if the southern storage facilities are not subscribed, the only consumption of the TRS zone in summer is not sufficient to saturate the North-South link in the long term.

CRE also noted that the level of the loss of storage value in the south of France is particularly difficult to anticipate. Any measure consisting in a substantial change in the level of PITS would therefore have an effect that is difficult to predict: too low the measure would have no effect; too high it would discourage the subscription of storages in the North.

As a result, in its public consultation CRE indicated that at this stage it was considering not to accept TIGF's proposals.

The majority of contributors are in favour of CRE's proposal, particularly as the volumes purchased in the storage facilities mainly depend on the products offered and the needs of the suppliers, and where a poorly calibrated adjustment could have adverse effects. A contributor also considers that a correction of the tariff of certain PITS would potentially be discriminatory. Several of these contributions indicate that there are alternatives to address the issue raised by TIGF, in particular, its inclusion in the determination of the reserve price of storage capacity, by using a control system to encourage non-interrupting the southern PITS beside the northern PITS.

However, a minority of shippers were in favour of adapting tariffs to PITS or setting the tariff charge to zero on the North to South link.

As in its consultation, CRE considers that an *ex ante* consideration of the loss of attractiveness of storage facilities in the south of France would be complex to size and could have adverse consequences.



**1.3.1.4 Summary of tariff changes planned 1 April at the time of creation of the single market place on the main network**

(€/MWh/d/year)	1 April 2017	1 April 2018	1 November 2018 (planned creation date of the single marketplace)
PIR entries	102.3	103.3	103.3
PITTM entries	96.6	97.6	97.6
PITS entries	8.9	9.0	9.0
North Atlantic and South Atlantic PITS entries	6.2	6.3	9.0
PITS exits	20.8	21.1	21.1
North Atlantic and South Atlantic PITS exits	14.6	14.8	21.1
Oltingue exit	396.7	400.6	400.6
Pirineos exit	494.2	499.2	617.1
North to South link	208.0	208.0	0
Exits to regional network	89.4	90.3	90.3
France to Spain transit cost (€/MWh/d/year)	804.6	810.5	720.4
France to Italy transit cost (€/MWh/d/year)	498.9	503.9	503.9

**1.3.2 Implementation of VIP France Belgium**

CRE's deliberation of 2 February 2017<sup>2</sup> approved the creation of a virtual interconnection point (VIP) between France and Belgium, called Virtualys, and specified the rules for the commercialization by GRTgaz of capacities on the same point.

Since 1 December 2017, the formerly separately commercialized capacities at PIR Taisnières H and Alveringem, are now commercialized on the Virtualys single point. These capacities are firm and backhaul and are sold on the PRISMA platform<sup>3</sup>, according to the schedule of the CAM network code.

The capacity volumes that are marketed at VIP Virtualys are summarised below:

Capacity (GWh/day)	Belgium to France	France to Belgium
Firm	640	270 – DK to Belgium*
Backhaul	4	200

\* The firm capacity offered in the direction France to Belgium is 270 GWh/d, to which we subtract the quantity that was subscribed at the exit of the terminal of Dunkirk to Belgium. Terminal reservations to Belgium amount to 220 GWh/d until 2030.

<sup>2</sup> Deliberation of the Energy Regulatory Commission of 2 February 2017, decision on the creation of a virtual interconnection point between France and Belgium

<sup>3</sup> Sales platform transmission capacity available from 1 April 2013



### 1.3.3 Creation of the entry charge at PIR Oltingue

Deliberation no. 2017-188 of CRE of 27 July 2017<sup>4</sup> clarified the marketing rules for the new entry capacity at PIR Oltingue.

From the commissioning of the new capacity at Oltingue, scheduled no later than 1 October 2018, 100 GWh/d of firm capacity and 100 GWh/d of interruptible capacity will be proposed in the direction Switzerland to France. This capacity will be based on the existing core network structures, sized for the PIR Taisnières H and Obergaillbach. Thus, these 100 GWh/d of firm capacity cannot be sold entirely if the entry capacities at Taisnières H and Obergaillbach are too.

This capacity will be commercialized on the PRISMA platform at annual, quarterly, monthly, daily and infra-daily time steps. The annual capacities will only be commercialized for the following year after the marketing of capacity at PIR Taisnières H and Obergaillbach. Interruptible capacity will only be commercialized on a quarterly and monthly basis, provided that all firm entry capacities (on each point or on the sum of the three points Taisnières H, Obergaillbach and Oltingue) on these maturities have been sold.

CRE proposed to apply the same tariff charge as that applicable to other entry capacities in France to the new entry capacity at Oltingue, and to apply the same reduction coefficient to interruptible capacities, i.e. 50%.

All stakeholders responding to the public consultation are in favour of applying the same pricing principles to Oltingue as to other gas entry points on the French transmission network.

The entry capacity charge (TCE) applied to the firm entry capacity at Oltingue will therefore be identical to that of the other PIRs in zone H. The coefficient applicable to interruptible capacities will be identical to that applicable to PIRs in northern France, i.e. 50%. In addition, the capacities proposed in the direction France to Switzerland will be unchanged and the capacity will be maintained until the effective implementation of new capabilities.

### 1.3.4 Changes to the PITTM offering

The tariff deliberation of 15 December 2016 states that the holding regasification capacities at a LNG terminal involves the right and obligation to subscribe entry capacities on the transmission system for the relevant periods and levels.

In the case of a shipper having regasification capacity subscriptions that last less than one year, the shipper will be allocated a firm entry capacity band for the subscribed period. In the event of a delay in the arrival date of a ship, this shipper does not have the possibility of postponing its corresponding transport subscription. However, the delivery schedule of a ship can be delayed for many reasons related to unforeseen events in the upstream supply chain.

GRTgaz proposes to grant the possibility of an offset in subscriptions on the transmission system for intra-annual customers of LNG terminals, with seven days' notice. The sender concerned could offset the start date of the capacity band allocated to it and its duration subject to a minimum total issue duration of 10 days, and provided that the full volume of subscribed capacity is retained.

The participants who responded to the public consultation are in favour of such a change. Several participants believe that it will lead to making LNG terminals more attractive.

CRE is in favour of the change proposed by GRTgaz.

### 1.3.5 Change of the fee paid by Fluxys to GRTgaz for transmission from the Dunkirk LNG terminal to the Belgian border

The open season held by GRTgaz between 2010 and 2011, in coordination with Fluxys, allowed the launch of the investments necessary to create the Alveringem interconnection point. Capacities entering Belgium from the Dunkirk LNG terminal are commercialized by Fluxys and transmission on the GRTgaz network is the subject of a service provision from GRTgaz to Fluxys.

In its decision of 12th July 2011<sup>5</sup>, CRE indicated, in respect of the forecast costs for development of these capacities, that the tariff invoiced by GRTgaz to Fluxys for transport from the terminal to Belgium would be €45/MWh/d/year. CRE has stipulated that this amount would be reassessed according to the real level of investment.

In accordance with the aforementioned deliberation, CRE recalculated the price of the service, taking into account the costs at the end of the project. Consequently, on 1 April 2018, the price will amount to 44.80 €/MWh/d/year.

<sup>4</sup> [Deliberation of CRE of 27 July 2017 deciding on the change of the marketing method of the capacity at PIR Dunkerque, on the change of the marketing modes of the interruptible capacity, and on the creation of an entry capacity in Oltingue](#)

<sup>5</sup> [Deliberation of the French Energy Regulatory Commission of 12 July 2011 concerning the connection conditions of the Dunkirk LNG terminal to the GRTgaz network and the development of a new interconnection with Belgium at Veurne](#)

### 1.3.6 Change to the redistribution method of auction surpluses

At present, the surpluses collected by TSOs during capacity auctions are paid back to shippers in proportion to their consumption in the downstream zone of the point concerned, via the calculation of unit redistribution amounts. These amounts are calculated on a reference consumption base for the year preceding the calculation, and therefore give rise to post-clearance corrections. The unit amounts of redistribution of auction surpluses that will apply until 30 September 2018 have been published by GRTgaz<sup>6</sup> and TIGF<sup>7</sup>.

The creation of the single marketplace scheduled for 1 November 2018 will eliminate the North to South link, source of the majority of auction surpluses. In this context, the TSOs propose to stop the forecast redistribution system on 1 November 2018 to replace it with an annual repayment *post hoc*. Therefore, as of 1 November 2018, they propose that the surpluses collected at interconnections over the period 1 November 2018 - 30 September 2019 to be redistributed at once to shippers delivering end customers in France, in proportion to the volumes consumed for the period, considered at the latest on the November 2019 invoice.

Furthermore, in order to settle the balances of the current mechanism, the TSOs propose that (i) the surplus in the period from 1 July 2017 to 30 September 2018 not included in the unit price published until 30 September 2018 (ii) the surpluses over the month of October 2018, as well as (iii) the correction between the reallocation achieved and the targeted redistribution until 30 September 2018 be paid back in one instalment on the November 2018 invoice, *pro rata* consumption observed between 1 October 2017 and 30 September 2018, less amounts excluded volumes under the allocation phase regulated price of capacity for gas-intensive sites in the case of the North to South link.

All the answers to the public consultation are favourable to this change. Market participants consider that it will simplify the redistribution system of auction surpluses.

CRE is in favour of this change. Indeed, it considers that it will simplify the redistribution scheme while maintaining the same rights for each shipper to collect the auction surpluses.

## 1.4 Incentive regulation for quality of service

The service quality indicators and associated financial incentives are detailed in Appendix 2.

### 1.4.1 Recap of the mechanism in force

The aim of the incentive regulation for the TSO quality of service is to improve the quality of service provided to transmission network users in fields considered particularly important for good operation of the gas market.

Since 1 April 2016, the TSO service quality has been monitored using 20 indicators. Of these 20 indicators, 5 are subject to a financial incentive in order to improve the quality and provision of data for the shippers.

The 20 indicators monitored relate to the following topics:

- the quality and availability of data to shippers from the TSOs (5 indicators);
- the information published and the types of TSO intervention on the markets as part of the balancing system put in place on 1 October 2015 (5 indicators);
- compliance with the forecasts provided to the shippers concerning the TSO schedule of works (6 indicators);
- the reliability of the stock indicator in projected pipeline (1 indicator);
- the availability of the North to South link (1 indicator);
- the environmental impact of the TSOs (2 indicators).

The indicator on compliance with the maintenance programme relating to the interruptible capacity of the North to South link published in M-2 is currently not calculated by GRTgaz and will be deleted. Indeed, the availability of interruptible capacity on the North to South link does not depend on the maintenance programme, but it depends mainly on network conditions and climatic conditions.

### 1.4.2 TIGF Request

TIGF sent CRE proposals for changes concerning the monitoring of the maintenance impact on the availability of capacity at PITS and PIR. Indeed, TIGF considers that the establishment of the single market place would lead to a sharing with GRTgaz of the maintenance impacts on the availability of its infrastructure.

<sup>6</sup> GRTgaz communication on unit amounts

<sup>7</sup> TIGF communication on unit amounts

Consequently, TIGF proposes that service quality monitoring indicators on the maintenance impact on the availability of infrastructure be involved with financial incentives from 1 April 2018. These incentives would include the availability of capacity and compliance with maintenance programmes at PITS and PIRs.

Several participants consider that this incentive is not useful in the immediate future in view of the recent progress made by GRTgaz and wish that feedback is presented in Concertation Gaz in order to envisage, if necessary, the setting up this incentive for the tariff changes on 1 April 2019. Other stakeholders still believe that a financial incentive is relevant to ensure that the TSOs' efforts to reduce availability continue.

Given the actions undertaken by GRTgaz to optimise its maintenance work, which led to a 10% decrease between 2016 and 2017 in the restrictions applied, and the positive return of shippers in Concertation Gaz, CRE proposes, at this stage, not to encourage the TSOs on these indicators.

## 2. PARAMETERS AND CHANGE TO THE EVOLUTION TARIFF OF GRTGAZ AND TIGF NATURAL GAS TRANSMISSION NETWORKS AS OF 1 APRIL 2018

### 2.1 2018 allowed revenue of GRT

#### 2.1.1 Capital charges

The trajectory of normative capital charges (NCC) is fixed for the tariff period of the ATRT6 tariff. Any differences between planned and actual expenses are 100% covered by the Revenues and expenses clawback account (CRCP), with the exception of expenses relating to assets known as "non-network" assets for which only the difference due to inflation is taken into account via the CRCP.

Normative capital charges (NCC)	2017	2018	2019	2020
GRTgaz	993.4	1006.9	1068.1	1070.8
of which "non-network" NCC	93.9	98.3	104.1	101.1
TIGF	158.7	164.9	175.3	180.4
of which "non-network" NCC	18.9	21.7	20.7	22.4

The regulated asset base of the operators is broken down as follows:

Regulated asset bases (RAB) at 01/01/N	2017	2018	2019	2020
<b>GRTgaz</b>	<b>8,281.2</b>	<b>8,270.3</b>	<b>8,863.8</b>	<b>8,941.6</b>
<i>Pipelines and connections</i>	5,178.3	5,139.1	5,525.0	5,564.3
<i>Compression</i>	1,380.2	1,411.4	1,572.9	1,572.9
<i>Delivery, pressure-reducing and metering stations</i>	521.4	549.6	586.9	616.0
<i>Real estate, construction, land</i>	589.0	595.2	587.8	589.7
<i>Other (hardware, tools, software, IS etc.)</i>	612.2	574.9	591.2	598.6
<b>TIGF</b>	<b>1,338.4</b>	<b>1,353.4</b>	<b>1,496.1</b>	<b>1,560.0</b>
<i>Pipelines and connections</i>	956.1	945.3	1,072.9	1,120.4
<i>Compression</i>	171.6	189.0	201.3	218.8
<i>Delivery, pressure-reducing and metering stations</i>	52.9	55.1	57.2	59.2
<i>Real estate, construction, land</i>	42.2	42.3	42.4	42.5
<i>Other (hardware, tools, software, IS etc.)</i>	115.6	121.8	122.3	119.0

#### 2.1.2 Net operating expenses (excluding energy)

For the year 2017, net operating expenses, excluding changes in energy costs, retained in the ATRT6 tariff were € 763.8 million for GRTgaz and € 76.3 million for TIGF.

The ATRT6 tariff states that, excluding the change in the energy price, the net operating expenses for the year 2018 are calculated by applying a percentage change equal to CPI +0.74% for GRTgaz and CPI +1.04% for TIGF to the net operating expenses of the previous year, "where CPI is the average annual variation actually observed for the previous calendar year for the consumer price index excluding tobacco, as calculated by the French National Statistics Office (INSEE) for all households throughout France"

The inflation assumption for 2017 on which is based the draft finance law (DFL) for 2018 being +1.0%, the net operating expenses retained for 2018, except variation of the price of the energy, increasing 1.74% for GRTgaz, that is to say an amount of €+13.3 and increasing 2.04% for TIGF, that is to say an amount of €1.6 M, compared to those retained for the year 2017.

The difference between the forecast inflation for 2017 taken into account by CRE to update TSOs' net operating expenses and actual inflation will be 100% covered by the CRCP.

**2.1.3 "Energy and CO<sub>2</sub> quotas" item**

• **GRTgaz**

In its tariff dossier GRTgaz estimates that the "Energy and CO<sub>2</sub> quotas" item will amount to € 91.4 million in 2017, compared to the € 91.8 million level retained in the price trajectory during the development work of the ATRT6 tariff. GRTgaz explains this trend by reducing the need for gas compressors thanks to high delivery pressures in Dunkirk and the use of swaps, partly offset by the strong solicitation of electro compressors during winter peak and by a forecast increase in the technical balance sheet (EBT)<sup>8</sup>. GRTgaz also anticipates optimising its energy consumption, which means it will not have to buy CO<sub>2</sub> quotas.

For the year 2018, GRTgaz anticipates a level of expenses of €M 98.6, and justifies this forecast, up €M 12.3 compared to the trajectory retained during the ATRT6 works, on the one hand, by a strong increase in EBT and energy consumption volumes, and, on the other hand, the rise in the price of electricity and the Internal Consumption Tax (ICT), which applies to GRTgaz's fuel gas consumption.

**GRTgaz – Energy charges requested**

"Energy and CO <sub>2</sub> quotas" item (request)	2016			2017			2018		
	Estimated	Actual	Var.	Forecast	Estimated	Var.	Tariff	Forecast	Var.
<b>Gas (€M)</b>	73.9	61.3	-12.6	53.3	53.0	-0.3	48.5	53.2	+4.7
Volumes (GWh)	3,443	2,979	-464	3,004	3,026	+22	2,971	3,189	+218
Price (€/MWh)	21.5	20.6	-0.9	17.7	17.5	-0.2	16.3	16.5	+0.2
<b>Electricity (€M)</b>	31.7	32.0	+0.3	27.9	30.7	+2.8	28.2	33.1	+4.9
Volumes (GWh)	423	414	-10	396	435	+39	396	439	+43
Price (€/MWh)	74.9	77.3	+2.4	70.5	70.5	-	71.2	75.4	+4.2
<b>CO<sub>2</sub></b>	0.0	0.0	0.0	1.0	0.0	-1.0	0.0	0.0	0.0
<b>ITC<sup>9</sup></b>	6.3	5.4	-0.9	9.6	7.8	-1.9	9.5	12.3	+2.8
<b>Total energy costs</b>	<b>111.9</b>	<b>98.7</b>	<b>-13.2</b>	<b>91.8</b>	<b>91.4</b>	<b>-0.4</b>	<b>86.3</b>	<b>98.6</b>	<b>+12.3</b>

CRE retains several adjustments to this request:

- the energy consumption levels forecast for 2018 for compressors are brought back to the level estimated for 2017 and take into account the energy savings planned under the GRTgaz 2020 programme;
- EBT volumes are revised downwards, in particular to take into account the level achieved in previous years.

As a result, CRE's level of energy charges is as follows:

<sup>8</sup> The technical balance sheet (EBT) is the difference, due to measurement errors, between the quantities of gas counted at the entry and exit of the GRTgaz network.

<sup>9</sup> ITC: Internal tax on consumption

"Energy and CO <sub>2</sub> quotas" item (retained by CRE)	2017			2018		
	Forecast	Estimate d	Var.	Tariff	Forecast	Var.
<b>Gas (€M)</b>	53.3	50.4	-2.9	48.5	47.3	-1.2
<i>Volumes (GWh)</i>	3,004	2,876	-128	2,971	2,833	-161
<i>Price (€/MWh)</i>	17.7	17.5	-0.2	16.3	16.5	+0.2
<b>Electricity (€ M)</b>	27.9	30.7	+2.8	28.2	32.8	+4.6
<i>Volumes (GWh)</i>	396	435	+39	396	435	+39
<i>Price (€/MWh)</i>	70.5	70.5	0.0	71.2	75.4	+4.2
<b>CO<sub>2</sub></b>	1.0	0.0	-1.0	0.0	0.0	0.0
<b>ITC<sup>11</sup></b>	9.6	7.6	-2.0	9.5	11.5	+2.0
<b>Total energy costs</b>	<b>91.8</b>	<b>88.6</b>	<b>-3.2</b>	<b>86.3</b>	<b>91.6</b>	<b>+5.4</b>

- **TIGF**

TIGF estimates that the "Energy and CO<sub>2</sub> quotas" item will stand at €M 7.5 in 2017, compared to the €M 7.1 retained in the tariff path during the preparation of the ATRT6 tariff. TIGF explains this increase by increasing the quantities transported to the TIGF zone over the period from January to June 2017 compared to the same period in 2016. TIGF also anticipates optimisations of its energy consumption allowing it not to have to buy CO<sub>2</sub> quotas.

For the year 2018, TIGF anticipates a level of expenses of € 7.3 M, and justifies this forecast, up € 0.4 M compared to the 2018 tariff forecasts, by the integration of a CO<sub>2</sub> load in anticipation of the introduction of the project of a complementary carbon tax, not taken into account when defining the ATRT6 tariff.

**TIGF – Energy charges requested**

"Energy and CO <sub>2</sub> quotas" item (request)	2017			2018		
	Forecast	Estimate d	Var.	Tariff	Forecast	Var.
<b>Gas (€M)</b>	5.7	6.0	+0.3	5.5	5.5	0.0
<i>Volumes (GWh)</i>	310	332	+22	307	306	-1.0
<i>Price (€/MWh)</i>	18.3	18.2	-0.1	17.9	18.0	+0.1
<b>Electricity (€ M)</b>	1.3	1.5	+0.2	1.4	1.4	0.0
<i>Volumes (GWh)</i>	12	16	+4	12.7	12.7	0.0
<i>Price (€/MWh)</i>	107.2	93.1	-14.1	107.2	107.2	0.0
<b>CO<sub>2</sub></b>	0.2	0.0	-0.2	0.0	0.0	0.0
<b>ITC<sup>10</sup></b>	0.0	0.0	0.0	0.0	0.4	+0.4
<b>Total energy costs</b>	<b>7.1</b>	<b>7.5</b>	<b>+0.4</b>	<b>6.9</b>	<b>7.3</b>	<b>+0.4</b>

CRE retains several adjustments to this request:

- the EBT (Technical Balance Sheet) volumes are revised downwards, in particular to take into account the level achieved in previous years;

<sup>10</sup> ITC: Internal tax on consumption

- the price of electricity is revised downward, in particular to take into account the price obtained in previous years.

As a result, CRE's level of energy charges is as follows:

"Energy and CO <sub>2</sub> quotas" item (retained by CRE)	2017			2018		
	Forecast	Estimated	Var.	Tariff	Forecast	Var.
<b>Gas (€M)</b>	5.7	6.0	+0.3	5.5	5.1	-0.4
<i>Volumes (GWh)</i>	310	332	+22	307	281	-26
<i>Price (€/MWh)</i>	18.3	18.2	-0.1	17.9	18.0	+0.1
<b>Electricity (€ M)</b>	1.3	1.5	+0.2	1.4	1.2	-0.2
<i>Volumes (GWh)</i>	12	16	+4	12.7	12.7	0.0
<i>Price (€/MWh)</i>	107.2	93.1	-14.1	107.2	93.1	-14.1
<b>CO<sub>2</sub></b>	0.2	0.0	-0.2	0.0	0.0	0.0
<b>ITC<sup>11</sup></b>	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total energy costs</b>	<b>7.1</b>	<b>7.5</b>	<b>+0.4</b>	<b>6.9</b>	<b>6.3</b>	<b>-0.6</b>

#### 2.1.4 Calculation of the CRCP

The balance of the CRCP as of 31 December 2017 will be cleared over a period of 4 years. In order to ensure the financial neutrality of the mechanism, it is discounted at the interest rate of 2.7% corresponding to the nominal risk-free rate for the ATRT6 period.

- GRTgaz

In its tariff dossier, GRTgaz estimated the balance of the CRCP at 31 December 2017 to € 117.4 M as a deduction from the expenses to be covered.

The balance of the CRCP at 31 December 2017 retained by CRE in the calculation of GRTgaz's allowed revenue amounts to € 123.5 M, which will be deducted from the expenses to be covered. This value is based on the updated balances of previous CRCPs, the discounted difference between the CRCP balance for 2016 and the balance of the CRCP that was estimated for 2016 when the ATRT6 tariff was developed, as well as the balance updated CRCP estimated for 2017. The difference with respect to GRTgaz's demand stems from the correction of the assumptions on energy costs and capacity subscription revenues estimated for 2017.

<sup>11</sup> ITC: Internal tax on consumption



<b>GRTgaz – CRCP at 31 December 2017</b>	
<b>GRTgaz</b>	<b>Amount in €M</b>
<b>Remainders of prior CRCPs</b>	<b>-79.5</b>
<b>Difference between estimated CRCP for 2016 to 1 April 2017 and the actual CRCP for 2016</b>	<b>-10.6</b>
<b>Estimated differences in charges and revenues for 2017</b>	<b>-33.4</b>
<i>of which transmission revenue 100% covered</i>	<i>-5.1</i>
<i>of which transmission revenue 80 % covered</i>	<i>-9.3</i>
<i>of which CCCG and TAC connection revenues</i>	<i>1.9</i>
<i>of which normative capital charges</i>	<i>-2.9</i>
<i>of which energy costs</i>	<i>-2.5</i>
<i>of which inter-operator contract</i>	<i>-0.2</i>
<i>of which OPEX spread due to inflation</i>	<i>0.0</i>
<i>of which service quality</i>	<i>0.3</i>
<i>of which H-B conversion benefit (volume change)</i>	<i>-15.2</i>
<i>of which pilot conversion to H gas from zone B</i>	<i>-0.1</i>
<i>of which untying R&amp;D activities from the parent company</i>	<i>-1.7</i>
<i>of which third-party benefits related to major development projects</i>	<i>-0.2</i>
<i>of which localised spread costs observed since November (see section 2.1.6)</i>	<i>1.7</i>
<b>CRCP balance at 31 December 2017</b>	<b>-123.5</b>

The balance of the CRCP balance as of 31 December 2017 will be cleared in four constant years of - € 33.0 M, reducing the allowed revenue. The amount for deviations of 2017 is provisional: the final value will be included in the CRCP during the tariff update on 1 April 2019.

- **TIGF**

In its tariff dossier, TIGF estimated the balance of the CRCP at 31 December 2017 to € 3.2 M as a deduction from the expenses to be covered.

The balance of the CRCP at 31 December 2017 retained by CRE in the calculation of TIGFs allowed revenue amounts to € 1.6 M, which will be deducted from the expenses to be covered. This value is based on the updated balances of previous CRCPs, the discounted difference between the CRCP balance for 2016 and the balance of the CRCP that was estimated for 2016 when the ATRT6 tariff was developed, as well as the balance updated CRCP estimated for 2017. The difference with respect to TIGF's demand stems from the correction of the assumptions on energy costs and capacity subscription revenues estimated for 2017.

<b>TIGF' – CRCP at 31 December 2017</b>	
<b>TIGF</b>	<b>Amount in €M</b>
<b>Remainders of prior CRCPs</b>	<b>-2.6</b>
<b>Difference between estimated CRCP for 2016 to 1 April 2017 and the CRCP achieved for 2016</b>	<b>-1.6</b>
<b>Estimated differences in charges and revenues for 2017</b>	<b>2.6</b>
<i>of which transmission revenue 100 % covered</i>	2.2
<i>of which transmission revenue 80 % covered</i>	-1.2
<i>of which normative capital charges</i>	0.9
<i>of which energy costs</i>	-0.1
<i>of which inter-operator contract</i>	0.2
<i>of which OPEX spread due to inflation</i>	0.0
<i>of which service quality</i>	0.6
<b>CRCP balance at 31 December 2017</b>	<b>-1.6</b>

The balance of the CRCP balance as of 31 December 2017 will be cleared in four constant years of €-0.4 M, decreasing the allowed revenue. The amount for deviations of 2017 is provisional: the final value will be included in the CRCP during the tariff update on 1 April 2019.

### 2.1.5 Inter-operator repayment annuity

On the occasion of the creation of the single market zone, the constant maintenance of the cost of the main transit routes will result in the deferral of part of the revenue initially collected to the North to South link (in the GRTgaz zone) on the Pirineos exit point (located in the TIGF zone). However, the costs incurred by the use of this transit route are still borne by both TSOs. In addition, the service provided by each of the two TSOs remains the same. To avoid a cross subsidy between the two TSOs, the deliberation of 15 December 2016 introduces, as from the creation of the single market area, a financial flow from TIGF to GRTgaz.

This transfer from TIGF to GRTgaz is equal to the increase in the tariff charge at PIR Pirineos due to the partial transfer of the tariff charge to the North to South link on the tariff charge at PIR Pirineos at the time of the creation of the single marketplace.

The estimated amount of the transfer from TIGF to GRTgaz for part of the revenues collected at the PIR Pirineos exit point is equal to €117.9/MWh/d/year, applied to the forecast subscriptions for this exit point. The projected level of the repayment will be reviewed at the time of each tariff update to take into account the revised subscription assumptions retained by CRE.

<b>Inter-operator flow, in €M<sub>current</sub></b>	<b>2018</b>
TIGF to GRTgaz	3.0

The financial transfer of TIGF to GRTgaz will be made on the basis of the subscriptions made, at a frequency agreed between the two TSOs. At the end of the year, any differences that may appear between the amount repaid and the projected amount will be covered 100% by the CRCP of each TSO.

### 2.1.6 Additional hedge requests

- **Additional security stock cover in Manosque**

The Directorate General for Energy and Climate (DGEC) asked GRTgaz to set up, before the winter of 2017-2018, an additional stock of 1 TWh of natural gas, located in the saline storage facilities as a precaution. During the summer, GRTgaz purchased the necessary storage capacity from Storengy and purchased 1 TWh of gas. In its tariff dossier GRTgaz requested that the cost of subscribing the storage capacity in Manosque for the amount of € 14.8 M be included in the allowed revenue for the year 2018.

The Chairman of CRE sent a letter to GRTgaz indicating that the coverage of the subscription charges for the additional security stock would be studied during the rate update work, taking into account the overall level of operating expenses. achieved by GRTgaz in 2017 compared to the operating expense trajectory set by the tariff.

CRE recalls that the trajectory of operating expenses is set for the ATRT6 tariff period. In addition, the tariff framework plans a remuneration of the assets covering the risks borne by the operators, including regulatory risk.

The items that GRTgaz has sent to CRE concerning the estimated operating expenses as at 31 December 2017 do not show that GRTgaz's overall costs would not be covered by the amounts allocated in the ATRT6 trajectory. As a result, CRE does not accept the € 14.8 M hedge request for GRTgaz's 2018 allowed revenue.

As regards the volume of gas purchased for the safety stock, GRTgaz has estimated a zero impact on its expenses in its tariff file, with the assumption of resale of volumes at a price equivalent to their purchase price.

- **Hedge by the tariff of congestion relief costs**

The winter of 2016-2017 was marked by South East congestion, caused by low LNG supplies in the South of France, coupled with significant consumption in this area. As long as the construction of works to merge the North and South GRTgaz areas is not completed, the risk of Southeast congestion for the winter of 2017-2018 remains. As a result, GRTgaz anticipates in its tariff application a total of € 4 M of congestion removal costs distributed as follows:

- € 1 M for the months of November and December 2017;
- € 3 M for the months of January, February and March 2018.

In addition, GRTgaz calls for anticipation allowing it to carry out exceptional measures in case of crisis, an amount of up to €12 M.

GRTgaz and TIGF request the coverage of all congestion charge costs via a neutrality account. Otherwise, GRTgaz requests the inclusion of these amounts in its 2018 allowed revenue, and the coverage of any differences between the estimated and costs 100% realised to the CRCP.

Several stakeholders favoured *post hoc* coverage of congestion treatment costs in the tariff. They share CRE's preliminary analysis and consider that these costs are difficult to estimate at this stage and that in any event the CRCP mechanism will make it possible to cover the expenses that would have been underestimated. Only one participant considers the fact that these congestion treatment costs are not covered *post hoc* harmful to the market. This could, in its opinion, encourage TSOs to use non-market mechanisms to deal with possible congestion.

CRE plans to cover the costs incurred to deal with the South-East congestion that took place in November and early December 2017. In fact, because of this congestion, GRTgaz launched tenders on the localised spread which made it possible to cover a need of 264 GWh for a total amount of approximately €1.7 M. This amount is included in the provisional CRCP balance of GRTgaz as of 31 December 2017.

CRE also retains an amount of € 1.6 M from GRTgaz's 2018 allowed revenue to cover the costs of treating the South-East congestion if it were to persist for the remainder of the 2017-2018 winter. In the event that the congestion relief costs exceed this amount, the associated deviations will be covered in the CRCP.

Lastly, CRE holds an amount of € 0.4 M for GRTgaz and € 0.3 M for TIGF for congestion relief costs for the months of November and December 2018 that could remain at the end of the creation of the single marketplace.

- **Support by the ATRT tariff for part of the connection costs of the biomethane injection facilities**

As for all transmission connections, the carriers of biomethane projects connected to the gas transmission network of GRTgaz and TIGF bear all the costs related to the connection of the installation.

GRTgaz and TIGF requested that, during the tariff update on 1 April 2018, CRE introduce a "transmission reduction", with the aim of taking charge of transport costs up to 40% of the cost of connecting a biomethane injection plant.

Responses to the public consultation were divided on this topic:

- the majority of the shippers expressed themselves to be against the introduction of a biomethane reduction supported by the users of the transmission networks. These shippers consider that such a measure would lead to the selection of projects whose total cost to the community could ultimately be greater than that of projects that have been eliminated;
- many biomethane injection project leaders, as well as several communities and stakeholders in such projects, have expressed the wish that the biomethane reduction be extended to the transport networks. They want the same conditions to apply to distribution networks and transmission networks, especially since connections are generally more expensive on transmission networks.

CRE notes that an amendment planning the extension of the reduction principle for biomethane installations to the transmission system has been introduced in the Hydrocarbons Law. It will monitor the implementation of this mechanism.

In addition, CRE recalls that the regulatory framework for the ATRT6 tariff does not provide coverage to the CRCP for this category of operating revenue, the trajectory of which is set for the period 2017-2020. This does not undermine CRE's favourable position on greening gas.

**2.1.7 2018 allowed revenue**

The allowed revenue for the year 2018 is defined as the sum of the following items:

- normative capital charges for the year 2018, the trajectory of which is set by the ATRT6 deliberation;
- net operating expenses for 2018, the trajectory of which is set by the ATRT6 deliberation;
- the change in the amount of the energy item between the 2018 forecast provided by the operators and the amount provided for by the ATRT6 tariff for the same year;
- the clearance of a quarter of the CRCP balance, estimated at the end of 2017;
- the projected annuity of the inter-operator repayment;
  
- 2018 allowed revenue of GRTgaz

GRTgaz, in €M <sub>current</sub>	2017	2018
Net operating expenses	763.9	777.1
Variation of Energy item and CO <sub>2</sub> Quotas	-	5.4
Variation of the congestion relief costs item	-	2.0
Normative capital charges	993.4	1,006.9
Clearance of the CRCP (remainder from previous CRCP accounts + 2015 balance + 2016 estimate)	-27.9	-33.0
Inter-operator financial compensation	-	-3.0
<b>Allowed revenue before smoothing</b> <i>Change from 2017</i>	<b>1,729.3</b>	<b>1,755.5</b> +1.5 %
Allowed revenue smoothing over 4 years	47.7	26.4
<b>Allowed revenue</b> <i>Change from 2017</i>	<b>1,777.1</b>	<b>1781.9</b> + 0.3 %

- **2018 allowed revenue of TIGF**

TIGF, in €M <sub>current</sub>	2017	2018
Net operating expenses	76.3	77.8
Variation of Energy station and CO <sub>2</sub> quotas	-	-0.6
Variation of the congestion relief costs item	-	0.3
Normative capital charges	158.7	164.9
Clearance of the CRCP (remainder from previous CRCP accounts + 2015 balance + 2016 estimate)	-0.9	-0.4
Inter-operator financial compensation	-	<b>3.0</b>
<b>Allowed revenue before smoothing</b> <i>Change from 2017</i>	<b>234.0</b>	<b>245.0</b> +4.7 %
Allowed revenue smoothing over 4 years	5.2	1.1
<b>Allowed revenue</b> <i>Change from 2017</i>	<b>239.2</b>	<b>246.1</b> +2.9 %

## 2.2 Assumptions of capacity subscriptions for the year 2018

### 2.2.1 GRTgaz

GRTgaz submitted new capacity subscription assumptions in its tariff dossier for the year 2018: the latter show a decrease of 3% for the upstream capacities, and of 1% for the downstream capacities, i.e. an average decrease of approximately 1.9% compared to the subscription forecast selected for 2017 in the ATRT6 tariff trajectory. The trajectory of changes in capacity underwriting assumptions predicted an average annual decrease in subscriptions of approximately 1.1% between 2017 and 2018.

CRE considered that certain assumptions made by GRTgaz were too conservative, and consequently made a certain number of adjustments. In particular, CRE has chosen higher PITS subscription trajectories than those requested by GRTgaz, given the expected benefits of the storage reform. It has also made upward adjustments to the RIP subscriptions to take into account the latest subscriptions observed to date and has renewed the update of subscriptions on the regional network adopted in the ATRT6 tariff path. Lastly, CRE anticipates revenue from ancillary services (JTS, Market coupling, PEG revenues) higher than GRTgaz's forecasts, which seem more coherent with the history and needs of the market.

The path chosen by CRE for the update of ATRT6 rate at 1 April 2018 represents an update of subscriptions of approximately 1.2% between 2017 and 2018.

**GRTgaz – Revenue from capacity subscriptions**

Revenue from capacity subscriptions, in €M <sub>current</sub>	2017 subscriptions (valued at the 2017 tariff)			2018 subscriptions (valued at the 2017 tariff)		
	Forecast	Est. CRE	Var.	Tariff	Forecast CRE	Var.
PIR revenue	279.8	280.0	+0.2	277.2	275.0	-2.2
PITS revenue	23.4	19.7	-3.7	23.4	17.4	-6.0
PITTM revenue	92.5	93.0	+0.5	92.5	93.0	+0.5
North to South connection revenue	62.9	69.1	+6.2	48.8	57.9	+9.1
Exits to regional network revenue	355.8	359.7	+3.9	353.9	357.6	+3.7
Regional network revenue	928.1	928.0	-0.1	922.6	922.3	-0.3
Other revenue	20.2	23.2	+3.0	24.5	19.3	-5.2
<b>TOTAL Revenue</b>	<b>1762.8</b>	<b>1772.5</b>	<b>+9.7</b>	<b>1742.8</b>	<b>1742.4</b>	<b>-0.4</b>

**2.2.2 TIGF**

TIGF submitted new capacity subscription assumptions for the year 2018 in its tariff file. These are down -1.5% compared to the subscription forecast for 2017 in the ATRT6 tariff trajectory. The trajectory of changes in capacity underwriting assumptions predicted an average annual decrease in subscriptions of approximately -0.1 % between 2017 and 2018.

CRE considered that certain assumptions made by TIGF were too conservative, and consequently made a number of adjustments. In particular, it has chosen higher PITS subscription trajectories than in TIGF's application. This adjustment, however, takes into account the risk of declining attractiveness of storage facilities in the South with the introduction of the single marketplace.

CRE has also made upward adjustments to subscriptions to the PIRINEOS PIR, taking into account the levels achieved in recent years, and has increased subscriptions on the regional network. Lastly, CRE has retained revenue from the UIOLI (Use It Or Lose It) service higher than TIGF's forecasts, in line with the levels observed over the past three years.

The trajectory used for the development of ATRT6 rate at 1 April 2018 represents an update of subscriptions of approximately 0.2% between 2017 and 2018.

**TIGF – Revenue from capacity subscriptions**

Revenue from capacity subscriptions, in €M <sub>current</sub>	2017 subscriptions (valued at the 2017 tariff)			2018 subscriptions (valued at the 2017 tariff)		
	Tariff	Est.	Var.	Tariff	Forecast	Var.
PIR revenue	92.2	93.5	+1.3	92.0	93.9	+1.9
PITS revenue	11.0	11.4	+0.4	11.0	10.6	-0.4
Exits to regional network revenue	30.4	29.6	-0.8	30.4	29.8	-0.6
Regional network revenue	103.7	101.7	- 2.0	103.7	102.4	-1.3
Other revenue	0.8	0.9	+0.1	0.8	1.2	+0.4
<b>TOTAL Revenue</b>	<b>237.9</b>	<b>237.2</b>	<b>-0.7</b>	<b>237.7</b>	<b>237.9</b>	<b>+0.2</b>

**2.2.3 Total France (main network)**

Revenue from capacity subscriptions, in €M <sub>current</sub>	2017 subscriptions (valued at the 2017 tariff)			2018 subscriptions (valued at the 2017 tariff)		
	Tariff	Est.	Var.	Tariff	Forecast	Var.
Total Entries (PIR, PITTM, PITS)	310.3	271.6	-38.7	311.3	305.7	-5.6
Total Exits (PIR, PITS, Exits towards the regional network)	574.4	579.0	4.6	571.8	571.5	-0.3
<b>Total subscription revenue</b>	<b>884.8</b>	<b>850.6</b>	<b>-34.2</b>	<b>883.1</b>	<b>877.2</b>	<b>-5.9</b>

**2.3 Tariff change on 1 April 2018**

**2.3.1 GRTgaz**

Allowed revenue and forecast capacity subscriptions held by CRE lead to changes in the average price of GRTgaz of +3.0% on 1 April 2018.

2018 (compared to 2017)	Change to allowed revenue	Change of capacity subscriptions	Change to average tariff
<b>Changes</b>	<b>+ 0.3 %</b>	<b>-1.2 %</b>	<b>+ 3.0 %</b>

The decision of 15 December 2016 states that the terms of the main network will evolve the 1 April of each year of the inflation. CRE retains the CPI included in the 2018 draft finance law, i.e. +1.0%. As a result, the terms of the regional network will change of + 4.8% (compared to a forecast of + 4.5% in the deliberation of 15 December 2016).

**2.3.2 TIGF**

Allowed revenue and forecast capacity subscriptions held by CRE lead to changes in the average price of TIGF of +4.6% on 1 April 2018.

2018 (compared to 2017)	Change to allowed revenue	Change of capacity subscriptions	Change to average tariff
<b>Changes</b>	<b>+2.9 %</b>	<b>+0.2 %</b>	<b>+ 4.6 %</b>

The decision of 15 December 2016 states that the terms of the main network will evolve the 1 April of each year of the inflation. CRE retains the CPI included in the 2018 draft finance law, i.e. +1.0%. As a result, the terms of the regional network will change of +5.5% (compared to a forecast of +5.4% in the deliberation of 15 December 2016).

### **3. RATE OF USE OF GRTGAZ AND TIGF NATURAL GAS TRANSMISSION NETWORKS, EFFECTIVE 1 APRIL 2018**

#### **3.1 Tariff rules**

##### **3.1.1 Definitions**

###### **Network Interconnection Point (PIR):**

Physical or notional interconnection point between main transmission systems of two transmission system operators (TSOs).

###### **Regional Network Interconnection Point (PIRR):**

Physical or notional interconnection point between a regional transmission system and a foreign operator network.

###### **LNG Terminal Transmission Interface Point (PITTM):**

Physical or notional interconnection point between a transmission system and one or more LNG terminals.

###### **Transport Storage Interface Point (PITS):**

Physical or notional interface point between a transmission system and a storage group.

###### **Transport/Production Interface Point (PITP):**

Physical or notional interface point between a transmission system and a gas or biomethane gas production facility.

###### **Transport Distribution Interface Point (PITD):**

Physical or notional interface point between a transmission system and a public distribution system.

**TCE:** capacity charge for entry to the main network, applicable to the daily capacity subscription at points of entry to the main network from a PIR or a PITTM.

**TCES:** capacity charge for entry to the main network from storage, applicable to the daily capacity subscription for entry to the main network from a PITS.

**TCST:** capacity charge for exit at the transmission system interconnection points, applicable to the daily capacity subscription for exit to a network interconnection point (PIR).

**TCS:** capacity charge for exit from the main network, applicable to the daily capacity subscription for exit from the main network, except to a PITS or a PIR.

**TCSS:** capacity charge for exit from the main network to storage, applicable to the daily capacity subscription for exit from the main network to a PITS.

**TP:** proximity charge, applicable to quantities of gas injected at a point of entry to the transmission system and exiting immediately within the vicinity of this point.

**TCLZ:** capacity connection charge, applicable to the daily capacity subscription for connection between balancing zones of the main network of the same TSO.

**TCR:** transmission capacity charge in the regional network, applicable to the daily capacity subscription for transmission in the regional network.

**TCL:** delivery capacity charge, applicable to the daily capacity subscription for delivery to a delivery point.

###### **Firm capacity:**

Gas transmission capacity, guaranteed under contract by the operator as uninterruptible.



**Climatic firm capacity:**

Gas transmission capacity, guaranteed under contract by the TSO as uninterruptible, depending on domestic consumption. This definition mainly applies to entry and exit capacities at the PITS.

**Overhaul capacity:**

Capacity allowing the shipper to make nominations in the opposite direction to the dominant direction of gas flow when the gas flow can only run in one direction. It may only be used, on a given day, if the global flow resulting from all nominations from shippers is in the dominant direction of the flow.

**Interruptible capacity:**

Gas transmission capacity that may be interrupted by the TSO according to the conditions stipulated in the gas transmission system supply agreement.

**Returnable capacity:**

Firm capacity, which the shipper agrees to return to the TSO at any time on request.

**Shipper:**

Individual or legal entity that enters into a transmission contract with a TSO on the gas transmission system. The shipper is, depending on the case, the eligible customer, the supplier or their representative.

### 3.1.2 Capacity subscription

- **PIR capacity subscription at auctions**

The daily transmission capacities at network interconnection points (PIRs) at Taisnières B, Taisnières H, Obergailbach, Oltingue, Pirineos and Alveringem can be subscribed at auctions via the PRISMA capacity marketing platform. These capacities are commercialized according to the terms laid out by EU regulation no. 984/2013, establishing a network code on capacity allocation mechanisms in gas transmissions systems known as the "CAM network code". The detailed auction procedures and products on offer are published by GRTgaz and TIGF on their respective websites or the PRISMA auction platform.

Examples of available products are firm, interruptible and backhaul daily transmission capacities for annual, quarterly, monthly, daily and intra-day durations.

The auction reserve price is the same as the price fixed by the present tariff.

Contractualisation and billing for the network interconnection points (PIRs) at Taisnières B, Virtualys (Taisnières H and Alveringem), Obergailbach and Oltingue are carried out by GRTgaz.

Contractualisation and billing for the Pirineos network interconnection point (PIR) are carried out by TIGF.

- **Capacity subscription at the Dunkerque and Jura PIRs**

Daily capacity subscriptions at the Dunkerque and Jura PIRs are subject to specific marketing mechanisms, which are defined in accordance with rules made public on the GRTgaz website.

At the Dunkerque PIR in particular, firm capacities are defined, which are known as "returnable" and which the shipper undertakes to return at any time in the event of a request from GRTgaz, for a period of one, two, three or four years.

For any shipper that has subscribed to more than 20% of the firm annual capacities marketable at the Dunkerque PIR, a 20% fraction of the part of its subscription above 20% of the firm annual capacities marketable at this point is converted into returnable capacity.

CRE has evolved the marketing mode of capacities at PIR Dunkerque in its deliberation of 27 July 2017<sup>12</sup>.

- **Capacity subscription at the PITS**

At the Transfer Storage Interconnection Points (PITS), the TSO automatically allocates to the shipper entry and exit capacities in line with the nominal injection and withdrawal capacities the shipper has for a storage group, insofar as maximum network capacities.

- **Capacity subscription at the PITTMs**

Holding regasification capacities at a LNG terminal involves the right and obligation to subscribe entry capacities on the transmission system for the relevant periods and levels. In the specific case of the Dunkerque LNG terminal,

<sup>12</sup> Deliberation of CRE of 27 July 2017 deciding on the change of the marketing method of the capacity at PIR Dunkerque, on the change of the marketing modes of the interruptible capacity, and on the creation of an entry capacity in Oltingue

due to the presence of a dual outlet, this obligation applies on the sum of the reserved capacity on GRTgaz's network at the Dunkerque PITTM and reserved capacity from the terminal to Belgium.

At the Dunkerque PITTM, the firm entry capacities in the GRTgaz network are reserved by the shipper in the form of annual bands, over a period representing a whole number of years, or in the form of bands lasting 10 days or more.

At the Montoir and Fos PITTMs, all shippers who have subscribed to capacities with LNG terminal operators are allocated daily firm entry capacities by the TSO, for the entire subscription period for the corresponding regasification capacities:

- for multi-year regasification capacity subscriptions, the daily firm entry capacity allocated is a share of the total daily firm entry capacity at the PITTM. This share is calculated using the ratio:
  - o the annual regasification capacity subscribed to by the shipper at the terminals;
  - o to the total annual firm technical regasification capacity of the Montoir LNG terminal for the Montoir PITTM, or the sum of the total annual firm technical regasification capacity of the Fos Cavaou LNG terminal and the total annual firm subscribed regasification capacity of the Fos Tonkin terminal for the Fos PITTM;
- where regasification capacity subscriptions last less than one year, the shipper will be allocated a firm entry capacity band for the subscribed period, with a minimum duration of 10 days. The allocated capacity corresponds with the subscribed regasification capacity, expressed in GWh, divided by the associated subscription duration, express in days.

A shipper with regasification capacity subscriptions for less than one year has the option of postponing the date and duration of its subscription with seven days' notice, subject to a minimum total issue duration of 10 days, and provided that the entire volume of capacity initially subscribed is retained.

At the start of each month, the TSO calculates, for each shipper, the daily emissions for each day of the previous month. Should they exceed the shipper's reserved capacity on any given day, the shipper will be billed for an additional daily capacity subscription, at the daily capacity tariff, equal to the positive difference between the actual daily emission and the capacity allocated to the shipper.

Shippers have the option to sell their capacities at the PITTMs.

- **Capacity subscription at exit points from the main network and on the regional network**

Reservations of delivery capacities at delivery points and Regional Network Interconnection Points (PIRRs), of transmission capacities on the regional network and of capacities at the main network exit points are made with the TSOs as per the terms published by the TSOs.

Firm delivery capacities at the Transport Distribution Interface Points (PITDs) are automatically allocated by the TSOs. These capacities are calculated by the TSOs using the information provided by the public gas distribution system operator. Standardised delivery capacities are calculated objectively and transparently, with no discrimination, and made public.

The shipper is allocated of an exit capacity from the main network and a transmission capacity to the regional network that are equal to the delivery capacity at each delivery point and for each PIRR.

- **Capacity subscription at the North-South link for GRTgaz**

The daily transmission capacities at the GRTgaz North-South link can be subscribed in both south-to-north and north-to-south directions. The marketing rules for these capacities are specified in CRE decision dated 3 February 2016<sup>13</sup>.

For reference purposes, the following products are available:

- firm daily transmission capacities for annual, quarterly, monthly, daily and intra-day durations;
- interruptible daily transmission capacities for annual durations only.

Products with annual, quarterly and monthly durations can be subscribed to at auctions via the PRISMA capacity marketing platform.

Daily and intra-daily products are accessed in different ways:

- daily capacities are incorporated into market coupling and marketed in implicit auctions on Pownext;
- the JTS service is marketed in auctions on PRISMA on D-1 for day D, for the north-to-south direction only;

<sup>13</sup> Deliberation of CRE of 3 February 2016 decision on the rules for the marketing of transmission capacity on the link between the North and South zones of GRTgaz

- the remaining unsold capacities are marketed using Use-it-or-Buy-It (UBI), on GRTgaz's TRANS@ctions platform. The terms for the auction procedures and characteristics of the products on offer are published by GRTgaz on its website.

Contractualisation and billing are carried out by GRTgaz.

### **3.1.3 Redistribution of surplus auction capacity revenue**

#### **3.1.3.1 Surplus auction revenue**

The price paid by a shipper that acquires capacity at auction is equal to the amount of the auction premium and the regulated price in force at the time of use of the capacity.

The excess income related to capacity auctions is equal to the auction premium, in €/MWh/d, multiplied by the capacity sold, in MWh/d.

#### **3.1.3.2 Reminder on the calculation of unit amounts applicable from 1 October 2017 to 30 September 2018**

The unit redistribution amounts are calculated until 30 September 2018 according to the procedures specified by CRE decision dated 15 December 2016<sup>14</sup>. They were published by GRTgaz<sup>15</sup> and TIGF<sup>16</sup>.

They include:

- excess auction revenues under the auction of annual and quarterly capacities (1st session of August 2017) for the period 1 October 2017 to 30 September 2018,
- the excess revenue from monthly, daily and intra-day capacity auctions for the period from 1 July 2016 to 30 June 2017;
- redistribution deviations from 1 July 2016 to 30 June 2017.

#### **3.1.3.3 Balance of the current system**

To settle the balances mechanism in force, all undistributed auction surpluses before 31 October 2018 will be refunded at once on the invoice in November 2018, in proportion to consumption observed between 1 October 2017 and 30 September 2018, minus the volumes excluded under the regulated capacity allocation phase for gas-intensive sites in the case of the North-South link.

More specifically, the surpluses collected:

- at the North-South link in the North to South direction, and at the interconnections in the GRTgaz South and TIGF zones will be redistributed to the shippers delivering end customers in the GRTgaz South and TIGF balancing zones;
- at the North-South link in the South-to-North direction and the interconnections in the GRTgaz North zone will be redistributed to the shippers delivering end customers in the GRTgaz Nord zone.

There are three types of balances to be reserved:

- the surplus in the period from 1 July 2017 to 30 September 2018 not included in the unit price published until 30 September 2018
  - all surpluses for the month of October 2018;
  - correction between the reallocation achieved and the targeted redistribution to 30 September 2018
- **Surplus for the period from 1 July 2017 to 30 September 2018 not included in the unit price published until 30 September 2018**

These surpluses include:

- the excess auction revenues under quarterly capacity auction for the period from 1 January 2018 to 30 September 2018 (auction in November 2017, February 2018 and May 2018);
- the excess revenue from monthly, daily and intra-day capacity auctions for the period from 1 July 2016 to 30 September 2018;

<sup>14</sup> CRE decision on the next tariff for use of GRTgaz and TIGF natural gas transmission networks (known as ATRT6)

<sup>15</sup> GRTgaz communication on unit amounts

<sup>16</sup> TIGF communication on unit amounts

- **Surpluses for the month of October 2018;**

These surpluses include:

- surpluses of auction revenues from annual capacities between 1 October 2018 and 30 September 2019 applied to the month of October 2018 only, or 1/12 of the annual surplus;
- the excess revenue from quarterly capacity auctions between 1 October 2018 and 31 December 2018 applied to October 2018, 1/3 of the quarterly capacity auction surplus of August 2018;
- the excess revenue from monthly, daily and intra-day capacity auctions for the month of October 2018.

- **Correction between redistribution achieved and target redistribution until 30 September 2018.**

The correction between realised redistribution and targeted redistribution up to 30 September 2018 includes positive or negative redistribution differences between:

- the projected redistribution amounts for annual, quarterly, monthly, daily and intra-daily capacities between 1 July 2017 and 30 September 2018;

and

- the amounts actually distributed between 1 July 2017 and 30 September 2018 in respect of annual, quarterly, monthly, daily and intra-day capacity

- **Volumes excluded under the regulated capacity allocation phase for gas-intensive sites**

On the revenue surpluses generated in the North-South link in the North to South direction, volumes consumed for capacity obtained between 1 October 2014 and 30 September 2018 by a gas-intensive site or by the agent of a gas-intensive site during the allocation phase at the regulated price of capacity are not eligible for this redistribution. For each shipper delivering a gas-intensive site, the volumes excluded from the redistribution are calculated by multiplying:

- the total volume consumed by this site for the period considered;
- the quotient of the capacity obtained during the allocation phase at the regulated capacity price by the site concerned or its representative and the average of the total capacity of delivery subscribed in 2012 and 2013 for the site from the operator to which it is connected (GRTgaz or GRD). In the case where the site is connected to a distribution network, the concerned DSO will transmit to GRTgaz the volumes consumed by the site connected to its network.

If the gas-intensive site is connected downstream from another site directly connected to the GRTgaz or GRD network, the volumes excluded from the redistribution are calculated by multiplying:

- the total volume measured by GRTgaz at the reporting point of the site directly connected to the network;
- by the quotient of the capacity obtained during the allocation phase at the regulated capacity price by the shipper for the gas-intensive site downstream of the connected site and the average of the total capacity of delivery subscribed in 2012 and 2013 for the site directly connected to the network. In the case where the gas-intensive site is downstream of a site connected to a distribution network, the GRD concerned will transmit to GRTgaz the volumes consumed by the site connected to its network.

The capacities obtained during the phase of allocation to the regulated price of the capacities are of two types: firm or interruptible. In order to take into account, the nature of the capacity, the calculation of the volumes excluded from the scope of the redistribution will take into account a capacity equal to:

- 100% of the firm capacity obtained;
- 50% of the interruptible capacity obtained.

### **3.1.3.4 Redistribution for the period 1 November 2018 to 30 September 2019**

For the period 1 November 2018 to 30 September 2019, all auction surplus income on this period will be redistributed once, in proportion to the amount of gas delivered to end users connected to the transmission system and network distribution area in France from 1 November 2018 to 30 September 2019.

The individual amounts of redistribution for the period 1 November 2018 to 30 September 2019 will be calculated by each TSO and redistributed later on the invoice in November 2019.

Each TSO publishes the unit amount of surplus auction revenue redistributed on its website.

### 3.1.4 Transfer of transmission capacity on the GRTgaz and TIGF networks

The subscribed transmission capacity at the entry and exit points towards the PIRs and connections between balancing zones may be freely transferred without additional cost.

In case of a complete transfer, the acquirer recovers all rights and obligations related to these subscriptions.

In case of transferring usage rights, the initial owner retains its obligations in relation to the TSO. The usage right that is traded may go as low as a daily time-step, whatever the initial subscription period.

The usage rights for downstream transmission capacity, between the PEG and delivery point at an industrial site directly connected to the transmission system, is transferable in the case where the industrial partner concerned has subscribed capacity from the TSO.

The procedures for these transfers of transmission capacity are defined by the TSOs, on an objective and transparent basis and made public by the TSO on their website.

## 3.2 Usage tariff schedule for GRTgaz and TIGF networks applicable from 1 April 2017

### 3.2.1 Allowed revenues to be collected by the transmission tariff

The tariffs and projected tariff changes are fixed depending on capacity subscription forecasts, so as to cover the allowed revenues for each of the TSOs. The 2018 allowed revenue is shown in the following tables:

- 2018 allowed revenue of GRTgaz

GRTgaz, in €M <sub>current</sub>	2017	2018
Net operating expenses	763.9	777.1
Variation of Energy station and CO <sub>2</sub> quotas	-	5.4
Variation of the congestion relief costs item	-	2.0
Normative capital charges	993.4	1,006.9
Clearance of the CRCP (remainder from previous CRCP accounts + 2015 balance + 2016 estimate)	-27.9	-33.0
Inter-operator financial compensation	-	-3.0
Allowed revenue before smoothing	<b>1,729.3</b>	<b>1,755.5</b>
<i>Change from 2017</i>		+1.5 %
Allowed revenue smoothing over 4 years	47.7	26.4
Allowed revenue	<b>1,777.1</b>	<b>1781.9</b>
<i>Change from 2017</i>		+ 0.3 %

- **2018 allowed revenue of TIGF**

TIGF, in €M <sub>current</sub>	2017	2018
Net operating expenses	76.3	77.8
Variation of Energy station and CO <sub>2</sub> quotas	-	-0.6
Variation of the congestion relief costs item	-	0.3
Normative capital charges	158.7	164.9
Clearance of the CRCP (remainder from previous CRCP accounts + 2015 balance + 2016 estimate)	-0.9	-0.4
Inter-operator financial compensation	-	3.0
Allowed revenue before smoothing <i>Change from 2017</i>	<b>234.0</b>	<b>245.0</b> +4.7 %
Allowed revenue smoothing over 4 years	5.2	1.1
Allowed revenue <i>Change from 2017</i>	<b>239.2</b>	<b>246.1</b> +2.9 %

### 3.2.2 Tariffs applicable to annual subscriptions for daily transmission and delivery capacity

#### 3.2.2.1 Pricing for Network Interconnection Points (PIRs)

The applicable tariffs for annual daily capacity subscriptions are defined in the following tables. When marketing at auctions, the auction reserve prices are equal to these tariffs.

- Entry capacity charges (TCEs) for the main network

Entry at	Balancing zone	TCE (€/MWh/day per year)	
		<i>Firm annual</i>	<i>Interruptible annual</i>
<b>Taisnières B</b>	GRTgaz – North B	80.37	50 %
<b>Virtualys</b> (Taisnières H)	GRTgaz – North	103.32	50 %
<b>Dunkerque (PIR)</b>	GRTgaz – North	103.32	50 %
<b>Obergailbach</b>	GRTgaz – North	103.32	50 %
<b>Oltingue</b>	GRTgaz – North	103.32	50%
<b>Pirineos</b>	TIGF	103.32	75 %

- Exit capacity charges at the PIRs (TCST)

Exit at	Balancing zone	TCST (€/MWh/day per year)	
		<i>Firm annual</i>	<i>Interruptible annual</i>
<b>Virtualys</b> (Alveringem)	GRTgaz – North	40.72	N/A
<b>Oltingue</b>	GRTgaz – North	400.61	75 %
<b>Jura</b>	GRTgaz – South	95.01	75 %
<b>Pirineos (until merger of zones)</b>	TIGF	499.16	75 %
<b>Pirineos (from merger of zones)</b>	TIGF	617.08	75 %

- Backhaul exit capacity charges

Entry at	Balancing zone	Coefficient on firm exit charge <i>Backhaul annual</i>
<b>Virtualys</b> (Alveringem)	GRTgaz – North	125 %
<b>Oltingue</b>	GRTgaz – North	20 %
<b>Jura</b>	GRTgaz – South	20 %

- Backhaul entry capacity charges

Exit at	Balancing zone	Coefficient on firm entry charge <i>Backhaul annual</i>
<b>Virtualys</b> (Taisnières H)	GRTgaz – North	20 %
<b>Obergailbach</b>	GRTgaz – North	20 %

- Returnable capacity

The price of an annual returnable capacity is equal to 90% of the price of the corresponding firm annual capacity.

**3.2.2.2 Pricing for LNG Terminal Transmission Interface Points (PITMts)**

- Entry capacity charges (TCEs) for the main network

Entry at	Balancing zone	TCE (€/MWh/day per year) <i>Firm subscriptions</i>
<b>Dunkerque GNL</b>	GRTgaz – North	97.58
<b>Montoir</b>	GRTgaz – North	97.58
<b>Fos</b>	GRTgaz - South	97.58

**3.2.2.3 Pricing for the link between the GRTgaz North and South balancing zones**

- Capacity charges for connection between balancing zones (TCLZ)

Connection	Link direction	TCLZ (€/MWh/day per year) <i>Firm annual</i>	TCLZ (coefficient on firm) <i>Interruptible annual</i>
<b>GRTgaz North/South (until merger of zones)</b>	North to South	208.04	50 %
	South to North	50.00	50 %

As of the creation date of the single market place scheduled on 1 November 2018, this charge will disappear in both directions.

**3.2.2.4 Pricing at Transport Storage Interface Point (PITS)**

- Storage entry and exit capacity charges (TCES and TCSS)

PITS	Balancing zone	Capacity type	Entry - TCES (€/MWh/day per year)	Exit - TCSS (€/MWh/day per year)
			<i>Annual</i>	<i>Annual</i>
North-West	GRTgaz – North	Climatic firm	9.01	21.05
North-East	GRTgaz – North	Climatic firm	9.01	21.05
North B	GRTgaz – North B	Climatic firm	9.01	21.05
North Atlantic (until merger of zones)	GRTgaz – North	Partially interruptible	6.31	14.74
North Atlantic (from merger of zones)	GRTgaz	Climatic firm	9.01	21.05
South Atlantic (until merger of zones)	GRTgaz - South	Partially interruptible	6.31	14.74
South Atlantic (from merger of zones)	GRTgaz	Climatic firm	9.01	21.05
South-East	GRTgaz - South	Climatic firm	9.01	21.05
South-West	TIGF	Climatic firm	9.01	21.05

**3.2.2.5 Pricing of the exit capacity from the main network to delivery points**

- Main network exit capacity charges

Exit from	TCS (€/MWh/day per year)	TCS (firm price coefficient)
	<i>Firm annual</i>	<i>Interruptible annual</i>
GRTgaz	90.33	50 %
TIGF	90.33	50 %

**3.2.2.6 Pricing for regional network transmission**

- Regional network transmission capacity charges (TCR)

Regional network	TCR (€/MWh/day per year)	TCR (firm price coefficient)
	<i>Firm annual</i>	<i>Interruptible annual</i>
GRTgaz	77.91 x NTR	50 %
TIGF	75.78 x NTR	50 %

The charges applicable to annual firm daily capacity subscriptions for regional network transmission (TCR) shall be the product of a fixed unit charge and the regional tariff level (NTR) for the delivery point concerned.

The list of delivery points on the GRTgaz and TIGF network, along with their exit zone and NTR value, is provided in appendix 3 of this document.

When a new delivery point is created, GRTgaz or TIGF will calculate the NTR value transparently and in a non-discriminatory way, using a calculation method published on their respective websites.

- Delivery capacity charges (TCL)



Regional network	Delivery point type	TCL (€/MWh/day per year)	TCL (firm price coefficient)
		<i>Firm annual</i>	<i>Interruptible annual</i>
GRTgaz	End consumer connected to the transmission system	31.00	50 %
	Highly modulated end <sup>17</sup> consumer connected to the transmission system	32.41	50 %
	PIRR	39.80	N/A
	PITD	45.77	N/A
TIGF	End consumer connected to the transmission system	27.46	50 %
	PITD	49.62	N/A

If several shippers simultaneously supply an end consumer connected to the transmission system or a PIRR, the fixed charge is split in proportion to their delivery capacity subscriptions.

As of 1 April 2017 the tariff for delivery to the PITD includes, for GRTgaz, charges relating to repair, renewal and replacement operations (called “3R” operations) for delivery point equipment, and for TIGF the operating, maintenance and repair costs for delivery points and network connections, as well as the identical renewal of delivery points.

Under the standardised PITD transmission capacity underwriting system, on each PITD, the firm annual delivery capacity ("standard capacity") is allocated to each shipper by the TSOs. It is equal to the sum:

- annual capacity subscribed on the distribution network for "subscription" delivery points (PDL) supplied downstream of the PITD concerned;
- capacities calculated by the TSOs for the "non-subscription" PDLs supplied downstream of the PITD concerned, by multiplying the daily peak consumption of the "non-subscription" PDLs by the corresponding adjustment coefficient "A".

An update of the A coefficients is possible on 1 April of each year via a deliberation of CRE on the proposal of the TSOs for their balancing zones and for each distribution system operator present on these zones.

- Fixed charges per delivery station

Shippers that supply end consumers connected to the transmission system and PIRRs pay a fixed charge per delivery station:

Fixed charge per station	€/point per year
GRTgaz	5,982.45
TIGF	3,037.47

<sup>17</sup> Consumers with an average daily volume of more than 0.8 GWh per day of operation (see paragraph 17)



**3.2.3 Tariff multipliers for transmission and delivery capacity subscriptions lasting less than one year**

**3.2.3.1 At the Network Interconnection Points (PIRs)**

Capacity	Special conditions	Coefficient
Quarterly	In the event of congestion	1/4 of the annual charge
	Without congestion	1/3 of the annual charge
Monthly	In the event of congestion	1/12 of the annual charge
	Without congestion	1/8 of the annual charge
Daily	N/A	1/30 of the monthly charge
Intra-daily	N/A	Pro rata daily charge based on the number of hours remaining

A point shall be considered congested if, upon allocation of the annual firm products at auction, the capacity sale price is strictly above the reserve price.

**3.2.3.2 At the LNG Terminal Transmission Interface Points (PITTMs)**

Capacity	Coefficient
Daily	1/365 of the annual charge

**3.2.3.3 At the link between the GRTgaz North and South balancing zones**

- Direction: North to South

Capacity	Special conditions	Coefficient
Quarterly	N/A	1/4 of the annual charge
Monthly	N/A	1/12 of the annual charge
Daily	Marketing via “market coupling”	without reserve price
	Other	1/30 of the monthly charge

- Direction: South to North

Capacity	Special conditions	Coefficient
Quarterly	In the event of congestion	1/4 of the annual charge
	Without congestion	1/3 of the annual charge
Monthly	In the event of congestion	1/12 of the annual charge
	Without congestion	1/8 of the annual charge
Daily	Marketing via “market coupling”	without reserve price
	Other	1/30 of the monthly charge

A point shall be considered congested if, upon allocation of the annual firm products at auction, the capacity sale price is strictly above the reserve price.



**3.2.3.4 At the Transport Storage Interface Points (PITS)**

Capacity	Coefficient
Quarterly	1/3 of the annual charge
Monthly	1/8 of the annual charge
Daily	1/240 of the annual charge

**3.2.3.5 At the main network exit, on the regional network, and at delivery**

Capacity	Special conditions	Coefficient
Monthly	January - February	8/12 of the annual charge
	December	4/12 of the annual charge
	March - November	2/12 of the annual charge
	April – May – June – September – October	1/12 of the annual charge
	July – August	0.5/12 of the annual charge
Daily	N/A	1/30 of the monthly charge

- Hourly delivery capacity subscription

The hourly delivery capacity shall only apply to end-customers connected to the transmission system.

Any annual, monthly or daily subscriptions for daily delivery capacity gives an entitlement to an hourly delivery capacity equal to 1/20th the subscribed daily delivery capacity (except in the specific case where this hourly capacity is not available).

To receive a higher hourly capacity where possible on the network, the shipper must pay a price supplement p equal to:

$$p = (C_{max} - C) \times 10 \times (TCL+TCR)$$

Where:

*C<sub>max</sub>*: Hourly delivery capacity requested by the shipper;

*C*: Hourly delivery capacity reserved through the annual, monthly or daily subscription for daily delivery capacity;

*TCL*: Annual, monthly, or daily charge for daily delivery capacity;

*TCR*: Annual, monthly, or daily charge for daily transmission capacity on the regional network.

**3.2.4 Applicable tariffs for annual capacity subscriptions for gas injections into the transmission system from a gas production facility**

The charges applicable to annual daily entry capacity subscriptions for the GRTgaz network from Transport Production Interface Points (PITPs) shall be as follows:

- For PITPs with a network entry capacity less than or equal to 5 GWh/d, the applicable charge shall be €9.49/MWh/day per year;
- For PITPs with a network entry capacity greater than 5 GWh/d, the applicable charge shall be defined through a special study and specific decision;
- For PITPs for biomethane production facilities with a network entry capacity of less than or equal to 5 GWh/d, the applicable charge shall be 0.

**3.2.5 Pricing for notional gas exchange points**

From 1 April 2015, two notional gas exchange points (PEG) allow shippers to exchange quantities of gas:

- The PEG Nord, relating to GRTgaz's North balancing zone;

- the TRS (Trading Region South), relating to the trading region composed of the GRTgaz South and TIGF balancing zones.

The functioning procedures of the PEG are defined by the TSOs, based on objective and transparent criteria and made public on their website.

The access tariff to gas exchange points includes:

- a fixed annual charge, equal to €6,000 per exchange point;
- a charge proportional to the quantities exchanged equal to €0.01 per MWh.

When a shipper has signed a transmission contract with GRTgaz, it pays the tariffs for access to the PEG Nord and TRS to GRTgaz.

When a shipper has signed transmission contracts with GRTgaz and TIGF, it pays the tariffs for access to the PEG Nord and TRS to GRTgaz.

When a shipper has signed a transmission contract only with TIGF, it pays the tariff for access to the TRS to TIGF.

Gas exchanges carried out on an electronic platform may be the subject of deliveries at a gas exchange point by an entity in charge of compensating the exchanges taking place on the platform. The nominations to PEG of a given entity for the purposes of compensation, neutral in relation to the market, are not subject to the charge proportional to quantities exchanged.

Starting with the establishment of the single market area on 1 November 2018, the transmission contracts underwritten TSOs are maintained. Shippers holding the fixed delivery term at PEG Nord or TRS will automatically benefit from access to the PEG, at a fixed price of € 6,000/year and at a variable price of € 0.01/MWh delivered.

### 3.2.6 Intra-day flexibility service for highly modulated sites

The intra-day flexibility service shall apply to customers connected to the transmission system that have a modulated daily volume greater than 0.8 GWh.

For existing sites, GRTgaz shall evaluate this criterion based on the consumption history for the preceding year. For newly connected sites, this criterion shall be evaluated based on the modulated daily volume for the operating days declared by the site, and then based on a quarterly statement, retroactive to the past period when the criterion is achieved.

Operators of sites subscribing to the intra-day flexibility service must declare an hourly consumption profile to the TSO the day before for the following day and, where applicable, a new profile during the day, in compliance with the published advance notice deadlines. For any change in hourly consumption for the site that is less than  $\pm 10\%$  of its subscribed hourly capacity, the site shall benefit from a margin of tolerance enabling it not to notify GRTgaz of its new hourly consumption profile.

The intra-day flexibility service is not billed.

### 3.2.7 Short-notice interruptible transmission offers

#### 3.2.7.1 GRTgaz short-notice interruptible transmission offer

An optional interruptible transmission offer is proposed for customers connected to the GRTgaz H gas network, which simultaneously meet the following conditions:

- The annual daily delivery capacity subscription is greater than 10 GWh/d;
- The site's connection point to the GRTgaz network is less than 50 km, as the crow flies, from a PITTM or one of the Dunkerque, Taisnières H or Obergailbach entry points.

To be eligible for this offer, the customer in question must commit to subscribing to this offer or having a shipper subscribe to it with GRTgaz before the connection decision is made.

This offer sets out a reduction or interruption in supply to the sites in question by request from GRTgaz, with advance notice of at least 2 hours, when both of the following conditions are met:

- The quantity of gas physically injected into the network at the closest entry point is less than the daily delivery capacity subscription for the sites benefiting from this interruptible offer within the scope of this entry point;
- The day's temperature is less than the average daily temperature statistically liable to be reached or negatively exceeded more than 20 days per year, with a 2% risk of occurrence.

The interruption conditions shall be defined by GRTgaz, based on objective and transparent criteria to prevent any discrimination, and made public on its website.

Shippers subscribing to this offer shall benefit from a tariff reduction equal to the delivery capacity that they subscribed for this delivery point, multiplied by the sum of:

- 50% of the main network exit capacity charge;
- 50% of the main network entry capacity charge at the nearest entry point.

For a single site, a shipper may not accumulate the tariff reduction granted under this optional offer with tariff reductions granted for:

- Interruptible transmission on regional networks;
- The proximity charge for customers located within the "Dunkerque Region", "Taisnières H Region", or "Obergailbach Region" exit zones;
- The temporary short-notice interruptible transmission offer in the GRTgaz South zone.

Termination of this optional offer shall be subject to a minimum advance notice of four years.

### **3.2.7.2 Temporary short-notice interruptible transmission offer in the GRTgaz South zone**

An optional interruptible transmission offer is proposed, temporarily until the creation of a single marketplace in France, for highly modulated customers connected to the network in the GRTgaz South zone with an annual daily delivery capacity subscription greater than 10 GWh/d.

This offer sets out a reduction or interruption in supply to the sites in question by request from GRTgaz, with advance notice of at least 2 hours, when the interruption rate for interruptible capacity at the North-South link in the north-to-south direction is equal to 100%.

The interruption conditions shall be defined by GRTgaz, based on objective and transparent criteria to prevent any discrimination, and made public on its website.

Shippers subscribing to this offer shall benefit from a tariff reduction equal to the delivery capacity that they subscribed for this delivery point, multiplied by the sum of:

- 50% of the main network exit capacity charge;
- 25% of the regulated tariff at the North-South link in the north-to-south direction.

For a single site, a shipper may not accumulate the tariff reduction granted under this optional offer with tariff reductions granted for:

- Interruptible transmission on regional networks;
- The short-notice interruptible transmission offer.

As of 1 November 2018, creation date of the single market area, this offer will no longer be proposed by GRTgaz.

### **3.2.8 Proximity charge**

The proximity charge is deducted from the monthly invoice of each shipper concerned. It is applied, for each shipper, to the quantity of gas equal, each day, to the minimum between the quantity of gas allocated at the transmission system entry point and the quantity of gas extracted in the associated exit zone.

The proximity charge is also applied to the following entry point / exit zone pairs:

Balancing zone	Entry point	Associated exit zone	TP (€/MWh)
GRTgaz – North B	Taisnières B	Taisnières B Region	0.17
GRTgaz – North	Taisnières H	Taisnières H Region	0.22
GRTgaz – North	Dunkerque	Dunkerque Region	0.22
GRTgaz – North	Obergailbach	Obergailbach Region	0.22

**3.2.9 Gas quality conversion**

**3.2.9.1 H gas to B gas conversion service**

An annual firm conversion service from "peak" H gas to B gas is marketed by GRTgaz. This service is available to all shippers having H gas in the North balancing zone.

The rate for this tariff is defined in the following table:

	Capacity charge (€/MWh/day per year)	Quantity charge (€/MWh)
"Peak" service	161.60	0.02

GRTgaz shall define the operating rules for the H gas to B gas quality conversion service, based on objective and transparent criteria preventing any discrimination and published on its website.

**3.2.9.2 B gas to H gas conversion service**

The B gas to H gas conversion service is available to shippers providing their own B gas from the Taisnières B PIR or a PITP, up to the limit of the physical quantities of B gas in question.

The rate for the B gas to H gas quality conversion service is as follows:

- For the annual interruptible offer, a charge proportional to the annual capacity subscription equal to €22.95/MWh/day per year;
- For the monthly interruptible offer, a charge proportional to the monthly capacity subscription equal to €2.87/MWh/day per month;
- For the daily firm offer, a charge proportional to the daily capacity subscription equal to €0.19/MWh/day per day.

A post hoc control of the B gas quantities physically converted to H gas shall be made based on a calculation of the daily difference between the quantities converted and the quantities allocated to Taisnières B and the PITPs for the B gas network, between 1 April of year N and 31 March of year N+1.

The converted quantities, from which the quantities allocated to Taisnières B and the PITPs for the B gas network are deducted, between 1 April of year N and 31 March of year N+1, shall be entered into a cumulative daily account:

- Each day there is a positive balance in this cumulative account, the shipper shall be invoiced a penalty of €1/MWh up to the cumulative daily imbalance observed, until it is rebalanced;
- If there is a positive balance on 31 March of year N+1, the balance shall be carried forward to the period from 1 April of year N+1 to 31 March of year N+2;
- If there is a negative or zero balance on 31 March of year N+1, the account shall be reset to zero on 1 April of year N+1.

**3.2.9.3 Contractual post hoc B to H conversion rate**

A contractual B gas to H gas conversion rate shall be billed after the fact to any shipper with use of the Taisnières B PIR, the North B PITS, and physical conversion tools (H to B peak converter) leading to injection of a quantity of B gas into the B network greater than the total consumption of its customers connected to the B network.

This rate shall apply to the difference calculated daily, for each shipper, between the quantity of B gas injected into the network and the total consumption of its customers connected to the B network. However, this rate shall not apply to quantities of B gas injected into the PITPs, nor to shippers providing GRTgaz with an H gas to B gas exchange service.



This rate shall not apply to B gas imbalances that can be attributed to a revision of nominations following a request from GRTgaz as described at 3.2.9.4 below.

The rate for this tariff is set at €1.05/MWh after application of the following tolerance level:

Delivery capacity subscribed on the B gas network	≤ 0.5 GWh/day	> 0.5 GWh/day and ≤ 1 GWh/day	> 1 GWh/day
Tolerance before application of the conversion price	15 %	10 %	2.5 %

**3.2.9.4 Inspection of nominations on the B gas physical infrastructure:**

In circumstances where the physical balance of the B network so requires, GRTgaz may require shippers with capacity on the B transmission system physical infrastructure to revise their nominations on this infrastructure up or down.

**3.2.10 Balancing service based on line pack**

GRTgaz and TIGF market a balancing service based on line pack, the subscription tariff of which is €0.12/MWh/d/month<sup>18</sup> for any delivery point at industrial sites directly connected to the transmission system or for any delivery point at unprofiled sites attached to a PITD. The subscription price for this service is subject to a tariff rebate of 50% for any delivery point at a profiled site connected to a distribution system.

**3.2.11 Penalties for exceeding capacity**

**3.2.11.1 Penalties for exceeding daily capacity**

- **Penalty calculation methods for exceeding daily capacity**

Each day, overruns on daily exit capacity from the main transmission system on the regional network and on daily delivery capacity will be subject to penalties.

For the part of the overrun less than or equal to 3% of the subscribed daily capacity, no penalty is invoiced.

For the part of the overrun greater than 3%, the penalty calculation is based on the firm daily subscription price for daily capacity, as follows:

- for the part of the overrun between 3% and 10%, the penalty is equal to 20 times the firm daily subscription price for daily capacity;
- for the part of the overrun greater than 10%, the penalty is equal to 40 times the firm daily subscription price for daily capacity.

The TSOs allow shippers to quickly adjust their capacity subscriptions when a capacity overrun is noticed, subject to network availability.

- **Calculation methods for daily capacity overruns**
  - Overrunning daily capacity for regional transmission and delivery for end consumers connected to the transmission system and the PIRRs:

For a given day, the daily capacity overrun value used is equal to the difference, if it is positive, between the quantity of gas delivered and the daily delivery capacity subscribed.

- Overrunning daily capacity for regional transport and delivery for the PITDs:

For a given day, the daily capacity overrun value used is equal to the difference, if it is positive, between the following two values:

- o the value of the difference between the daily quantity of gas delivered and the corresponding daily delivery capacity, if this difference is positive, or zero if this difference is negative;
- o the value of the difference between the sum of the daily quantities delivered to "not for subscription" delivery points and the sum of standardised capacity for "not for subscription" delivery points, if this difference is positive, or zero if this difference is negative.

<sup>18</sup> On the details of this service, see the deliberation of CRE of 9 September 2015 on the update of the balancing rules on the gas transmission networks on 1 October 2015



- Overrunning daily exit capacity from the main network:

For a given day, the daily capacity overrun value used is equal to the difference, if it is positive, between the following two values:

- the value of the difference between the daily quantity of gas delivered and the daily capacity on output from the corresponding main network, if this difference is positive, or zero if this difference is negative;
- the value of the difference between the sum of the daily quantities delivered to "not for subscription" delivery points in the exit zone and the sum of exit zone standardised capacity for the "not for subscription" delivery points, if this difference is positive, or zero if this difference is negative.

In case the option to interrupt is exercised by the TSO, the above overrun calculations are carried out by reducing the interruptible capacity for the interrupted portion requested by the TSO.

- Penalties for exceeding hourly capacity

Each day, overruns in hourly transmission capacity on the regional and in delivery capacity, in order to supply end consumers connected to the transmission system, are subject to penalties. For a given day, the hourly capacity overrun is calculated by considering the maximum value of the hourly average of quantities delivered to the delivery point concerned over four consecutive hours.

For the part of the overrun less than or equal to 10% of the subscribed hourly capacity, no penalty is invoiced.

For the part of the overrun greater than 10%, the penalty calculation is based on the daily subscription price for hourly capacity, as follows:

- for the part of the overrun between 10% and 20%, the penalty is equal to 45 times the daily subscription price for hourly capacity;
- for the part of the overrun greater than 20%, the penalty is equal to 90 times the daily subscription price for hourly capacity.

The penalties for overrunning hourly capacity are not applied by GRTgaz if the shipper corrects its annual hourly capacity subscription up to the observed level of overrun.

- Annual redistribution of penalties for exceeding capacity

Each TSO redistributes the amount of penalties for exceeding capacity collected each year, no later than June of the following year.

For each TSO, the amount of penalties to redistribute is divided between shippers in proportion to the quantities of gas delivered to end consumers connected to the transmission system and to PIRRs. Each TSO publishes on its website the unit amount of penalties redistributed this way, expressed in euros per MWh used by end consumers connected to the transmission system.

### **3.3 Update of the price list of TSOs to account from 1 April 2018**

In addition to the changes in structure that may be decided by CRE, the fee schedule of GRTgaz and TIGF is updated on 1 April of each year as of 1 April 2018 according to the terms below:

#### **3.3.1 Update of normative capital charges**

The capital charges used to update the tariff schedule on 1 April each year is that defined in table 2.1.1 of this deliberation.

#### **3.3.2 Update of net operating expenses**

The net operating expenses (NOE) are updated as shown below, according to the rules of the ATRT6 tariff:

- the NOE for 2019 shall be calculated by applying a variation percentage equal to the CPI + 0.74% for GRTgaz and + 0.4% for TIGF to the net OPEX values for 2018, where CPI is the average annual variation actually observed for the previous calendar year for the consumer price index excluding tobacco, as calculated by the French National Statistics Office (INSEE) for all households throughout France. If the observed CPI value is not available at the time of the tariff update, the CPI projection retained for the draft finance law will be used instead. The difference between the inflation actually observed and the forecast from the draft finance law shall be covered 100% by the CRCP;
- the difference between the forecast of the item "energy and CO<sub>2</sub> quotas" retained in the trajectory of net OPEX (in paragraph 2.1.7 of this deliberation) and the revision of the forecast for this item for the year



2019, as well as the projected amount of congestion relief costs is added to this amount of net OPEX for the year 2019.

- Finally, annual assumptions of expenses related to the lifting of congestion will be revised to update the fee schedule on 1 April 2019

### 3.3.3 Update of capacity subscription assumptions

The annual capacity subscriptions assumptions will be revised to update the fee schedule on 1 April 2019.

### 3.3.4 Taking into account the balance of the CRCP

The CRCP's overall balance is equal to the amount to be paid to or deducted from the CRCP for the past year and the previous year, plus the uncleared CRCP balance for previous years.

The amount to be paid to or deducted from the CRCP is calculated by CRE for each past year, according to the difference in the performance, for each item concerned, relative to the reference amounts defined below. All or part of the difference is paid to the CRCP, the share is determined based on the rate of coverage provided by this deliberation.

GRTgaz, n €M€ <sub>current</sub>	Rate	2017	2018
“Downstream” transmission revenue	100 %	1,327	1,341
“Upstream” transmission revenue	80 %	451	441
CCCG and TAC connection products	100 %	2	3
“Networks” normative capital charges	100 %	900	909
Driving energy charges and difference between revenues and expenses related to CO <sub>2</sub> quotas	80 %	92	91
Charges for the H-B conversion service (change in converted volumes)	100 %	46	51
Charges incurred by GRTgaz consecutive the pilot project for conversion to gas H of the zone fed with gas B	100 %	0	0
Expenses related to the disruption of R&D activities from those of the parent company	100 %	4	3
Service products for third parties related to large spatial planning projects	100 %	34	34
Charges related to the lifting of congestion	100 %	0	2
Any charges related, if any, to the remuneration of consumers connected to the transmission network related to the implementation of the provisions of Article L.431-6-2 of the French Energy Code.	100 %	0	0
Charges and products related to the contract between GRTgaz and TIGF (charge)	100 %	34	34
Inter-operator transfer between GRTgaz and TIGF (revenue)	100 %	0	3

<b>TIGF, in €M<sub>current</sub></b>	<b>Rate</b>	<b>2017</b>	<b>2018</b>
“Downstream” transmission revenue	100 %	146	147
“Upstream” transmission revenue	80 %	94	99
CCCG and TAC connection products	100 %	0	0
“Networks” normative capital charges	100 %	140	143
Driving energy charges and difference between revenues and expenses related to CO <sub>2</sub> quotas	80 %	7	6
Service products for third parties related to large spatial planning projects	100 %	0	0
Charges related to the lifting of congestion	100 %	0	0.3
Any charges related, if any, to the remuneration of consumers connected to the transmission network related to the implementation of the provisions of Article L.431-6-2 of the French Energy Code.	100 %	0	0
Charges and products relating to the contract between GRTgaz and TIGF (revenue)	100 %	34	34
Inter-operator transfers between GRTgaz and TIGF (charge)	100 %	0	3

In addition, the following elements are also included in the CRCP:

- differences in operating expenses or "non-network" capital costs due to differences between the forecast CPI and the observed CPI;
- bonus-malus for the incentive regulation of the quality of service;
- bonuses/penalties under the mechanisms of incentive regulation of investments.

An interest rate equivalent to the risk-free rate of 2.7% applies annually to the overall CRCP balance.

#### **4. DECISION**

- 1- The present deliberation decides on the evolution of the ATRT6 tariff on 1 April 2018 and the creation of the single marketplace planned on 1 November 2018.
- 2- This deliberation will be published on CRE’s website, and forwarded to GRTgaz and TIGF.
- 3- This deliberation will be forwarded to the Minister for Ecological and Sustainable Transmission, and the Minister for the Economy and Finance.
- 4- This deliberation will be published in the Journal Officiel de la République Française.

**Deliberated in Paris on 7 February 2018.**

**For the French Energy Regulatory Commission,**

**The President,**

**Jean-François CARENCO**

**ANNEX 1: APPENDIX 1: TARIFF SCHEDULE SUMMARY TABLE APPLICABLE FROM 1 APRIL 2018**

This appendix summarises the main tariff charges described in part 2.

**Access to the Notional Gas Exchange Points (PEG)**

Fixed annual charge: €6000/exchange point/year

Variable charge €0.01/MWh exchanged

**Charges applicable to the main network**

Entry to Network Interconnection Points (PIRs)	Capacity charge (€/MWh/d/year)		
	Firm	Interruptible	Back-haul
GRTgaz - Taisnières B	80.37	50 %	
GRTgaz - Virtualys (Taisnières H)	103.32	50 %	20 %
GRTgaz - Dunkerque	103.32	50 %	
GRTgaz - Obergailbach	103.32	50 %	20 %
GRTgaz - Oltingue	103.32	50 %	
TIGF - PIRINEOS	103.32	75 %	

Exit to Network Interconnection Points (PIRs)	Capacity charge (€/MWh/d/year)		
	Firm	Interruptible	Back-haul
GRTgaz - Virtualys (Alveringem)	40.72		125 %
GRTgaz - Oltingue	400.61	75 %	20 %
GRTgaz - Jura	95.01	75 %	20 %
TIGF - PIRINEOS	499.16	75 %	

Entry to LNG Terminal Interconnection Points (PITMs)	Capacity charge (€/MWh/d/year)
	Firm
GRTgaz - Dunkerque GNL	97.58
GRTgaz - Montoir	97.58
GRTgaz - Fos	97.58

Entry/exit to Transport Storage Interface Points (PITS)	Capacity charge (€/MWh/d/year)	
	Entry	Exit
GRTgaz - North West, North East, North B, South East	9.01	21.05
GRTgaz - North Atlantic, South Atlantic	6.31	14.74
TIGF - South West	9.01	21.05

North to South connection	Capacity charge (€/MWh/d/year)	
	Firm	Interruptible
North to South Direction	208.04	50 %
South to North Direction	50.00	50 %

Exit from main network to delivery points (TCS)	Capacity charge (€/MWh/d/year)	
	Firm	Interruptible



## DELIBERATION

7 February 2018

GRTgaz	90.33	50 %
TIGF	90.33	50 %

### Charges applicable to the regional networks

Transmission capacity on the regional network (TCR)	Capacity charge (€/MWh/d/year)	
	Firm	Interruptible
GRTgaz	77.91 X NTR	50 %
TIGF	75.78 X NTR	50 %

The Regional Tariff Level (NTR) is defined for each delivery point from 0 to 10

Delivery capacity (TCL)	Capacity charge (€/MWh/d/year)	
	Firm	Interruptible
GRTgaz - End consumer connected to the transmission system	31.00	50 %
GRTgaz - Consommateur final fortément module	32.41	50 %
GRTgaz - PIRR	39.80	
GRTgaz - PITD	45.77	
TIGF - End consumer connected to the transmission system	27.46	50 %
TIGF - PITD	49.62	

Delivery point	Charge per station (€/point/year)
	Firm
GRTgaz	5,982.45
TIGF	3,037.47

**ANNEX 1BIS: TARIFF SCHEDULE SUMMARY TABLE APPLICABLE FROM THE CREATION DATE OF THE SINGLE MARKET PLACE (PLANNED FOR 1 NOVEMBER 2018)**

This appendix summarises the main tariff charges described in part 2.

**Access to the Notional Gas Exchange Points (PEG)**

Fixed annual charge: €6000/exchange point/year

Variable charge €0.01/MWh exchanged

**Charges applicable to the main network**

	Capacity charge (€/MWh/d/year)		
	Firm	Interruptible	Back-haul
<b>Entry to Network Interconnection Points (PIRs)</b>			
GRTgaz - Taisnières B	80.37	50 %	
GRTgaz - Virtualys (Taisnières H)	103.32	50 %	20 %
GRTgaz - Dunkerque	103.32	50 %	
GRTgaz - Obergailbach	103.32	50 %	20 %
GRTgaz - Oltingue	103.32	50 %	
TIGF - PIRINEOS	103.32	75 %	

	Capacity charge (€/MWh/d/year)		
	Firm	Interruptible	Back-haul
<b>Exit to Network Interconnection Points (PIRs)</b>			
GRTgaz - Virtualys (Alveringem)	40.72		125 %
GRTgaz - Oltingue	400.61	75 %	20 %
GRTgaz - Jura	95.01	75 %	20 %
TIGF - PIRINEOS	617.08	75 %	

	Capacity charge (€/MWh/d/year)		
	Firm	Interruptible	Back-haul
<b>Entry to LNG Terminal Interconnection Points (PITMs)</b>			
GRTgaz - Dunkerque GNL	97.58		
GRTgaz - Montoir	97.58		
GRTgaz - Fos	97.58		

	Capacity charge (€/MWh/d/year)	
	Entry	Exit
<b>Entry/exit to Transport Storage Interface Points (PITS)</b>		
GRTgaz - North West, North East, North B, South East, North and South Atlantic	9.01	21.05
TIGF - South West	9.01	21.05

	Capacity charge (€/MWh/d/year)	
	Firm	Interruptible
<b>Exit from main network to delivery points (TCS)</b>		
GRTgaz	90.33	50 %

TIGF	<b>90.33</b>	50 %
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**Charges applicable to the regional networks**

	<b>Capacity charge (€/MWh/d/year)</b>	
	<b>Firm</b>	<b>Interruptible</b>
<b>Transmission capacity on the regional network (TCR)</b>		
GRTgaz	<b>77.91 X NTR</b>	50 %
TIGF	<b>75.78 X NTR</b>	50 %

The Regional Tariff Level (NTR) is defined for each delivery point from 0 to 10

	<b>Capacity charge (€/MWh/d/year)</b>	
	<b>Firm</b>	<b>Interruptible</b>
<b>Delivery capacity (TCL)</b>		
GRTgaz - End consumer connected to the transmission system	<b>31.00</b>	50 %
GRTgaz - Consommateur final fortement modulé	<b>32.41</b>	50 %
GRTgaz - PIRR	<b>39.80</b>	
GRTgaz - PITD	<b>45.77</b>	
TIGF - End consumer connected to the transmission system	<b>27.46</b>	50 %
TIGF - PITD	<b>49.62</b>	

	<b>Charge per station (€/point/year)</b>	
	<b>Firm</b>	
GRTgaz	<b>5,982.45</b>	
TIGF	<b>3,037.47</b>	

## **ANNEX 2: INDICATORS FOR MONITORING TSO SERVICE QUALITY**

In application of the principles defined in the method section of the present tariff ruling, a mechanism for monitoring service quality is established for the two TSOs in the key areas of their activity. This monitoring is composed of indicators submitted by the TSOs each month to CRE and made public on their website.

Some indicators that are especially important for correct operation of the market are subject to a system of financial incentives.

The following indicators are subject to a financial incentive:

- quality of measured quantities at the PITDs and sent to the DSOs the day after to calculate provisional allocations;
- quality of daily quantities remotely read at the delivery points for consumers connected to the transmission system and sent the day after;
- quality of intra-day quantities remotely read at the delivery points for consumers connected to the transmission system and sent during the day;
- quality of overall forecasts for end of gas day consumption performed the night before and during the day;
- monitoring the provision of the five items of information most useful for balancing on the TSOs' public sites.

The following indicators are monitored without being subject to a financial incentive:

- availability rate of TSO user portals and public data platforms;
- provision of additional firm capacity on the market at the North-South link;
- reliability of the projected working stock indicator published by the TSOs on their public page;
- reduction of available capacity;
- reduction of subscribed capacity;
- compliance with the annual maintenance programme published at the beginning of the year by the TSO;
- compliance with the committal maintenance programme published in M-2 by the TSO;
- compliance with the non-committal maintenance projection published in M-2 by the TSO;
- greenhouse gas emissions;
- greenhouse gas emissions related to the volume of gas transported.

The service quality regulation system may change during the ATRT6 tariff period. It may be subject to any audit that CRE considers relevant. It may be subject to any audit that CRE considers useful.

The TSOs are authorised to write off one day per year to calculate the indicators, during the commissioning of a major version of an application contributing to the production of said indicators. They are required to communicate to market participants the tentative date for commissioning at least one month in advance, and then to confirm one week before the actual date of this commissioning.

**1. TSO service quality monitoring indicators that give rise to financial incentives**

**1.1 Quality of measured quantities at the PITDs and sent to the DSOs the day after to calculate provisional allocations**

<b>Calculation:</b>	<b>Number of non-compliant days<sup>(1)</sup> per balancing zone and per month</b> (one value monitored per balancing zone, so two values monitored by GRTgaz and one value monitored by TIGF)
<b>Scope:</b>	<ul style="list-style-type: none"> <li>- all shippers combined</li> <li>- all DSOs combined</li> <li>- per Transmission Balancing Area (ZET)</li> </ul>
<b>Monitoring:</b>	<ul style="list-style-type: none"> <li>- frequency of calculation: monthly</li> <li>- frequency of reporting to CRE: monthly</li> <li>- frequency of publication: monthly</li> <li>- frequency of financial incentive calculation: monthly</li> </ul>
<b>Objective:</b>	<p><b>GRTgaz:</b></p> <ul style="list-style-type: none"> <li>- basic objective: 1 non-compliant day per month</li> <li>- target objective: 0 non-compliant day per month</li> </ul> <p><b>TIGF:</b></p> <ul style="list-style-type: none"> <li>- basic objective: 1 non-compliant day per month</li> <li>- target objective: 0 non-compliant day per month</li> </ul>
<b>Incentives</b>	<p><b>GRTgaz:</b></p> <ul style="list-style-type: none"> <li>- penalties/month: <ul style="list-style-type: none"> <li>• €20k for the 2nd non-compliant day;</li> <li>• €30k per non-compliant day after the 3rd non-compliant day;</li> </ul> </li> <li>- bonuses/month: €25k if the target objective is achieved;</li> <li>- cap: the total annual amount, corresponding to the sum of penalties to be paid and bonuses to be received by GRTgaz, is capped at around €600k per year for all balancing zones.</li> </ul> <p><b>TIGF:</b></p> <ul style="list-style-type: none"> <li>- penalties / month: <ul style="list-style-type: none"> <li>• €20k for the 2nd non-compliant day;</li> <li>• €30k per non-compliant day after the 3rd non-compliant day;</li> </ul> </li> <li>- bonuses/month: €25k if the target objective is achieved;</li> <li>- cap: the total annual amount, corresponding to the sum of penalties to be paid and bonuses to be received by TIGF, is capped at around €300k per year.</li> </ul>
<b>Implementation date</b>	<ul style="list-style-type: none"> <li>- 1 April 2016</li> </ul>

(1): For a given transmission balancing zone (ZET), a day D of month M is non-compliant if the variation, in absolute terms, between the following values is strictly greater than 2%:

- the provisional quality measurement of the gas delivered to all PITDs in the ZET on day D and sent to the DSOs on day D+1 of month M;
- the final quality measurement of the gas delivered to all PITDs in the ZET on day D and sent to the DSOs on the 20th of month M+1.



**1.2 Quality of daily quantities remotely read at the delivery points for consumers connected to the transmission system and sent the day after;**

<b>Calculation:</b>	<ul style="list-style-type: none"> <li>- <b>Very good quality rate of information<sup>(4)</sup></b></li> <li>- <b>Good quality rate of information</b></li> <li>- <b>Poor quality rate of information</b></li> </ul> <p>(three values monitored for each TSO)</p>
<b>Scope:</b>	<ul style="list-style-type: none"> <li>- all shippers combined</li> <li>- all ZETs combined</li> <li>- all remotely-read industrial delivery points</li> <li>- rounded to one decimal place</li> </ul>
<b>Monitoring:</b>	<ul style="list-style-type: none"> <li>- frequency of calculation: monthly</li> <li>- frequency of reporting to CRE: monthly</li> <li>- frequency of publication: monthly</li> <li>- frequency of financial incentive calculation: monthly</li> </ul>
<b>Incentives</b>	<p><b>GRTgaz:</b> The financial incentive relates to the monthly average of very good and poor-quality rates of information.</p> <ul style="list-style-type: none"> <li>- penalties/month: €60k per percent of poor quality information;</li> <li>- bonuses/month: €1k per percent of very good quality information;</li> <li>- cap: the total annual amount, corresponding to the sum of penalties to be paid and bonuses to be received by each TSO, is capped at around €600k per year.</li> </ul> <p><b>TIGF:</b> The financial incentive relates to the monthly average of very good and poor-quality rates of information.</p> <ul style="list-style-type: none"> <li>- penalties/month: €30k per percent of poor quality information;</li> <li>- bonuses/month: €500 per percent of very good quality information;</li> <li>- cap: the total annual amount, corresponding to the sum of penalties to be paid and bonuses to be received by TIGF, is capped at around €300k per year.</li> </ul>
<b>Implementation date</b>	<ul style="list-style-type: none"> <li>- 1 April 2015</li> </ul>

(4) : Information is said to be of very good quality if the variation, in absolute terms, between the energy reading for day D sent on day D+1 and the final reading for day D sent in M+1 is strictly below 1%. If the deviation is between 1% and 3% (or strictly higher than 3%), the value is of good quality (or poor quality).

**1.3 Quality of intra-day quantities remotely read at the delivery points for consumers connected to the transmission system and sent during the day**

<b>Calculation:</b>	<ul style="list-style-type: none"> <li>- <b>Very good quality rate of information</b> <sup>(1)</sup></li> <li>- <b>Good quality rate of information</b></li> <li>- <b>Poor quality rate of information</b></li> </ul> <p>(three values monitored by GRTgaz and TIGF per timeslot)</p>
<b>Scope:</b>	<ul style="list-style-type: none"> <li>- calculation for the following timeslots: 06:00-10:00, 06:00-14:00, 06:00-18:00, 06:00-22:00 and 06:00-01:00</li> <li>- all shippers combined</li> <li>- all ZETs combined</li> <li>- all remotely-read industrial delivery points</li> <li>- rounded to the nearest percent</li> </ul>
<b>Monitoring:</b>	<ul style="list-style-type: none"> <li>- frequency of calculation: monthly</li> <li>- frequency of reporting to CRE: monthly</li> <li>- frequency of publication: monthly</li> <li>- frequency of financial incentive calculation: monthly</li> </ul>
<b>Incentives</b>	<p>The financial incentive relates to the average, all timeslots combined, of very good and poor rates of information.</p> <p><b>GRTgaz:</b></p> <ul style="list-style-type: none"> <li>- penalties/month: €20k per percent of poor quality information;</li> <li>- bonuses/month: €1k per percent of very good quality information;</li> <li>- cap: the total annual amount, corresponding to the sum, over all timeslots, of penalties to be paid and bonuses to be received by GRTgaz, is capped at around €600k per year.</li> </ul> <p><b>TIGF</b></p> <ul style="list-style-type: none"> <li>- penalties/month: €10k per percent of poor quality information;</li> <li>- bonuses/month: €500 per percent of very good quality information;</li> <li>- cap: the total annual amount, corresponding to the sum, over all timeslots, of penalties to be paid and bonuses to be received by TIGF, is capped at more or less €300k per year.</li> </ul>
<b>Implementation date</b>	<ul style="list-style-type: none"> <li>- 1 April 2014</li> </ul>

*(1): Information is said to be of very good quality if the variation, in absolute terms, between the energy reading in the timeslot for day D sent on day D and the final reading in the timeslot for day D sent in M+1 is strictly below 1%. If the deviation is between 1% and 3% (or strictly higher than 3%), the value is of good quality (or poor quality). If the deviation is less than 100kWh, the information is of very good quality.*

**1.4 Quality of overall forecasts for end of gas day consumption performed the night before and during the day**

<b>Calculation:</b>	<ul style="list-style-type: none"> <li>- <b>Very good quality rate of information<sup>(1)</sup></b></li> <li>- <b>Good quality rate of information</b></li> <li>- <b>Poor quality rate of information</b></li> </ul> <p>(one rate per balancing zone for the values published the day before and during the day, so six values monitored by GRTgaz and three values monitored by TIGF)</p>
<b>Scope:</b>	<ul style="list-style-type: none"> <li>- all shippers combined</li> <li>- one value per ZET</li> <li>- rounded to one decimal place</li> </ul>
<b>Monitoring:</b>	<ul style="list-style-type: none"> <li>- frequency of calculation: monthly</li> <li>- frequency of reporting to CRE: monthly</li> <li>- frequency of publication: monthly</li> <li>- frequency of financial incentive calculation: monthly</li> </ul>
<b>Incentives</b>	<p>The financial incentive relates to the average of very good and poor-quality rates of information.</p> <p><b>GRTgaz:</b> For the values published the day before (D-1) and during the day (D):</p> <ul style="list-style-type: none"> <li>- penalties: €40 per tenth of a percent of poor quality information;</li> <li>- bonuses: €10 per tenth of a percent of very good quality information;</li> <li>- cap: the total annual amount, corresponding to the sum of penalties to be paid and bonuses to be received by GRTgaz, is capped at around €600k per year for all balancing zones.</li> </ul> <p><b>TIGF:</b> For the values published the day before (D-1) and during the day (D):</p> <ul style="list-style-type: none"> <li>- penalties: €40 per tenth of a percent of poor quality information;</li> <li>- bonuses: €10 per tenth of a percent of very good quality information;</li> <li>- cap: the total annual amount, corresponding to the sum of penalties to be paid and bonuses to be received by TIGF, is capped at around €300k per year.</li> </ul>
<b>Implementation date:</b>	<ul style="list-style-type: none"> <li>- 1 April 2014</li> </ul>

*For the forecast made the day before, information is said to be of very good, good, and poor quality if the variation, in absolute terms, between the following values is strictly less than 4%, between 4% and 7%, and strictly greater than 7% respectively:*

- *the consumption forecast for day D published the day before at 17:00;*
- *the final reading for energy used on day D sent on the 20th of M+1.*

*For the forecast made during the day, information is said to be of very good, good, and poor quality if the variation, in absolute terms, between the following values is strictly less than 3%, between 3% and 5%, and strictly greater than 5% respectively:*

- *the consumption forecast for day D published on day D at 15:00;*
- *the final reading for energy used on day D.*

*The overall forecasts for end of gas day consumption used to calculate the indicator concern industrial customers, excluding highly modulated sites, and public distributions connected to the TSO's network.*

### 1.5 Monitoring the provision of the five items of information most useful for balancing on the TSOs' public sites

An indicator used to monitor the regular updating of the five most important pieces of information published on the TSOs' public websites was introduced on 1 April 2016. This indicator is now incentivised.

The five pieces of information monitored via this indicator are:

Information	Publishing frequency	Inspection frequency	Quality threshold
<b>Projected working stock</b>	Once an hour with a one-hour delay	Once per hour <sup>(1)</sup> □ (information published or not at H+1:15)	<b>Monitored value: availability rate before H+1:15</b>
<b>Forecast imbalance</b>	Once an hour with a one-hour delay	Once per hour <sup>(1)</sup>	<b>Monitored value: availability rate before H+1:15</b>
<b>Price of regulating imbalances</b>	Hourly, each time Power next is re-freshed	1 inspection per hour <sup>(1)</sup>	<b>Monitored value: average of overall monthly availability rates for each price</b> (average weighted price, marginal sale price, marginal purchase price)
<b>Overall consumption forecast per zone □ D and D+1</b>	-15:00: D forecasts -17:00: D+1 forecasts	Twice per day (information published or not at H+15 for 15:00 and 17:00)	<b>Monitored value: availability rate before H+15</b>
<b>Pirineos E and L allocations</b>	Daily, before 13:00	Once per day <sup>(2)</sup>	Indicator indexed on the presence of the data every day at 14:00. <b>Monitored value: availability rate at 14:00</b>
<b>Incentives</b>	<p>Once a month, each TSO calculates the average of all monitored values. The incentive applies to this average, expressed as a percentage rounded to one decimal place.</p> <p><b>GRTgaz:</b></p> <ul style="list-style-type: none"> <li>- if this average is equal to 100%, the bonus is €40k/month;</li> <li>- if this average is less than or equal to 95%, the penalty is €40k/month;</li> <li>- if this average is between 95% and 100%, the bonus/penalty applied is linear to the two values stated above: <math>incentive = average \times 1600 - 1560</math>, expressed in €k;</li> <li>- cap: the total annual amount, corresponding to the sum of penalties to be paid and bonuses to be received by GRTgaz, is capped at around €600k per year.</li> </ul> <p><b>TIGF:</b></p> <ul style="list-style-type: none"> <li>- if this average is equal to 100%, the bonus is €20k/month;</li> <li>- if this average is less than or equal to 95%, the penalty is €20k/month;</li> <li>- if this average is between 95% and 100%, the bonus/penalty applied is linear to the two values stated above: <math>incentive = average \times 800 - 780</math>, expressed in €k;</li> <li>- cap: the total annual amount, corresponding to the sum of penalties to be paid and bonuses to be received by TIGF, is capped at around €300k per year.</li> </ul>		
<b>Implementation date:</b>	- 1 April 2016		

(1) These checks are carried out every hour, except in between the 00:00 - 06:00 timeslot.

(2) Days for which this value is amended after initial publication will be counted as days for which this data is missing.



**2. Other indicators for monitoring TSO service quality**

**2.1 Availability rate of TSO user portals and public data platforms**

<b>Calculation:</b>	Number of hours the user portal and public platform for public data are available over the month / Total number of opening hours specified for both interfaces over the month (a value monitored by the TSO)
<b>Scope:</b>	<ul style="list-style-type: none"> <li>- calculated for a usage time between 07:00 and 23:00, 7 days a week</li> <li>- rounded to one decimal place</li> </ul>
<b>Monitoring:</b>	<ul style="list-style-type: none"> <li>- frequency of calculation: monthly</li> <li>- frequency of reporting to CRE: monthly</li> <li>- frequency of publication: monthly</li> </ul>
<b>Implementation date:</b>	<ul style="list-style-type: none"> <li>- 1 April 2015</li> </ul>

**2.2 Provision of additional firm capacity on the market at the North-South link**

<b>Calculation:</b>	Annual combined volume of additional firm daily capacity marketed by GRTgaz at the North-South link, in the north-to-south direction
<b>Scope:</b>	<ul style="list-style-type: none"> <li>- Combined interruptible and firm daily capacity marketed beyond 270 GWh/day</li> </ul>
<b>Monitoring:</b>	<ul style="list-style-type: none"> <li>- frequency of calculation: monthly</li> <li>- frequency of reporting to CRE: monthly</li> <li>- frequency of publication: monthly</li> </ul>
<b>Implementation date:</b>	<ul style="list-style-type: none"> <li>- 1 January 2015</li> </ul>

**2.3 Reliability of the projected working stock indicator published by the TSOs on their public page**

The projected working stock indicator is an estimation by the TSOs of the gas levels in each balancing zone at the end of the current gas day (05:00). This indicator provides information about the network voltage, in the same way as the imbalance indicator. The difference between the two indicators lies in the view of the system they provide: the first offers a projected view of the system for the current day, whereas the second gives a static view of a specific moment.

The projected working stock indicator affects TSO interventions in the market. As such, it informs shippers about the availability of flexibility services based on the working stock. When asked by CRE during the tariff update public consultation, the shippers unanimously declared that they would like to see an indicator created to monitor the reliability of this information. The resultant indicator aims to highlight aberrant working stock projected values.

<b>Calculation:</b>	<p>The percentage of hours per month for which the published working stock projection is compliant. The working stock projection published at hour H is deemed compliant if the difference from the last compliant projected working stock value is less than 100 GWh in the North zone, 50 GWh in the South zone, and 30 GWh in the TIGF zone.</p> <p>This tolerance range is designed to isolate deviations that cannot cause client rescheduling and/or consumption re-forecasts.</p>
<b>Scope:</b>	- One value per month per balancing zone (North and South) for GRTgaz and TIGF
<b>Monitoring:</b>	<ul style="list-style-type: none"> <li>- frequency of calculation: monthly</li> <li>- frequency of reporting to CRE: monthly</li> <li>- frequency of publication: monthly</li> </ul>
<b>Implementation date:</b>	- 1 April 2016

**2.4 Indicators relating to maintenance programmes**

<b>Indicator name</b>	<b>Indicator calculation</b>	<b>Frequency of reporting to CRE and publication</b>	<b>Implementation date</b>
Reduction of available capacity	<b>Firm capacity made available during works / technical firm capacity</b> (one value monitored per point and an aggregate value monitored for each category of network points <sup>(1)</sup> for each TSO)	Monthly  Indicator calculated for the months <b>January to December</b>	1 April 2009
Reduction of subscribed capacity	<b>Firm capacity made available during works / subscribed firm capacity</b> (one value per type of network point <sup>(1)</sup> for each TSO)		1 April 2016
Compliance with the annual maintenance programme published at the beginning of the year by the TSO;	<b>Percentage variation of the capacity made available between the projected maintenance programme published at the beginning of the year and the actual maintenance programme</b> (one value per type of network point <sup>(1)</sup> for each TSO)		1 April 2009
Compliance with the committal maintenance programme published in M-2 by the TSO	<b>Percentage variation of the capacity made available between the projected maintenance programme published in M-2 and the actual maintenance programme</b> (one value per type of network point <sup>(1)</sup> for each TSO)		GRTgaz: mid-2009 TIGF: 1 April 2009
Compliance with the non-committal maintenance projection published in M-2 by the TSO	<b>Percentage variation of the capacity made available between the best-case non-committal maintenance programme published in M-2 and the actual maintenance programme</b> (one value per type of network point <sup>(1)</sup> for each TSO)		1 April 2016

(1): 5-point categories are used:

- the North-South link in both directions;
- PIRs in the dominant direction;
- entry to the PITTMs;
- entry to the PITTMs;
- GRTgaz South / TIGF interface in both directions.

**2.5 Environmental indicators**

Indicator name	Indicator calculation	Frequency of re- porting to CRE and publi- cation	Implementation date
Greenhouse gas emissions	<b>Monthly greenhouse gas emissions (in CO<sub>2</sub> equivalent)</b> (one value monitored per TSO)	Quarterly	1 January 2009
Greenhouse gas emissions related to the volume of gas transported	<b>Monthly greenhouse gas emissions / Monthly volume of gas transported</b> (one value monitored per TSO)		1 January 2009



## **ANNEX 3: LIST OF NTRS BY SITE**

Appendices published on CRE's website for GRTgaz<sup>19</sup> and TIGF<sup>20</sup>.

## **ANNEX 4: DATA PUBLISHED BY THE TSOS**

### **1. Structural representation of the transport network**

GRTgaz: <http://www.grtgaz.com/notre-entreprise/notre-reseau.html>

TIGF:

<https://www.tigf.fr/nos-offres/transport.html>

<https://www.tigf.fr/nos-publications/publications-transport/schema-du-reseau-tigf.html>

### **2. Technical data (length and diameter of pipelines, power of compressor stations)**

GRTgaz: <http://www.grtgaz.com/fr/notre-entreprise/nos-chiffres-cles.html>

TIGF: <https://www.tigf.fr/qui-sommes-nous/nos-metiers/chiffres-cles.html>

### **3. Standard interruptible capacity products proposed and probability of interruption**

GRTgaz: [http://www.smart.grtgaz.com/fr/capacites\\_moyen\\_termes/PIP](http://www.smart.grtgaz.com/fr/capacites_moyen_termes/PIP) ; [http://smart.grtgaz.com/fr/programme\\_travaux/CAM/PIR](http://smart.grtgaz.com/fr/programme_travaux/CAM/PIR)

TIGF:

[https://www.tigf.fr/fileadmin/presse/ACTU\\_PDF-FR/2015/GT\\_Allocation\\_30112015\\_TIGF\\_FR.PDF](https://www.tigf.fr/fileadmin/presse/ACTU_PDF-FR/2015/GT_Allocation_30112015_TIGF_FR.PDF)

[https://www.tigf.fr/fileadmin/Nos\\_offres/Transport/Contrat\\_de\\_transport/CG\\_CP\\_CO/MAJ\\_Novembre\\_2017\\_bis/06\\_Annexe\\_E.1\\_Procedure\\_de\\_commercialisation\\_de\\_capacites\\_a\\_u\\_PIV\\_Pirineos.pdf](https://www.tigf.fr/fileadmin/Nos_offres/Transport/Contrat_de_transport/CG_CP_CO/MAJ_Novembre_2017_bis/06_Annexe_E.1_Procedure_de_commercialisation_de_capacites_a_u_PIV_Pirineos.pdf)

### **4. Technical capacity available at entry and exit points**

GRTgaz: <http://www.grtgaz.com/acces-direct/clients/fournisseur-trader/acces-aux-capacites.html>

TIGF: <https://www.tigf.fr/fr/nos-offres/transport/commercialisation-de-capacites/calcul-des-capacites.html>

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<sup>19</sup> List of GRTgaz NTRs

<sup>20</sup> List of TIGF NTRs