# Deliberation of the French Energy Regulation Commission of 28 October 2010 on the proposal to modify the tariffs for the use of natural gas transport networks

Attending the session were: Mr Philippe de Ladoucette, Chairman, Mr Michel Thiolliere, Vice-Chairman, Mr Jean-Paul Aghetti, Ms Anne Duthilleul, Mr Emmanuel Rodriguez and Ms Marie-Solange Tissier, commissioners.

The tariffs for the use of the public natural gas transport networks of GRTgaz and TIGF, proposed by the French Energy Regulation Commission (CRE) on 10 July 2008, came into force on 1 January 2009, in accordance with the order of 6 October 2008.

The main provisions of this order are:

- for the two Transmission System Operators (TSO), return on assets and investment incentives principles are fixed for four years;
- for GRTgaz, the tariff period is four years, with a fixed authorised revenue trajectory for the period and a regulation to incite productivity. The GRTgaz tariff grid changes on 1 April of each year, as from 2010, in accordance with the update of capacity subscription forecasts, inflation and any significant variations in the price of energy.
- for TIGF, the tariff is fixed for a period of two years.

These tariffs were modified for GRTgaz as at 1 April 2010, on the proposal of CRE of 3 December 2009 (order of 10 March 2010).

Pursuant to the provisions of article 7 of the law of 3 January 2003 as amended and in accordance with the order of 6 October 2008, CRE proposes new tariffs for the use of the natural gas transport networks, to take effect from 1 April 2011 to 31 March 2012 for GRTgaz and from 1 April 2011 to 31 March 2013 for TIGF.

To draw up its proposal, CRE conducted a public consultation (from 21 July to 6 September 2010), organised a round table with market players on 23 September 2009 and had discussions with the two gas transmission system operators (TSO).

Pursuant to the tariff system in effect, in calculating the capital expenditures to be covered by tariffs, CRE took into account the result of the audits it performed on the Guyenne gas pipline project for TIGF and the expenses capitalisation rules for GRTgaz.

For GRTgaz, 2011 authorised revenue has increased by 3.6% compared to that of 2010. This increase is lower than what was anticipated in the order of 6 October 2008 (an average of +4.8% per year for the 2010-2012 period). This difference is due to inflation in 2010 that was lower than expected in the order of 6 October 2008 and to a drop in energy expenses. In light of capacity subscription forecasts for 2011, which are lower than forecasts made in July 2008, GRTgaz average unit tariff will increase by 2.9% as at 1 April 2011, i.e. an increase close to that anticipated in the preamble of CRE's tariff proposal of 10 July 2008 (an average of +2.8% per year between 2009 and 2012).

For TIGF, the average authorised annual revenue has decreased by 6.7% compared to the current tariff. This drop is due to the recognition of the surplus balance (€39.7 M) of the expenses and revenues clawback



account (CRCP<sup>1</sup>) of the 2009-2010 tariff, mainly because of the investments made (actual inflation lower than forecast in the tariff) and lower energy expenses than forecast for the establishment of the previous tariff. Taking into account the increase in capacity subscription forecasts for 2011 and 2012, TIGF's average unit tariff will decrease by 10.2% as at 1 April 2011.

For the tariff structure as a whole, no modification has been proposed at this stage, and consultations will continue.

An intraday flexibility service has been introduced in the GRTgaz network. This mechanism, which is part of daily balancing service for the gas market in France, is based on the following principles:

- it is an interruptible service billed according to use, which is applied to all highly modulated sites regardless of their gas usage;
- the tariff for this service takes into account the additional costs related to intraday flexibility required by these sites.

This new framework provides visibility into access conditions to the gas transport networks for highly modulated sites.

Lastly, CRE proposes updating the quality incentive mechanism of GRTgaz and TIGF service as from 1 April 2011. Three indicators have developed to take into account the progress made by transporters and therefore serve as an incentive.

<sup>&</sup>lt;sup>1</sup> CRCP: expenses and revenues clawback account covering all or part of the costs or revenue differences observed in predefined line items.



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# PRESENTATION OF THE MOTIVES

# I - Regulatory framework

# 1.1. Current regulatory framework

The order of 6 October 2008 contains the following provisions:

- for the two Transmission System Operators (TSO), return on assets and investment incentives principles are fixed for four years;
- for GRTgaz, the tariff period is four years, with a fixed authorised revenue trajectory for the period and a regulation to incite productivity. The GRTgaz tariff grid changes on 1 April of each year, as from 2010, in accordance with the update of the capacity subscription forecasts, inflation and any significant variations in the price of energy and accounting of CRCP;
- for TIGF, the tariff is fixed for a period of two years.

Pursuant to this order, CRE proposes an annual update of GRTgaz tariff and a new two-year tariff for TIGF to be applied as from 1 April 2011.

# 1.2. Tariff treatment of European subsidies

Within the framework of the European Energy Programme for Recovery of July 2009, the European Commission intends to grant French TSOs subsidies<sup>2</sup> for a maximum of €305 M for the development of interconnections with Spain and Belgium.

CRE proposes completing the tariff framework introduced by ATRT4 to define the tariff treatment of these subsidies.

It considers that the subsidies granted must benefit network users, and ultimately natural gas customers, by resulting in lower tariffs for the use of transmission networks. However, for the specific case of gas transmission tariffs, an investment incentive, in the form of a 3% premium for 10 years is provided for in the current tariff. This incentive should be maintained for the portion of investments funded by European subsidies.

Under these conditions, CRE proposes limiting normative capital expenditures for the subsidised portion of assets included in the regulatory asset base (RAB), to a 3% return for 10 years. The rate of return on fixed assets under construction would not apply to the portion of investments funded by subsidies received. This rule would only apply to assets benefitting from the increased rate of return provided for by the tariff for the use of transmission networks.

The tariff treatment proposed enables network users to benefit from the greater part of the subsidy.

<sup>&</sup>lt;sup>2</sup> REGULATION (EC) No. 663/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 July 2009 establishing a programme to aid economic recovery by granting Community financial assistance to projects in the field of energy.



# II - Update of the GRTgaz tariff level

# 1. Operating expenses (OPEX)

# 1.1. Net operating expenses excluding energy expense revisions

For 2010, net operating costs retained stood at  $\in$ 610.9 M. As inflation of 0.06% was observed<sup>3</sup> in 2009, the reference net operating expenses for 2010 total  $\in$ 608.9 M.

The current tariff framework provides that, each year, as from 2010, excluding variations in energy prices, "net OPEX taken into account in the authorised revenue are defined by applying to the amount of the preceding year the following Z percentage variation: Z = CPI + 1.1%".

As the inflation hypothesis used<sup>3</sup> for 2010 in the 2011 budget proposal is + 1.5%, the net operating expenses used for 2011, excluding variations in the price of energy, will increase by 2.6% compared to reference net OPEX for 2010, i.e. a total of  $\in$ 624.7 M.

# 1.2. Energy expenses

In accordance with the provisions of the order of 6 October 2008, CRE proposes modifying the reference amount used for the energy expenses as variation of the price of energy was greater than 5%.

CRE proposes lowering the estimated GRTgaz energy expenses for 2011 compared to initial forecasts. This decrease is related to the drop in the price of gas and in GRTgaz gas requirements.

The average price of gas in 2011 is estimated at €20.13 per MWh.

The drop in gas requirements results mainly from the full commercial operation of the Fos Cavaou terminal and the replacement of gas-run turbo compressors by electro compressors.

With regard to metering unbalances (EBT), CRE has maintained GRTgaz proposal to replace the value of 800 GWh forecast in July 2008 for 2011 by 1,200 GWh. The action plan implemented by GRTgaz is set to reduce the unbalance seen in 2009 (EBT in 2009 of 2,255 GWh instead of 800 GWh).

Expenses associated with the purchase of electricity have increased for 2011 compared to the 2008 tariff forecast, due to the increase in electricity prices and in GRTgaz electricity requirements.

After taking into account the revenue and expenses associated with the GRTgaz "CO<sub>2</sub> quotas", the energy expenses for 2011 come to  $\in$ 66.6 M compared to  $\in$ 115.1 M estimated initially.

In millions (€)	2010 – Tariff forecast	2010 - Estimate	2011 – Tariff proposal
Gasoline	45.1	29.4	34.8
Metering unbalance	31.3	21.5	24.2
Electricity	17.0	10.7	15.8
CO <sub>2</sub> quotas	-2.5	0.0	-8.2
Total	90.9	61.6	66.6

# 1.3. H gas to B gas conversion service

To open the North B zone to competition, GRTgaz has offered a "basic" H gas to B gas conversion service since 1 January 2007. This service is priced at 50% lower than the production cost for GRTgaz, which is the result of a swap contact for H gas to B gas signed with GDF Suez. In 2009, the subscriptions to this service were higher than the forecasts used in CRE's tariff proposal of 10 July 2008, demonstrating the sustained development of competition in the North B zone but generating extra costs for GRTgaz.

As this situation continued in 2010, CRE proposes for 2011, in compliance with the tariff proposal of 3 December 2009, a  $\in$ 2.6 M increase in net expenses related to the "basic" H gas to B gas conversion service, i.e. an increase of  $\in$ 7.1 M in gross expenses and  $\in$ 4.5 M in revenue related to this service.

<sup>&</sup>lt;sup>3</sup> Inflation recorded in 2009: +0.06% and inflation assumptions used for the two TSOs (2011 budget proposal): +1.5% for 2010 and 2011 and +1.75 % for 2012.



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# 1.4. Capsquare capacity trading platform

On the basis of feedback obtained within the framework of Concertation Gaz, CRE proposes maintaining the Capsquare capacity trading platform service in the basic services offered by the GRTgaz tariff.

Consequently, the operating costs of this platform, i.e. €387 K, are taken into account in the net operating expenses for 2011.

# 1.5. Expense capitalisation rules

In April 2010, GRTgaz addressed to CRE an OPEX statement for 2009 and the OPEX estimated for 2010. Differences were spotted between the tariff forecasts and accounting for several expense items. CRE performed an audit to analyse these variations. The audit showed, as from 2009, a different accounting method for safety and compliance expenses (related to the 2006 "Multifluides" order) than that presented by GRTgaz and selected by CRE to determine the ATRT4 tariff trajectory. These expenses are henceforth accounted for as investments, whereas they had been covered as OPEX when the current tariff trajectory was established.

The accounting method used by GRTgaz is justified by:

- the current accounting rules (CNC notice No. 2005-D of 1 June 2005) which allows capitalisation of safety and compliance expenses if they are imposed by a legal obligation;
- the adoption of professional guides for the application of the "Multifluides" order which occurred from April 2008 to September 2009, allowing expenditure for 2009 to be recorded as capital expenditures.

However, with regard to tariffs, this results in the same expenditure being recorded as OPEX (in the forecast ATRT4 trajectory) and as a capital expenditures (via the CRCP).

To neutralise this effect for the current tariff period, CRE proposes reviewing GRTgaz capital expenditures (CAPEX). The re-accounting of CAPEX for 2009 and 2010 via the CRCP is €-2 M in 2011.

CRE has stated that any significant future modification of accounting rules and methods between the time a tariff is determined and the effective date of expenditure will be subject to a restatement of the tariff level if it has an effect on the global tariff level.

# 1.6. Net operating expenses

After taking into account the revision of energy costs ( $\in$ -48.5 M) and expenses related to the H gas to B gas conversion service ( $\in$ +7.1 M) and the Capsquare platform ( $\in$ +387 K), the net operating expenses to be taken into account in GRTgaz 2011 authorised revenue total  $\in$ 583.7 M.

# 2. Capital expenditures (CAPEX)

In compliance with the provisions of the order of 6 October 2008, GRTgaz forecast capital expenditures for 2011 is €861.9 M.

# 2.1. Stranded costs

To facilitate decision making for new investments, the tariff framework introduced by ATRT4 provides that the residual accounting value of assets withdrawn from inventory before the end of their service life, as well as expenses related to upstream technical studies and procedures, which cannot be capitalised if the projects concerned are not followed through, may be included, on a case-by-case basis, in the capital expenditures to be covered by the tariff.

In that regard, ATRT4 covers for GRTgaz, a forecast stranded cost trajectory of approximately €2 M per year on average.

GRTgaz requests a revision, from 2011, of the stranded cost trajectory used in ATRT4 on the basis of assets effectively withdrawn from inventory in 2009 and 2010.

CRE proposes assessing GRTgaz stranded costs at the end of the tariff period:

- If the total amount of stranded costs for the 2009-2012 period is lower than the tariff forecast used for the same period, the corresponding difference will be recovered via the CRCP.



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- If the total amount of stranded costs for the 2009-2012 period is higher than the tariff forecast, the additional stranded costs may be covered via the CRCP on a case-by-case basis, based on the explanatory files submitted by the operator to CRE.

With regard to upstream technical studies and procedures, which cannot be capitalised if the projects concerned are not conducted, CRE proposes as of present, in consistency with its deliberation of 27 May 2010, to cover via the CRCP the stranded costs related to the Taisnières project for 930 GWh/day, i.e.  $\in 6 \text{ M}$ .

Furthermore, CRE proposes that any stranded costs for upstream technical studies for connecting Corse to the Galsi gas line be covered by the tariff for up to €3.5 M, if this project is not followed through.

# 3. GRTgaz CRCP balance

GRTgaz CRCP statement for the 2009-2010 period breaks down as follows:

Total in millions (€) before application of	2009 CRCP balance	2010 CRCP balance
discount rate	(actual / tariff forecast)	(estimated / tariff forecast)
Items provided for in ATRT4:		
<ul> <li>Downstream transport revenue, 100% coverage</li> </ul>	11.8	-4.5
<ul> <li>Upstream transport revenue, 50% coverage</li> </ul>	-0.2	-0.8
<ul> <li>Connection investments</li> </ul>	7.7	2.0
<ul> <li>Capital expenditures, excluding stranded costs</li> </ul>	-12.8	-1.3
– Energy	-3.7	-23.5
<ul> <li>Inter-operator agreements with TIGF</li> </ul>	5.1	1.1
<ul> <li>Difference in net operating expenses due to the difference between final inflation and the value used for 2009</li> </ul>	0.0	-2.0
<ul> <li>Service quality</li> </ul>	0.8	2.4
Additional items:		
<ul> <li>Standard costs related to "core network" studies</li> </ul>	0	6
<ul> <li>Impact of the OPEX capitalisation rules audit</li> </ul>	-0.8	-6.1
TOTAL	7.9	-26.7

Pursuant to current tariff rules, these sums will be discharged over a period of four years, with constant annuities. The CRCP discount rate of 4.2% used in the ATRT4 tariff will be applied annually.

The CRCP balance to be taken into account in 2011 for GRTgaz is €-31.5 M. It comprises:

- the annuity related to the final statement for 2007 and the statement estimated for 2008, i.e. €-23.1 M, specified in the CRE's tariff proposal of 10 July 2008;
- the annuity related to the final statement for 2008, i.e. €-3.2 M specified in the CRE's tariff proposal of 3 December 2009;
- the annuity related to the final statement for 2009 and the statement estimated for 2010, i.e. €-5.2 M, outlined in the table above.



#### 4. GRTgaz authorised revenue

The total expenses to be covered by the GRTgaz tariff in 2011 are as follows:

2011
861.9
583.7
-31.5
1,414.1

Excluding expenses related to the intraday flexibility service for highly modulated sites

#### 5. Capacity subscription assumptions used for GRTgaz

#### 5.1. Main network

The subscription assumptions used for 2011 for the main network are as follows:

- at main network exit points, they are based on those used for the regional network;
- for the other points of the main network, the assumptions used are established on the basis of the actual subscriptions in 2009 and the subscription forecasts for 2010.

The most recent estimate of capacity subscriptions in 2010 is 0.3% lower than the forecasts made in December 2009. The drop in subscriptions at storage interface points (-5.6%) and at the Taisnières and Obergailbach entry points (-4.6%) is compensated by an increase at the other points of the main network (+1.7%).

In total, for 2011, CRE has used a capacity subscription forecast on the main network that is 5.2% lower than the July 2008 forecast and 2.3% lower than subscriptions estimated for 2010.

#### 5.2. Regional network and delivery

The forecast capacity subscriptions for the regional network take into account, on one hand, a forecast for standardised capacity subscriptions at the transport-distribution interface points (PITD) and, on the other hand, a forecast of capacity subscriptions for customers directly connected to the transport network and for regional network interconnection points (PIRR).

- Standardised subscriptions for delivery capacities at the PITD:

The most recent estimate of capacity subscriptions made in 2010 through the standardised subscriptions mechanism at the PITD is almost similar to forecasts made in December 2009 (+0.01%).

After taking into account the 2009-2010 winter analysis conducted by GRTgaz, CRE's forecast for 2011 is 1.7% lower than the July 2008 initial forecast and 0.4% higher than the estimate for 2010.

- Subscriptions of delivery capacities for customers directly connected to the GRTgaz transport network ("industrial clients") and for regional network interconnection points (PIRR):

The update of the delivery capacities subscriptions forecast for 2011 was established on the basis of the capacity subscriptions made to date in 2010 and forecasts for the change in consumption for 2011.

The delivery capacities subscribed in 2010 by industrial customers and at PIRR are 1.8% higher than forecasts made in December 2009 due to a more favourable economic context.

Taking into account in particular the entry into service of several gas power plants, CRE has accepted an increase in subscriptions for industrial clients and PIRR between 2010 and 2011 of 7.6%. This assumption is 6.5% lower than the initial July 2008 forecast.



- Change in subscriptions in the regional network:

Globally, the forecasts for 2011 capacity subscriptions on the regional network are 1.9% higher than subscriptions forecast in December 2009 but 2.1% lower than initial July 2008 forecasts.

#### 5.3. Global change in subscriptions on the GRTgaz network

Globally, the forecasts for transport capacity subscriptions for 2011 are on average higher (+ 0.4%) than the subscriptions estimated in December 2009 for 2010. However, they are 3.1% lower than initial forecasts made in July 2008 for 2011.

#### 6. Average change in GRTgaz tariff

For 2011, GRTgaz authorised revenue has increased by 3.6% and the valuing of capacity subscriptions by 1.4% (0.4% increase in volume and 1% in value related to the time-lag of the tariff increase at 1 April 2010) compared to tariff forecasts made in December 2009 for 2010. This results in an average increase of GRTgaz tariff of 2.2% in 2011, i.e. a 2.89% increase as at 1 April 2011.

#### III - TIGF tariff level

#### 1. Operating expenses (OPEX)

The operating expenses to be covered by the TIGF tariff have been defined on the basis of all of the operating costs necessary for the operation of its transport network, as communicated to CRE and as they appear in the operators' accounts. CRE has adjusted certain items but took into account all TIGF requests regarding the change in personnel and safety expenditure.

Furthermore, CRE proposes introducing for the 2011-2012 period, a mechanism to incite the operator to control its operating expenses. Any productivity gains which may be made by TIGF in 2011 and 2012 on the basis of controllable operating expenses, comprising the operator's net expenses minus operating expenses and income covered by the CRCP mechanism, will be calculated at the end of the tariff period. TIGF will conserve 50% of gains made. The other 50% will be deducted from the expenses to be covered in the next tariff.

Lastly, it must be recalled that the forecasts of other sources of income received separately to the tariff for the use of the transport network are deducted from the operating expenses to be covered by the tariff.

#### 1.1. Energy expenses

TIGF expenses related to the purchase of gas and electricity to operate the network's compressor stations have decreased compared to the 2009-2010 period. This decrease is due both to the drop in the price of gas and in TIGF gas requirements.

For the 2011-2012 period, TIGF's "energy and  $CO_2$  quotas" item represents an average of  $\leq$ 4.2 M per year, i.e. a 64.2% drop compared to the amount taken into account for the previous tariff.



In EM/voor	2009-2010	2009-2010	2011-2012
In €M/year	Tariff forecast	Estimate	Tariff forecast
Gasoline	11.1	3.2	4.4
Electricity used	0.4	0.3	0.3
CO <sub>2</sub> quotas	0	0	- 0.5
Total	11.5	3.5	4.2

# 1.2. Personnel expenses

The personnel forecast addressed by TIGF for the 2011-2012 period takes into account the effects of the 3rd gas directive, a forecast increase in its gas transport activity and developments in regulation (Multifluides order).

Furthermore, the valuing of wage and salary costs takes into account the annual average increase of salaries proposed by TIGF and also the inflation assumption used for the 2011 budget proposal. It also considers the fact that certain functions will henceforth be entrusted to TIGF personnel, which avoids secondment expenses.

This forecast of personnel expenses has been taken into account in the tariff proposed by CRE.

In total, the personnel costs item has increased by 20% compared to the 2009-2010 tariff and represents €37.7 M per year.

# 1.3. Common assets

TIGF common assets (lease and office maintenance, telecommunications and computer equipment, travel, training, etc.) have increased by 37% for 2011-2012 compared to the tariff forecast for 2009-2010 and approximately 14% compared to the actual amounts for 2009 and 2010 estimates.

This rise is mainly tied to the increase in TIGF personnel.

In total, the common assets item represents an average of €19.5 M per year.

# 1.4. Change in accounting allocation rules

TIGF has requested a revision of rules used to apportion common expenses between its transport and natural gas storage activities (personnel expenses and common assets), in order to reflect the faster development of its gas transport activity compared to its storage activity.

After an analysis of the supporting elements provided by TIGF, CRE proposes accepting this request, which results in an increase of approximately €1.2 M per year in operating expenses for TIGF gas transport activity for 2011-2012.

CRE will ensure that TIGF accounting allocation rules are suitable in the future.

# 1.5. Change in the Lussagnet transport contract

Compression power of 44.3 MW has been installed at the Lussagnet site, of which 28.6 MW are devoted to transport and 15.7 MW to storage. This power has been optimised to best meet the needs of both activities. Therefore, based on the period of the year, gas storage compressors serve the gas transport activity and inversely, with cross invoicing between the two activities. To simplify this management, a study was conducted by TIGF on the costs and operation of the compressors at the Lussagnet site.

After an analysis of the elements submitted by TIGF, CRE proposes using a net forecast cost of  $\in 1.3$  M/year for TIGF gas transport activity for 2011-2012, down  $\in 2$  M/year compared to the net cost incurred for 2009-2010.



#### 1.6. Net operating expenses

The total level of net OPEX to be covered by the TIGF tariff for 2011-2012 is as follows:

€M	2011	2012	Average
Gross operating expenses	89.6	94.8	92.2
Operating income	38.0	38.5	38.2
Net operating expenses	51.6	56.4	54.0

# 2. TIGF capital expenditures (CAPEX)

Capital expenditures include the financial return on and the depreciation of the Regulatory Asset Base (RAB) as well as the return on fixed assets under construction, and where applicable, the stranded costs recognised by CRE.

CRE has calculated the capital expenditures to be covered by TIGF tariffs in compliance with the regulatory framework set by ATRT4 and on the basis of forecast investment amounts submitted by TIGF.

#### 2.1. Stranded costs

For the 2009-2010 tariff period, ATRT4 has taken into account for TIGF under stranded costs a trajectory of €0.75 M per year, i.e. €0 M in 2009 and €1.5 M in 2010.

As TIGF did not record any stranded costs in 2009 and has not forecast any in 2010, the difference of €1.5 M will be recovered via the CRCP.

#### 2.2. Audit of the TIGF Guyenne trunk line project

The project to reinforce the Guyenne trunk line was approved in December 2005 for a total forecast sum of €175 M for the first phase for TIGF. For this project, the CRE deliberation of 8 December 2005 decided that TIGF would enjoy a 3% premium for 10 years of €50 M corresponding to investments to build capacity for the market.

Compared to end 2005 estimates, the cost of phase 1 of the project increased by more than 56%, i.e. a final price of  $\leq$ 273 M, and the additional capacity created by TIGF and proposed to the market increased by 50 GWh/d. In a deliberation on 14 February 2008, CRE attributed an additional 3% premium to this project for 10 years for  $\leq$ 35 M (investments creating an additional 50 GWh/d for the market) but did not allot any premium for the extra costs related to the implementation of phase 1 of the TIGF Guyenne trunk line project. It also decided, in its deliberation of 9 October 2008 to launch an audit of this project at the intermediate implementation point of TIGF's 2008 investment programme.

After an analysis of this audit's conclusions, CRE proposes withdrawing €3 M from TIGF regulatory asset base.

Furthermore, the investments made to date by TIGF for making the 50 GWh/d available to the market currently amount to  $\in$ 24 M (of which  $\in$ 8 M are related to the restoration of the DN 600 trunk line starting from Lussagnet going towards the north).

Gas transport tariffs take into account that the 3% premium for 10 years is an investment incentive. Consequently, CRE proposes maintaining with regard to the 3% premium attributed in its deliberation of 14 February 2008, an envelope of  $\in$ 24 M, instead of  $\in$ 35 M maintained initially. If additional renovations are conducted by TIGF to keep the DN 600 trunk line in operation, the additional investments will benefit from the 3% premium for a maximum amount of  $\in$ 11 M.



# 3. TIGF CRCP balance

TIGF CRCP statement for the 2009-2010 period breaks down as follows:

Total in millions (€) before application of discount rate	2009 CRCP balance (actual / tariff forecast)	2010 CRCP balance (estimated / tariff forecast)
Items provided for in ATRT4:-Downstream transport revenue, 100% coverage-Upstream transport revenue, 50% coverage-Capital expenditures, excluding stranded costs-Energy-Inter-operator agreements with GRTgaz-Service quality	0.8 -1.5 -6.2 -7.4 -5.1 -0.5	2.6 -1.3 -11.7 -5.6 -1.1 0
Additional items: <ul> <li>Stranded costs</li> <li>Impact of the TIGF Guyenne trunk line project audit</li> </ul> TOTAL	0 -0.5 <b>-20.4</b>	-1.5 -0.7 <b>-19.3</b>

Pursuant to current tariff rules, these sums will be discharged over a period of four years, with constant annuities. The CRCP discount rate of 4.2% used in the ATRT4 tariff will be applied annually.

The CRCP balance to be taken into account for 2011-2012 for TIGF is €-18.3 M. It comprises:

- the annuity related to the final statement for 2007 and the statement estimated for 2008, i.e. €-5.5 M, specified in the CRE's tariff proposal of 10 July 2008;
- the annuity related to the final statement for 2008, i.e. €-1.3 M;
- the annuity related to the final statement for 2009 and the statement estimated for 2010, i.e. €-11.5 M, outlined in the table above.

# 4. TIGF authorised revenue

TIGF's forecast regulatory asset base (RAB) amount for 2011-2012 is as follows:

€M	2010 (estimate)	2011	2012
RAB as at 1/1/n	941.4	997.6	1,023.2
Investments (*)	82.4	52.4	150.7
Depreciation	-40.6	-43.8	-46.8
Revaluation <sup>4</sup>	14.4	17.0	21.9
RAB as at 31/12/n	997.6	1,023.2	1,149.0

<sup>(\*)</sup> Investments taken into account in the RAB

The total level of expenses to be covered by the TIGF tariff for 2011-2012 is as follows:

€M	2011	2012	Average
Capital expenditures	128.0	135.5	131.7
Net operating expenses	51.6	56.4	54.0
CRCP	-18.3	-18.3	-18.3
Total authorised revenue	161.3	173.6	167.4

<sup>&</sup>lt;sup>4</sup> Inflation recorded in 2009: +0.06% and inflation assumptions used for the two TSOs (2011 budget proposal): +1.5% for 2010 and 2011 and +1.75 % for 2012. 13/45



# 5. Capacity subscription assumptions used for TIGF

# 5.1. Main network

The subscription assumptions used for 2011-2012 for the main network are as follows:

- exit capacity from the main network are based on assumptions used for the regional network;
- for the other points of the main network, the assumptions used are established on the basis of the actual subscriptions in 2009 and the subscriptions forecast for 2010.

The actual capacity subscriptions for 2009-2010 were higher than forecasts (+3.1%).

For 2011-2012, CRE has decided on forecast capacity subscriptions on the main network which are 3.5% higher than actual subscriptions for 2009-2010.

# 5.2. Regional network and delivery

The capacity subscriptions forecast for the regional network take into account, on one hand, a forecast of standardised capacity subscriptions at the transport-distribution interface points (PITD) and, on the other hand, a forecast of capacity subscriptions for customers directly connected to the transport network.

- Standardised subscriptions for delivery capacities at PITD:

Capacity subscriptions made for 2009-2010 through the standardised subscription mechanism at PITD are 2.5% lower than forecasts.

After taking into account the 2009-2010 winter analysis conducted by TIGF, CRE has decided on a forecast for the 2011-2012 period that is 1.1% lower than subscriptions made for the 2009-2010 period.

- Subscriptions of delivery capacities for customers directly connected to the TIGF transport network ("industrial clients"):

The update of delivery capacity subscriptions forecast for 2011-2012 has been established on the basis of capacity subscriptions made in 2009 and forecasts for 2010 as well as consumption forecast for 2011 and 2012.

The delivery capacities subscribed for 2009-2010 by industrial clients are 23.1% lower than forecasts, due to the shutdown in 2010 of a major industrial site in the TIGF zone.

For 2011 and 2012, CRE has retained a forecast equal to the amount observed in 2010, i.e. an 8.9% drop compared to the 2009-2010 period.

- Change in subscriptions in the regional network:

Globally, the forecasts of capacity subscriptions for 2011-2012 on the regional network are 0.7% lower than subscriptions made for the 2009-2010 period.

# 5.3. Global change in capacity subscriptions on the TIGF network

Globally, the forecasts for transport capacity subscriptions for 2011-2012 are on average 1.9% higher than actual subscriptions for the 2009-2010 period.

# 6. Average change in TIGF tariff

For the 2011-2010 period, TIGF authorised revenue has dropped by 6.7% and capacity subscriptions have increased by 2.2% compared to 2009-2010 tariff forecasts. This has resulted in an 8.9% drop in TIGF average unit tariff, i.e. a 10.18% fall as at 1 April 2011.

# IV - Tariff structure

# 1. Intraday flexibility service for highly modulated sites

Connection contracts have been signed with GRTgaz for several combined-cycle gas turbine plant (CCGT) projects to enter into service between 2009 and 2015.



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These power plants have a major role to play in the proper functioning of the electrical system, as they contribute to adjusting supply to demand (semi-base and peak loads) and in the reduction of  $CO_2$  emissions of the electricity generation system. These plants also invigorate the gas market.

However, taking into account their gas consumption level and their flexibility requirements in the course of the day, constraints in the operation of gas transmission networks were identified in 2008 by the TSOs.

Within this framework, in its deliberation of 30 April 2009, CRE confirmed the continuation of the daily balancing service on French gas transmission networks and stated that TSOs are responsible for making optimum use of the intraday flexibility resources available in the entire gas infrastructure to meet the needs of the network's users. Furthermore, CRE requested:

- GRTgaz and TIGF to conduct a technical-economic study on the capacity overall of the entire gas infrastructure to meet the intraday flexibility needs of the future power plants. The results of this study were reported within the framework of Concertation Gaz<sup>5</sup> in March 2010;
- Concertation Gaz to submit to it, if necessary, any new transport and balancing rules, as well as the day ahead declarations and intraday day redeclarations terms of power plants' hourly gas consumption schedule.

In the present tariff proposal, CRE has introduced an intraday flexibility service for all highly modulated sites regardless of their gas usage.

This proposal is the result of two years of consultation work associating all of the players concerned: the administration, gas and electricity infrastructure operators, electricity producers, gas suppliers, industrial customers, etc. It is part of the general daily balancing framework for the gas market in France, in which gas transporters must meet the intraday flexibility needs of network users under transparent and non-discriminatory conditions.

This new framework provides visibility of access to the gas transmission networks for highly modulated sites.

#### 1.1. Preparatory work

#### a) Study on gas infrastructure's capacity to meet power plant requirements

The study conducted by GRTgaz and TIGF shows that on the GRTgaz network, in light of consumption development perspectives<sup>6</sup>, the intraday flexibility needs of the traditional market <sup>7</sup> have increased very little. The modulated volume (an indicator measuring intraday flexibility requirement) of the traditional market must remain at 13 TWh/year for the 2013-2015 period.

This study also shows that the future power plants will generate substantial intraday flexibility requirements exceeding the needs of the traditional market as from 2012 reaching up to 21 TWh in 2015. It also confirms that, to cover these additional intraday flexibility needs, GRTgaz current resources are not sufficient. GRTgaz will therefore have to increase its use of external flexibility sources, such as LNG terminals and underground natural gas storage facilities.



<sup>&</sup>lt;sup>5</sup> <u>http://www.concertationgaz.com/multimedia/medias/11\_63404848298000000.pdf</u>

<sup>&</sup>lt;sup>6</sup> Use of assumptions in the indicative pluriannual investment plan in the gas sector

<sup>&</sup>lt;sup>7</sup> Current market excluding highly modulated sites

With regard to TIGF, intraday flexibility required by current network consumption, is mainly covered by storage. The study shows that TIGF transmission network will enable the operation of the first power plant project likely to come on stream in the south west in 2014 at the earliest. The modulation required will be provided with a storage facility contribution in the TIGF zone.

#### b) GRTgaz proposal

Following the work conducted within the framework of Concertation Gaz, GRTgaz proposed to CRE to cover the costs generated by the new flexibility needs by offering a specific intraday flexibility service for highly modulated sites. This regulated service would be interruptible and would apply to all sites whose daily average modulated volume for the previous year was higher than 0.8 GWh per operating day.

The supply of intraday flexibility by GRTgaz is based on a declaration of a daily consumption schedule of the site the previous day for the following day or of redeclarations during the day, subjected to a notice period. For any variation envisaged in the site's hourly consumption that is less than  $\pm 10\%$  of hourly capacity subscribed, the site will be allowed not to notify GRTgaz of its new hourly consumption schedule.

The tariff proposed by GRTgaz consist of a fixed portion applicable to each site and a variable portion depending on the amplitude and modulated volume observed each day based on the recorded hourly consumption of the site.

Furthermore, in order to take into account intraday flexibility already covered by the tariff for access to the transmission network, GRTgaz proposes a franchise corresponding to a modulated volume free of charge depending on the daily delivery capacity subscribed, i.e. 0.8 GWh/d for a site with a capacity of 19.2 GWh/d. The cost of this franchise, estimated at €3.6 M for 2011, will be shared in the tariff for all of its network's users.

The service proposed by GRTgaz, for a gas combined cycle power plant (unit of 440 MWe) operating an average 16 hours per day for 310 days, costs almost €1.7 M per year.

#### c) CRE's public consultation on the intraday flexibility service

CRE conducted a public consultation from 21 July to 6 September 2010, on the conditions of access to intraday flexibility for highly modulated sites.

Industrial customers, infrastructure operators as well as the majority of shippers that are not electricity producers were favourable to reflect additional costs related to intraday flexibility for highly modulated sites, through a specific service.

Conversely, all electricity producers as well as a minority of shippers were opposed to the principle of a specific service for highly modulated sites. If such a service was to be accepted, the producers requested that it be interruptible and billed according to use.

The great majority of players, whether favourable or not to the principle of an intraday flexibility service, considered that the level of costs presented by GRTgaz was too high and questioned certain aspects of the structure of the service proposed.

Lastly, industrial customers and certain shippers were against the application of the franchise envisaged by GRTgaz, since it would pass a portion of costs generated by highly modulated sites on to all of GRTgaz network users.

#### 1.2. CRE proposal

#### a) Providing intraday flexibility, a TSO role

In accordance with article 21 of law no. 2003-8 of 3 January 2003 on gas and electricity markets and the energy public service, natural gas transmission operators "ensure at all times the safety and effectiveness of their networks and the balance of natural gas flows taking into account technical constraints on the latter. They are responsible for the availability and implementation of services and reserves required for the operation of the network".

Furthermore, article 30-1 of the same law provides for priority access of TSOs to natural gas storage facilities to cover their balancing needs.

Since shippers have a daily balancing obligation, TSOs must make optimum use of intraday flexibility resources available to ensure network balancing in the course of the day.

In that regard, the supply of intraday flexibility to gas transmission network users is one of the TSOs' roles.



#### b) A specific service for highly modulated sites

The study conducted by GRTgaz shows that the arrival of power plants on its transmission network will generate new intraday flexibility needs requiring a different management of its transmission network. These needs:

- are very substantial for each site, which causes a high and geographically concentrated demand of the network, while the intraday flexibility needs of other users is individually lower and evenly distributed across the territory;
- generate considerable demand in very short space of time (passage from zero consumption to maximum consumption of the site in slightly over one hour);
- vary each day, or even every hour depending on gas and electricity prices, which requires the TSO to anticipate the needs of these sites and prepare its network a day ahead based on the hourly operating programmes transmitted. Furthermore, the steering of the network must be adapted to meet the modification requests of the operating programmes of these sites (feasibility analysis, mobilisation of necessary flexibility sources including external sources).

The highest average winter modulated volume recorded by GRTgaz at a withdrawal point of its network is evaluated at 0.8 GWh/day. This value can be considered as a correct estimate of intraday flexibility offered to users in the gas transmission tariff. The study conducted by GRTgaz and TIGF shows that, under the expected operation conditions, a power plant has modulated volume needs far higher than this value.

In light of this observation, CRE accepts GRTgaz proposal to define an intraday flexibility service which will apply to sites with an average modulated volume on operating days that is higher than 0.8 GWh/day.

Therefore, all users with a modulated volume higher than that offered within the framework of the current tariffs will have to subscribe to this intraday flexibility service, regardless of their gas usage.

#### c) Coverage of costs generated by intraday flexibility needs

Article 7 of the law of 3 January 2003 provides that transport tariffs are established "taking into account the characteristics of the service provided and the costs related to this service". Consequently, CRE accepts the principle of a tariff system for the intraday flexibility offer that strictly reflects the service demanded and the costs generated by the users of this service.

The cost associated with intraday flexibility requested by the traditional market on the GRTgaz network totals  $\in$ 5.7 M per year from 2011 to 2013. For these users, the implementation of an intraday flexibility service would complicate the situation and generate substantial costs for the TSOs and the users themselves. As a result, CRE proposes maintaining the sharing of this cost in the transport tariff, which represents  $\in$ 1.5/MWh/day and per year.

The intraday flexibility service proposed by CRE for highly modulated sites and described below covers the costs related to the intraday flexibility needs of these sites. Highly modulated sites therefore do not have to pay the intraday flexibility costs shared in the tariff for access to the GRTgaz network. For this CRE proposes reducing the delivery capacity charge applied to highly modulated sites by €1.5/MWh/day and per year.

#### d) Costs related to the intraday flexibility service

CRE conducted a detailed analysis of internal and external costs submitted by GRTgaz. It proposes using, to define the tariff of the GRTgaz intraday flexibility service, only the additional costs that are strictly related to the coverage of the needs of highly modulated sites.



Today, in the evaluation of its costs GRTgaz considered only two external flexibility sources: Storengy and Elengy. GRTgaz is obliged to seek and choose the best cost to cover its intraday flexibility needs. Consequently, in the future, other sources will have to be solicited: STMFC, TIGF, the other infrastructure operators and the other market players (suppliers and customers). Within this framework, CRE requested GRTgaz to study within Concertation Gaz and to submit to it, the competitive procurement terms for intraday flexibility sources.

To determine the costs to be affected to the intraday flexibility service, CRE has retained the assumptions of intraday flexibility demand by highly modulated sites used within the framework of the study conducted by GRTgaz and TIGF, described in the table below:

	2011	2012	2013
Modulated volume required by power plants	11 TWh	14 TWh	18 TWh
Number of 440 MWe units	9	12	15

Operation assumptions transmitted by electricity producers: 16 hours per day for 310 days.

On the basis of the above-mentioned demand forecasts and costs presented by GRTgaz, CRE has decided on the following costs for the 2011-2013 period for the flexibility service targeted at highly modulated sites.

	2011-2013 average
GRTgaz internal costs (€M)	4.6
GRTgaz external costs (€M)	8.1
Costs related to Storengy's offer (€M)	6.7
Costs related to Elengy's offer at Fos ( $\in M$ )	1.4
TOTAL (€M)	12.7

CRE took into account GRTgaz internal costs which are specifically generated by highly modulated sites, in particular operational and contractual management costs of relations with the sites concerned and intraday flexibility suppliers, the organisational and operational impacts for GRTgaz dispatching (increase in personnel, network and programming studies), maintenance costs, IT upgrade costs, etc. It discarded the other costs submitted by GRTgaz, since it considered that they were also generated by other development factors such as GRTgaz obligations within the framework of the 3rd European legislative package adopted in 2009 and the implementation of a balancing system based on market mechanisms.

With regard to external costs, CRE has retained:

- Storengy's offer, modified on the basis of an intraday flexibility service price that varies according to the season and use of the storage facilities (withdrawal or injection);
- an Elengy regulated offer taking into account the additional costs related to the intraday flexibility service by the Fos Tonkin LNG terminal.
- e) Definition of the intraday flexibility service on the GRTgaz network

The GRTgaz intraday flexibility service is interruptible. GRTgaz will study within the framework of Concertation Gaz and submit to CRE the interruption conditions of this service, as well as intraday flexibility distribution rules in the event that it is unable to meet all demands.

This service is applied to sites (or, by delegation, to shippers of sites) connected to the GRTgaz network with an average daily modulated volume higher than 0.8 GWh on operating days. For current sites, GRTgaz evaluates this criterion based on historical consumption for the previous year. For newly connected sites, this criterion will be evaluated based on the daily modulated volume on operating days declared by the site, then based on a guarterly statement, with retroactive effect on the past period once the criterion is met.

GRTgaz intraday flexibility service is based on a declaration of an hourly consumption schedule of the site made a day ahead, to enable GRTgaz to configure its network, and to call on, if required, external intraday flexibility sources. GRTgaz confirms to the site operator a day ahead the feasibility of the hourly operation schedule declared and provides the modification conditions of the site's hourly operation schedule (in particular the prior notice period).

For any change envisaged in the site's hourly consumption that is  $\pm$  10% lower than the hourly capacity subscribed, the site will be allowed not to notify GRTgaz of its new hourly consumption.

The tariff of the intraday flexibility service comprises two charges:



- a charge related to the volume modulated during the day (VMJ);
- a charge related to the amplitude of the maximum hourly flow, i.e. the difference between the minimum hourly flow and the maximum hourly flow recorded during the day (ADH).

To incite highly modulated sites to limit their intraday flexibility needs, the modulated volume charge weighs more than the amplitude charge.

Volume modulated during of the day	VMJ	€0.4/MWh
Amplitude of maximum hourly flow recorded during the day	ADH	€2/MWh/h

The flexibility service is billed based on the hourly consumption programme measured according to the modulated volume and the amplitude of hourly flow of the site recorded during the gas day.

In total, the intraday flexibility service proposed by CRE, for a gas combined cycle power plant (unit of 440 MWe) operating an average of 16 hours per day for 310 days, would cost almost €1 M per year.

# f) The TIGF network

Taking into account the work in progress and the expected arrival of new highly modulated sites in the south-west in 2014 at the earliest, the treatment of the intraday flexibility service for the TIGF network will be defined in a future tariff proposal.

# **1.3.** Definition of forthcoming work

GRTgaz and TIGF will continue work within Concertation Gaz, to propose to CR rules on the following points:

- interruption conditions of this service, as well intraday flexibility distribution rules if the operator is unable to meet all demands;
- management of the declaration a day ahead and redeclarations in the course of the day.
- competitive procurement terms for intraday flexibility sources;

The evaluation of these points must be conducted by the gas transmission system operators in close coordination with RTE (the French electricity transmission system operator) to take into account the interactions and constraints of electricity and gas systems.

# 2. Change in the different tariff charge levels

# 2.1. At French land entry points

CRE proposes maintaining within the framework of ATRT4 the equalisation of tariffs at French land entry points (network interconnection points – PIR).

This equalisation principle will be thoroughly analysed in consultation with all market players for the next tariff period in order to take European guidelines into account, which recommend implementing an auction system to sell capacities at transmission network interconnection points.

# 2.2. At the interface with LNG terminals and storage facilities

To ensure that all network users will not bear, through transport tariffs, the costs of capacities created specifically for the needs of users of a particular infrastructure, CRE proposes completing the tariff rules applicable to transport-LNG terminal interface points (PITTM) and transport-storage interface points (PITS).

Therefore, for each project to create firm entry capacities on French transmission networks from an LNG terminal, the terminal operator must financially compensate the TSO if all of the firm entry capacities increased at its request is not subscribed by the shippers using the LNG terminal.

Furthermore, for all projects to increase entry or exit capacities on the transmission networks from an underground storage facility or new storage offers implying a non-climate-related use of capacities at the transport-storage interface points (PITS), the financial impact for the gas transmission network will be analysed. If a project generates high investment costs on the transmission network, the tariff charge at the



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PITS will be increased or a financial contribution will be requested from the underground storage operator concerned.

Lastly, GRTgaz proposes two other developments to the current tariff rules at the PITS:

- a change in the names of the PITS to take into account any changes in Storengy's storage offer as at 1 April each year;
- a change in the tariff rules regarding interruptible injection capacities in the "Sediane Littoral" group to take into account the work conducted within the framework of Concertation Gaz on the capacity interruption conditions at the North-South link and at the PITS.

CRE accepts these proposals. Therefore, as from 1 April 2011, the names of the PITS on the GRTgaz network will change as follows:

PITS before 1 April 2011	PITS as from 1 April 2011
Sediane B	North B
Sediane Littoral	North-Atlantic
Sediane	North-West
Serene Nord	North-East
Serene Sud	South-Atlantic
Saline	South-East

GRTgaz will propose to CRE, following the work conducted within the framework of Concertation Gaz, the operational rules for making interruptible capacities available at the North-South link and at the PITS and will publish the availability forecasts of these capacities.

#### 2.3. Synthesis of the change in the level of the different charges

For GRTgaz, the tariff increase is applied evenly to all the tariff charges, i.e. +3.2%, with the exception of the tariff charges at the links between balancing zones (North-South link), the interface with the TIGF zone and the gas conversion service) and at the gas exchange points, which have not changed.

For TIGF, the tariff decrease is applied uniformly to all tariff charges, i.e. -13.4%, with the following exceptions:

- the entry points from Spain, the tariff of which is equalised with that of network entry points on the GRTgaz network;
- exit points towards Spain, the tariff of which is calculated in such a way as to maintain the transport cost from the north of the territory;
- at the gas trading point, for which the tariff changes have not changed.

#### 3. Other points

#### a) Short term "use it or lose it" service

Current tariffs provide for the sale by GRTgaz and TIGF, at the main points of the main network, of an additional short term interruptible "use it or lose it" service (UIOLI CT) "once all firm capacities have been subscribed".

Based on feedback received within the framework of Concertation Gaz, GRTgaz proposes creating an UIOLI ST service at all uncongested points since this service, sold later than daily firm capacities, meets the need of certain market players that are not covered by the other types of capacities. This service will have the characteristics and the name of the current UIOLI ST service, but with a price similar to that of firm daily subscription, i.e. 1/160th of the price of firm annual subscription, in order to avoid any trade-off between the different capacity products. For congested points, the UIOLI ST price would remain the same, i.e. 1/500th of the price of firm annual subscription.

CRE accepts the GRTgaz proposal and suggests also applying it to the TIGF network.

#### b) Releasable capacities at the Obergailbach entry point

GDF Suez has committed to the European Commission to releasing long term entry capacities on the GRTgaz network as from 1 October 2010. These capacities, sold by GRTgaz in the first quarter of 2010, have not been completely subscribed for the Obergailbach entry point.



Furthermore, 20% of releasable capacities are sold at the Obergailbach entry point. These releasable capacities, introduced at congested entry points to put long term capacities on the market, are priced at 90% of the corresponding firm annual capacity price.

Consequently, if long term firm capacities are constantly available at the Obergailbach entry point, CRE may propose abandoning releasable capacities at this point as from 1 April 2012.

#### V - Update of the incentive-based quality regulation mechanism for GRTgaz and TIGF services

With a view to financially incite GRTgaz and TIGF to improve the quality of their service vis-à-vis shippers and final customers, the present tariff proposal has updated the incentive-based mechanism for the quality of service as from 1 April 2011.

The mechanism which took effect as at 1 January 2009 has had positive results. The quality of both transmission operators' services has considerably improved, in particular with regard to punctuality and the quality of delivered gas quantity data, at the PITD and for customers directly connected to the gas transmission network.

On the basis of this feedback, and in order to take into account the progress made by the shippers and therefore, maintain an incentive, CRE proposes changing the objectives to be attained or the level of financial incentive for the three indicators below:

- re-evaluation of objectives and a new definition of gas day compliance for the indicator assessing the quality of provisional measurements of gas delivered to the PITD which are sent to the distribution system operators (DSOs) for the calculation of allocations;
- re-evaluation of objectives and a new definition of compliance of a metering system for the indicator measuring the quality of the quantities delivered to customers connected to the transmission network;
- re-evaluation of the amount of incentive for the indicator measuring the availability rate of the TSOs' sales portals.



# TARIFFS FOR THE USE OF NATURAL GAS TRANSMISSION NETWORKS

Parts II, III, IV, V, VIII and IX of the Annex of the order of 6 October 2008 approving the tariffs for the use of natural gas transmission networks, as amended by the order of 10 March 2010, will be replaced, as from 1 April 2011, by the provisions below.

#### II - Principle of remuneration of gas transmission system operators

The principles of remuneration defined below have been set for GRTgaz and TIGF for a period of four years as from 1 January 2009.

#### 1. Calculation of capital expenditures

Capital expenditures include the return on and depreciation of the Regulatory Asset Base (RAB) as well as the return on fixed assets under construction and where applicable, stranded costs.

The RAB scope comprises investments made by the TSOs. RAB assets are re-evaluated as at 1 January each year. The re-evaluation index used is the year-on-year July to July consumer price index excluding tobacco products, as calculated by INSEE (French National Institute for Statistics and Economic Studies) for all households in France (INSEE series No. 641194 Metropolitan France + overseas departments, excluding tobacco products).

The amount of fixed assets under construction is equal to the average, for each year the tariff is applied, between the level of fixed assets under construction as at 1 January and the level as at 31 December, taking into account the expenses incurred during the fiscal year.

Stranded costs related to the withdrawal of assets from the regulatory asset base before the complete depreciation duration are covered by the tariff at net accounting value. The assets removed will be taken into account on the basis of supporting files submitted by the operators to CRE.

#### 2. Rate of return

The rate of return on the RAB is 7.25%.

A premium of 125 basis points is applied for investments which entered into service between 1 January 2004 and 31 December 2008, as well as for those approved before 1 January 2008 which entered into service as from 1 January 2009.

The rate of return on fixed assets under construction is 4.6% as from 1 January 2009.

#### 3. Investment incentive

Investments that create additional transport capacity on the main network or that reduce the number of balancing zones enjoy a premium of 300 basis points in relation to the RAB return rate, applied for 10 years.

#### 4. Treatment of European subsidies

For assets enjoying an increased rate of return, as explained in the paragraph above, normative capital expenditures for the subsidised portion of the assets included in the regulatory asset base (RAB) is limited to the 3% premium for 10 years.

Furthermore, the rate of return on fixed assets under construction does not apply to the portion of investments funded by the subsidies received.



# III - Tariff for the use of the GRTgaz transmission network

The tariff for the use of the GRTgaz transmission network defined below applies as from 1 April 2011 for one year.

# 1. Authorised revenue trajectory

The GRTgaz authorised revenue trajectory is set for four years. It comprises the following elements:

€M	2009	2010	2011	2012
Capital expenditures	756.1	800.8	861.9	890.4
Net operating expenses trajectory	601.9	610.9*	624.7	CPI + 1.1%
Revision of energy expenses		-21.9	- 48.5	
Revision of expenses related to the "basic" H gas into B gas conversion service			7.1	
Capsquare			0.4	
CRCP 2007-2008	- 23.1	- 23.1	- 23.1	- 23.1
CRCP 2009-2010 (with final statement for 2008)			- 8.4	- 8.4
Total authorised revenue	1,334.9	1,366.7	1,414.1	

\*: The 2010 trajectory of net operating expenses was based on a 2009 inflation forecast of 0.4%. Since actual inflation was 0.06%, the reference net operating expenses for 2010 were revised to €608.9 M.

# 1.1. Capital expenditures (CAPEX)

Any difference between the CAPEX forecast for 2011 and actual expenditure is entirely covered by the expenses and revenues clawback account (CRCP) defined below, with the exception of stranded costs.

With regard to stranded costs (residual accounting value of assets withdrawn from inventory before the end of their service life), at the end of the tariff period:

- if the total amount of stranded costs recorded for the 2009-2012 period is lower than the tariff forecast used for the same period, the corresponding difference will be recovered via the CRCP;
- if the total amount of stranded costs recorded for the 2009-2012 period is higher than the tariff forecast, the additional stranded costs may be covered via the CRCP on a case-by-case basis, based on supporting files submitted by GRTgaz to CRE.

The tariff forecast selected for the 2009-2012 period is as follows:

€M	2009	2010	2011	2012
Stranded costs (at net accounting value)	0.0	1.7	5.6	1.2

Lastly, the expenses related to upstream technical studies and procedures, which cannot be capitalised if the projects concerned are not implemented, may be covered via the CRCP, on a case-by-case basis, based on the supporting files submitted by GRTgaz to CRE.

# 1.2. Net operating expenses (OPEX)

As the inflation assumption for 2010 is +1.5%, the net operating expenses decided for 2011, excluding the variation in the price of energy, will increase by 2.6% compared to those for 2010, i.e. the amount of  $\in$ 624.7 M.

For 2012, excluding the variation in the price of energy as defined in section 1.3 below, the net OPEX taken into account in the authorised revenue are defined by applying to the 2011 amount (adjusted for inflation recorded in 2010) the following percentage variation  $Z_1$ :

# Z<sub>1</sub> = CPI + 1.1%

With CPI corresponding to the average annual variation observed over the preceding calendar year, in the consumer price index, excluding tobacco products, as calculated by INSEE for all French households (INSEE series No. 641194 Metropolitan France + overseas departments, excluding tobacco products).



Taking into account the revision of energy expenses, expenses related to the H gas to B gas conversion service and Capsquare expenses for 2011, the net operating expenses taken into account in the authorised revenue retained to define the tariff grid are set at €583.7 M.

At the end of the tariff period, productivity gains that may have been made by GRTgaz will be shared equally between the operator and the users of the network.

These productivity gains will be evaluated as the difference between:

- the total amount of controllable GRTgaz net operating expenses, defined as the GRTgaz net operating expenses minus the retained central expenses and the expenses and revenues items covered by the CRCP mechanism, calculated on the basis of the data produced in 2009, 2010, 2011 and 2012;
- the reference trajectory of controllable GRTgaz net operating expenses. This trajectory will be calculated at the end of the tariff period, for the years 2010, 2011 and 2012, by applying on an annual basis, a percentage variation equal to the CPI + 0.26% on the reference level decided for 2009, which is €431.3 M.

# 1.3. Recognition of the CRCP balance during the tariff period

An initial CRCP balance, calculated by CRE, is discharged over a period of four years, with constant annuities, as from 1 April 2011. It includes a correction of the CRCP estimate of for 2008, the differences recorded for 2009 and an estimate of the differences for 2010.

At the end of the four-year tariff period, a new CRCP balance calculated by CRE and including a correction of the CRCP estimate for 2010, the differences recorded for 2011, differences estimated for 2012 and the annuities remaining for the first CRCP balance, is taken into account to define the tariff for the following tariff period.

In order to ensure the financial neutrality of the mechanism, the amounts taken into account in the CRCP for the years following 2009 are updated at an interest rate equivalent to the risk-free rate, fixed at 4.2% per year, nominal before tax.

		2009	2010	2011	2012
Downstream transport revenue, 100% coverage (€M)		923.4	939.7	986.3	
Upstream transport revenue, 50% coverage (€M)		411.5	423.8	427.8	
Revenue associated with the release of GDF Suez capacities as at 1 October 2010, 100% coverage (€M)			3.2		
Income from power plant connections, 100% coverage (€M)		38.6	18.1	18.1	12.5
Capital expenditures, excluding stranded costs, 100% coverage (€M)		756.1	799.1	856.3	889.2
Motive power expenses and difference between revenues and expenses related to CO₂ quotas, 80% coverage (€M)		131.1	90.9	66.6	118.5 <sup>(*)</sup>
Expenses related to inter-operator contract, 100% coverage (€M) **		19.2	31.8	32.6	33.4
Forecast operating expenses taking into account OPEX				624.7	
inflation estimate	Inflation			1.5%	

The amounts and reference values for GRTgaz CRCP items are as follows:

<sup>(')</sup> In the event of a variation in the price of energy greater than 5%, the reference amount decided for motive power expenses may be reviewed at the following update of the tariff grid.

<sup>(\*\*)</sup>The CRCP will take into account the final amount of the inter-operator agreement after incorporation of the audit results on the Guyenne trunk line project conducted by CRE.

Furthermore, the results of all audits conducted by CRE are taken into account in the CRCP.

# 2. Tariff grid for the use of the GRTgaz network

The detailed GRTgaz tariff grid is updated on 1 April of each year, as from 2010.

It is established in such a way as to cover the authorised revenue for each year defined in part III-1, using the best available forecast of capacity subscriptions for the year in question.



# 3. Tariff grid for the use of the GRTgaz network applicable as at 1 April 2011

# 3.1. Transport on the main network

The tariff for the use of the GRTgaz main network includes the following charges:

- charge for entry capacity on the main network (TCE),
- charge for link capacity between balancing zones (TCLZ),
- charge for exit capacity at the PIR (network interconnection points) (TCST),
- charge for exit capacity from the main network (TCS),
- proximity charge (TP),
- charges for entry and exit capacity at the PITS (TCES and TCSS).

At the interface between the GRTgaz network and the TIGF network, subscriptions are sold per season:

- summer season, from April to October inclusive,
- winter season, from November to March inclusive.

# a) Charge for entry capacity on the main network

The charges applicable to the annual or seasonal subscriptions of daily entry capacity on the GRTgaz main network are defined in the table below:

Entry point	Balancing zone		Wh/day per year or season) subscriptions	TCE (coefficient for firm term) Interruptible subscriptions
Taisnières B	North		75.12	50%
Taisnières H	North		96.58	50%
Dunkerque	North	96.58		50%
Obergailbach	North	96.58		50%
Montoir	North	91.21		N/A
Fos	South	91.21		N/A
TIGF	South	Summer: 43.75	Winter: 31.25	75%

The holding of regasification capacities at an LNG terminal generates an obligation to subscribe the corresponding entry capacities on the transport network for the same length of time and the same level.

At the Montoir and Fos transport-LNG terminal interface points (PITTM):

all shippers subscribing a "continuous" service with LNG terminal operators will be allocated firm annual capacity (C) equal to:

 $C = Q_{Aexp} / Q_{TM} * C_{PITTM}$ 

With:

 $Q_{Aexp}$  = annual regasification capacity subscribed by the shipper at the terminal,

 $Q_{TM}$  = 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 LNG terminal for the Fos PITTM,

 $C_{PITTM}$  = daily firm entry capacity at the PITTM.

- at the start of each month, the TSO calculates the maximum daily emission of the preceding month for each shipper. If this exceeds capacity C calculated using the methods defined above, it bills the shipper for a monthly subscription of additional daily capacity equal to the difference between the maximum daily emission of the preceding month and capacity C at a price equal to 1/12th of the price of the firm annual subscription.



all shippers subscribing a "banded" or "spot" service with LNG terminal operators will be allocated basic
 (C) monthly firm capacity equal to 1/30th of the regasification capacity subscribed with the LNG terminal operators. The price applicable is equal to 1/12th of the annual firm subscription price.

# b) Charge for link capacity between balancing zones

The charges applicable to the annual subscriptions of daily link capacity between the GRTgaz balancing zones are defined in the table below:

Link between balancing zones	TCLZ (€/MWh/day per year) Firm subscriptions	TCLZ (coefficient for firm term) Interruptible subscriptions
North $\rightarrow$ South	208.04	50%
South → North	156.03	50%

# c) Charge for exit capacity at the PIR (network interconnection points)

The charges applicable to the annual or seasonal subscriptions for daily exit capacity at the PIR are defined in the table below:

Exit to PIR	Balancing zone	TCST (€/MWh/day per year or season) Firm subscriptions		TCST (firm term coefficient) Interruptible subscriptions
TIGF	South	Summer: 43.75	Winter: 31.25	90%
Oltingue	North	336.96		75%
Jura	South	75.12		75%

# d) Charge for exit capacity from the main network

Each exit zone of the GRTgaz main network is defined by the set of delivery points attached to it.

For each shipper and in each exit zone, firm annual subscription of exit capacity from the main network must be greater than or equal to the sum of the firm annual subscriptions of delivery capacity in that exit zone.

For all of the exit zones, the charge applicable to the firm annual subscriptions of daily exit capacity from the GRTgaz main network is equal to €71.42/MWh/day per year.

# e) Proximity charge

The proximity charge is deducted from the monthly bill 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 transport network entry point and the quantity of gas withdrawn in the associated exit zone.

Balancing zone	Entry point	Associated exit zone	TP (€/MWh)
North	Taisnières B	Taisnières B region	0.19
North	Taisnières H	Taisnières H region	0.25
North	Dunkerque	Dunkerque region	0.25
North	Obergailbach	Obergailbach region	0.25

The proximity charge applies to the following entry point / exit zone pairs:

# f) Charges for entry and exit capacities at storage facilities

Each GRTgaz balancing zone has several transport-storage interface points (PITS):

- the North balancing zone has four PITS: North-Atlantic (H gas), North-West (H gas), North-East (H gas), North B (B gas);
- the South balancing zone has two PITS: South-Atlantic (H gas) and South-East (H gas).

The charges (TCES and TCSS) applicable to the annual subscriptions of daily entry and exit capacity at the PITS are defined in the table below:



PITS	TCES (€/MWh/day per year)	TCSS (€/MWh/day per year)
AII PITS	13.95	2.79

The annual entry and exit capacities at the PITS allocated by GRTgaz to each shipper are equal to the nominal daily withdrawal capacity, to which is added where appropriate the conditional daily withdrawal capacity, and to the nominal daily injection capacity, to which is added where appropriate the conditional daily injection capacity, subscribed by the shipper with the storage operator, within the limits of the network's capacity.

Interruptible annual entry and exit capacities at the PITS are sold at the *North-Atlantic* and *South-Atlantic* PITS. These interruptible annual capacities are not sold until all firm annual capacities have been subscribed. The price applicable to interruptible annual subscriptions of daily entry capacity from the *North-Atlantic* and *South-Atlantic* PITS is equal to 75% of the price of the firm annual subscription of daily capacity. The price applicable to interruptible annual subscriptions of daily exit capacity at the *North-Atlantic* and *South-Atlantic* PITS is equal to 50% of the price of the firm annual subscription of daily capacity.

#### g) Backhaul capacities on the main network

The price applicable to the annual subscriptions of daily backhaul capacity is equal to 20% of the price of the annual firm subscription of daily capacity in the dominant direction.

There is backhaul capacity on the following points of the GRTgaz network:

Entry points	Taisnières H
	Obergailbach
Exit to PIR	Oltingue

#### *h)* Releasable capacities on the main network

At the entry points, apart from the PITTM, firm capacities known as "releasable capacities" have been defined, which the shipper undertakes to release at any time if requested by GRTgaz, for a period of one, two, three or four years.

For all shippers that have subscribed more than 20% of the annual firm capacities sold at one of the points previously mentioned, a fraction R of the portion of their subscription above 20% of the annual firm capacities sold is converted into releasable capacity.

The fraction R of releasable capacity is defined in the table below:

Point concerned	Dunkerque	Obergailbach	Taisnières H	Taisnières B
R	20%	20%	0%	15%

The price of an annual or seasonal releasable capacity is equal to 90% of the price of the corresponding annual firm capacity.

The rules for releasing and subscribing these capacities are defined by GRTgaz, on an objective and transparent basis preventing any discrimination and are published on its website.

# 3.2. Transport on the regional network

#### a) Firm annual subscription

The charge applicable to annual firm subscriptions of daily transport capacity on the regional network is the product of the unit charge, set at €51.51/MWh/day per year, and the regional tariff level (NTR) of the delivery point in question:

	TCR (€/MWh/day per year)	
GRTgaz	51.51 x NTR	

The list of the delivery points on the GRTgaz network, along with their exit zone and their NTR value, is attached hereto in the annex of this document.

When a new delivery point is created, GRTgaz calculates the value of the regional tariff level (NTR) in a transparent and non-discriminatory fashion, on the basis of a calculation method published on its website, and communicates the result to CRE.



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The subscription of firm transport capacity on the regional network is equal, for each delivery point, to the firm delivery capacity subscription at that point.

#### b) Interruptible annual subscription

For all annual interruptible transport capacity subscribed on the regional network, the charge for transport capacity on that network is reduced by 50%.

Subscription to interruptible transport capacity on the regional network is equal, for each delivery point, to the interruptible delivery capacity subscription at that point.

The interruption conditions on the regional network are defined by GRTgaz, on an objective and transparent basis, preventing any discrimination, and are published on its website.

# 3.3. Gas delivery

#### a) For customers connected to the transport network and the PIRR

For shippers supplying final customers connected to the transport network and regional network interconnection points (PIRR), the delivery charge is made up of:

- a fixed charge equal to €4,077.81 per year and per delivery station,
- a charge applicable to daily delivery capacity subscriptions.

The charge applicable to the annual firm daily delivery capacity subscriptions is defined in the table below:

	TCL (€/MWh/day per year)
Highly modulated customers*	21.04
Other customers and PIRR	22.54

\* Customers with an average modulated volume greater than 0.8 GWh per operating day (see section 3.9)

For all annual interruptible delivery capacity subscribed, the delivery capacity charge is reduced by 50%.

All shippers supplying one or more final customers connected to the GRTgaz transport network will be allocated simultaneously, at its request, the existing delivery capacities corresponding to its needs.

If several shippers are simultaneously supplying a final consumer connected to the GRTgaz transport network or a PIRR, the fixed charge is divided in proportion to their delivery capacity subscriptions.

# b) For transport-distribution interface points (PITD)

For shippers supplying PITD, the charge applicable to the annual firm daily delivery capacity subscriptions is defined in the table below:

	TCL (€/MWh/day per year)
GRTgaz	25.76

In accordance with the standardised subscription system for transport capacities at the PITD, at each PITD, the annual firm delivery capacity ("standardised capacity") is allocated to each shipper by the TSOs. It is equal to the sum:

- of the annual capacities subscribed on the distribution network for the "subscription" delivery points supplied downstream of the PITD in question,
- of the capacities calculated by GRTgaz for the "non-subscription" delivery points supplied downstream of the PITD in question, by multiplying the daily peak consumption of the "non-subscription" delivery points by the corresponding "A" adjustment coefficient.

The changes in A coefficients are defined by CRE, at the proposal of the TSOs.



# 3.4. Monthly capacity subscriptions

- At the entry points apart from PITTM, at exits to the land and on the North-South link:

The charges applicable to the monthly firm subscriptions of daily capacity at entry points excluding PITTM and the entry point from TIGF, at exits to network interconnection points (PIR), excluding exits to TIGF, as well as on the North-South link are equal to 1/8th of the corresponding annual charges.

The charges applicable to the monthly firm subscriptions of daily capacity at the entry and exit points at the TIGF interface are equal to 1.5/7th of the corresponding charge in the summer season and 1.5/5th of the corresponding charge in the winter season.

- At the PITS:

No monthly entry or exit capacity is sold at the transport-storage interface points (PITS).

- At the main network exit, on the regional network and for delivery:

The charges applicable to the monthly firm subscriptions of daily main network exit capacity, of transport capacity on the regional network, and delivery capacity, are equal to the charges applicable to the corresponding annual firm subscriptions, multiplied by the following coefficients:

Month	Monthly charge in proportion to annual charge
January - February	8/12th
December	4/12th
March - November	2/12th
April – May – June – September - October	1/12th
July - August	0.5/12th

#### 3.5. Daily capacity subscription

- At the entry points apart from PITTM, at exits to the PIR and on the North-South link:

The charges applicable to daily subscriptions of daily capacity at entry points excluding PITTM, at exits to PIR, and at the North-South link are equal to 1/20th of the charges applicable to corresponding monthly subscriptions.

- At the PITS:

The daily entry and exit capacities at the PITS allocated to each shipper by GRTgaz are equal to the daily withdrawal capacity and the daily injection capacity respectively allocated by the storage operator in addition to the corresponding annual capacities, within the limits of the network's capacities.

The charge applicable to daily subscriptions of daily capacity at the PITS is equal to 1/320th of the price of the annual firm capacity subscriptions at these points.

- At the main network exits, on the regional network and for delivery:

Daily capacity subscriptions are sold by GRTgaz to meet a sporadic and exceptional need of a final customer.

The charges applicable to the daily firm subscriptions of daily main network exit capacity, of transport capacity on the regional network, and delivery capacity, are equal to 1/20th of the charges applicable to the corresponding monthly firm subscriptions.

The charges applicable to daily interruptible subscriptions of daily main network exit capacity, of transport capacity on the regional network, and delivery capacity, are equal to 1/30th of the charges applicable to the corresponding monthly firm subscriptions.

Daily interruptible capacities are sold by GRTgaz, when all available firm daily capacities have been subscribed on the day concerned.



# 3.6. Hourly delivery capacity

Hourly delivery capacities only apply to final customers connected to the transport network.

All annual, monthly or daily subscriptions of daily delivery capacity results in the right to an hourly delivery capacity equal to 1/20th of the daily delivery capacity subscribed (except in a particular case where this hourly capacity is not available).

To benefit, within the network's possibilities, from a higher hourly capacity, the shipper must pay a supplementary price p, (in €/MWh/h per year), equal to:

 $p = (Cmax - C) \times 10 \times (TCL+TCR)$ 

With:

Cmax: Hourly delivery capacity requested by the shipper,

- *C:* Hourly delivery capacity booked by means of the annual, monthly or daily subscription of daily delivery capacity,
- TCL: Annual, monthly or daily charge for daily delivery capacity,
- TCR: Annual, monthly or daily charge for daily transport capacity on the regional network.

#### 3.7. Additional services

#### a) Short term "use it or lose it" service (UIOLI CT)

At the entry points excluding PITTM, at the exits to PIR and at the North-South link, capacities subscribed but not used are sold each day by GRTgaz:

- as interruptible capacity, at a price equal to 1/500th of the price of the annual firm subscription or at 1/500th of the sum of the summer season firm subscription price and the winter season firm subscription price at these points, if all firm capacities have been subscribed;
- as firm capacity, at a price equal to 1/160th of the price of the annual firm subscription or at 1/160th of the sum of the summer season firm subscription price and the winter season firm subscription price at these points, if firm capacities are available.

The operating rules of the UIOLI CT service are defined by GRTgaz, on an objective and transparent basis preventing any discrimination and are published on its website.

At the TIGF interface, this service is sold in a coordinated fashion between the two TSOs.

#### b) Auctioning of daily capacity

At entry points, excluding Fos and Montoir, at exits to network interconnection points (PIR) and at the North-South link, GRTgaz sells on a daily basis firm capacities that remain available at the end of the sales period for daily firm capacities at the regulated tariff.

The operating rules for the daily capacity auction mechanism are defined by GRTgaz, on an objective and transparent basis preventing any discrimination and are published on its website.

The reserve price used for the auction mechanism is equal to 1/200th of the price of the corresponding annual firm capacity subscription.

# 3.8. Interruptible transport offer at short notice

An optional interruptible transport offer is proposed for customers connected to the GRTgaz H gas network, that simultaneously fulfil the following conditions:

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

To benefit from this offer, before signing the connection contract, the customer concerned must commit to GRTgaz to subscribing to this offer or to having a shipper subscribe to it.



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This offer provides for a reduction or interruption in the supply of the sites concerned at the request of GRTgaz, with a minimum notice of 2 hours, when the following two conditions are met:

- the quantity of gas physically injected into the network at the nearest entry point is less than the subscription of daily delivery capacity of the sites benefitting from this interruptible offer within the perimeter of this entry point,
- the day's temperature is lower than the average daily temperature likely, statistically, to be reached or dropped below more than 20 days per year, with a 2% risk.

Interruption conditions are defined by GRTgaz, on an objective and transparent basis, preventing any discrimination, and are published on its website.

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

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

For the same site, a shipper cannot combine the tariff reduction granted under the terms of this exceptional offer with tariff reductions granted under the terms of:

- interruptible transport on the regional network,
- the proximity charge for customers located in the "Dunkerque region", the "Taisnières H region" and the "Obergailbach region" exit zones.

The cancellation of this optional offer is subject to a minimum prior notice of four years.

#### 3.9. Intraday flexibility service for highly modulated sites

The intraday flexibility service is interruptible. It applies to all customers connected to the GRTgaz network with an average daily modulated volume greater than 0.8 GWh per operating day.

For current sites, GRTgaz evaluates this criterion based on historical consumption for the previous year. For newly connected sites, this criterion is evaluated based on the daily modulated volume on operating days declared by the site, then based on a quarterly statement, with retroactive effect on the past period if the criterion is met.

Operators of sites for which the intraday flexibility service is subscribed must state to GRTgaz the hourly consumption schedule the previous day for the following day, and if applicable, a new schedule within the day in compliance with the notice period. For any change in the site's hourly consumption that is  $\pm$  10% lower than the hourly capacity subscribed, the site will be allowed not to notify GRTgaz of its new hourly consumption.

The flexibility service is billed according to the hourly consumption measured based on the volume modulated in during the day and the amplitude of hourly flow of the site (difference between minimum hourly flow and maximum hourly flow recorded during the day).

The tariff charges are as follows:

Charge for the volume modulated over during the day	€/MWh	0.4
Charge for the amplitude of hourly flow	€/MWh/h	2

GRTgaz will propose to CRE for approval, after consultation with market players within the framework of Concertation Gaz:

- interruption conditions of this service, as well as intraday flexibility distribution rules in the event that the operator is unable to meet all demands;
- competitive procurement terms for intraday flexibility sources;
- management of day ahead and within day declaration.

# 3.10. Injection of gas into the network from a gas production facility

The charges applicable to annual subscriptions of daily input capacity on the GRTgaz network from the transmission-production interface points (PITP) are as follows:



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- for the PITP with an entry capacity on the network of less than 5 GWh/d, the applicable charge is €7.51/MWh/day per year,
- for the other PITP, a specific study is conducted to define the applicable tariff charge.

#### 3.11. Gas quality conversion

#### a) H gas to B gas conversion

GRTgaz sells two annual services for converting H gas into B gas:

- a "peak" service, that can be accessed by all shippers with H gas in the North balancing zone,
- a "basic" firm service, that can be accessed by shippers with H gas in the North balancing zone holding less than 15% of the entry capacities at Taisnières B, within the limit of their needs for supplying final consumers with B gas.

The prices of the conversion services are defined in the table below:

	Capacity charge (€/MWh/day per year)	Quantity charge (€/MWh)
"Peak" service	133.0	0.16
"Basic" service	60.0	0.16

GRTgaz also sells monthly firm conversion capacities for the "basic" service. The applicable monthly coefficients are equal to the coefficients applicable for monthly transport capacities on the regional network.

The operating rules of the H gas to B gas conversion service are defined by GRTgaz, on an objective and transparent basis preventing any discrimination and are published on its website.

#### b) B gas to H gas Conversion

The B gas to H gas conversion service proposed by GRTgaz is made up of:

- for the annual offer, a charge proportionate to the annual capacity subscription equal to €21.65/MWh/day per year,
- for the monthly offer, a charge proportionate to the monthly capacity subscription equal to €2.70/MWh/day per month,

The operating rules of the B gas to H gas conversion service are defined by GRTgaz, on an objective and transparent basis preventing any discrimination and are published on its website.

#### 3.12. Optional balancing tolerance

GRTgaz offers an optional balancing service, the quantity of which is proportionate to the delivery capacities which the shipper holds and for which the tariff is €18.24/MWh/day per year.



# IV - Tariff for the use of the TIGF network

The tariff for the use of the TIGF transmission network defined below applies as from 1 April 2011 for a period of two years.

#### 1. Authorised revenue

TIGF authorised revenue is defined below:

€M	2011-2012 average
Capital expenditures	131.7
Net operating expenses	54.0
CRCP 2007-2008	- 5.5
CRCP 2009-2010 (with final statement for 2008)	- 12.8
Total authorised revenue	167.4

At the end of the tariff period, productivity gains that may have been made by TIGF will be shared equally between the operator and the users of the network.

These productivity gains will be evaluated as the difference between:

- the total amount of controllable TIGF net operating expenses, defined as TIGF net operating expenses minus the retained central expenses and the expenses and revenues items covered by the CRCP mechanism, calculated on the basis of the data produced in 2011 and 2012;
- the reference trajectory of the controllable TIGF net operating expenses is €47.3 M for 2011 and €52.3 M for 2012.

#### 2. Recognition of the CRCP balance at the end of the tariff period

At the end of the tariff period, the CRCP balance calculated by CRE and including a correction of the CRCP estimate for 2010, differences recorded for 2011 and differences estimated for 2012, is taken into account to define of the tariff for the following tariff period.

The amounts taken into account in the CRCP are updated at an interest rate equivalent to the risk-free rate used within the framework of the current tariff proposal. This rate is set at 4.2% per year, nominal before tax.

The reference amounts for TIGF CRCP items are as follows:

€М	2011	2012
Downstream transport revenue, 100% coverage	110.5	106.8
Upstream transport revenue, 50% coverage	59.2	58.8
Income from CCPP connections, 100% coverage	0	0
Capital expenditures, excluding stranded costs, 100%	128	135.5
coverage		
Motive power expenses and difference between expenses	4.2	4.1
and revenue related to CO <sub>2</sub> quotas, 80% coverage		
Revenue related to the inter-operator contract, 100%	32.6	33.4
coverage*		

<sup>(\*)</sup>The CRCP will take into account the final amount of the inter-operator agreement after incorporation of the audit results on the Guyenne trunk line project conducted by CRE.

Furthermore, TIGF has not forecast any stranded costs for the 2011-2012 tariff period. At the end of the tariff period, if stranded costs are recorded for the 2011-2012 period, they may be covered via the CRCP on a case-by-case basis, based on supporting files submitted by TIGF to CRE.

Lastly, the results of all audits conducted by CRE are taken into account in the CRCP.



# 3. Tariff grid for the use of the TIGF network applicable as at 1 April 2011

The TIGF detailed tariff grid is established in such a way as to cover the average authorised revenue for the 2011-2012 period.

# 3.1. Transport on the main network

The tariff for the use of the TIGF main network includes the following charges:

- charge for entry capacity on the main network (TCE),
- charge for exit capacity at the PIR (network interconnection points) (TCST),
- charge for exit capacity from the main network (TCS),
- proximity charge (TP),
- charges for entry and exit capacity at the PITS (TCES and TCSS).

On part of the main TIGF network, subscriptions are sold per season:

- summer season, from April to October inclusive,
- winter season, from November to March inclusive.

#### a) Charge for entry capacity on the main network

The charges applicable to seasonal subscriptions of daily entry capacity on the TIGF main network are defined in the table below:

Entry point		day per season) scriptions	TCE (firm term coefficient) Interruptible subscriptions
	Summer	Winter	Summer and Winter
GRTgaz Sud	37.92	27.08	90%
Lacq	18.30	20.80	75%
Biriatou	56.34	40.24	75%
Larrau	56.34	40.24	75%

# b) Charge for exit capacity at the PIR (network interconnection points)

The charges applicable to seasonal subscriptions of daily exit capacity at the PIR are defined in the table below:

PIR	TCST (€/MWh/day per season) Firm subscriptions		TCST (firm term coefficient) Interruptible subscriptions
	Summer	Winter	Summer and Winter
GRTgaz Sud	37.92	27.08	75%
Biriatou	172.08	122.92	75%
Larrau	172.08	122.92	75%

# c) Charge for exit capacity from the main network

Each exit zone of the TIGF main network is defined by the set of delivery points attached to it.

For each shipper and in each exit zone, annual firm subscription of exit capacity from the main network must be greater than or equal to the sum of the annual firm subscriptions of delivery capacity in that exit zone.

The charge applicable to annual firm subscriptions of daily exit capacity from the TIGF main network is €75.40/MWh/day per year for all exit zones.



#### d) Proximity charge

The proximity charge is deducted from the monthly bill 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 transport network entry point and the quantity of gas withdrawn in the associated exit zone.

The proximity charge applies to the following entry point / exit zone pairs:

Entry point	Associated exit zone	<b>TP</b> (€/MWh)
GRTgaz Sud	Hérault region / Dordogne region	0.32
Lacq	Lacq region	0.37

e) Charges for entry and exit capacities at storage facilities

TIGF transport network comprises a transport-storage interface point (PITS): the South-west storage facility

The charges (TCES and TCSS) applicable to the annual subscriptions of daily entry and exit capacity at the PITS are defined in the table below:

PITS	TCES (€/MWh/day per year)	TCSS (€/MWh/day per year)
South-west storage facility	20.80	46.80

The annual entry and exit capacities at the PITS allocated by TIGF to each shipper are equal to the nominal daily withdrawal capacity, to which is added where appropriate the peak daily withdrawal capacity and daily nominal injection capacity respectively, subscribed by that shipper with the storage operator, within the limits of the network's capacity.

No annual entry or exit interruptible capacity is sold at the PITS.

#### 3.2. Transport on the regional network

#### a) Firm annual subscription

The charge applicable to annual firm subscriptions of daily transport capacity on the regional network is the product of the unit charge, set at €39.43/MWh/day per year, and the regional tariff level (NTR) of the delivery point in question:

	TCR (€/MWh/day per year)	
TIGF	39.43 x NTR	

The list of the delivery points on the TIGF network, along with their exit zone and their NTR value, is attached hereto in the annex of this document.

When a new delivery point is created, TIGF calculates the value of the NTR in a transparent and nondiscriminatory fashion, on the basis of a calculation method published on its website, and communicates the result to CRE.

The subscription of firm transport capacity on the regional network is equal, for each delivery point, to the firm delivery capacity subscription at that point.

#### b) Interruptible annual subscription

For all annual interruptible transport capacity subscribed on the regional network, the charge for daily transport capacity on the regional network (TCR) is replaced by a unit charge equal to the regional tariff level (NTR) multiplied by  $\leq 0.10$  MWh, which applies to the quantities of gas consumed each day exceeding firm annual subscription of daily capacity.

Annual subscription of interruptible transport capacity on the regional network is equal, for each delivery point, to the annual subscription of interruptible delivery capacity at that point.

The interruption conditions on the regional network are defined by TIGF, on an objective and transparent basis, preventing any discrimination, and are published on its website.



# 3.3. Gas delivery

#### a) For customers connected to the transport network

For shippers supplying final customers connected to the transport network, the delivery charge is made up of:

- a fixed charge of €1,646.66 per year and per delivery station,
- a charge applicable to daily delivery capacity subscriptions.

The charge applicable to the annual firm or interruptible subscriptions of daily delivery capacity is defined in the table below:

	TCL (€/MWh/day per year)
TIGF	10.40

All shippers supplying one or more final customers connected to the TIGF transport network will be allocated simultaneously, at its request, the existing delivery capacities corresponding to their needs.

If several shippers simultaneously supply a final consumer connected to the transport network, the fixed charge is divided in proportion to their delivery capacity subscriptions.

#### b) For transport-distribution interface points (PITD)

For shippers supplying PITD, the charge applicable to the annual firm or interruptible subscriptions of daily delivery capacity is defined in the table below:

	TCL (€/MWh/day per year)
TIGF	13.90

In accordance with the standardised subscription system for transport capacities at the PITD, at each PITD, the annual firm delivery capacity ("standardised capacity") is allocated to each shipper by the TSOs. It is equal to the sum:

- of the annual capacities subscribed on the distribution network for the "subscription" delivery points supplied downstream of the PITD in question,
- of the capacities calculated by GRTgaz for the "non-subscription" delivery points supplied downstream of the PITD in question, by multiplying the daily peak consumption of the "non-subscription" delivery points by the corresponding "A" adjustment coefficient.

The changes in A coefficients are defined by CRE, at the proposal of the TSOs.

As from 1 April 2010, interruptible capacity subscription is limited to the PITD where these interruptible capacities are required for gas transport at the peak cold period at 2% risk.

TIGF publishes on its website the list of PITD for which interruptible capacities are still sold.

# 3.4. Monthly capacity subscriptions

- At entry points and exits to network interconnection points (PIR):

The charges applicable to the monthly firm subscriptions of daily entry capacity and exit capacity to TIGF PIR are equal to 1.5/7th of the corresponding firm summer charge and 1.5/5th of the corresponding firm winter charge.

Monthly interruptible capacities are sold by TIGF at the Larrau entry point and at exits to the Biriatou PIR. The tariff of these capacities in summer is equal to 1.5/7th of the corresponding interruptible summer charge, and in winter, to 1.5/5th of the corresponding interruptible winter charge.



#### - At the PITS:

No monthly entry or exit capacity is sold at the PITS.

- At the main network exit, on the regional network and for delivery:

The charges applicable to the monthly firm subscriptions of daily main network exit capacity, of transport capacity on the regional network, and delivery capacity, are equal to the charges applicable to the corresponding annual firm subscriptions, multiplied by the following coefficients:

Month	Monthly charge in proportion to annual charge	
January - February	8/12th	
December	4/12th	
March - November	2/12th	
April – May – June – September - October	1/12th	
July - August	0.5/12th	

#### 3.5. Daily capacity subscription

- At entry points and exits to PIR:

The charges applicable to daily firm subscriptions of daily capacity at entry points and exits to PIR are equal to 1/20th of the charges for the corresponding monthly firm subscriptions.

Daily interruptible capacities are sold by TIGF at the Larrau entry point and at exits to the Biriatou PIR at a price equal to 1/20th of the charges applicable to the corresponding monthly interruptible subscriptions at these points.

- At the PITS:

The daily entry and exit capacities to the PITS allocated to each shipper by TIGF are equal to the daily withdrawal capacity and the daily injection capacity respectively, allocated by the storage operator in addition to the corresponding annual capacities, within the limits of the network's capacities.

The charge applicable to daily subscriptions of daily capacity at the PITS is equal to 1/320th of the price of the annual firm subscriptions at these points.

- At the main network exit, on the regional network and for delivery:

Daily capacity subscriptions are sold by TIGF to meet a sporadic and exceptional need of a final customer.

The charges applicable to the daily firm subscriptions of daily main network exit capacity, of transport capacity on the regional network, and delivery capacity, are equal to 1/20th of the charges applicable to the corresponding monthly firm subscriptions.

The charges applicable to the daily interruptible subscriptions of daily main network exit capacity, of transport capacity on the regional network, and delivery capacity, are equal to 1/30th of the charges applicable to the corresponding monthly firm subscriptions.

Daily interruptible capacities are sold by TIGF, when all available firm daily capacities have been subscribed on the day concerned.

# 3.6. Hourly delivery capacity

Hourly delivery capacities only apply to final customers connected to the transport network.

All annual, monthly or daily subscriptions of daily delivery capacity results in the right to an hourly delivery capacity equal to 1/20th of the daily capacity subscribed (except in a particular case where that hourly capacity is not available).



To benefit, within the network's possibilities, from a higher hourly capacity, the shipper must pay a supplementary price p, (in  $\in$ /MWh/h per year), equal to:

 $p = (Cmax - C) \times 10 \times (TCL+TCR)$ 

With:

*Cmax:* Hourly delivery capacity requested by the shipper.

- *C:* Hourly delivery capacity booked by means of the annual, monthly or daily subscription of daily delivery capacity.
- *TCL:* Annual, monthly or daily charge for daily delivery capacity.
- TCR: Annual, monthly or daily charge for daily transport capacity on the regional network.

#### 3.7. Additional services

#### a) Short term "use it or lose it" service (UIOLI CT)

At the entry points and at exits to PIR, capacities subscribed but not used are sold each day by TIGF:

- as interruptible capacity, at a price equal to 1/500th of the sum of the price of the summer firm seasonal subscription and of winter firm seasonal subscription at these points, once all firm capacities have been subscribed;
- as firm capacity, at a price equal to 1/160th of the sum of the price of summer firm seasonal subscription and the price of winter firm seasonal subscription at these points, once firm capacities are available.

The operating rules of the UIOLI CT service are defined by TIGF, on an objective and transparent basis preventing any discrimination and are published on its website.

At the GRTgaz interface, this service is sold in a coordinated fashion between the two TSOs.

#### b) Auctioning of daily capacity

At entry points and at exits to PIR, TIGF is authorised to sell on a daily basis firm capacities that remain available at the end of the sales period for daily firm capacities at the regulated tariff.

The operating rules for the daily capacity auction mechanism are defined by TIGF, on an objective and transparent basis preventing any discrimination and are published on its website.

The reserve price used for the auction mechanism is equal to 1/200th of the price of the corresponding annual firm capacity subscription.

#### 3.8. Injection of gas into the network from a gas production facility, excluding Lacq

The charges applicable to annual subscriptions of daily entry capacity on the TIGF network from the transmission-production interface points (PITP) are as follows:

- for the PITP whose entry capacity on the network is less than 5 GWh/d, the applicable charge is €7.51/MWh/day per year,
- for the other PITP, a specific study is conducted to define the applicable tariff charge.



# V - Transfer of transport capacities on the GRTgaz and TIGF networks

The transport capacities subscribed at the entry points, the exits to the PIR and at the links between balancing zones are freely transferable.

The capacities exchange platform service, Capsquare, offered by GRTgaz is integrated into the basic services offered by GRTgaz.

When the transfer covers the whole of annual or seasonal subscriptions, the purchaser inherits all of the rights and obligations related to these subscriptions. In any other case, only the right to use the capacities is covered by the transfer and the original owner retains all of the obligations to the TSO. The right of use exchanged may be as small as a daily time slot, whatever the length of the initial subscription.

Downstream transport capacities, between the title transfer point (PEG) and the point of delivery to an industrial site directly connected to the transport network, are transferable in a case where the industrial customer concerned has subscribed these capacities with the TSO.

The conditions of these transport capacity transfers are defined by the TSOs, on an objective and transparent basis, preventing any discrimination, and are published by the TSOs on their websites.

#### VIII - System for regulating the TSOs' quality of service

Service quality monitoring has been set up for the two TSOs in the key areas of their activity. This monitoring consists of indicators regularly sent by the TSOs to CRE and published on their websites.

Some published indicators that are particularly important for the proper operation of the market are subject to a financial incentives system.

The service quality monitoring indicators sent to CRE by the TSOs must be certified by an external body. Furthermore, the TSO service quality monitoring system may be subject to any audit that CRE deems useful.

#### 1. TSO service quality monitoring indicators occasioning financial incentives

# 1.1. Quality of the provisional measurements of the quantity of gas delivered to the PITD that are sent to the DSOs for the calculation of provisional allocations

	Number of non-conforming days <sup>(1)</sup> per balancing zone and per month
Calculation:	(one value monitored per balancing zone: i.e. two values monitored by GRTgaz and one value monitored by TIGF)
Scope:	<ul><li>all shippers</li><li>all DSOs</li></ul>
Monitoring:	<ul> <li>frequency of calculation: monthly</li> <li>frequency of transmission to CRE: monthly</li> <li>frequency of publication: monthly</li> <li>frequency of financial incentives calculation: monthly</li> </ul>
Objective:	<ul> <li>GRTgaz:</li> <li>basic objective: 2 non-conforming days per month</li> <li>target objective: 0 non-conforming days per month</li> <li>TIGF:</li> <li>basic objective: 4 non-conforming days per month</li> <li>target objective: 1 non-conforming day per month</li> </ul>



	<ul> <li>GRTgaz:</li> <li>penalty: <ul> <li>€100 K for the 2nd non-conforming day</li> <li>€50 K per non-conforming day, from the 3rd non-conforming day</li> </ul> </li> <li>bonus: €100 K if the target objective is attained</li> <li>ceiling: the total annual amount corresponding to the absolute value of the algebraic sum of the penalties to be paid and bonuses to be received by GRTgaz, is limited to €1.2 M per year and per balancing zone.</li> </ul>
Incentive:	<ul> <li>TIGF:</li> <li>penalty: <ul> <li>€25 K per non-conforming day, for the 4th non-conforming day and for the 5th non-conforming day</li> <li>€12.5 K per non-conforming day, from the 6th non-conforming day</li> </ul> </li> <li>bonus: €25 K if the target objective is attained, €50 K if there is no non-conforming day</li> <li>ceiling: the total annual amount corresponding to the absolute value of the algebraic sum of penalties to be paid and bonuses to be collected by TIGF is limited to €0.3 M per year.</li> </ul>
Implementation date	- Implementation date of the modifications made: 1 April 2011

(1): For a given balancing zone (ZET), day D of month M does not conform if the difference, in absolute value, between the following values is strictly greater than 2%:

- the provisional measurement of the quantity of gas delivered to all of the PITD of the ZET on day D and sent to the DSOs on day D+1 of month M,
- the definitive measurement of the quantity of gas delivered to all of the PITD of the ZET on day D and sent to the DSOs on the 20th of month M+1.

# 1.2. Quality of the quantities telemetered at delivery points of customers connected to the transport network

Calculation:	Number of conforming telemetered industrial delivery point readings in the month <sup>(2)</sup> / Total number of telemetered industrial delivery point readings in the month (i.e. one value for each TSO)
Scope:	<ul> <li>all shippers</li> <li>all ZETs</li> <li>all telemetered industrial delivery points</li> </ul>
Monitoring:	<ul> <li>frequency of calculation: monthly</li> <li>frequency of transmission to CRE: monthly</li> <li>frequency of publication: monthly</li> <li>frequency of financial incentives calculation: monthly</li> </ul>
Objective:	<ul> <li>basic objective: 95% per month</li> <li>target objective: 99% per month</li> </ul>



Incentive:	<ul> <li>GRTgaz:</li> <li>penalty: €50 K per percentage point strictly below the basic objective</li> <li>bonus: €100 K per percentage point strictly below the target objective ceiling: the total annual amount, corresponding to the sum of penalties to be paid and bonuses to be received by GRTgaz, is limited to €2 M per year.</li> <li>TIGF:</li> <li>penalty: €12.5 K per percentage point strictly below the basic objective</li> <li>bonus: €25 K per percentage point strictly below the target objective ceiling: the total annual amount, corresponding to the sum of penalties to be paid and bonuses to be received by TIGF, is limited to €0.5 M per year.</li> </ul>
Implementation date	- Implementation date of the modifications made: 1 April 2011

(2): For a given month *M*, a reading conforms if there are no more than 5 days in month *M* when the difference, as an absolute value, between the following values is strictly greater than 1% and 100 kWh:

- the provisional measurement of energy of day D sent on day D+1 of the month M,
- the final measurement of energy of day D sent on the 20th day of the month M+1.



# 1.3. Availability rate of the TSO portals

Calculation:	Number of hours the portal is available in the month / Total number of opening hours planned in the month (i.e. one value for each TSO)
Scope:	<ul> <li>calculated on a time slot from 7:00 a.m. to 11:00 p.m., 7 days a week</li> <li>rounded to one decimal place</li> </ul>
Monitoring:	<ul> <li>frequency of calculation: monthly</li> <li>frequency of transmission to CRE: monthly</li> <li>frequency of publication: monthly</li> <li>frequency of financial incentives calculation: monthly</li> </ul>
Objective:	<ul> <li>basic objective: 99% per month</li> <li>target objective: 100% per month</li> </ul>
Incentive:	<ul> <li>GRTgaz<sup>(3)</sup>:</li> <li>penalty: €60 K per percentage point strictly below the basic objective</li> <li>bonus: €60 k if the target objective is attained</li> <li>TIGF:</li> <li>penalty: €15 K per percentage point strictly below the basic objective</li> <li>bonus: €15 k if the target objective is attained</li> </ul>
Implementation Date	- Date of implementation of changes made: 1 April 2011

(3): GRTgaz intends to set up a new "Transaction" portal at the end of 2011. As a result:

- for the day on which the transition is made from the old information system to the new one, the incentive mechanism outlined above will be neutralised;
- for the month following the transition to the new information system, the basic objective is decreased to 90%.



# 2. Other TSO service quality monitoring indicators

2.1. Indicators related to the quality of data transmitted
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Description of the indicator	Calculation of the indicator	Frequency of transmission to CRE and of publication	Objective / Implementation date
Quality of the quantities telemetered at the	Number of non-conforming days <sup>(4)</sup> in the month for the quantities telemetered at the PITD / Number of days in the month		<ul> <li>Objective:</li> <li>GRTgaz: 8% non-conforming days per month</li> <li>TIGF: 6% non-conforming days per month</li> </ul>
PITD	(one value per balancing zone, all shippers and DSOs)		Implementation date: - GRTgaz: 1 January 2009 - TIGF: 1 March 2009
Quality of quantities estimated at PITD	Number of non-conforming days <sup>(4)</sup> in the month for the quantities estimated at the PITD / Number of days in the month		<ul> <li>Objective:</li> <li>GRTgaz: 40% non- conforming days per month</li> <li>TIGF: 70% non-conforming days per month</li> </ul>
	(one value per balancing zone, all shippers and DSOs)		Implementation date: - GRTgaz: 1 January 2009 - TIGF: 1 March 2009
Quality of the intraday quantities measured at the delivery points of customers connected to the	Number of compliant intraday readings of telemetered industrial delivery points <sup>(5)</sup> in the month / Total number of intraday readings of telemetered industrial delivery points in the month	Monthly	Implementation date: mid-2010
transport network	(one value per TSO, for all shippers, all balancing zones and all telemetered industrial delivery points)		
Time taken to transmit files to DSOs on PITD withdrawals	Number of days per month for which the TSO has sent the file related to provisional daily PITD withdrawals to DSOs outside the deadline agreed on by the TSO and the DSOs (one value per TSO, all shippers, all balancing zones, all DSOs)		<i>Objective:</i> one file sent outside the deadline per month <i>Implementation date:</i> 1 January 2009

# (4): see (1).

(5): For a given month M, a reading conforms if there are no more than 5 days in month M for which the difference, in absolute value, between the following values is strictly greater by 3% and 100 kWh:

- the provisional measurement of energy of the time slot of day D sent on day D+1 of the month M;

- the final measurement of energy of the time slot of day D sent on the 20th day of the month M+1.



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# 2.2. Indicators related to maintenance programmes

Description of the indicator	Calculation of the indicator	Frequency of transmission to CRE and of publication	Implementation date
Reduction of capacities available	Firm capacity made available during work / Firm technical capacity (one value per type of network point <sup>6)</sup> for each TSO)	Monthly Indicator calculated for the months of April to December	1 April 2009
Compliance of the annual maintenance programme published at the start of the year by the TSO	Variation (in percentage) of the capacity made available (increase or decrease) between the forecast maintenance programme published at the start of the year and the actual maintenance programme carried out (one value per type of network point <sup>(6)</sup> for each TSO)		1 April 2009
Compliance of the maintenance programme published at M-2 by the TSO	Variation (in percentage) of the capacity made available (increase or decrease) between the forecast maintenance programme published at M-2 and the actual maintenance programme carried out (one value per type of network point <sup>(5)</sup> for each TSO)		• GRTgaz: mid-2009 • TIGF: 1 April 2009

(6): five types of points selected:

- the PIR in the dominant direction,
- the GRTgaz Sud / TIGF interface in both directions,
  the North / South link in both directions,
- the entry at the PITTM,
- the entry and exit to PITS. -



# 2.3 Indicators related to relations with the shippers

Description of the indicator	Calculation of the indicator	Frequency of transmission to CRE and of publication	Objective / Implementation date
Time taken to process capacity booking requests on the main network	Average processing time of booking requests (one value per TSO)	Monthly	<i>Objective:</i> 2 working days per month <i>Implementation date of the</i> <i>modifications made:</i> 1 April 2010

# 2.4 Indicators related to the environment

Description of the indicator	Calculation of the indicator	Frequency of transmission to CRE and of publication	Implementation date
Greenhouse gas emissions	Monthly greenhouse gas emissions (CO <sub>2</sub> equivalent) (one value per TSO)	Quarterly	1 January 2009
Greenhouse gas emissions in proportion to the volume of gas transported	Monthly greenhouse gas emissions / monthly volume of gas transported (one value per TSO)		1 January 2009

# IX - Annex

Annexe 1: List of GRTgaz gas transport network delivery points classed by main network exit zone. Annexe 2: List of TIGF gas transport network delivery points classed by main network exit zone.

Paris, 28 October 2010

For the Energy Regulation Commission, The Chairman

Philippe de Ladoucette

