



## DECISION NO. 2018-259

# Decision of the French Energy Regulation Commission of 13 December 2018 deciding on the evolution of the tariff for the use of the natural gas transmission networks of GRTgaz and Teréga on 1 April 2019

Attendees: Jean-François CARENCO, Chairman, Catherine EDWIGE, Jean-Laurent LASTELLE and Jean-Pierre SOTURA, commissioners.

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

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

The ATRT6 tariff first changed on 1 April 2018 according to the charges set out in the decision of CRE of 7 February 2018<sup>2</sup>.

The purpose of this decision is to change the ATRT6 tariff from 1 April 2019.

The main changes set out in this decision are as follows:

### **Change in average tariff level**

The ATRT6 tariff initially provided for an average change in the GRTgaz tariff on 1 April 2019 of +3.0%, mainly due to investments needed to merge the zones and to a fall in capacity subscriptions. CRE retains an average tariff increase on 1 April 2019 of +4.6%. The difference between these two changes is mainly explained, firstly, by the level of inflation at 1.6% instead of the 1% forecast, secondly, by the revision of the operating terms of zone B and thirdly, by the increase in energy costs and the congestion removal costs. This average increase will result, in application of the principles set out in the decision of 15 December 2016, in an increase in the charges of the main network at the level of inflation, i.e. +1.6%, and in charges of the regional network of +7.1%. These changes should be compared with the planned increases of +1.0% in the charges of the main network and +4.5% in the charges of the regional network in the tariff trajectory.

The ATRT6 tariff initially provided for an average change in the Teréga tariff on 1 April 2019 of +2.8%, mainly due to investments needed to merge the zones. CRE retains an average increase in the Teréga tariff on 1 April 2019 of +3.0%, in line with the expected change in the ATRT6 trajectory (+2.8%). The difference between these two changes is mainly explained, firstly, by the level of inflation at 1.6% instead of the 1% forecast, and secondly, by an increase

<sup>1</sup> [Decision of the French Energy Regulation Commission of 15 December 2016 deciding on the tariff for the use of the natural gas transmission networks of GRTgaz and Teréga](#)

<sup>2</sup> [Decision of CRE of 7 February 2018 deciding on the evolution of the tariff for the use of the natural gas transmission networks of GRTgaz and Teréga on 1 April 2018](#)

in congestion removal costs offset by a slight increase in subscriptions. This average increase will result, in application of the principles set out in the decision of 15 December 2016, in an increase in the charges of the main network at the level of inflation, i.e. +1.6%, and in charges of the regional network of +5.1 %. These changes should be compared with the planned increases of +1.0% in the charges of the main network and +5.4% in the charges of the regional network in the tariff trajectory.

**Terms of access to the “L gas” zone**

In its decision of 13 December 2018 on access to the low-calorific value gas (L gas) zone, CRE modified the operating rules of zone B in order to allow all shippers to continue to enjoy simple and transparent access to zone B until 2029.

The main short-term consequence of the changes decided by CRE is an increase in the capacity subscribed by GRTgaz for the service of exchanging H gas into L gas in order to extend the service to all consumption in zone B.

The tariff decision of 15 December 2016 provides that the difference between the tariff trajectory and the costs provided for by the new H gas into L gas exchange service for the duration of the ATRT6 tariff is 100% covered in the revenues and expenses clawback account (CRCP).

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## 1. METHOD

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

Articles L.452-2 and L.452-3 of the French Energy Code govern CRE's tariff competencies. Thus, Article L.452-2 provides that CRE sets the methods used to establish the tariffs for the use of natural gas networks. Article L.452-3 provides that *"The Energy Regulation Commission decides on changes in tariffs as well as on those of ancillary services carried out exclusively by the managers of these networks or installations with, where applicable, changes in the level and structure of tariffs that it deems justified in view, in particular, of the analysis of operators' accounts and the foreseeable change of operating and investment expenses. These decisions [...] may provide for a multi-annual framework for the change of tariffs as well as appropriate incentives in the short or long term to encourage operators to improve their performance, linked, in particular, to the quality of the service provided, the integration of the internal gas market, security of supply and the search for productivity efforts"*.

The current tariff for the use of the natural gas transmission networks of the transmission system operators (TSOs), GRTgaz and Teréga, known as the "ATRT6 tariff", came into effect on 1 April 2017<sup>3</sup>.

The decision of 15 December 2016 concerning the tariff for the use of the natural gas transmission networks of GRTgaz and Teréga ("tariff Decision") sets a certain number of parameters for this period, in particular:

- the trajectory of operating expenses;
- the trajectory of normative capital charges;
- the principles of constructing the authorised revenue of operators and their annual update;
- the principles for changing the different tariff charges of the transmission system during tariff updates;
- the main tariff consequences of the creation of the single market zone on 1 November 2018.

In addition, the tariff decision sets up incentive regulation mechanisms covering four different aspects:

- incentive regulation of investment expenditure:
  - introduction of an incentive to control "non-network" investment spending;
  - strengthening of the incentive to control the costs of major transport network development projects by setting a target budget for projects of more than €20 million;
  - modification of the system of incentives for the development of interconnections based on a financial bonus/penalty that will be paid on the date of the effective commissioning of the infrastructures;
- incentive regulation of operating expenses: the net operating expenses of the TSOs change each year based on the level chosen for 2017, according to an index equal to the sum of inflation and an annual change coefficient that includes an efficiency objective relating to a constant scope of activity compared to the ATRT5 period. The productivity gains or losses that could be realised in relation to this trajectory are retained by each TSO;
- incentive regulation of R&D expenditure: amounts allocated to R&D and not committed will be returned to users at the end of the tariff period via the revenue and expenses clawback account (CRCP). In the event that the TSOs exceed the trajectory set for four years, the differences will remain their responsibility;
- incentive regulation of the quality of service which aims to improve the quality of the service provided to users of the transmission networks in areas deemed important for the proper functioning of the market.

The tariff Decision provides for an update on 1 April of each year of the tariff grid of the two TSOs according to the charges it sets:

- taking into account the trajectory of authorised income defined for four years and consisting of:
  - the trajectory of normative capital charges defined by CRE;
  - the trajectory of operating expenses set by CRE, which changes each year by inflation and an annual change coefficient;
  - updating the specific "Energy and CO<sub>2</sub> quotas" item;

<sup>3</sup> Pursuant to the provisions of Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on the harmonisation of tariff structures for the transport of gas in the European Union (known as the Tariff Network Code), CRE plans to carry out work on the tariffs for the use of the transmission networks in 2019, for entry into force on 1 April 2020. The ATRT6 tariff would therefore end on 31 March 2020, i.e. one year before the initially envisaged date.

- updating the specific “congestion handling costs” item;
  - the forecast annuity of the inter-operator repayment;
  - the charge for smoothing the authorised income over four years, corresponding to the annual difference between the forecast revenue trajectory and the forecast authorised revenue of the TSO;
- the settlement of a quarter of the total balance of the CRCP calculated as at 31 December of the previous year N-1;
  - updating the capacity subscription assumptions;
  - changes in the tariff structure linked to the creation of the single market place in France on 1 November 2018, with a specific tariff movement occurring on that date;
  - any other changes to the tariff structure decided by CRE, in particular in the context of the implementation of European network laws and changes to the TSO offer.

## 1.2 Terms of access to the L gas service zone: financial consequences

Part of the Hauts-de-France region is currently supplied by natural gas with low calorific value (hereinafter “L gas”), mainly from the Groningen deposit in the Netherlands. The 1.3 million B gas consumers consume, on average, 42 TWh per year, representing around 10% of French natural gas consumption. Of these L gas consumers, 93 industrial sites are directly connected to the transmission network. The rest of France is supplied with high calorific value gas (hereinafter “H gas”).

Zone B has been part of a common market and balancing zone with zone H since 2013. GRTgaz thus offers a service for converting H gas into L gas, so that all shippers can supply consumers with L gas as if they were supplying them with H gas.

To enable this conversion service, Engie has been providing GRTgaz with a service for changing H gas into L gas since 2005. In application of this contract, Engie executes a conversion service consisting of receiving quantities of H gas into a virtual H exchange point and returning quantities of L gas with equivalent energy content to a virtual L conversion point.

In the context of the undertakings that Engie made to the European Commission in 2009, within the framework of the COMP/B-1/39.316 procedure opened against it, Engie committed, in particular “to *continue the H Gas to L Gas swap service provided to GRTgaz under reasonable financial conditions that are substantially identical to the conditions in force [...] so that it can perpetuate the regulated service of converting H Gas into L Gas, which allows a shipper with H Gas to exchange it for L Gas, in order to supply customers served with L Gas*”. This commitment applies until 1 October 2023.

To guarantee the continuity of the supply of zone B, which will remain necessary until the end of the physical conversion of the zone’s installations (planned for 2029), and with a view to the continuous operation of the zone until its extinction, CRE has decided to define permanent rules for the operation of zone B. The new rules for the operation of zone B were the subject of a public consultation on 25 October 2018.<sup>4</sup>

In its decision of 13 December 2018 on access to the low-calorific value gas (L Gas) zone, CRE modified the operating charges of zone B in order to allow all shippers to continue to enjoy simple and transparent access to zone B until 2029<sup>5</sup>. These procedures make it possible to maintain the contractual merger of zones B and H, adapt and extend until 2029 the service of exchanging H gas into L gas supplied by Engie to GRTgaz. Finally, these rules determine upstream access of physical infrastructures to L gas.

Thus, all suppliers supplying consumers in zone B, including Engie, will benefit from the service for the conversion of H gas into L gas. The main short-term consequence of the changes decided on by CRE is an increase in the capacities subscribed by GRTgaz for the service of exchanging H gas into L gas. Indeed, GRTgaz will subscribe to this service by dimensioning its need for the entire consumption of zone B at peak 2%, as of 1 April 2017 and according to the change forecast until the total conversion of the gas H zone. The cost of the H gas to L gas exchange service will change according to the following trajectory:

<sup>4</sup> Public consultation of 25 October 2018 on the charges of access to the low-calorific value gas supply zone (“B gas”)

<sup>5</sup> Subject to approval, under Articles L. 111-17 and L. 111-18, of the amendments to the contract for the exchange of H gas into B gas concluded between Engie and GRTgaz and the new contract for the exchange of H gas into B gas from 1 October 2023.

€m <sub>current</sub>	2017	2018	2019	2020
Cost of the new H gas to L gas exchange service	50	54	62	60

The ATRT6 tariff provides for a reference trajectory for the cost of the contract for the exchange of H gas to L gas. This trajectory is presented in 3.3.5. of the decision of 15 December 2016<sup>6</sup>:

GRTgaz, in €m <sub>current</sub>	2017	2018	2019	2020
Charges for the service of exchanging H gas into L gas (excluding nitrogen)	27*	48	53	53

\* Actual 2017

The ATRT6 tariff provides that the difference between the estimated and actual costs associated with the quantities of gas converted via the service for converting H gas into L gas is 100% covered by the revenue and expenses clawback account (CRCP).

Consequently, the difference between the tariff trajectory and the costs provided for by the new H gas into L gas exchange service over the duration of the ATRT6 tariff, adjusted for the amounts actually paid by GRTgaz in 2017, is 100% covered by the CRCP, which results in an increase of around €29m in the balance of the CRCP ATRT6 (covering 2017 and 2018).

### 1.3 Distribution of revenue received by the TSOs in the France Trading Region (TRF) gas exchange point (PEG)

The creation of the single market zone on 1 November 2018 requires a distribution between the TSOs of the revenues to the newly created PEG France, i.e. approximately €16.9 million expected in 2019. CRE decides to distribute these revenues in proportion with the authorised revenues of the operators, i.e. 12% for Teréga and 88% for GRTgaz. Thus:

- When a shipper has signed a transmission contract with GRTgaz only, or with GRTgaz and Teréga, he pays the PEG access rates to GRTgaz. GRTgaz pays 12% of these revenues to Teréga.
- When a shipper has signed a transmission contract with Teréga, he pays the PEG access rates to Teréga. Teréga pays 88% of these revenues to GRTgaz.

### 1.4 Incentive regulation of the commissioning of the Val de Saône and Gascogne-Midi projects

In its decision of 30 October 2014 on the incentive regulation mechanism for the Val de Saône and Gascogne-Midi projects, CRE provided for incentive regulation (bonus/penalty) on the timetable for commissioning these two projects before the winter of 2018/2019; “GRTgaz (Teréga resp.) may receive a premium of up to €16m (resp. €4m) for effective commissioning before 1 November 2018”.

The Val de Saône and Gascogne-Midi projects were implemented on time, and the single market area was created on 1 November 2018 as planned in 2014 by GRTgaz and Teréga. The bonuses associated with these implementations are therefore included in the CRCP.

### 1.5 Incentive regulation of service quality

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

#### 1.5.1 Reminder of the system in force

The incentive regulation of the quality of service aims to improve the quality of the service provided to users of the transmission networks in areas deemed especially important for the proper functioning of the gas market.

From 1 April 2018, the quality of service of the TSOs has been monitored using 19 indicators. Of these 19 indicators, five are subject to financial incentives in order to improve the quality and availability of data for shippers.

The 19 monitored indicators relate to the following themes:

- the quality and availability of data made available to shippers by the TSOs (5 indicators);

<sup>6</sup> Decision of the Energy Regulation Commission of 15 December 2016 regarding the decision on the tariff for the use of the natural gas transmission networks of GRTgaz and TIGF(Teréga).

- the information published and the modes of intervention by the TSOs in the markets as part of the balancing system put in place on 1 October 2015 (5 indicators);
- compliance with the forecasts provided to shippers concerning the TSOs' work programmes (5 indicators);
- the reliability of the projected stock in pipeline indicator (1 indicator);
- the availability of the North-South link (1 indicator);
- the environmental impact of the TSOs (2 indicators).

The disappearance of the North-South link, since 1 November 2018, has led to the elimination of the indicator relating to the provision of additional firm capacity to the North-South link.

The indicators whose calculation methods refer to the existence of two balancing zones for GRTgaz are adapted:

- Indicator of the quality of the quantities measured at the transport distribution interface points (PITD) and transmitted to the DSOs the following day for the calculation of the provisional allocations;
- Indicator of the quality of the overall end-of-day gas consumption forecasts made the day before and during the day.

The bonus/penalty thresholds of these two indicators are adjusted without changing the cap and applying the same operation as for the indicators before the zones merged.

Moreover, before the zones merged, the works carried out on the TSO's networks affected the availability of capacities at the various points of the network (PIR, PITTM, PITS, North-South link). As of the merger of the zones, for the core network works, the restriction of capacities will be shared on all the points constituting a superpoint. The indicators relating to the maintenance programmes will therefore be published by type of network point and by superpoint.

Therefore, GRTgaz will publish:

- "Core network" maintenance for all superpoints, except S1 downstream;
- local maintenance at GRTgaz's contractual points.

Teréga will publish:

- "Core network" maintenance for the NS2 downstream, NS3 downstream, NS4 downstream, S1 downstream, SN1 upstream, SN2 upstream, SN3 upstream, and EO2 downstream superpoints;
- local maintenance at Teréga's contractual points.



The table below details the composition of the upstream and downstream superpoints for each network limit:

<b>Limits</b>	<b>Upstream superpoint</b>	<b>Downstream superpoint</b>
<b>N1</b>	Dunkirk PIR + Dunkirk LNG PITTM	
<b>N2</b>	Dunkirk PIR + Dunkirk LNG PITTM + Virtualys PIR	
<b>N3</b>	Virtualys PIR + Obergailbach PIR	
<b>NS1</b>	Virtualys PIR + Obergailbach PIR + Oltingue PIR	
<b>NS2</b>	Dunkirk PIR + Dunkirk LNG PITTM + Virtualys PIR + Obergailbach PIR + Oltingue PIR + North-east PITS + North-west PITS	Fos PITTM + Montoir PITTM + Pirineos PIR + Lussagnet PITS + Atlantic PITS + South-east PITS
<b>NS3</b>	Dunkirk PIR + Dunkirk LNG PITTM + Virtualys PIR + Obergailbach PIR + Oltingue PIR + North-east PITS + North-west PITS + South-east PITS	Fos PITTM + Montoir PITTM + Pirineos PIR + Lussagnet PITS + Atlantic PITS
<b>NS4</b>	Dunkirk PIR + Dunkirk LNG PITTM + Virtualys PIR + Obergailbach PIR + Oltingue PIR + North-east PITS + North-west PITS + South-east PITS + Atlantic PITS	Fos PITTM + Pirineos PIR + Lussagnet PITS
<b>S1</b>	Dunkirk PIR + Dunkirk LNG PITTM + Virtualys PIR + Obergailbach PIR + Oltingue PIR + North-east PITS + North-west PITS + South-east PITS + Atlantic PITS + Fos PITTM	Pirineos PIR + Lussagnet PITS
<b>EO1</b>	Obergailbach PIR + Oltingue PIR + South-east PITS + Fos PITTM	Virtualys PIR + Dunkirk PIR + Dunkirk LNG PITTM + Montoir PITTM + Pirineos PIR + North-east PITS + North-west PITS + Atlantic PITS + Lussagnet PIR
<b>EO2</b>	Obergailbach PIR + Oltingue PIR + South-east PITS + Fos PITTM + North-east PITS + North-west PITS + Dunkirk LNG PITTM + Dunkirk PIR + Virtualys PIR	Montoir PITTM + Pirineos PIR + Atlantic PITS + Lussagnet PITS

### 1.5.2 GRTgaz requests

GRTgaz has sent CRE proposals for new indicators to monitor the proper functioning of the single market place:

- monitoring the publication of vigilance information at each hour: this indicator aims to ensure that the market is informed of developments in a crisis situation;
- number of days in red or purple alerts: this indicator aims to assess the frequency of congestion occurrence;
- capacity restriction rate following a red alert: this indicator aims to assess the effectiveness of the mechanisms provided for reducing congestion.

GRTgaz also proposes to modify indicators relating to the environment; two indicators are currently monitored and published quarterly; (i) greenhouse gas emissions (GHG) and (ii) greenhouse gas emissions relative to the volume of gas transported. GRTgaz indicates that the opening of the market makes the correlation between the volume of gas transported and GHG emissions less and less relevant as emissions depend, among other things, on the location and the pressure of receiving and delivering the gas. It therefore proposed deleting the second indicator and changing the publication of the first indicator to an annual frequency.

GRTgaz also proposes the establishment of a new indicator for monitoring the proper provision of balancing notices to customers in order to enable them to better manage their balancing. These balancing notices would contain data whose quality does not depend on the performance of the TSO (market data) and data whose quality is already monitored by other indicators (consumption forecasts).

Finally, GRTgaz proposes a new definition of the reliability of the projected stock in pipeline (SECp) which would be similar to the practice and which would be as follows: *“The reliability of SECp is the percentage of hours per month for which the published SECp is compliant. The SECp published at a given time is considered non-compliant if at least one of the components used to calculate it is non-compliant, or if its calculation could not be updated. The main components used to calculate SECp are consumption forecasts, planned quantities, and physical stock in the pipeline calculated at 6 a.m.”.*

CRE considers it important to keep the indicator of greenhouse gas emissions relative to the volume of gas transported in view of the challenges of the energy transition. This indicator is essential for monitoring operators' energy performance and makes it possible to measure their efforts to reduce their greenhouse gas emissions. The incentives for TSOs to limit their greenhouse gas emissions, including the issue of litres of methane in the atmosphere, will be the subject of an overall review when the next ATRT7 tariff is considered.

Furthermore, CRE considers that GRTgaz's proposals to add indicators relating to the single market place are relevant. These indicators will make it possible to monitor the proper functioning of the newly-created marketplace and to provide feedback.

However, Teréga, although it is in favour of changing the quality of service indicators in order to better monitor the operation of the single gas zone, has indicated that the deadlines for adapting its information system will not allow the implementation of new indicators on 1 April 2019. It therefore proposes to deal with these proposed indicators during the ATRT7 process, and to study three others:

- indicator of distribution of upstream and downstream maintenance events;
- indicator of distribution of capacity volumes restricted upstream and downstream;
- indicator of distribution of capacity volumes restricted downstream between all PITS.

CRE is in favour of any new indicator or any change to the existing system being studied jointly and implemented simultaneously by GRTgaz and Teréga. Consequently, CRE asks the two TSOs to study these developments and present them in the Concertation Gaz framework as part of the work to prepare the ATRT7 tariff.

## 2. PARAMETERS AND CHANGE TO THE EVOLUTION TARIFF OF THE GRTGAZ AND TERÉGA NATURAL GAS TRANSMISSION NETWORKS AS OF 1 APRIL 2019

### 2.1 2019 authorised TSO revenue

#### 2.1.1 Capital charges

The trajectory of normative capital charges (NCC) is set for the ATRT6 tariff period. Any differences between expected and actual expenses are 100% covered by the revenues and expenses clawback account (CRCP), with the exception of charges relating to so-called “non-network” assets for which only the difference due to inflation is taken into account via the CRCP.

Forecast normative capital charges (NCC)	2017	2018	2019	2020
GRTgaz	993.4	1,006.9	1,068.1	1,070.8
of which "non-network" NCCs	93.9	98.3	104.1	101.1
Teréga	158.7	164.9	175.3	180.4
of which "non-network" NCCs	18.9	21.7	20.7	22.4

The operators' forecast regulated asset base, set by the decision of 15 December 2016, breaks down as follows:

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

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

For 2018, net operating expenses (NOE), excluding variations in energy costs, included in the tariff Decision were €777.1 million for GRTgaz and €77.8 million for Teréga.

The tariff Decision provides that, excluding changes in energy prices, net operating expenses for 2019 are calculated by applying a percentage change equal to CPI<sup>7</sup> +0.74% for GRTgaz and CPI +1.04% for Teréga to the net operating expenses of the previous year, “where the CPI corresponds to the average annual change actually observed over the previous calendar year in the consumer price index excluding tobacco, as calculated by INSEE for all households in France”.

Since the inflation assumption for 2018 on which the Finance Bill (PLF) for 2019 is based is +1.6%, the net operating expenses retained for 2019, excluding changes in energy prices, increased by 2.34% for GRTgaz, i.e. by +€18.2 million and increased by 2.64% for Teréga, i.e. by +€2.1 million, compared with 2018.

The gap between forecast inflation for 2018 taken into account by CRE for the update of the net operating expenses of the TSOs and the actual inflation observed will be 100% covered by the CRCP.

<sup>7</sup> the CPI corresponds to the average annual change actually observed over the previous calendar year in the consumer price index excluding tobacco, as calculated by INSEE for all households in France.

### 2.1.3 “Energies and CO<sub>2</sub> quotas” item

- **GRTgaz**

GRTgaz estimates in its tariff dossier that the “Energy and CO<sub>2</sub> quotas” item will amount to €98.5 million in 2018, compared with the forecast level of €91.6 million used for the update of the ATRT6 tariff on 1 April 2018. GRTgaz explains this trend by, on the one hand, the increase in injections into storage due to the storage reform which led to a significant subscription of capacities, and on the other hand, the cold spell of February 2018 which led to high power consumption. GRTgaz also indicates that it expects an increase in energy needs linked to the implementation of the *Trading Region France* in November 2018, which should lead to an increase in North-South flows. GRTgaz also expects an increase in the technical balance sheet gap (EBT)<sup>8</sup>.

For 2019, GRTgaz expects a level of expenses of €117.1 million, and justifies this forecast, an increase of €30.6 million compared to the trajectory adopted during the ATRT6 works, on the one hand, by a sharp increase in energy consumption volumes linked to the increase in North-South flows in order to supply customers in the South of France and the Iberian Peninsula with gas, and, on the other hand, the rise in the price of electricity and gas.

#### GRTgaz – Energy costs requested

“Energy and CO <sub>2</sub> quotas” item (request)	2017			2018			2019		
	Est.	Act.	Var.	Forecast	Est.	Var.	Rate	Forecast	Var.
<b>Gas (€m)</b>	50.4	37.6*	-12.8	47.3	51.4	+4.1	48.7	59.3	+10.6
Volumes (GWh)	2,876	2,955	+79	2,833	3,138	+305	2,930	3,222	+292
Price (€/MWh)	17.5	16.9	-0.6	16.5	16.4	-0.1	16.6	18.4	+1.8
<b>Electricity (€m)</b>	30.7	34.2	+3.5	32.8	36.3	+3.6	28.5	48.1	+19.6
Volumes (GWh)	435	485	+50	435	490	+56	396	636	+240
Price (€/MWh)	70.5	70.4	-0.1	75.4	74.1	-1.3	71.9	75.6	+3.7
<b>CO<sub>2</sub></b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>ITC<sup>9</sup></b>	7.6	7.9	+0.3	11.5	8.3	-3.2	9.4	9.8	+0.4
<b>Total energy costs</b>	<b>88.6</b>	<b>79.6</b>	<b>-9.0</b>	<b>91.6</b>	<b>98.5**</b>	<b>+6.9</b>	<b>86.5</b>	<b>117.1</b>	<b>+30.6</b>

\* amount taking into account a return to the market of €12.4 million as a result of the reconciliation between the stock of physical gas and the stock of accounting gas.

\*\*amount including +€2.4m of balancing effect with accounting between 2017 and 2018.

CRE retains several adjustments to this request:

- The EBT (Technical Balance Sheet Gap) volumes for 2018 are reduced.
- the energy consumption volumes forecast for 2019 for compressors are reduced to take into account less conservative assumptions for the emission of liquefied natural gas (LNG) at the Fos PITTM (consistent with Elengy forecasts adopted by CRE for the ATTM5 update on 1 April 2019) and outgoing flows at the Pirineos PIR as well as the trends observed over the last few weeks and the forecasts for global LNG supply exceeding demand between 2019 and 2022 with the commissioning of the US and Australian liquefaction plants;
- EBT volumes for 2019 are reduced to the level of the tariff trajectory.

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

<sup>9</sup> ITC Internal Tax on Consumption

Consequently, the level used by CRE for energy costs is as follows:

"Energy and CO <sub>2</sub> quotas" item (retained by CRE)	2018			2019		
	Forecast	Est.	Var.	Rate	Forecast	Var.
<b>Gas (€m)</b>	47.3	49.8	+2.5	48.7	54.6	+5.9
<i>Volumes (GWh)</i>	2,833	3,038	+205	2,930	2,972	+42
<i>Price (€/MWh)</i>	16.5	16.4	-0.1	16.6	18.4	+1.8
<b>Electricity (€m)</b>	32.8	36.3	+3.5	28.5	38.2	+9.7
<i>Volumes (GWh)</i>	435	490	+55	396	496	+100
<i>Price (€/MWh)</i>	75.4	74.1	-1.3	71.9	77.1	+5.2
<b>CO<sub>2</sub></b>	0.0	0.0	0.0	0.0	0.0	0.0
<b>ITC<sup>11</sup></b>	11.5	8.3	-3.2	9.4	8.8	-0.6
<b>Total energy costs</b>	<b>91.6</b>	<b>96.9*</b>	<b>+5.3</b>	<b>86.5</b>	<b>101.6</b>	<b>+15.1</b>

\*including +€2.4m of balancing effect with accounting between 2017 and 2018.

- **Teréga**

Teréga estimates that the "Energy and CO<sub>2</sub> quotas" item will amount to €7.0m in 2018, compared with the forecast level of €6.3m used during the last update of the ATRT6 tariff on 1 April 2018. Teréga explains this increase by increasing electricity needs on the one hand and increasing gas prices on the other.

For 2019, Teréga expects a level of expenses of €10.8 million, and justifies this forecast, up €2.5 million compared to the 2019 tariff forecasts, by the increase in the need for motive electricity by replacing the use of gas, high North-South flow hypotheses, and strong backhaul demand in Cruzy (120 days in winter) to supply the South-East GRTgaz region in the event of congestion.

"Energy and CO <sub>2</sub> quotas" item (request)	2017			2018			2019		
	Est.	Act.	Var.	Forecast	Est.	Var.	Rate	Forecast	Var.
<b>Gas (€m)</b>	5.5	5.4	-0.1	5.1	5.4	+0.3	4.0	5.2	+1.2
<i>Volumes (GWh)</i>	303	300	-3	281	290	+9	230	238	+8
<i>Price (€/MWh)</i>	18.2	18.2	-	18.0	18.6	+0.6	17.5	21.7	+4.2
<b>Electricity (€m)</b>	1.5	1.4	-0.1	1.2	1.6	+0.4	4.3	5.6	+1.3
<i>Volumes (GWh)</i>	16	16	-	13	17	+4	40	64	+24
<i>Price (€/MWh)</i>	93.1	91.3	-1.8	93.1	90.8	-2.3	107.2	88.0	-19.2
<b>CO<sub>2</sub></b>	0.0	0.0	-	0.0	0.0	-	0.0	0.0	-
<b>ITC<sup>10</sup></b>	0.0	0.0	-	0.0	0.0	-	0.0	0.0	-
<b>Total energy costs</b>	<b>7.0</b>	<b>6.9</b>	<b>-0.1</b>	<b>6.3</b>	<b>7.0</b>	<b>+0.7</b>	<b>8.3</b>	<b>10.8</b>	<b>+2.5</b>

<sup>10</sup> ITC Internal Tax on Consumption

CRE retains several adjustments to this request:

- EBT volumes are revised downwards, in particular to take into account the level achieved in previous years;
- downward adjustment of electricity needs to take into account LNG flows in Fos that are more optimistic than those forecast by Teréga, and consistent with the flow assumptions retained by CRE for the ATTM5 update on 1 April 2019, given the trends observed over the last few weeks and the expected trend in the global LNG supply. These hypotheses lead to a much lower use of the backhaul in Cruzy than that forecast by Teréga in its tariff dossier (18 days over the winter, instead of 120 days in Teréga's request).

Consequently, the level used by CRE for energy costs is as follows:

"Energy and CO <sub>2</sub> quotas" item (retained by CRE)	2018			2019		
	Forecast	Est.	Var.	Rate	Forecast	Var.
<b>Gas (€m)</b>	5.1	5.3	+0.2	4.0	3.9	-0.1
<i>Volumes (GWh)</i>	281	282	+1	230	191	-39
<i>Price (€/MWh)</i>	18.0	18.6	+0.6	17.5	20.6	+3.1
<b>Electricity (€m)</b>	1.2	1.6	+0.4	4.3	3.8	-0.5
<i>Volumes (GWh)</i>	13	17	+4	40	43	+3
<i>Price (€/MWh)</i>	93.1	90.8	-2.3	107.2	88.0	-19.2
<b>CO<sub>2</sub></b>	0.0	0.0	-	0.0	0.0	-
<b>ITC<sup>11</sup></b>	0.0	0.0	-	0.0	0.0	-
<b>Total energy costs</b>	<b>6.3</b>	<b>6.8</b>	<b>+0.6</b>	<b>8.3</b>	<b>7.7</b>	<b>-0.6</b>

#### 2.1.4 Congestion handling cost item

In their tariff request, GRTgaz and Teréga provide for a total of €16 million in congestion removal costs in 2019, of which €13.9 million is for GRTgaz and €2.1 million for Teréga. This estimate is based on:

- the "tight" baseline scenario used for the choice of mechanisms for lifting congestion during Concertation Gaz work relating to the merger of gas zones in France.
- the unit spread cost observed in the winter of 2018-2019.

CRE recalls that the baseline scenario used by the TSOs is a tight LNG supply scenario. This scenario takes into account LNG flows at Fos and Montoir, limited to the technical minimum. For 2019, such a tight scenario is not the most likely given the forecast for LNG arrivals in Europe and the trends observed over the past few weeks, and the expected trend in global LNG supply. Simulations taking into account adapted LNG flows and a localised unit spread cost corresponding to the average observed over the winter of 2018-2019 result in congestion handling costs of between €0.2 million and €3.2 million.

CRE also considers that the reform of third-party access to storage infrastructures, insofar as it leads to a significant filling of these infrastructures, must have an impact on the handling of congestions; the localised spread offers must be more numerous and cheaper.

Consequently, CRE retains an amount of €2 million at the France level consistent with the average of the simulations carried out, of which €1.8 million is for GRTgaz and €0.2 million for Teréga, in respect of the congestion lifting costs that could remain following the creation of the single market place.

Finally, CRE points out that in any event, the CRCP mechanism will make it possible to 100% cover charges that may have been underestimated or overestimated.

### 2.1.5 CRCP calculation

The balance of the CRCP at 31 December 2018 will be discharged over a period of 4 years. In order to ensure the financial neutrality of the mechanism, it is updated at the interest rate of 2.7% corresponding to the nominal risk-free rate for the ATRT6 period.

- **GRTgaz**

In its tariff dossier, GRTgaz estimated the balance of the CRCP at 31 December 2018 at €89.3 million as a deduction from the expenses to be covered, of which €93.8 million was in outstanding amounts from previous CRCPs, €1.2 million in final 2017 CRCP and €5.7 million in provisional 2018 CRCP. The latter mainly consists of:

- higher than expected subscription proceeds, in particular proceeds from subscription to PITS in connection with the storage reform;
- Energy charges higher than forecast (see energy charges requested by GRTgaz in section 2.1.2);
- Higher than forecast capital charges mainly related to the inflation rate used to reassess the RAB and whose actual level (2.0%) is higher than the forecast used in the tariff trajectory (1.0%).
- Bonus linked to the timely commissioning of the Val de Saône project (see section 1.5);

The balance of the CRCP at 31 December 2018 used by CRE in the calculation of GRTgaz's authorised income amounts to €45.6 million, which will be deducted from the expenses to be covered. The difference compared with GRTgaz's request comes mainly from taking into account CRE's decision on the operating rules of zone B (see section 1.2), as well as the correction of assumptions on energy charges (see section 2.1.2) and estimated capacity subscription revenues for 2018 (see section 2.2.1). CRE has also included a bonus amount linked to the quality of service in connection with 2017.

GRTgaz – CRCP as at 31 December 2018		
GRTgaz	GRTgaz request (€m)	Amounts retained by CRE (€m)
Prior CRCP balances	-93.8	-93.8
Difference between the CRCP estimated for 2017 on 1 April 2018 and the CRCP achieved for 2017	-1.2	-1.2
Estimated differences on expenses and income for 2018	5.7	49.4
<i>of which delivery revenues 100% covered</i>	-6.8	-9.9
<i>of which delivery revenues 80% covered</i>	-4.0	-5.6
<i>of which CCCG and TAC connection revenues</i>	0.9	0.9
<i>of which normative capital charges</i>	10.5	10.5
<i>of which energy costs</i>	5.5	4.2
<i>of which inter-operator contract</i>	-0.1	-0.1
<i>of which OPEX gap due to inflation</i>	0.0	0.0
<i>of which service quality</i>	0.0	1.0
<i>of which H-L conversion service (change in volumes)</i>	-19.9	28.8
<i>of which zone L gas to H gas conversion pilot</i>	-0.1	-0.1
<i>of which, separation of R&amp;D activities from the parent company</i>	-1.2	-1.2
<i>of which, income from services for third parties related to major development projects</i>	5.4	5.4
<i>of which incentive regulation of investments</i>	16.0	16.0
<i>of which congestion handling costs</i>	-0.5	-0.5
<b>CRCP balance at 31 December 2018</b>	<b>-89.3</b>	<b>-45.6</b>

The CRCP balance at 31 December 2018 will be adjusted in four constant annual instalments of -€12.2 million, a reduction in authorised income. Since the amount for the variances for 2018 is provisional, the final value will be included in the CRCP on 1 April 2020.

- **Teréga**

In its tariff dossier, Teréga estimated the balance of the CRCP at 31 December 2018 at €5.5 million in addition to the expenses to be covered, of which €1.2 million is in outstanding amounts from previous CRCPs, €1.8 million in final 2017 CRCP and €8.6 million in provisional 2018 CRCP. The latter mainly consists of:

- higher than expected subscription proceeds, in particular proceeds from subscription to PITS and on exit from the Pirineos PIR;
- Higher energy charges than forecast (see energy charges requested by Teréga section 2.1.2);
- Higher than forecast capital charges notably related to the inflation rate used to reassess the RAB and whose actual level (2.0%) is higher than the forecast used in the tariff trajectory (1.0%);
- Bonus linked to the timely commissioning of the Gascogne - Midi project (see Section 1.5);

The balance of the CRCP at 31 December 2018 used by CRE in the calculation of Teréga's authorised income amounts to €5.2 million, which will be added to the expenses to be covered. The difference compared with Teréga's request comes mainly from the correction of assumptions regarding energy costs (see section 2.1.2) and estimated capacity subscription revenues for 2018 (see section 2.2.2).



Teréga – CRCP at 31 December 2018		
Teréga	Teréga request (€m)	Amounts retained by CRE (€m)
Prior CRCP balances	-1.2	-1.2
Difference between the CRCP estimated for 2017 on 1 April 2018 and the CRCP achieved for 2017	-1.8	-1.8
Estimated differences on expenses and income for 2018	8.6	8.3
<i>of which delivery revenues 100% covered</i>	-0.5	-0.5
<i>of which delivery revenues 80% covered</i>	-0.5	-0.6
<i>of which normative capital charges</i>	4.0	4.0
<i>of which energy costs</i>	0.6	0.5
<i>of which inter-operator contract</i>	0.1	0.1
<i>of which OPEX gap due to inflation</i>	0.0	0.0
<i>of which service quality</i>	0.8	0.8
<i>of which incentive regulation of investments</i>	4.0	4.0
<b>CRCP balance at 31 December 2018</b>	<b>5.5</b>	<b>5.2</b>

The CRCP balance at 31 December 2018 will be adjusted in four constant annual instalments of +1.4 million, an increase in authorised income. The amount for variations for 2018 is provisional: the final value will be included in the CRCP on 1 April 2020.

### 2.1.6 Inter-operator repayment annuity

On the occasion of the creation of the single market zone, part of the revenues initially received at the North-South link (located in the GRTgaz zone) is now collected at the Pirineos exit point (located in the Teréga zone), involving a financial flow from Teréga to GRTgaz in order to guarantee the absence of cross-subsidies between the two TSOs, as provided for in the tariff Decision.

This financial flow from Teréga to GRTgaz is equal to the additional revenues linked to the increase in the tariff charge at the Pirineos PIR due to the partial deferral of the tariff charge on the North-South link on the tariff charge at the Pirineos PIR at the time of the creation of the single marketplace.

The provisional amount of the repayment from Teréga to GRTgaz in respect of part of the receipts received at the Pirineos PIR exit point is equal to €119.8/MWh/d/year, applied to forecast subscriptions at this exit point. The forecast level of repayment will be reviewed at each tariff update to take into account the revised subscription assumptions used by CRE.

Inter-operator flows, in €m <sub>current</sub>	2019
Teréga towards GRTgaz	18.8

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

### 2.1.7 Additional coverage request: interruptibility

GRTgaz anticipates implementation on 1 October 2019 of the interruptibility measures referred to in Article L. 431-6-2 of the Energy Code. GRTgaz estimates that the cost related to the remuneration of consumers connected to its network within the framework of this measure is €1 million.

CRE recalls that the ATRT6 tariff regulation framework provides for cover of the costs associated with these measures by the CRCP. Consequently, CRE does not consider it necessary to anticipate the taking into account of a cost associated with the implementation of a measure whose date is not known.

### 2.1.8 2019 authorised income

The authorised income for 2019 corresponds to the sum of:

- capital charges for 2019, the trajectory of which is set by the ATRT6 decision;
- net operating expenses for 2019, the trajectory of which is set by the ATRT6 decision;
- the change in the amount of the energy item between the 2019 forecast defined by CRE and the amount provided for by the ATRT6 tariff for the same year;
- the change in the amount of the congestion handling cost item between the 2019 forecast defined by CRE and the amount provided for by the ATRT6 tariff for the same year;
- the settlement of a quarter of the balance of the CRCP, estimated at the end of 2018;
- the forecast annuity of the inter-operator repayment;
- the authorised income smoothing charge over 4 years.

○ **GRTgaz authorised income 2019**

GRTgaz, in €m <sub>current</sub>	2018*	2019
Net operating expenses	777.1	795.3
Change in the Energy and CO <sub>2</sub> quotas item	5.4	15.1
Change in Congestion removal cost item	2.0	1.8
Normative capital charges	1,006.9	1,068.1
Settlement of the balance of the CRCP (previous CRCP balances + 2017 balance + 2018 estimate)	-33.0	-12.2
Inter-operator repayment	-3.0	-18.8
<b>Authorised income before smoothing</b>	<b>1,755.5</b>	<b>1,849.2</b>
<i>Change compared to 2018</i>		+5.3%
Authorised income smoothed over 4 years	26.4	-54.0
<b>Authorised income</b>	<b>1,781.9</b>	<b>1,795.3</b>
<i>Change compared to 2018</i>		+0.8%

\* Decision of CRE of 7 February 2018 deciding on the evolution of the tariff for the use of the natural gas transmission networks of GRTgaz and Teréga on 1 April 2018.

o **Teréga's 2019 Authorised Revenue**

Teréga, in €m <sub>current</sub>	2018	2019
Net operating expenses	77.8	79.9
Change in the Energy and CO <sub>2</sub> quotas item	-0.6	-0.6
Change in Congestion removal cost item	0.3	0.2
Normative capital charges	164.9	175.3
Settlement of the balance of the CRCP (previous CRCP balances + 2017 balance + 2018 estimate)	-0.4	+1.4
Inter-operator repayment	3.0	18.8
<b>Authorised income before smoothing</b>	<b>245.0</b>	<b>275.0</b>
<i>Change compared to 2018</i>		+12.3%
Authorised income smoothed over 4 years	1.1	-3.7
<b>Authorised income</b>	<b>246.1</b>	<b>271.3</b>
<i>Change compared to 2018</i>		+10.2%

## 2.2 Capacity subscription assumptions for 2019

### 2.2.1 GRTgaz

In its tariff dossier, GRTgaz has transmitted new hypotheses for capacity subscriptions for 2019: these show a fall of 7.4% for upstream capacities, particularly at the entry of the PIRs due to the end of a long-term contract that was not renewed, and a fall of 1% for downstream capacities due mainly to the fall in the peak of the transmission/distribution interface points which is accentuated from 1 April 2019, which is partly offset by an increase in delivery capacity to industrial customers. On average, GRTgaz expects a fall of around 4.0% compared to the subscription forecasts for 2018 in the ATRT6 tariff trajectory, whereas this trajectory forecast a fall of around 3.9%.

CRE considers that certain assumptions used by GRTgaz are too conservative, and has therefore made a number of adjustments. In particular, it has chosen higher subscription trajectories for PITS than those requested by GRTgaz, given the capacities marketed by Storengy during the current auctions. It also made upward adjustments to PIR and PITM subscriptions, in order to take into account the latest subscriptions observed to date. Lastly, CRE expects revenues from the PEG to exceed GRTgaz's forecasts and be more consistent with the needs of the market and with the expected improvement in liquidity on the TRF. These revenues are distributed in proportion to the authorised income of each TSO (i.e. 88% for GRTgaz and 12% for Teréga).

The trajectory chosen by CRE for the change in the ATRT6 tariff on 1 April 2019 corresponds to a change in subscriptions of around -3.4% compared to the subscription forecasts adopted for 2018 in the ATRT6 tariff trajectory.

## GRTgaz – Capacity subscription revenue

Capacity subscription revenue, in € <sub>current</sub>	2018 subscriptions (valued at the 2018 rate)			2019 subscriptions (valued at the 2018 rate)		
	Forecast	Est. CRE	Var.	Rate	Forecast CRE	Var.
PIR revenue	277.7	279.0	+1.3	274.2	273.1	-1.1
PITS revenue	19.5	31.7	+12.2	26.3	35.8	+9.5
PITTM revenue	93.9	96.1	+2.2	93.4	95.6	+2.2
North-South link revenue	57.9	60.2	+2.3	-	-	-
Outgoing revenue to regional network	361.1	361.7	+0.6	352.7	358.3	+5.6
Regional Network revenue	974.6	974.5	-0.1	959.9	967.1	+7.2
Other revenue	13.1	12.4	-0.7	11.3	5.6	-5.7
<b>TOTAL Revenue</b>	<b>1,797.8</b>	<b>1,815.6</b>	<b>+17.8</b>	<b>1,717.8</b>	<b>1,735.5</b>	<b>+17.7</b>

### 2.2.2 Teréga

In its tariff dossier, Teréga has transmitted new capacity subscription hypotheses for 2019. The latter are up 0.7% compared with the subscription forecasts for 2018 based on the ATRT6 tariff trajectory. The change trajectory of capacity subscription assumptions provided for stable subscriptions between 2018 and 2019.

CRE has made slight upward adjustments to subscriptions to PIR PIRINEOS given the levels observed at the end of 2018, and increased subscriptions to the regional network. Finally, CRE has retained revenues from the *UIOLI* (*Use It Or Lose It*) service higher than Teréga's forecasts, in line with the levels observed over the past three years.

CRE has distributed the revenues to the PEG pro rata to the authorised income of each TSO (i.e. 88% for GRTgaz and 12% for Teréga).

The trajectory chosen for the change in the ATRT6 tariff on 1 April 2019 corresponds to a change in subscriptions of around +1.1% compared to the subscription forecasts adopted for 2018 in the ATRT6 tariff trajectory.

## Teréga – Capacity subscription revenue

Capacity subscription revenue, in €m <sub>current</sub>	2018 subscriptions (valued at the 2018 rate)			2019 subscriptions (valued at the 2018 rate)		
	Forecast	Est. CRE	Var.	Rate	Forecast CRE	Var.
PIR revenues	112.9	113.9	+1.0	110.5	114.2	+3.7
PITS revenue	10.7	12.1	+1.4	11.1	12.2	+1.1
Outgoing revenues to regional network	30.1	29.8	-0.3	30.7	29.8	-0.9
Regional Network Revenue	108.1	107.6	-0.5	109.4	106.4	-3.0
Other income	1.2	0.6	-0.6	0.8	2.7	+1.9
<b>TOTAL Revenue</b>	<b>263.0</b>	<b>263.9</b>	<b>+0.9</b>	<b>262.4</b>	<b>265.3</b>	<b>+2.9</b>

## 2.2.3 Total France (main network)

Capacity subscription revenue, in €m <sub>current</sub>	2018 subscriptions (valued at the 2018 rate)			2019 subscriptions (valued at the 2018 rate)		
	Rate	Est.	Var.	Rate	Forecast	Var.
Total Inputs (PIR, PITTM, PITS)	315.2	320.2	+5.0	310.2	315.2	+5.0
Total outflows (PIR, PITS, Outflows to the regional network)	593.4	604.0	+10.6	588.8	603.8	+15.0
<b>Total subscription proceeds</b>	<b>908.6</b>	<b>924.2</b>	<b>+15.6</b>	<b>899.0</b>	<b>919.0</b>	<b>+20.0</b>

## 2.3 Tariff changes on 1 April 2019

## 2.3.1 GRTgaz

In its tariff request, GRTgaz expected an average tariff increase of +6.9%, i.e. +1.6% on the main network and +11.2% on the regional network on 1 April 2019.

The authorised income and forecast capacity subscriptions used by CRE lead to an increase in the average rate of GRTgaz of +4.6% on 1 April 2019.

2019 (vs. 2018)	Change in authorised income	Change in capacity subscriptions	Change in average tariff
<b>Changes</b>	<b>+0.8%*</b>	<b>-3.5%</b>	<b>+4.6%</b>

\* including inter-operator repayment

The tariff Decision provides that the charges of the main network will change on 1 April of each year by inflation. CRE retains the CPI included in the 2018 Finance Bill, i.e. +1.6%. As a result, the charges of the regional network will increase by +7.1% (compared to a forecast of +4.5% in the decision of 15 December 2016).

### 2.3.2 Teréga

In its tariff request, Teréga expected an average tariff increase of +6.0%, i.e. +1.6% on the main network and +12.7% on the regional network on 1 April 2019.

The authorised income and forecast capacity subscriptions used by CRE lead to an increase in the average rate of Teréga of +3.0% on 1 April 2019.

2019 (vs. 2018)	Change in authorised income	Change in capacity subscriptions	Change in average tariff
<b>Changes</b>	<b>+10.2%*</b>	<b>+0.9%</b>	<b>+3.0%</b>

\* including inter-operator repayment

The tariff Decision provides that the charges of the main network will change on 1 April of each year by inflation. CRE retains the CPI included in the 2019 Finance Bill, i.e. +1.6%. As a result, the charges of the regional network will change by +5.1% (compared to a forecast of +5.4% in the decision of 15 December 2016).

## 3. GRTGAZ AND TERÉGA NATURAL GAS TRANSMISSION NETWORK USAGE TARIFF, APPLICABLE ON 1 APRIL 2019

### 3.1 Tariff rules

#### 3.1.1 Definitions

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

Physical or notional interconnection point of the main transmission networks of two transmission system operators (TSOs).

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

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

##### LNG Terminal Transport Interface Point (PITTM):

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

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

Physical or notional interface point between a transmission network and a storage grouping.

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

Physical or notional interface point between a transmission network and a gas or biomethane production installation.

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

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

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

**TGES:** charge for the capacity to enter the main network from storage, applicable to the subscription of daily capacity to enter the main network from a PITS;

**TCST:** charge for the output capacity at the transmission network interconnection points, applicable to the subscription of daily output capacity to a network interconnection point (PIR);

**TCS:** charge for the output capacity of the main network, applicable to the subscription of daily output capacity of the main network, except to a PITS or a PIR;

**TCSS:** charge for the output capacity from the main network to storage facilities, applicable to the subscription of daily output capacity from the main network to a PITS;

**TP:** charge for proximity, applicable to the quantities of gas injected into an entry point of the transmission network and extracted into an exit zone in the immediate vicinity of this point;

**TCR:** charge for the transmission capacity on the regional network, applicable to the subscription of daily transmission capacity on the regional network;

**TCL:** charge for the delivery capacity, applicable to the subscription of daily delivery capacity at a delivery point;

**Storage Charge (TS):**

Unit tariff charge intended to cover part of the revenues of underground natural gas storage operators, applicable to shippers assigned firm capacity to a transmission/distribution interface point and depending on the winter modulation of customers connected to a public distribution network.

**Firm capacity:**

Gas transmission capacity whose non-interruptible nature is contractually guaranteed by the TSO.

**Firm climate capacity:**

Gas transmission capacity, the non-interruptible nature of which the TSO guarantees by contract, according to domestic consumption. This definition applies in particular to PITS injection and extraction capacities.

**Backhaul capacity:**

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

**Interruptible capacity:**

Gas transmission capacity that can be interrupted by the TSO according to the conditions stipulated in the transmission contract on the gas transmission network.

**Returnable capacity:**

Firm capacity, which the shipper undertakes to return to the TSO at any time at its request.

**Shipper:**

Natural or legal person who enters into a transmission contract with a TSO on the gas transmission network. The shipper is, as the case may be, the eligible customer, the supplier or their representative.

**Delivery Point (PDL):**

Output point of a distribution network where a distribution system operator delivers gas to an end customer, in execution of a transmission contract on the distribution network. A metering and estimation point (PCE) is usually attached to each PDL, with a unique 14-digit number to identify it. As an exception, a PDL may nevertheless group together several PCEs, if these are downstream of the same individual connection.

**Annual reference consumption (CAR):**

Estimated quantity of gas consumed over a year, in average climatic conditions, for a metering and estimation point (PCE).

**“Non-subscription” customer:**

Customer subject to options T1, T2 and T3 on the usage tariffs for the distribution networks. As these options do not include any capacity subscription charge, these customers’ PDLs are therefore “non-subscription”. Each “non-subscription” PDL is associated with a so-called “standardised” capacity, determined on the basis of its CAR, its profile, the peak temperature 2% of the weather station to which the respective transmission/distribution interface point is attached, and an “A” adjustment coefficient.

**“Subscription” customer:**

Customer subject to options TF, T4 and TP on the usage tariffs for the distribution networks. For these PDLs, the supplier freely reserves the desired capacity.

**Winter share (PH):**

The ratio between the customer’s consumption from November to March inclusive and its consumption over the whole calendar year.

### 3.1.2 Capability subscription

- **Subscription of capacities to PIRs at auction**

The daily transmission capacities at the network interconnection points (PIR) of Taisnières B, Virtualys (Taisnières H and Alveringem), Obergailbach, Oltingue and PIRINEOS can be subscribed to by auction via the PRISMA capacity

marketing platform. These capacities are sold at auction in accordance with the procedures provided for by Regulation (EU) No 984/2013 on the establishment of a network code on the mechanisms for allocating capacity in the gas transmission networks known as the “CAM network code”. Details of the auction procedures and products offered are published by GRTgaz and Teréga on their respective websites or on the PRISMA auction platform.

For information purposes, firm, interruptible and backhaul daily transmission capacity products are available for annual, quarterly, monthly, daily and infra-daily periods.

The reserve auction price is equal to the price set by this decision.

The contracting and invoicing for the PIRs of Taisnières B, Virtualys (Taisnières H and Alveringem), Obergailbach and Oltingue are carried out by GRTgaz.

The contract and invoicing for the PIRINEOS PIR are carried out by Teréga.

- **Subscription of capacities to the Dunkirk and Jura PIRs**

Subscriptions for daily capacity at the Dunkirk PIR and the Jura PIR are subject to specific marketing mechanisms defined according to rules made public on the GRTgaz website.

In particular, at the Dunkirk PIR, firm “returnable” capacities are defined, which the shipper undertakes to return at any time in the event of a request from GRTgaz, for a period of one, two, three or four years.

For any shipper that has subscribed for more than 20% of the firm annual capacity available for sale at the Dunkirk PIR, a fraction of 20% of the share of its subscription above 20% of the firm annual capacity available for sale at this point is converted into refundable capacity.

CRE has changed the way capacity is marketed at the Dunkirk PIR in its decision of 27 July 2017<sup>14</sup>.

- **Subscription of capacities to PITS**

The TSO automatically allocates to the shipper at the Transport Storage Interface Points (PITS) the output and input capacities corresponding to the nominal injection and withdrawal capacities that the shipper holds on a storage grouping, within the limit of the network capacities.

- **Subscription of capacities to PITTM**

Holding regasification capacities at an LNG terminal gives rise to the right and obligation to subscribe to the entry capacities on the transmission network, for corresponding periods and levels. In the specific case of the Dunkirk LNG terminal (the terminal is connected both to the GRTgaz network and the Belgian network) this obligation relates to the sum of the capacities reserved on the GRTgaz network at the Dunkirk PITTM and the capacities reserved from the terminal to Belgium.

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

At the Montoir and Fos PITTMs, any shipper that has subscribed for capacities from the LNG terminal managers is allocated a firm daily entry capacity by the TSO, for the subscription period of the corresponding regasification capacities:

- in the case of subscriptions of multi-annual regasification capacities, the level of the firm daily entry capacity allocated corresponds to a share of the total firm daily input capacity to the PITTM. This share is determined by the ratio:
  - o of the annual regasification capacity subscribed by the shipper at the terminals;
  - o to the total annual firm technical capacity for regasification of the Montoir LNG terminal for the Montoir PITTM or the sum of the total annual firm technical capacity for regasification of the Fos-Cavaou LNG terminal and the total annual fixed capacity for regasification of the Fos-Tonkin terminal for the Fos PITTM;
- in the case of subscriptions for regasification capacity for a period of less than one year, the shipper is assigned one or more bands of firm entry capacity over the period of its subscription, with a minimum duration of 10 days. The capacity level allocated corresponds to the quantity of regasification capacity subscribed, expressed in GWh.

A shipper with regasification capacity subscriptions for a period of less than one year may postpone the date and duration of its subscription, with a notice period of three days (previously seven days) and provided that it retains the full volume of capacity initially subscribed.

<sup>14</sup> Decision of CRE of 27 July 2017 concerning a decision on the evolution of the method of marketing capacity at the PIR Dunkirk, on the evolution of the marketing methods for interruptible capacity, and on the creation of an input capacity at Oltingue



At the beginning of each month, the TSO calculates, for each shipper, the daily emissions of each day of the previous month. If they exceed, for a given day, the capacity held by the shipper, it invoices the latter for an additional daily capacity subscription, at the rate of the daily capacity, equal to the positive difference between the daily transmission and the capacity allocated by the shipper.

Senders are able to transfer their capacities to the PITTM free of charge.

- **Subscription of capacities on exit from the main network and on the regional network**

The reservation of delivery capacities at the delivery points and the Regional Network Interconnection Points (PIRR), of transmission capacities on the regional network and capacities on exit from the main network is made to the TSOs in accordance with the procedures published by the TSOs.

The firm delivery capacities at the Transport Distribution Interface Points (PITD) are allocated automatically by the TSOs. These capacities are calculated by the TSOs, on the basis of data transmitted by the operator of the public gas distribution system. The method for calculating standard delivery capacities is established, on objective and transparent grounds preventing discrimination, and made public.

The shipper is assigned an output capacity of the main network and an equal transmission capacity on the regional network, for each delivery point and for each PIRR, to the delivery capacity at this point.

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

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

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

The surplus capacity auction revenues are equal to the auction premium, in €/MWh/day, multiplied by the capacity sold, in MWh/day.

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

For the period from 1 November 2018 to 30 September 2019, all auction surpluses received over this period will be redistributed in one go, in proportion to the quantities of gas delivered to end consumers connected to the transmission network or distribution network in France from 1 November 2018 to 30 September 2019.

Individual redistribution amounts for the period of 1 November 2018 to 30 September 2019 will be calculated by each TSO and redistributed by invoice in November 2019 at the latest.

On its website, each TSO publishes the unit amount of the surplus auction revenue thus redistributed.

### **3.1.4 Transfer of transmission capacities on the GRTgaz and Teréga networks**

The transport capacities subscribed at the entry points, at the exits to the PIRs and on the connections between the balancing zones are freely transferable without additional cost.

In the event of a complete transfer, the purchaser shall recover all rights and obligations relating to these subscriptions.

In the event of a transfer of right of use, the initial owner retains its obligations towards the TSO. The right of use exchanged may go down to a daily time step, regardless of the duration of the initial subscription.

The right to use downstream transmission capacities, between the PEG and the delivery point to an industrial site directly connected to the transmission network, is assignable in the event that the manufacturer concerned has subscribed to these capacities with the TSO.

The charges of these transfers of transmission capacities are defined by the TSOs, on objective and transparent bases, and made public by the TSOs on their websites.

### 3.2 Tariff grid for the use of the GRTgaz and Teréga networks on 1 April 2019

#### 3.2.1 Authorised income to be collected by the transport tariff

The tariffs and the estimated tariff changes are set, based on assumptions regarding the level of capacity subscriptions, in order to cover the authorised income of each of the TSOs. The 2019 authorised income is described in the following tables.

- GRTgaz authorised income 2019

GRTgaz, in €m <sub>current</sub>	2018	2019
Net operating expenses	777.1	795.3
Change in the Energy and CO <sub>2</sub> quotas item	5.4	15.1
Change in Congestion removal cost item	2.0	1.8
Normative capital charges	1,006.9	1,068.1
Settlement of the balance of the CRCP (previous CRCP balances + 2017 balance + 2018 estimate)	-33.0	-12.2
Inter-operator repayment	-3.0	-18.8
<b>Authorised income before smoothing</b> <i>Change compared to 2018</i>	<b>1,755.5</b>	<b>1,849.2</b> +5.3%
Authorised income smoothed over 4 years	26.4	-54.0
<b>Authorised income</b> <i>Change compared to 2018</i>	<b>1,781.9</b>	<b>1,795.3</b> 0.8%

- Teréga's authorised revenue 2019

Teréga, in €m <sub>current</sub>	2018	2019
Net operating expenses	77.8	79.9
Change in the Energy and CO <sub>2</sub> quotas item	-0.6	-0.6
Change in Congestion removal cost item	0.3	0.2
Normative capital charges	164.9	175.3
Settlement of the balance of the CRCP (previous CRCP balances + 2017 balance + 2018 estimate)	-0.4	+1.4
Inter-operator repayment	3.0	18.8
<b>Authorised income before smoothing</b> <i>Change compared to 2018</i>	<b>245.0</b>	<b>275.0</b> +12.3%
Authorised income smoothed over 4 years	1.1	-3.7
<b>Authorised income</b> <i>Change compared to 2018</i>	<b>246.1</b>	<b>271.3</b> +10.2%

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

##### 3.2.2.1 Tariff for Network Interconnection Points (PIR)

The tariffs applicable to annual subscriptions of daily capacity are defined in the tables below. During auctions, auction reserve prices are equal to these tariffs.

- Main network entry capacity charges (TCE)

Entry to	Scope	TCE (€/MWh/day per year) <i>Annual firm</i>	TCE (coefficient on firm charge) <i>Interruptible annual</i>
<b>Taisnières B</b>	GRTgaz	81.66	50%
<b>Virtualys</b> (Taisnières H)	GRTgaz	104.97	50%
<b>Dunkirk (PIR)</b>	GRTgaz	104.97	50%
<b>Obergailbach</b>	GRTgaz	104.97	50%
<b>Oltingue</b>	GRTgaz	104.97	50%
<b>Pirineos</b>	Teréga	104.97	75%

- Output capacity charges at PIRs (TCST)

Exit at	Scope	TCST (€/MWh/day per year) <i>Annual firm</i>	TCST (fixed charge coefficient) <i>Interruptible annual</i>
<b>Virtualys</b> (Alveringem)	GRTgaz	41.37	Not applicable
<b>Oltingue</b>	GRTgaz	407.02	75%
<b>Jura</b>	GRTgaz	96.53	Not applicable
<b>Pirineos</b>	Teréga	626.95	75%

- Backhaul capacity output charges

Entry to	Scope	Coefficient on firm exit charges <i>Annual backhaul</i>
<b>Virtualys</b> (Alveringem)	GRTgaz	125%

- Backhaul capacity input charges

Exit at	Scope	Coefficient on firm input charge <i>Annual backhaul</i>
<b>Virtualys</b> (Taisnières H)	GRTgaz	20%
<b>Obergailbach</b>	GRTgaz	20%
<b>Taisnières B</b>	GRTgaz	20%

- Returnable capacities

The tariff of a returnable annual capacity is equal to 90% of the tariff of the corresponding annual firm capacity.

**3.2.2.2 Tariff of the LNG Terminal Transport Interface Points (PITM)**

- Main network entry capacity charges (TCE)

Entry to	Scope	TCE (€/MWh/day per year) <i>Firm subscriptions</i>
Dunkirk LNG	GRTgaz	99.14
Montoir	GRTgaz	99.14
Fos	GRTgaz	99.14

### 3.2.2.3 Tariff of the Transport Storage Interface Points (PITS)

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

PITS	Scope	Type of capacity	Entry - CES (€/MWh/day per year) <i>Annual</i>	Exit- TCSS (€/MWh/day per year) <i>Annual</i>
North-West	GRTgaz	Firm climate	9.15	21.39
North-East	GRTgaz	Firm climate	9.15	21.39
North B	GRTgaz	Firm climate	9.15	21.39
Atlantic	GRTgaz	Firm climate	9.15	21.39
South-East	GRTgaz	Firm climate	9.15	21.39
South-West	Teréga	Firm climate	9.15	21.39

### 3.2.2.4 Tariff of the output capacity from the main network to the delivery points

- Main network output capacity charges

Exit from	TCS (€/MWh/day per year) <i>Annual firm</i>	TCS (fixed charge coefficient) <i>Interruptible annual</i>
GRTgaz	91.78	50%
Teréga	91.78	50%

### 3.2.2.5 Regional network transmission tariff

- Regional network transmission capacity charges (TCR)

Regional network	TCR (€/MWh/day per year) <i>Annual firm</i>	TCR (coefficient on firm charge) <i>Interruptible annual</i>
GRTgaz	83.43 x NTR	50%
Teréga	79.64 x NTR	50%

The charge applicable to annual firm subscriptions for daily transmission capacity on the regional network (TCR) is the product of a fixed unit charge and the regional rate level (NTR) of the delivery point in question.

The list of delivery points on the GRTgaz and Teréga network, accompanied by their exit zone and their NTR value, is provided in Appendix 3 of this document.

When a new delivery point is created, GRTgaz or Teréga calculate the value of the NTR in a transparent and non-discriminatory manner, based on a calculation method published on their respective websites.

- Delivery capacity charges (TCL)

Transport network	Type of delivery point	TCL (€/MWh/day per year)	TCL (coefficient on firm charge)
		Annual firm	Interruptible annual
GRTgaz	End consumer connected to the transmission network	33.20	50%
	Highly-modulated end consumer <sup>12</sup> connected to the transmission network	34.71	50%
	PIRR	42.62	Not applicable
	PITD	49.01	Not applicable
Teréga	End consumer connected to the transmission network	28.86	50%
	PITD	52.15	Not applicable

If several shippers simultaneously supply an end consumer connected to the transmission network or a PIRR, the fixed charge is allocated pro rata to their subscriptions of delivery capacity.

The tariff for delivery to the PITD includes, from 1 April 2017, for GRTgaz, charges relating to the repair, renewal and replacement operations (known as “3R operations”) of the equipment of the delivery points, and for Teréga, charges for the operating, maintenance, repair of the stations and connections as well as the identical renewal of the points.

Pursuant to the standardised PITD transmission capacity subscription system, on each PITD, the annual firm delivery capacity (“standardised capacity”) is allocated to each shipper by the TSOs. It is equal to the sum of:

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

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

- Fixed charges by delivery point

Shippers supplying end consumers connected to the transmission network and the PIRRs pay a fixed charge per delivery point:

Fixed charge per point	€/point per year
GRTgaz	6,406.38
Teréga	3,192.19

### 3.2.3 Storage tariff charge based on winter adjustment (TS)

#### 3.2.3.1 Amount of compensation to be received

The amount of compensation to be received by an operator of underground natural gas storage infrastructures and collected by the TSOs corresponds to the difference between (i) the operator’s authorised income for 2019, set by CRE in its decision of 13 December 2018<sup>13</sup>, and (ii) income forecasts received directly by the operator for 2019. This calculation is made for each operator. It makes it possible to define the share of the compensation paid by each TSO to each operator by considering the ratio between the operator’s forecast annual compensation and the total forecast annual compensation.

<sup>12</sup> Consumers with a daily average modulated volume of more than 0.8 GWh per day of operation (see paragraph 17)

<sup>13</sup> Decision of the Energy Regulatory Commission regarding the change in the tariff for use of the Storengy, Teréga and Géométhane underground natural gas storage infrastructures for 2019

The amounts that will be used by CRE to calculate the 2019 compensation are as follows:

- (i) for the authorised income, CRE retains the amount set in its decision of 13 December 2018;
- (ii) for forecast revenues directly received by the storage operators, CRE retains in particular:
  - a. revenue received by the storage operators for storage capacity and additional services for 2018-2019, for the first 3 months of 2019;
  - b. revenue received by the operators for storage capacity and additional services for 2019-2020, for the last 9 months of 2019.

The compensation amount is calculated annually. It will be set in a decision of CRE at the end of March 2019.

### 3.2.3.2 Calculation of the compensation base

Any shipper assigned firm delivery capacity to at least one Transport Distribution Interface Point (PITD) is subject to a storage tariff charge (TS) based on the winter modulation of its customers connected to the public gas distribution networks, in its portfolio on the 1<sup>st</sup> day of each month. This adjustment is calculated on the basis of data transmitted by the public gas distribution network operators. This charge aims to recover part of the revenues of the underground natural gas storage operators.

The base for collecting the compensation to be received from each shipper is defined as the sum of the bases of each of its customers connected to the gas distribution networks.

Each 1<sup>st</sup> day of the month, for each customer, the level of winter modulation is determined as follows:

$$\text{Customer modulation (MWh/j)} = \text{Max}(0; \text{CJN} - \frac{\text{CAR}}{365} - \text{Int})$$

Where:

- the Annual Reference Consumption (CAR) is the estimate of the annual consumption of a Metering and Estimation Point (PCE) in a climatically average year;
- the Normalised Daily Capacity (NGC) is defined according to the type of customer:

“non-subscription” customer:

$$\text{CJN} = A. z_i. \text{CAR}$$

Where:

- o A is a coefficient reflecting the ratio between the so-called “standardised” capacities, calculated by the TSOs for the “non-subscription” PDLs, supplied downstream of a given PITD, for each DSO in each balancing zone and, over the same perimeters, the peak daily consumption of these PDLs calculated by the DSOs’ profiling algorithm;
- o Zi coefficient: conversion coefficient taking into account the weather station and consumption profile of the consumer. The method for allocating profiles is available on the GTG website<sup>14</sup>.

subscription customer: the CJN is equal to its subscribed daily transmission capacity (CJA) on the 1<sup>st</sup> day of the month.

- Int: capacities that would be contracted as interruptible by a customer, subject to the implementation of an interruptibility system.

By way of exception, the customer modulation is set at 0 MWh/d for customers:

- declared disconnectable: customers having declared themselves to be disconnectable during the survey conducted by the distribution network operators<sup>15</sup>;
- counter-modulated: customers with a P013 (Winter Share less than or equal to 39%) or P014 (Winter Share between 39% and 50%) profile. The profiles are assigned by the DSOs according to the methodology published on the GTG site<sup>16</sup>.

The operators of public gas distribution networks shall transmit to the TSOs the data necessary to calculate the level of winter modulation, as defined above.

<sup>14</sup> Calculation of Zi coefficients

<sup>15</sup> [GRDF disconnectability questionnaire](#)

<sup>16</sup> [Table of profiles applicable from 1 April 2018 to 31 March 2019](#)

In some cases, particularly for certain DSOs that do not have information on the consumption profile of their historical customers, certain data (CAR, profiles) may not be available. The TSOs may replace the CAR with an equivalent based on the overall PITD CAR estimate.

Finally, in the event that a DSO does not transmit the data necessary to calculate the base for customers within its scope, the TSO will apply, for these customers in question, a method based on the subscribed capacity. This calculation will be corrected a posteriori, once the DSO sends the data.

The forecast value of this compensation base for 2019 will be specified in a subsequent decision of CRE at the end of March 2019.

### 3.2.3.3 Calculation of storage tariff charge

The storage tariff charge is calculated as the ratio between the forecast amount of the compensation at the France level and the forecast value of the base for the collection of this compensation. CRE will set the level of storage charge applicable on 1 April 2019 in March 2019 in order to take into account the revenues of the 2019-2020 storage auctions.

## 3.2.4 Tariff multipliers for subscriptions of transmission and delivery capacity of less than one year

### 3.2.4.1 At the Network Interconnection Points (PIR)

Capacity	Special conditions	Coefficient
Quarterly	In the event of congestion	1/4 of the annual charge
	Without congestion	1/3 of the annual charge
Monthly	In the event of congestion	1/12 of the annual charge
	Without congestion	1/8 of the annual charge
Daily	Not applicable	1/30 of the monthly charge
Infra-daily	Not applicable	Pro-rata of daily charge to the number of remaining hours

A point is considered congested if, when allocating annual firm products at auction, the selling price of the capacities is strictly higher than the reserve price.

### 3.2.4.2 At the LNG Terminal Transport Interface Points (PITTM)

Capacity	Coefficient
Daily	1/365 of the annual charge

### 3.2.4.3 At the Transport Storage Interface Points (PITS)

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

### 3.2.4.4 On exit from the main network, on the regional network and on delivery

Capacity	Special conditions	Coefficient
Monthly	January - February	8/12 of the annual charge
	December	4/12 of the annual charge
	March - November	2/12 of the annual charge
	April – May – June – September – October	1/12 of the annual charge
	July - August	0.5/12 of the annual charge
Daily	Not applicable	1/30 of the monthly charge

#### - Subscription of hourly delivery capacities

Hourly delivery capacities only apply to end consumers connected to the transmission network.

Any annual, monthly or daily subscription of daily delivery capacity gives entitlement to an hourly delivery capacity equal to 1/20<sup>th</sup> of the subscribed daily delivery capacity (except in special cases where this hourly capacity is not available).

To benefit, to the extent possible, from a higher hourly capacity, the shipper must pay an additional price  $p$ , equal to:

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

Where:

$C_{max}$ : Delivery time capacity requested by the shipper;

$C$ : Hourly delivery capacity reserved through the annual, monthly or daily subscription of daily delivery capacity;

$TCL$ : Annual, monthly or daily charge of daily delivery capacity;

$TCR$ : Annual, monthly or daily charge of daily transmission capacity on the regional network.

### 3.2.5 Tariffs applicable to annual subscriptions for gas injection capacity on the transmission network from a gas production facility

The charges applicable to annual subscriptions for daily input capacity on the TSOs networks from the Transport Production Interface Points (PITP) are as follows:

- for PITPs whose network entry capacity is less than or equal to 5 GWh/d, the applicable charge is €9.64/MWh/day per year;
- for PITPs whose network entry capacity exceeds 5 GWh/d, the definition of the applicable charge is the subject of a specific study and decision;
- for PITPs concerning installations producing biomethane whose network entry capacity is less than or equal to 5 GWh/d, the applicable charge is equal to 0.

### 3.2.6 Notional gas exchange point tariff

The operating procedures of the notional gas exchange point (PEG) are defined by the TSOs, on the basis of objective and transparent criteria, and made public on their websites.

The tariff of access to the gas exchange point includes:

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

From 1 November 2018, the date of the implementation of the single market zone, the transmission contracts signed with the TSOs are maintained. Senders who initially hold the fixed charge of delivery to the PEG Nord or *Trading Region South* (TRS) benefit from access to the PEG, at the fixed price of €6,000/year and at the variable price of €0.01/MWh delivered.



Gas exchanges carried out on an electronic platform may be the subject of deliveries to a gas exchange point by an entity responsible for offsetting the exchanges carried out on the said electronic platform. Nominations to the PEG of such an entity for compensation purposes, neutral to the market, are not subject to the charge proportional to the quantities exchanged.

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

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

For existing sites, GRTgaz evaluates this criterion on the basis of the consumption history of the previous year. For newly connected sites, this criterion is assessed on the basis of the modulated daily volume on the days of operation declared by the site, then on the basis of a quarterly assessment, with retroactivity to the previous period once the criterion is met.

The operator of the site for which the intra-day flexibility service is subscribed declares to the TSO an hourly consumption profile the day before for the following day and, if applicable, a new profile during the day while respecting the published notice periods. For any change in the hourly consumption of the site lower than  $\pm 10\%$  of its contracted hourly capacity, the site benefits from a tolerance allowing it not to notify the TSO of its new hourly consumption profile.

The intra-day flexibility service is not invoiced.

### 3.2.8 Short-notice interruptible transmission offer of GRTgaz

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

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

To benefit from this offer, the customer concerned must make a commitment to GRTgaz, before the decision to connect, to subscribe or have this offer subscribed by a shipper.

This offer provides for a reduction or interruption of supply to the sites concerned at the request of GRTgaz, with 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 the daily delivery capacity of the sites benefiting from this interruptible offer in the scope of this entry point;
- the temperature of the day is below the average daily temperature likely to be statistically achieved or exceeded by more than 20 days per year, at a risk of 2%.

The interruption conditions are defined by GRTgaz, on objective and transparent bases preventing any discrimination, and made public on its website.

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

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

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

- interruptible transmission on the regional network;
- the proximity charge for customers located in the "Dunkirk Region", "Taisnières H Region", "Obergailbach Region";
- the temporary offer of short-notice interruptible transmission in the GRTgaz South zone.

The termination of this optional offer is subject to a minimum notice period of four years.

### 3.2.9 Proximity charge

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

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

Scope	Entry point	Associated output zone	TP (€/MWh)
GRTgaz	Taisnières B	Taisnières B region	0.17
GRTgaz	Taisnières H	Taisnières H region	0.23
GRTgaz	Dunkirk	Dunkirk Region	0.23
GRTgaz	Obergailbach	Obergailbach Region	0.23

### 3.2.10 Gas quality conversion

#### 3.2.10.1 H gas into L gas peak conversion service

An annual firm “peak” conversion service for H gas to L gas is marketed by GRTgaz. This service is accessible to all shippers with H gas within the TRF.

The level of this tariff is defined in the following table:

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

The operating rules of the H gas to L gas quality conversion service are defined by GRTgaz, on objective and transparent bases preventing any discrimination and made public on its website.

#### 3.2.10.2 H gas into L gas conversion service

The service for converting L gas into H gas is accessible to shippers supplying their own L gas from the Taisnières B PIR and/or the North B PITS, within the limit of the physical quantities of L gas concerned.

The tariff of the L gas to H gas quality conversion service is as follows:

- for the interruptible annual offer, of a charge proportional to the annual capacity subscription equal to €23.32/MWh/day per year;
- for the interruptible monthly offer, of a charge proportional to the monthly capacity subscription equal to €2.91/MWh/day per month;
- for the firm daily offer, of a charge proportional to the daily capacity subscription equal to €0.19/MWh/day.

#### 3.2.10.3 Penalty for daily balance sheet gap in scope B

Scope B is open to all shippers and consists of Taisnières B, North B storage, the peak converter of H gas to L gas, L gas to H gas adaptors and the delivery point of the H gas to L gas exchange service.

Shippers using gas infrastructure B have a balance sheet obligation at a daily time step on scope B. Penalties apply in the event of non-compliance with their short or long balance sheet obligation. The penalties that apply are as follows:

Balance sheet gap in scope B	Threshold	Price for Scope B
Positive (long) balance sheet gap below the threshold	5 GWh	€1/MWh
Positive (long) balance sheet gap above the threshold		€30/MWh
Negative balance sheet gap (short) below the threshold	1 GWh	€3.35/MWh
Negative balance sheet gap (short) above the threshold		€30/MWh

### 3.2.10.4 Check of nominations on the physical infrastructure of network B

In circumstances where the physical balancing of network B requires it, GRTgaz may require shippers who hold capacity on the physical infrastructure of the transmission network B to revise their nominations on this infrastructure upwards or downwards.

#### 3.2.11 Balancing service based on stock in the pipeline

GRTgaz and Teréga market a balancing service based on the stock in the pipeline, whose subscription price is equal to €0.12/MWh/d/month<sup>17</sup> for any industrial site delivery point directly connected to the transmission network or for any non-profiled site delivery point attached to a PITD. The subscription price for this service is subject to a 50% price discount for any profiled site delivery point connected to a distribution network.

#### 3.2.12 Penalties for exceeding capacity

##### 3.2.12.1 Penalties for exceeding daily capacity

- **Methods for calculating penalties for exceeding daily capacity**

Every day, the daily excess capacity for exiting the main transmission network on the regional and delivery network noted are subject to penalties.

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

For the share of the excess exceeding 3%, the calculation of the penalties is based on the price of the firm daily subscription capacity, as follows:

- for the share of the excess between 3% and 10%, the penalty is equal to 20 times the price of the firm daily subscription capacity;
- for the share of the excess exceeding 10%, the penalty is equal to 40 times the price of the firm daily subscription capacity.

The TSOs allow the shippers to quickly adjust their capacity subscriptions when capacity is exceeded, subject to network availability.

- **Methods for calculating daily capacity excesses**

- Excess of daily regional transmission and delivery capacity for end consumers connected to the transmission network and the PIRRs:

For a given day, the daily capacity excess value taken into account is equal to the difference, if positive, between the quantity of gas delivered and the daily delivery capacity subscribed to.

- Excess of daily regional transmission and delivery capacity for the PITDs:

For a given day, the daily capacity excess value taken into account is equal to the difference, if positive, between the following two values:

- the value of the difference between the daily quantity of gas delivered and the corresponding daily delivery capacity, if this difference is positive, or zero if this difference is negative;
- the value of the difference between the sum of the daily quantities delivered to “non-subscription” PDLs and the sum of the standardised capacities for “non-subscription” PDLs, if this difference is positive, or zero if this difference is negative.

- Excess of daily main network output capacity:

For a given day, the daily capacity excess value taken into account is equal to the difference, if positive, between the following two values:

- the value of the difference between the daily quantity of gas delivered and the corresponding daily main network output capacity, if this difference is positive, or zero if this difference is negative;
- the value of the difference between the sum of the daily quantities delivered in the exit zone to “non-subscription” PDLs and the sum for output zone for the standardised “non-subscription” PDLs, if this difference is positive, or zero if this difference is negative.

<sup>17</sup> On the details of this service, see the decision of CRE of 9 September 2015 on the change of the balancing rules on the gas transmission networks on 1 October 2015

If the interruptibility is exercised by the TSO, the above excess calculations are made by reducing the interruptible capacity of the interrupted share requested by the TSO.

- **Penalties for exceeding hourly capacity**

Every day, excesses in hourly transmission capacity on the regional and delivery network, for the supply of end consumers connected to the transmission network, are subject to penalties. For a given day, exceeding the hourly capacity is calculated by considering the maximum hourly average value of the quantities delivered to the delivery point concerned over four consecutive hours.

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

For the share of the excess exceeding 10%, the calculation of the penalties is based on the price of the daily hourly capacity subscription, as follows:

- for the share of the excess between 10% and 20%, the penalty is equal to 45 times the price of the daily hourly capacity subscription;
- for the share of the excess exceeding 20%, the penalty is equal to 90 times the price of the firm daily capacity subscription.

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

- **Annual redistribution of penalties for exceeding capacity**

Each TSO redistributes the amount of the penalties for exceeding capacity collected each year, at the latest in June of the following year.

For each TSO, the amount of penalties to be redistributed is distributed among the shippers in proportion to the quantities of gas delivered to end consumers connected to the transmission network and to PIRRs. Each TSO publishes on its website the unit amount of penalties thus redistributed, expressed in euros per MWh consumed by end consumers connected to the transmission system.

### **3.3 TSO Tariff gridchanges from 1 April 2020**

Pursuant to the provisions of Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on the harmonisation of tariff structures for the transport of gas in the European Union (known as the Tariff Network Code), CRE plans to carry out work on the tariffs for the use of the transmission networks in 2019, for entry into force on 1 April 2020. The ATRT6 tariff will therefore end on 31 March 2020.

#### **3.3.1 Consideration of the balance of the CRCP**

The overall balance of the CRCP is equal to the amount to be paid to or deducted from the CRCP for the past year and the previous year, to which is added the balance of the CRCP not cleared for previous years.

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

GRTgaz, in € <sub>current</sub>	Rate	2018	2019
“Downstream” transmission revenue	100%	1,341	1,410
“Upstream” transmission revenue	80%	441	385
CCCG and TAC connection revenue	100%	3	6
Normative “network” capital charges	100%	909	964
Motive energy expenses and difference between revenues and expenses related to CO <sub>2</sub> quotas	80%	92	102
Expenses in respect of the H-L conversion service (change in volumes converted)	100%	51	56
Expenses incumbent on GRTgaz following the pilot project to convert the zone supplied with L gas into H gas	100%	0	0
Expenses related to the separation of R&D activities and those of the parent company	100%	3	1
Revenue from services for third parties related to major regional development projects	100%	34	32
Expenses related to the removal of congestion	100%	2	2
Any expenses relating, where applicable, to the remuneration of consumers connected to the transmission network related to the implementation of the provisions of Article L.431-6-2 of the Energy Code	100%	0	0
Expenses and income relating to the contract between GRTgaz and Teréga (expense)	100%	34	34
Inter-operator repayment between GRTgaz and Teréga (income)	100%	3	19

Teréga, in €M <sub>current</sub>	Rate	2018	2019
“Downstream” transmission revenue	100%	147	153
“Upstream” transmission revenue	80%	99	118
CCCG and TAC connection revenue	100%	0	0
Normative “network” capital charges	100%	143	155
Motive energy expenses and difference between revenues and expenses related to CO <sub>2</sub> quotas	80%	6	8
Revenue from services for third parties related to major regional development projects	100%	0	0
Expenses related to the removal of congestion	100%	0.3	0.2
Any expenses relating, where applicable, to the remuneration of consumers connected to the transmission network related to the implementation of the provisions of Article L.431-6-2 of the Energy Code	100%	0	0
Expenses and income relating to the contract between GRTgaz and Teréga (income)	100%	34	34
Inter-operator repayment between GRTgaz and Teréga (expense)	100%	3	19

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

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

An interest rate equivalent to the risk-free rate, i.e. 2.7%, applies annually to the CRCP's overall balance.

**DECISION**

In accordance with the decision of the Energy Regulation Commission of 15 December 2016 concerning the tariff for the use of the natural gas transmission networks of GRTgaz and Teréga, the ATRT6 tariff changes on 1 April 2019.

This decision defines the changes from 1 April 2019 of the tariff grids applying to the natural gas transmission networks of GRTgaz and Teréga.

Pursuant to the procedures defined in paragraph 1.2.2 of the above-mentioned decision of the Energy Regulatory Commission of 15 December 2016, and taking into account investment expenditure needed to merge zones, a reduction in capacity subscriptions, as well as the change in inflation, the impact of the revision of the procedures for accessing zone B, and the change in energy charges and congestion treatment costs, the average tariff changes on 1 April 2019 are as follows:

- an average increase in the GRTgaz rate of +4.6%, i.e. +1.6% on the main network and +7.1% on the regional network.
- an average increase in the Teréga rate of +3.0%, i.e. +1.6% on the main network and +5.1% on the regional network.

This decision will be published in *Journal officiel* [Official Journal] of the French Republic and on the CRE website. It will be notified to GRTgaz and Teréga, and sent to the Minister of State, the Minister of the Ecological and Solidarity Transition as well as to the Minister of the Economy and Finance.

**Deliberated in Paris, on 13 December 2018.**

**For the French Energy Regulatory Commission,**

**The Chairman,**

**Jean-François CARENCO**

**APPENDIX 1: SUMMARY TABLE OF THE TARIFF GRID ON 1 APRIL 2019**

This appendix summarises the main tariff charges presented in section 3.

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

Annual fixed charge: €6,000/year

Variable charge: €0.01/MWh exchanged

**Main charges applicable to the Principal network**

Entry at Network Interconnection Points (PIR)	Capacity charge (€/MWh/d/year)		
	Firm	Interruptible	Back-haul
GRTgaz - Taisnières B	81.66	50%	20%
GRTgaz - Virtualys (Taisnières H)	104.97	50%	20%
GRTgaz - Dunkirk	104.97	50%	
GRTgaz - Obergailbach	104.97	50%	20%
GRTgaz - Oltingue	104.97	50%	
Teréga - PIRINEOS	104.97	75%	

Exit at Network Interconnection Points (PIR)	Capacity charge (€/MWh/d/year)		
	Firm	Interruptible	Back-haul
GRTgaz - Virtualys (Alveringem)	41.37		125%
GRTgaz - Oltingue	407.02	75%	
GRTgaz - Jura	96.53		
Teréga - PIRINEOS	626.95	75%	

Entry at LNG Terminal Interconnection Points (PITM)	Capacity charge (€/MWh/d/year)
	Firm
GRTgaz - LNG Dunkirk	99.14
GRTgaz - Montoir	99.14
GRTgaz - Fos	99.14

Entry/exit at Storage Transport Interface Points (PITS)	Capacity charge (€/MWh/d/year)	
	Entry	Exit
GRTgaz - North-West, North-East, North B, South-East, Atlantic	9.15	21.39
Teréga - South-West	9.15	21.39

Output from main network to delivery points (TCS)	Capacity charge (€/MWh/d/year)	
	Firm	Interruptible
GRTgaz	91.78	50%
Teréga	91.78	50%



**Main charges applicable to the regional networks**

Regional network transmission capacity (TCR)	Capacity charge (€/MWh/d/year)	
	Firm	Interruptible
GRTgaz	83.43 X RTR	50%
Teréga	79.64 X RTR	50%

*The Regional Rate Level (NTR) is defined per delivery point from 0 to 10*

Delivery capacity (TCL)	Capacity charge (€/MWh/d/year)	
	Firm	Interruptible
GRTgaz - End consumer connected to the transmission network	33.20	50%
	34.71	50%
GRTgaz - PIRR	42.62	
GRTgaz - PITD	49.01	
Teréga - End consumer connected to the transmission network	28.86	50%
Teréga- PITD	52.15	

Delivery point	Charge by point (€/point/year)
	Firm
GRTgaz	6,406.38
Teréga	3,192.19

**APPENDIX 2: TSO QUALITY OF SERVICE MONITORING INDICATORS**

In accordance with the principles defined in the methodology section of this tariff decision, a service quality monitoring mechanism is put in place for the two TSOs in the key areas of their activity. This monitoring consists of indicators sent each month by the TSOs to CRE and made public on their websites.

Certain indicators that are particularly important for the proper functioning of the market are subject to a financial incentive system.

The following indicators are subject to financial incentives:

- quality of the quantities measured at the PITDs and transmitted to the DSOs the following day for the calculation of the provisional allocations;
- quality of daily quantities remotely read at the delivery points of consumers connected to the transmission network and transmitted the following day;
- quality of the intra-day quantities recorded at the delivery points of consumers connected to the transmission network and transmitted during the day;
- quality of the overall gas end-of-day consumption forecasts produced the day before and during the day;
- monitoring the provision of the five most useful pieces of information for balancing on the TSOs' public sites.

The following indicators are monitored without financial incentives:

- availability rate of user portals and public TSO data platforms;
- reliability of the projected stock in pipeline indicator published by the TSOs on their public page;
- reduction in available capacity;
- reduction in subscribed capacity;
- compliance with the annual maintenance programme published at the beginning of the year by the TSO;
- compliance with the binding maintenance programme published in M-2 [2 months before] by the TSO;
- compliance with the best non-binding maintenance forecast published in M-2 by the TSO;
- greenhouse gas emissions;
- greenhouse gas emissions in relation to the volume of gas transported.

The system for regulating service quality may change during the ATRT6 tariff period. It may be subject to any audit that CRE deems useful.

The TSOs are authorised to neutralise one day per year for the calculation of indicators, when a major version of an application contributing to the production of said indicators is commissioned. They are required to provide market participants with one month's notice of the indicative commissioning date, then to confirm one week before the effective date of such commissioning.

**1. Indicators for monitoring the quality of service of the TSOs giving rise to a financial incentive**

**1.1 Quality of the quantities measured at the PITDs and transmitted to the DSOs the following day for the calculation of the provisional allocations**

<b>Calculation:</b>	<b>Number of non-compliant days<sup>(1)</sup> by scope and by month</b> a value monitored by scope: i.e. a value monitored by GRTgaz and a value monitored by Teréga)
<b>Scope:</b>	<ul style="list-style-type: none"> <li>- all shippers combined</li> <li>- all DSOs combined</li> <li>- by scope</li> </ul>
<b>Monitoring:</b>	<ul style="list-style-type: none"> <li>- calculation frequency: monthly</li> <li>- frequency of reporting to CRE: monthly</li> <li>- publication frequency: monthly</li> <li>- frequency of calculation of financial incentives: monthly</li> </ul>
<b>Objective:</b>	<p><b>GRTgaz:</b></p> <ul style="list-style-type: none"> <li>- basic objective: 1 non-compliant day per month</li> <li>- target objective: 0 non-compliant day per month</li> </ul> <p><b>TERÉGA:</b></p> <ul style="list-style-type: none"> <li>- basic objective: 1 non-compliant day per month</li> <li>- target objective: 0 non-compliant day per month</li> </ul>
<b>Incentives:</b>	<p><b>GRTgaz:</b></p> <ul style="list-style-type: none"> <li>- penalties/month: <ul style="list-style-type: none"> <li>• €40k for the 2<sup>nd</sup> non-compliant day;</li> <li>• €60k per non-compliant day, from the 3<sup>rd</sup> non-compliant day;</li> </ul> </li> <li>- bonus/month: €50k if the target is achieved;</li> <li>- cap: the total annual amount, corresponding to the sum of the penalties to be paid and the bonuses to be received by GRTgaz, is limited to +/- €600k per year.</li> </ul> <p><b>TERÉGA:</b></p> <ul style="list-style-type: none"> <li>- penalties/month: <ul style="list-style-type: none"> <li>• €20k for the 2<sup>nd</sup> non-compliant day;</li> <li>• €30k per non-compliant day, from the 3<sup>rd</sup> non-compliant day;</li> </ul> </li> <li>- bonus/month: €25k if the target is achieved;</li> <li>- cap: the total annual amount, corresponding to the sum of the penalties to be paid and the bonuses to be received by Teréga, is limited to +/- €300k per year.</li> </ul>
<b>Date of implementation</b>	<ul style="list-style-type: none"> <li>- 1 April 2016</li> </ul>

(1): For a given scope, day D of month M is non-compliant 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 the transmission/distribution interface points in the scope on this day D and sent to the DSOs on the day D+1 of month M;
- the definitive measurement of the quantity of gas delivered to all the PITDs in the scope on this day and sent to the DSOs on the 20th day of month M+1.

**1.2 Quality of daily quantities remotely read at the delivery points of consumers connected to the transmission network and transmitted the following day**

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

(4): Information is said to be of very good quality if the difference, in absolute value, between the measurement of the energy of day D transmitted on day D+1 and the final measurement of day D transmitted in M+1 is strictly less than 1%. If the difference is between 1% and 3% (respectively strictly greater than 3%), the value is of good quality (respectively poor quality).

**1.3 Quality of intra-day quantities measured at the delivery points of consumers connected to the transmission network and transmitted during the day**

<b>Calculation:</b>	<ul style="list-style-type: none"> <li>- <b>Very good information rate<sup>(1)</sup></b></li> <li>- <b>Good quality information rate</b></li> <li>- <b>Poor information rate</b></li> </ul> <p>(three values monitored by GRTgaz and Teréga per hour)</p>
<b>Scope:</b>	<ul style="list-style-type: none"> <li>- calculation for the following time slots: 6:00-10:00, 6:00-14:00, 6:00-18:00, 6:00-22:00 and 6:00-01:00</li> <li>- all shippers combined</li> <li>- all ZETs combined</li> <li>- all remotely-read industrial delivery points combined</li> <li>- percentage rounding</li> </ul>
<b>Monitoring:</b>	<ul style="list-style-type: none"> <li>- calculation frequency: monthly</li> <li>- frequency of reporting to CRE: monthly</li> <li>- publication frequency: monthly</li> <li>- frequency of calculation of financial incentives: monthly</li> </ul>
<b>Incentives:</b>	<p>The financial incentive concerns the average, for all hourly periods combined, of very good and poor quality information rates.</p> <p><b>GRTgaz:</b></p> <ul style="list-style-type: none"> <li>- penalties/month: €20k per percentage of poor-quality information;</li> <li>- bonus/month: €1k per percentage of very good quality information;</li> <li>- Cap: the total annual amount, corresponding to the sum, for all hourly periods, of the penalties to be paid and the bonuses to be received by GRTgaz, is limited to more or less €600k per year.</li> </ul> <p><b>TERÉGA</b></p> <ul style="list-style-type: none"> <li>- penalties/month: €10k per percentage of poor-quality information;</li> <li>- bonus/month: €500 per percentage of very good quality information;</li> <li>- Cap: the total annual amount, corresponding to the sum, over all hours, of the penalties to be paid and the bonuses to be received by TERÉGA, is limited to more or less €300k per year.</li> </ul>
<b>Date of implementation</b>	<ul style="list-style-type: none"> <li>- 1 April 2014</li> </ul>

(1): Information is said to be of very good quality if the difference, in absolute value, between the energy measurement of the time slot of day D transmitted on day D and the definitive energy measurement of the time slot of day D transmitted in M+1 is strictly less than 1%. If the difference is between 1% and 3% (respectively strictly greater than 3%), the value is of good quality (respectively poor quality). If the difference is less than 100 kWh, the information is of very good quality.

### 1.4 Quality of the overall gas end-of-day consumption forecasts produced the day before and during the day

<b>Calculation:</b>	<ul style="list-style-type: none"> <li>- <b>Very good information rate<sup>(1)</sup></b></li> <li>- <b>Good quality information rate</b></li> <li>- <b>Poor information rate</b></li> </ul> <p>(one rate per scope for the values published the previous day and during the day, i.e. 3 values monitored by GRTgaz and 3 values monitored by Teréga)</p>
<b>Scope:</b>	<ul style="list-style-type: none"> <li>- all shippers combined</li> <li>- one value per scope</li> <li>- rounded to one decimal place</li> </ul>
<b>Monitoring:</b>	<ul style="list-style-type: none"> <li>- calculation frequency: monthly</li> <li>- frequency of reporting to CRE: monthly</li> <li>- publication frequency: monthly</li> <li>- frequency of calculation of financial incentives: monthly</li> </ul>
<b>Incentives:</b>	<p>The financial incentive concerns the average of very good and poor information rates.</p> <p><b>GRTgaz:</b> For values published the previous day (D-1) and during the day (D):</p> <ul style="list-style-type: none"> <li>- penalties: €80 per tenth of a percentage of poor-quality information;</li> <li>- bonus: €20 per tenth of a percentage of very good quality information;</li> <li>- cap: the total annual amount, corresponding to the sum of the penalties to be paid and the bonuses to be received by GRTgaz, is limited to more or less €600k in total per year.</li> </ul> <p><b>Teréga:</b> For values published the previous day (D-1) and during the day (D):</p> <ul style="list-style-type: none"> <li>- penalties: €40 per tenth of a percentage of poor-quality information;</li> <li>- bonus: €10 per tenth of a percentage of very good quality information;</li> <li>- cap: the total annual amount, corresponding to the sum of the penalties to be paid and the bonuses to be received by Teréga, is limited to more or less €300k in total per year.</li> </ul>
<b>Date of implementation:</b>	<ul style="list-style-type: none"> <li>- 1 April 2014</li> </ul>

(1): with regard to the forecast made the previous day, information is said to be of very good, good and poor quality, respectively, if the difference, in absolute value, between the following values is strictly less than 4%, between 4% and 7% respectively and strictly greater than 7%:

- the day D consumption forecast published the previous day at 17.00;
- the definitive measurement of the energy consumed on day D transmitted on the 20th day of M+1.

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

- the day D consumption forecast published on day D at 15.00;
- the definitive measurement of the energy consumed on the day D.

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

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

An indicator to monitor the regular update of the five most important pieces of information published on the TSOs' public sites was introduced on 1 April 2016. This indicator is now encouraged.

The 5 pieces of information monitored by this indicator are as follows:

Information	Frequency of publication	Checking frequency	Quality threshold
<b>Projected stock in pipeline</b>	Once an hour with a one-hour delay	Once per hour <sup>(1)</sup> (publication of the information or not at H+1:15)	<b>Monitored value: availability rate before H+1:15</b>
<b>Forecast imbalance</b>	Once an hour with a one-hour delay	1 time per hour <sup>(1)</sup>	<b>Monitored value: availability rate before H+1:15</b>
<b>Imbalance settlement price</b>	Hourly, each time Powernext is updated	1 check per hour <sup>(1)</sup>	<b>Monitored value: average of the overall monthly availability rates for each price</b> (weighted average price, marginal selling price, marginal purchase price)
<b>Overall consumption forecast per scope D and D+1</b>	-15.00: D forecasts -17.00: D+1 forecasts	Twice per day (publication of information or not at H+15 for 15:00 and 17:00)	<b>Monitored value: availability rate before H+15</b>
<b>PIRINEOS E and L allocations</b>	Daily, before 13:00	Once per day <sup>(2)</sup>	Indicator indexed to the presence of the data every day at 14.00. <b>Monitored value: availability rate before 14:00</b>
<b>Incentives:</b>	<p>Once a month, each TSO calculates the average of all monitored values. The incentive relates to this average as a percentage rounded to one decimal place.</p> <p><b>GRTgaz:</b></p> <ul style="list-style-type: none"> <li>- if this average is equal to 100%, the bonus is €40k/month;</li> <li>- if this average is 95% or less, the penalty is €40k/month;</li> <li>- if this average is between 95% and 100%, the bonus/penalty applied is linear between the two values above: <math>incentive = average \times 1,600 - 1,560</math>, expressed in €k;</li> <li>- cap: the total annual amount, corresponding to the sum of the penalties to be paid and the bonuses to be received by GRTgaz, is limited to +/- €600k per year.</li> </ul> <p><b>Teréga:</b></p> <ul style="list-style-type: none"> <li>- if this average is equal to 100%, the bonus is €20k/month;</li> <li>- if this average is less than or equal to 95%, the penalty is €20k/month;</li> <li>- if this average is between 95% and 100%, the bonus/penalty applied is linear between the two values above: <math>incentive = average \times 800 - 780</math>, expressed in €k;</li> <li>- cap: the total annual amount, corresponding to the sum of the penalties to be paid and the bonuses to be received by TERÉGA, is limited to +/- €300k per year.</li> </ul>		
<b>Date of implementation:</b>	- 1 April 2016		

(1) These checks are carried out every hour except those of the 0:00-6:00 time slot.

(2) The days for which this value has changed after its first publication will be counted as days with no data.

## 2. Other indicators for monitoring the quality of service of the TSOs

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

<b>Calculation:</b>	Number of hours of availability of the user portal and the public data platform over the month/Total number of hours of opening planned over the month for the two interfaces (a value monitored by TSO)
<b>Scope:</b>	<ul style="list-style-type: none"> <li>- calculation over a range of use of 7:00-23:00, 7 days a week</li> <li>- rounded to one decimal place</li> </ul>
<b>Monitoring:</b>	<ul style="list-style-type: none"> <li>- calculation frequency: monthly</li> <li>- frequency of reporting to CRE: monthly</li> <li>- publication frequency: monthly</li> </ul>
<b>Date of implementation:</b>	<ul style="list-style-type: none"> <li>- 1 April 2015</li> </ul>

### 2.2 Reliability of the projected stock in pipeline indicator published by the TSOs on their public page

The projected stock in pipeline indicator is an estimate, made by the TSOs, of the gas level in each scope at the end of the gas day in progress (5:00). This indicator provides information on the voltage of the network, in the same way as the imbalance indicator. The difference between these two indicators lies in the vision of the system that they give: while the first offers a forecast vision of the system for the current day, the second offers a static vision, at a given moment.

The projected stock in pipeline indicator determines the TSOs' interventions in the markets. Accordingly, it informs shippers of the availability of flexibility services based on the stock in the pipeline. When asked by CRE in the public consultation on tariff updates, shippers unanimously wanted an indicator to be created to ensure the reliability of this information. The indicator created aims to identify aberrant projected stock in pipeline values.

<b>Calculation:</b>	<p>Percentage of hours, per month, for which the forecast stock in pipeline published is compliant. The forecast stock in pipeline published at hour H is said to be compliant if the difference with the last forecast stock in pipeline compliant value is less than 150 GWh in the GRTgaz zone and 30 GWh in the Teréga zone.</p> <p>This tolerance threshold is sized to isolate variations that cannot be the cause of customer reprogramming and/or consumption re-forecasting.</p>
<b>Scope:</b>	<ul style="list-style-type: none"> <li>- One value per month and per scope (1 value for Teréga and one value for GRTgaz)</li> </ul>
<b>Monitoring:</b>	<ul style="list-style-type: none"> <li>- calculation frequency: monthly</li> <li>- frequency of reporting to CRE: monthly</li> <li>- publication frequency: monthly</li> </ul>
<b>Date of implementation:</b>	<ul style="list-style-type: none"> <li>- 1 April 2016</li> </ul>



### 2.3 Maintenance programme indicators

Indicator name	Indicator calculation	Frequency of reporting to CRE and publication	Date of implementation
Reduction in available capacity	<b>Firm capacity made available during the works/firm technical capacity</b> one value monitored per point and an aggregate value monitored for each point category in the network <sup>(1)</sup> for each TSO)	Monthly  Indicator calculated for the months of <b>January to December</b>	1 April 2009
Reduction in subscribed capacity	<b>Firm capacity made available during the works/firm capacity subscribed</b> (one value per network point type <sup>(1)</sup> for each TSO)		1 April 2016
Compliance with the annual maintenance programme published at the beginning of the year by the TSO	<b>Percentage change in the capacity made available between the projected maintenance programme published at the beginning of the year and the maintenance programme carried out</b> (one value per network point type <sup>(1)</sup> for each TSO)		1 April 2009
Compliance with the binding maintenance programme published in M-2 [2 months before] by the TSO	<b>Percentage change in the capacity made available between the projected maintenance programme published in M-2 and the maintenance programme carried out</b> (one value per network point type <sup>(1)</sup> for each TSO)		GRTgaz: mid-2009 Teréga: 1 April 2009
Compliance with the best non-binding maintenance forecast published in M-2 by the TSO	<b>Percentage change in the capacity made available between the best non-binding maintenance forecast published in M-2 and the maintenance programme carried out</b> (one value per network point type <sup>(1)</sup> for each TSO)		1 April 2016

(1): 4 categories of points are selected:

- PIRs in the dominant direction;
- entry to the PITTMs;
- entry to and exit from the PITS;
- the GRTgaz Sud/Teréga interface in both directions

## 2.4 Environmental indicators

Indicator name	Indicator calculation	Frequency of reporting to CRE and publication	Date of implementation
Greenhouse gas emissions	<b>Monthly greenhouse gas emissions (in CO<sub>2</sub> equivalent)</b> (one value monitored per TSO)	Quarterly	1 January 2009
Greenhouse gas emissions in relation to the volume of gas transported	<b>Monthly greenhouse gas emissions/Monthly volume of gas transported</b> (one value monitored per TSO)		1 January 2009

### APPENDIX 3: BREAKDOWN OF THE 2019 RAB BETWEEN THE MAIN NETWORK AND THE REGIONAL NETWORK

#### Teréga

RAB at 1/1/2019 (€m current)	Main network/Regional network distribution
Main network	<b>974</b> (i.e. 64% of the total amount of the RAB)
Regional network	<b>553</b> (i.e. 36% of the total amount of the RAB)

#### GRTgaz:

RAB at 1/1/2019 (€m current)	Main network/Regional network distribution
Main network	<b>5,489</b> (i.e. 62% of the total amount of the RAB)
Regional network	<b>3,362</b> (i.e. 38% of the total amount of the RAB)

## **APPENDIX 4: LIST OF NTRS BY SITE**

Appendices published on the CRE website for GRTgaz<sup>18</sup> and Teréga<sup>19</sup>.

## **APPENDIX 5: DATA PUBLISHED BY THE TSOS**

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

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

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

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

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

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

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

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

GRTgaz: [http://www.smart.grtgaz.com/fr/capacites\\_moyen\\_chargees/PIR](http://www.smart.grtgaz.com/fr/capacites_moyen_chargees/PIR); [http://smart.grtgaz.com/fr/programme\\_travaux/CAM/PIR](http://smart.grtgaz.com/fr/programme_travaux/CAM/PIR); [http://www.smart.grtgaz.com/fr/programme\\_travaux/NON-CAM/PIR](http://www.smart.grtgaz.com/fr/programme_travaux/NON-CAM/PIR)

Teréga:

[https://www2.terega.fr/fileadmin/Nos\\_offres/Transport/Contrat\\_de\\_transport/CG\\_CP\\_CO/MAJ\\_Novembre\\_2018\\_bis/FR/04\\_Section\\_1\\_Regles\\_de\\_souscription\\_et\\_d\\_allocation\\_sur\\_le\\_RP.pdf](https://www2.terega.fr/fileadmin/Nos_offres/Transport/Contrat_de_transport/CG_CP_CO/MAJ_Novembre_2018_bis/FR/04_Section_1_Regles_de_souscription_et_d_allocation_sur_le_RP.pdf)

[https://www2.terega.fr/fileadmin/Nos\\_publications/Publications\\_transport/Actualit%C3%A9s\\_op%C3%A9rationnelles/2015/2015-12-10/GT\\_Allocation\\_30112015\\_TIGF\\_FR.PDF](https://www2.terega.fr/fileadmin/Nos_publications/Publications_transport/Actualit%C3%A9s_op%C3%A9rationnelles/2015/2015-12-10/GT_Allocation_30112015_TIGF_FR.PDF)

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

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

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

<sup>18</sup> GRTgaz NTR List

<sup>19</sup> List of Teréga's NTRs