COMMISSION DE RÉGULATION DE L'ÉNERGIE

The Energy Regulation Commission (CRE) consults the market participants.

PUBLIC CONSULTATION NO. 2019-013 OF 23 JULY 2019 RELATING TO THE NEXT TARIFF FOR THE USE OF NATURAL GAS TRANSMISSION NETWORKS OF GRTGAZ AND TERÉGA

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

Articles L.452-2 and L. 452-3 of the French Energy Code empower the French Energy Regulatory Commission (CRE) to set the methodology for establishing tariffs for the use of natural gas transmission networks. CRE can make changes to the tariff levels and structure which it deems justified with regard to, in particular, an analysis of the operators' accounts and any expected changes in operating and investment expenses.

The current tariff for the use of GRTgaz' and Teréga's natural gas transmission networks, known as the ATRT6 tariff, came into force on 1 April 2017, in accordance with CRE's decision of 15 December 2016[1].

Pursuant to Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas (hereinafter the "Tariff network code"), the ATRT6 tariff must be revised in 2019. Thus, in accordance with the provisions of the Tariff network code, in particular its articles 26, 27 and 28, the ATRT6 tariff will stop applying from 30 March 2020. The ATRT7 tariff will therefore apply from 1 April 2020.

Given the visibility required by market participants and the complexity of the issues to be addressed, CRE has already organised two public consultations:

- The first one, dated 14 February 2019, was related to the regulatory framework applicable to the regulated infrastructure operators for the next generation of tariffs. 41 responses were received;
- The second one, dated 27 March 2019, was aimed at gathering the opinion of the market participants on CRE's first orientations regarding the structure of the ATRT7 tariff as well as on the storage compensation charge. 66 responses were received.

Non-confidential responses to these two public consultations are published on CRE's website along with this consultation.

This consultation presents CRE's preliminary orientations regarding the level of charges to be covered and the resulting level of the tariff. It also aims to present, on the basis of its analyses and feedback from market participants, the orientations envisaged by CRE concerning the proposals presented in the public consultations of 14 February and 27 March 2019.

The preliminary orientations of CRE take into account, in accordance with article L.452-3 of the French Energy Code, the energy policy orientations issued by the State Minister, the Minister for Ecological and Inclusive Transition in his letter dated 15 July 2019. These orientations are published on CRE's website along with this public consultation.

In accordance with the provisions of the Tariff network code, this consultation is open for two months and will be forwarded to the Agency for the Cooperation of Energy Regulators (ACER), which shall publish and send to CRE its opinion. The consultation document includes all of the information required by the Tariff network code.

[1] Resolution of the French Energy Regulation Commission of 15 December 2016 forming a ruling on the tariffs for use of natural gas transmission systems of GRTgaz and TIGF

Key issues

The pricing of gas networks and, more broadly, all the access rules to these networks, play a major role in order to ensure the proper functioning of the wholesale gas market. As France imports almost all the gas it consumes, the conditions for accessing the French market and its attractiveness are essential.

A c number of long-term subscriptions in entry into and exit from the network interconnection points (PIR) will expire during the ATRT7 period. As the current level of use of the points affected by this decrease in subscriptions is lower than the level of capacities subscribed, the transmission network operators (TSOs) anticipate that part of the released capacities will not be subscribed when the concerned contracts expire. As a result, they anticipate significant declines in the levels of capacity subscriptions on all the interconnection points of GRTgaz' and Teréga's networks between 2019 and 2023 (-20% on entry capacities and -28% on exit capacities at GRTgaz' PIRs, -10% on exit capacities at Teréga's PIR).

The Energy transition also represents a challenge for the TSOs, in particular with the development of biomethane injection into the networks that will make some adaptations of the gas infrastructure necessary.

Finally, the retrospective drawn up by CRE in its public consultation dated 14 February 2019 showed that the gas TSOs operating costs have been increasing faster than inflation over the past decade. This evolution is mainly due to the dissociation from their parent company, to the evolution of their energy costs, and to the network developments to support the market opening: development of interconnectors, grid reinforcement for the creation of the single market zone.

The creation of a single market zone in 2018 marked the end of this long investment cycle. CRE considers that the French transmission network is now sufficiently developed. Moreover, the stagnation of consumption for the last 10 years and its predicted reduction by 2030, in particular as part of the energy transition objectives, lead CRE to be particularly vigilant in the future when reviewing any new investment project that will be submitted by the TSOs.

In this context, controlling gas TSOs' charges is an essential issue.

CRE considers that the tariff of gas transmission networks must take these issues into account, in addition to the simplicity, predictability and continuity objectives.

Tariff level

The natural gas TSOs, GRTgaz and Teréga, each put forward a tariff evolution demand setting out their projected costs for the 2020-2023 period as well as their requests relating to the regulatory framework.

Considering the elements of the tariff demands sent to CRE by GRTgaz and Teréga would lead to a significant increase in the average unit tariff by +4.6% on average per year for GRTgaz and +6.6% on average per year for Teréga throughout the duration of the tariff.

These tariff demands are mainly based on significant increases in operating expenses (excluding energy costs), such as:

- +5.6% in 2020 compared to 2018, then +2.7%/year between 2020 and 2023 for GRTgaz;
- +17.3% in 2020 compared to 2018, then +4.0%/year between 2020 and 2023 for Teréga.

At this stage, CRE considers that these increasing trajectories are too high, whereas gas consumption is going downward and the network is sufficiently developed.

In addition to its own analyses, CRE has relied on studies by external consultants whose conclusions, which are not binding for CRE, are published along with the present public consultation. These studies cover the following subjects:

- An audit of the demand in terms of operating expenses for GRTgaz and Teréga for the 2020-2023 period;
- An audit of the demand for rates of remuneration for regulated assets of natural gas transmission system operators from GRTgaz and Teréga. GRTgaz and Teréga are respectively requesting for a weighted average cost of capital of 5.25% and 5.5% (nominal before taxes), compared to 5.25% in the ATRT6 tariff.

At this stage, CRE foresees a lower tariff increase than what is requested by the TSOs. It plans to:

- Limit the increase in net operating expenses of TSOs, the external consultant's audit representing the lower limit and the demand of TSOs the upper limit;
- Retain a weighted average cost of capital (WACC) in a range from 3.6% to 4.4% (nominal, before taxes). The method used to establish this range is unchanged compared to the one used for the ATRT6 tariff. It is based on a WACC with a standard structure and ensures reasonable remuneration for invested capital, which helps to maintain the attractiveness of energy infrastructures in France, whilst taking into account

changes in financial parameters, in a context marked by the significant and long-lasting reduction in interest rates on the markets. This range also takes into account the anticipated decrease in corporate tax from 34.43% to 26.99% on average over the tariff period. As an illustration, the range of WACC (nominal before taxes) envisaged would have been 3.9% to 4.7% at unchanged tax rate compared to the previous tariff period.

By way of pure illustration, by selecting the middle of the ranges presented by CRE at this stage, both in terms of weighted average cost of capital and trajectory of net operating costs, the evolution of the ATRT7 tariff could then be based on +0.5% on average per year for GRTgaz and +0.4% on average per year for Teréga. Most of the difference with the tariff changes presented by the TSOs is due to the proposed WACC level, lower than that requested by the TSOs.

Tariff regulatory framework

CRE plans to renew for the ATRT7 tariff the main incentive regulation mechanisms currently in force: incentive regulation to control operating expenses and investment expenditures, incentive regulation of quality of servcie, *ex post* coverage of certain variances *via* the clawback account. Market participants were in favour in their responses to the public consultation of 14 February 2019.

The current regulatory framework poses the risk of encouraging TSOs to over-invest, there is therefore a need to change it. With the objective of sending a more relevant investment signal, CRE has reflected upon the possibility of introducing a distinction between, on the one hand, the rate of remuneration for historical assets, for which the determination methodology would remain unchanged (i.e. a rate calculated on long-term data) and, on the other hand, the rate of remuneration for new assets that would be based on short/medium-term data which would apply for a period of 4 years for each new investment. An answer to this question must be found by the end of the consultation. CRE is also planning to maintain the incentive for controlling the costs of large investment projects (bonus/penalty depending on compliance with the target budget), but to eliminate incentives for the development of interconnections.

Tariff structure

The structure of the ATRT7 tariff must be fixed transparently and in a non-discriminatory way. It must reflect the costs incurred by users, in particular in order to avoid cross-subsidies between different categories of users.

The ATRT6 tariff already meets most of the requirements of the Tariff network code, even if the code was not yet in force at the time of its elaboration. This tariff has been elaborated to cover the allowed income of TSOs while ensuring that the relative level of tariff terms was consistent and did not lead to cross-subsidies between the different categories of users of the transmission networks. The Council of State has confirmed the methodology adopted by CRE on the ATRT6 tariff following the appeal made by ENI S.p.A, considering in particular that CRE's decision [2] does not create a cross-subsidy between the shippers supplying national consumers and shippers that use the network for transit to other countries.

For the ATRT7 tariff, CRE plans to elaborate the tariff structure overall in line with the ATRT6 tariff, such that the unit costs of transit and supply of national consumers are aligned, in accordance with the Tariff network code.

Storage tariff term

Since the reform of third party access to underground storage infrastructure for natural gas, which came into force on 1st January 2018, the difference between the allowed income of the storage operators and the revenues that they receive directly, in particular by selling their capacities through auctions, is compensated by the ATRT tariff, through a specific term called the storage tariff term. This storage tariff term is currently applicable to non-loadable and non-interruptible customers connected to the public gas distribution networks, depending on their winter modulation.

CRE plans to modify the formula for calculating the winter modulation for so-called "subscription" customers. Indeed, even though they consume on average more in winter than in summer, these customers contribute differently to the winter peak in comparison with the profiled customers: their peak consumption is mainly linked to business processes and does not necessarily occur at the same time as the winter peak, more linked to the heat-sensitivity of certain gas uses. As a result, CRE considers applying from 1st April 2020, a formula based on the difference between average winter consumption and average annual consumption to "subscription" customers.

As indicated in the public consultation of 27 March 2019, CRE considers that an extension of the perimeter of collection of the storage compensation to customers connected to the transmission network is desirable, provided that the interruptibility mechanisms provided for in articles L. 431-6-2 and L. 431-6-3 of the French Energy Code are implemented. CRE notes that once the texts related to these interruptibility mechanisms have been published, the TSOs consider that a minimum period of 12 months will be necessary in order to contractualise the interruptible

[2] Resolution of the French Energy Regulation Commission of 15 December 2016 deciding on the tariffs for the use of the natural gas distribution networks of GRTgaz and TIGF

capacities with network users. CRE plans to implement the extension of the storage compensation perimeter once this contractualisation has been carried out in an operational manner.

Paris, 23 July 2019

On behalf of the Energy Regulatory Commission,

Chairman,

Jean-François CARENCO

Respond to the tender

CRE would like to invite all parties involved to send their input by no later than **4 October 2019** :

- preferably by entering their contribution on the new platform set up by CRE: https://consultations.cre.fr
- or by email to: dr.cp2@cre.fr;

In the interests of transparency, the contributions will be published by CRE.

If your contribution involves elements whose confidentiality you want to preserve, a version concealing these elements must also be sent. In this case, only this version will be published. CRE reserves the right to publish elements that may prove to be essential to the information of all the shareholders, provided that they are not covered by secrets protected by law.

In the absence of a masked version, the full version is published, subject to information relating to secrets protected by law.

Interested parties are invited to respond to the questions justifying their responses.

CONTENTS

1. CONTEXT AND OBJECTIVES OF THE PUBLIC CONSULTATION

1.1 CRE's remit

Article L. 134-2, 4° of the French Energy Code authorises CRE for setting the rules concerning the "conditions for the use of natural gas transmission and distribution networks [...], including the methodology for establishing tariffs for using these networks [...] and tariff changes [...]".

Articles L. 452-1, L. 452-1-1, L. 452-2 and L. 452-3 of the French Energy Code determine CRE's tariff-related powers. In particular, article L.452-2 stipulates that CRE sets the methods used to establish the tariffs for use of natural gas networks. In addition, article L.452-3 states that *"The Energy Regulatory Commission decides on tariff changes [...] with, if necessary, tariff level and structure changes that it considers justified, specifically with regard to the analysis of operators' accounting systems and foreseeable changes to operating and investment costs. [...]".*

1.2 Purpose of the consultation

CRE wishes to obtain the opinion of shareholders on the guidelines it plans for the ATRT7 tariff, concerning the regulatory framework, the level of costs to be covered and the tariff structure.

If CRE plans to renew most of the principles in force on the ATRT6 tariff in the ATRT7 tariff, the changes envisaged for the next ATRT7 tariff have the following objectives:

- Ensuring compliance of the ATRT7 tariff with the requirements of the European network codes, in particular the Tariff network code;
- Setting the regulatory framework for encouraging operators to control their workloads and the quality of the service provided to their users;
- Developing the offer of transmission system operators;
- Studying the opportunity of a change in the storage tariff term

2. TARIFF REGULATORY FRAMEWORK

In its public consultation of 14 February 2019, CRE presented a report of the regulatory framework for the last 10 years, and consulted the shareholders on the regulation principles applicable to regulated infrastructure for the next generation of regulated tariffs.

In their responses, the shareholders shared the positive review of the regulatory mechanisms implemented by CRE in the various tariffs, which contribute in their meaning, on the one hand to controlling operator expenditure and on the other hand to the quality of the service provided to their users. As such, they are in favour of CRE's proposal to renew the majority of these devices for future infrastructure tariffs.

The shareholders also decided on the various measures envisaged by CRE to complete the regulatory framework for the subsequent tariff periods. The following paragraphs present the main reactions to the mechanisms envisaged, as well as the orientations chosen by CRE for the ATRT7 tariff.

2.1 Main tariff principles

2.1.1 Determining the allowed revenue

In its decision determining the ATRT7 tariff, scheduled before the end of 2019, CRE will fix the forecast allowed revenue for each GRT over the period 2020-2023, based on the tariff file sent by the operators and its own analyses. The allowed revenue is intended to cover the costs of operators to the extent that they correspond to those of an efficient system operator.

This allowed provisional income consists of the net operating expenses (NOE), the normative capital charges (CCN), the clearing of the balance of the expenses and revenues clawback account (CRCP) and inter-operator refunds between GRTgaz and Teréga:

$$RA = NOE + CCN + CRCP + INT$$

Where:

- RA: provisional allowed revenue for the period;
- NOE : projected net operating expenses for the period;
- NCC: forecast capital expenditure for the period;
- CRCP: clearing of the expenses and revenues clawback account ;

• INT: inter-operator financial compensation mechanism.

2.1.1.1 Net operating expenses

The net operating expenses (NOE) are defined as the gross operating expenses, from which the operating income is deducted (own work capitalised and the extra-tariff income in particular).

The gross operating expenses consist mainly of energy costs, external consumption, staff expenses and taxes.

The level of the net operating expenses retained is determined from all the required costs involved inthe TSO's activity to the extent that, pursuant to Article L. 452-1 of the French Energy Code, these costs correspond to those of an efficient system operator.

2.1.1.2 Normative capital charges

2.1.1.3

Normative capital charges (NCC) includes remuneration and amortisation of capitalised assets. The calculation of these two components is based on the valuation and development of assets operated by GRTgaz and Teréga – the regulatory asset base (RAB) – and assets under construction (AuC), i.e. investments made that have not led yet to the commissioning of assets.

The CCNs correspond to the sum of the depreciation of the assets making up the RAB and the remuneration of capitalised assets. The latter corresponds to the product of the value of the RAB by the rate of return determined on the basis of the evaluation of the weighted average cost of capital (WACC) and to the product of the value of the IECs by the cost of debt.

NCC = Depreciation of the RAB + RAB x WACC + AuC x cost of debt

The method adopted to set the rate of return on assets is based on the WACC with a normative financial structure. Indeed, the TSO's return should, in fact, firstly enable it to service the interest payments on its borrowing, and secondly provide its shareholders an equity comparable to that which it could obtain from investments elsewhere entailing a comparable level of risk. This cost of equity is estimated using the methodology known as the capital asset pricing model (MEDAF).

CRE is not planning to modify the RAB's calculation principles and plans to renew the procedures currently in force, described in the ATRT6 deliberation of 15 December 2016.

2.1.2 Remuneration of assets and coverage of investments

2.1.2.1 Eventual introduction of differentiation between the remuneration of historic assets and new assets

In previous ATRT tariff deliberations, CRE has set a single rate of remuneration which applies for the entire duration of the tariff period to all the assets making up the RAB of each operator, whatever their commissioning date. This single rate is calculated on the basis of calculation parameters from long-term data.

Due to the long-term use of averages, the rate of remuneration changes with considerable inertia compared to the changes in rates observed on the market. The average costs of financing operators change with a comparable inertia, their re-financing capacity of their credit lines remaining limited.

In its public consultation of 14 February 2019, and in the current context of a continuous fall in interest rates, CRE was concerned about the investment signals that this approach sends to the operators.

In order for the remuneration framework to provide a more accurate signal to the investment, CRE proposed, for the ATRT7 period, to introduce a distinction between, on the one hand, the rate of remuneration for the historical assets, the determination of which would remain unchanged in relation to the actual determination methods of the remuneration rate (i.e. a rate calculated on long-term data) and, on the other, the rate of remuneration for new assets that would be based on shorter-term data.

Some of the participants in the public consultation of 14 February 2019 question the complexity of such a mechanism. In particular, the infrastructure operators and their shareholders were not in favour of this mechanism, which they consider too complex and unclear.

However, certain shippers and consumer associations have expressed a favourable position for the mechanism envisaged by CRE, insofar as it would make it possible to send a more accurate signal to the investments.

If this system was introduced:

- The rate of remuneration applied to the new assets would apply for a sliding period (for example, 4 years) in order to ensure that the effect of the fair incentive for investment is constant over the entire tariff period, and not decreasing as the end of the tariff period approaches;

- For the period of the ATRT7 tariff, and in order to better reflect the financing conditions, this rate could be lower than 100 basis point (bp) at 150 bp for the remuneration rate calculated on the basis of values of parameters from long-term data and presented in 3.4.3.
- Some parameters of this rate could also be indexed annually (risk-free rate for example) over the next tariff period;
- Finally, following this 4-year period, the assets would be remunerated at the long-term rate.

CRE continues to examine the introduction of this mechanism.

Question 1 What is your position regarding the possible introduction of differentiation between the remuneration of historic assets and new assets for the ATRT7 tariff?

2.1.2.2 Changes in methods for the remuneration of assets under construction (AuC)

As part of the remuneration currently applied to the gas TSOs, all of the current fixed assets (i.e. capitalised investment expenditures but which have not yet given rise to the activation of assets) are remunerated at the cost of debt (nominal, before taxes) applicable during the period.

In its public consultation of 14 February 2019, CRE suggested plans to maintain a remuneration for assets under construction at the cost of debt for long-cycle investments (more than a year),

Shippers and industrialists are mostly in favour of this proposal, which encourages the implementation of investments within the deadlines. For their part, the infrastructure operators are opposed to a remuneration at the cost of debt, and require remuneration at the same rate as for the assets entered into service.

For the ATRT7 tariff period, at this stage, CRE envisages maintaining AuC's remuneration at the cost of debt, which is an effective incentive for the quick commissioning of investment projects by the various operators. However, it does not consider restricting the AuC's base to remunerate the only stock of assets corresponding to investments of maturity greater than one year.

2.1.2.3 Processing of assets taken out of the inventory

2.1.2.3.1 Processing of stranded costs

CRE proposed, in its public consultation of 14 February 2019, the extension of the coverage principles for stranded costs in force in the ATRT6 tariff to all tariffs and the coverage of sunk study costs that have been approved by CRE.

The majority of shippers and manufacturers decided to favour the coverage principles of stranded costs envisaged. However, several infrastructure operators and shippers have opposed the implementation of an incentive trajectory for asset removals before the end of their accounting life. They require coverage via the CRCP, due to the uncontrollable nature of some of these costs.

The shareholders are mostly in favour of sunk study costs that have not been approved by CRE.

As a result, for the ATRT7 period, CRE envisages treating stranded costs as follows:

- For recurring and predictable stranded costs, linked to small assets that would be removed from the inventory of assets before the end of their accounting life, will be the subject of a tariff trajectory with fixing of an annual envelope;
- sunk study costs for major projects having previously been approved by CRE will be covered by the tariff via the CRCP;
- The coverage of other stranded costs will be examined by CRE on a case-by-case basis, based on justified files presented by the GRTs.

The costs to be covered, where applicable, by tariffs, shall be taken into account up to their accounting value, minus any sales proceeds.

2.1.2.3.2 Processing of sold assets

When an asset is sold by an operator, it leaves its capital, exits the RAB and ceases, in fact, to generate capital expenditure (depreciation and remuneration). This transfer can also generate added value for the operator (difference between the transfer price and the net book value).

By way of illustration, property assets, which are integrated into the RAB, depreciated and remunerated for the entire duration of their presence in the operator's capital, are likely, on the day of their resale, to generate added value, sometimes higher.

CRE plans to take into account the proceeds from transfer of assets via the CRCP in order to benefit consumers, at least in part, from the profits generated by the resale of these assets, insofar as they bore the costs (the allowed revenue of operators covering the annual depreciation of BAR assets).

With regard to the amounts of the proceeds from property assets which may be recovered by the tariff, they may correspond either to:

- The amount of depreciations covered and financed by the tariff over the period of use of the asset;
- The percentage of asset financing by the tariff over the lifetime of use, applied to the net proceeds from the transfer.

Question 2 Do you have any comments regarding the processing of transferred assets considered by CRE for the ATRT7 tariff?

2.1.3 Principle of the CRCP

The level of the ATRT tariff is set by CRE based on hypotheses on the forecast level of charges and subscription revenues. A *post hoc* adjustment mechanism, the expenses and revenues clawback account (CRCP), was introduced in order to take into account all or part of the differences between the expenditure and income actually observed, and the forecast expenditure and the income in the identified items (see section 2.3.2). The CRCP is also used for the payment of financial incentives resulting from the application of incentive regulation mechanisms.

The balance of the CRCP is calculated on 31 December of each year. Currently, The balance of this account is cleared over four years, in constant annuities, by a decrease or an increase in income to be recovered by the tariff. To ensure the financial neutrality of the mechanism, a risk-free interest rate applies to the CRCP balance.

Other network tariffs (TURPE in electricity and ATRD in gas distribution) also have a CRCP, whose clearing mode is different: it is cleared for a period of 1 year within the limit of an annual tariff change of +/- 2% excluding inflation. If this ceiling is reached, the balance of the non-cleared CRCP during the year in question is postponed to the following year. To ensure the financial neutrality of this system, an interest rate equal to the risk-free rate applies to the balance of the CRCP. Furthermore, the allowed revenue for the following period takes into account the balance of the CRCP at the end of the tariff period. Thus, The balance of the CRCP resets at the start of each tariff period.

In the public consultation of 14 February 2019[3], CRE proposed to harmonise the clearing mode of the gas TSOs' CRCP to that applicable to other network operators. Furthermore, CRE has estimated that the 2% clearing ceiling is appropriate. The majority of the contributors have expressed their commitment in favour of this proposal. GRTgaz and Teréga have indicated that they should not be opposed to this harmonisation.

CRE therefore maintains its orientation for the ATRT7 tariff period of a CRCP cleared for a period of 1 year, within the limit of a tariff change, excluding inflation, of +/- 2%, with consideration of the entire balance of the CRCP at the end of the tariff period for the establishment of the allowed revenue for the following period.

Question 3 Are you in favour of the main tariff principles that CRE envisages for the ATRT7 tariff?

2.2 Tariff schedule

2.2.1 A tariff period of about 4 years

The duration of the tariff periods applicable to regulated infrastructure is harmonised to approximately four years. The only exception to this principle is the duration of the first ATS1 storage tariff, which was set at two years due to the entry into the regulation of these assets in the context of the access reform by third parties to storage facilities, which led CRE to define a simplified framework.

In its consultation of 14 February 2019 relating to the tariff regulation framework, CRE is planning to maintain the duration of the tariff period to be 4 years for the next generation of regulated infrastructure usage tariffs, including

[3] Public consultation of 14 February 2019 no. 2019-003 on the tariff regulation framework applicable to regulatory infrastructure operators in France

for natural gas storage. In particular, CRE considers that this duration provides the market with visibility on the development of infrastructure tariffs and provides operators with the time needed to undertake productivity efforts.

A large majority of the contributors to the public consultation have decided in favour of this proposal, sharing the arguments highlighted by CRE.

CRE is therefore planning to maintain its orientation regarding the duration of the tariff period for the ATRT7 tariff.

Several stakeholders also highlighted the need for mechanisms within the regulatory framework to take into account the consequences of significant changes occurring during the tariff period.

CRE plans to renew the review clause in force in the ATRT7 tariff: as a result, the possible consequences of new legal or regulatory provisions or a jurisdictional or quasi-jurisdictional decision may lead to a re-examination of the tariff trajectory for the last two years of the tariff period if the level of the net operating expenses retained in the ATRT7 tariff was modified by at least 1%.

2.2.2 Principles of the annual tariff change

2.2.2.1 Schedule of changes to tariff terms

Ever since the ATRT4 tariff, which came into force in 2009, gas transmission tariffs have been revised on 1 April each year. This schedule, which was fixed by CRE after a consultation, allows it to stay in line with the gas storage year, which extends from 1 April in year N to 31 March in year N+1.

However, under the CAM Network Code[4], which came into force in 2013, annual transmission capacities at interconnection points are allocated for a period extending from 1 October in year N to 30 September in year N+1. Auctions for the marketing of annual capacities begin on the first Monday of July of year N.

In line with the previous tariffs, CRE proposed, in its public consultation of 27 March 2019, to maintain the current tariff schedule, from April to April, in order to maintain consistency between the transport schedules, LNG terminals and storage facilities, while adapting the interconnection points tariffs between October and October, in order to meet the constraint imposed by the Tariff network code, upstream of the annual capacity auctions on interconnections, to arrange the level of tariff terms that will apply from October N to October N+1.

Thus, for the year from October 2019 to October 2020, CRE indicated in its deliberation of 9 May 2019[5] to maintain, for the period from 1 April 2020 to 30 September 2020, the tariff terms at the interconnection points (PIR) at the current level, as specified in the deliberation dated 13 December 2018[6].

The majority of stakeholders are favourable to this treatment, considering that it gives visibility to the market and guarantees correct operation of the auctions.

As a result, CRE plans to change the tariff terms according to the following schedule:

- Changes in tariff terms at PIR only on 1st October of each year, with an initial movement of these terms as from 1st October 2020;
- Changes in the grid's other tariff terms on 1st April of each year.

2.2.2.2 Annual change in the level of tariff terms

CRE plans to upgrade the ATRT7 tariff annually on 1st April of each year, according to the following principles:

a) The tariff terms of each TSO are automatically adjusted on 1st April of every year, commencing 1st April 2021, by applying the following percentage change to all tariff terms in force on 31 March of year N:

$$Z = CPI + X + k$$

Where:

- CPI is the measure of inflation used for revising the schedule of tariffs on 1st April in year N, equating to the annual average change over the calendar year N-1 in the consumer price index excluding tobacco as calculated by the French national statistics office, INSEE, for all households in the whole of France;
- X is the annual rate of change on the tariff structure set by CRE in its tariff deliberation, which incorporates the annual efficiency target that it has set for the operator;

[4] Commission Regulation (EU) No. 984/2013 of 14 October 2013 establishing a Network Code on Capacity Allocation Mechanisms in Gas Transmission Systems
[5] Deliberation of the Energy Regulation Commission of 9 May 2019 on the basis of communication on the reserve price used for capacity auctions at interconnection points (PIR) of GRTgaz and Teréga between on 1 April 2020 and 30 September 2020
[6] Deliberation of the French Energy Regulation Commission of 13 December 2018 forming a ruling on the changes to the tariff for use of GRTgaz and Teréga transmission systems on 1st April 2019

- k is the change in the tariff structure, expressed as a percentage, resulting from the clearing of the clawback account (CCN, subscription revenues, energy costs, etc.); k is between +2% and -2%.

As an exception, the tariff terms relating to the PIR are upgraded on 1st October following the same principle of change see (2.2.2.2).

b) The provisional reference used for the calculation of the CRCP for the following year would be updated for the following items:

- Energy costs and CO_2 quotas;
- Transmission capacity subscription revenues;
- R&D charges at mid-tariff period.

c) Furthermore, CRE may take into account, during the annual changes to the ATRT7 tariff, changes to the tariff structure, linked in particular to:

- The implementation of European network codes;
- The operation of the single marketplace in France;
- Modifications to the TSO's offer;
- Changes to the incentive regulation of operator quality of service.

Question 4 Are you in favour of the schedule and the tariff evolution principles planned by CRE for the ATRT7 tariff?

2.3 Incentive-based regulation on cost control

2.3.1 Incentive-based regulation of operating expenses

2.3.1.1 No coverage on the CRCP for most operating expenses

The ATRT6 tariff provides that the net operating expenses, with the exception of certain pre-defined items difficult to control for operators, have an incentive at 100%: CRE sets a trajectory for the tariff period, and any discrepancy in relation to this trajectory remains the responsibility or benefit of the operator.

In its public consultation of 14 February 2019, CRE proposed to renew the incentive-based regulation principles for the net operating expenses currently in force while considering that it is essential to return, for the next tariff period, to the level of productivity reached by the operators during the previous tariff period.

Most of the stakeholders that responded to the public consultation are in favour of reservations to CRE proposal. These stakeholders consider that the mechanism currently in force ensures that the operating expenses covered by the tariff correspond to that of an efficient syetem operator.

Furthermore, this mechanism encourages operators to optimise productivity gains and promote the best solutions for the system. The reservations expressed by some shareholders mainly concern the productivity effort which should, according to them, be reasonable and calibrated.

Only one player is not in favour of the renewal of the incentive-based regulation of net operating expenses. In his opinion, incentives are always made on financial criteria to the detriment of the social criterion and staff.

CRE plans to renew the incentive-based regulation principle for net operating expenses in view of the positive review over the past ten years and the favourable assessment of the shareholders. CRE will take into account the productivity gains made by the operators to define the tariff trajectories for the ATRT7 tariff.

2.3.1.2 Coverage by CRCP of certain items

The network tariffs are calculated based on assumptions on the charges and revenues used to define the development trajectories for the various items.

As indicated in 2.1.3 of this consultation, post-hoc adjustment mechanism, the expenses and revenues clawback account (CRCP), enables to take into account the differences between the charges and the income actually observed, and the forecast expenditure and income for certain identified items that are not very predictable and cannot be controlled by the operators of the gas transmission networks.

In the public consultation of 14 February 2019, CRE wanted to specify the principles that it plans to retain for the next infrastructure tariffs relating to the incentives of the various expense and revenue items. Thus, CRE considers that the integration of an item in the CRCP must be understood in light of the following two areas:

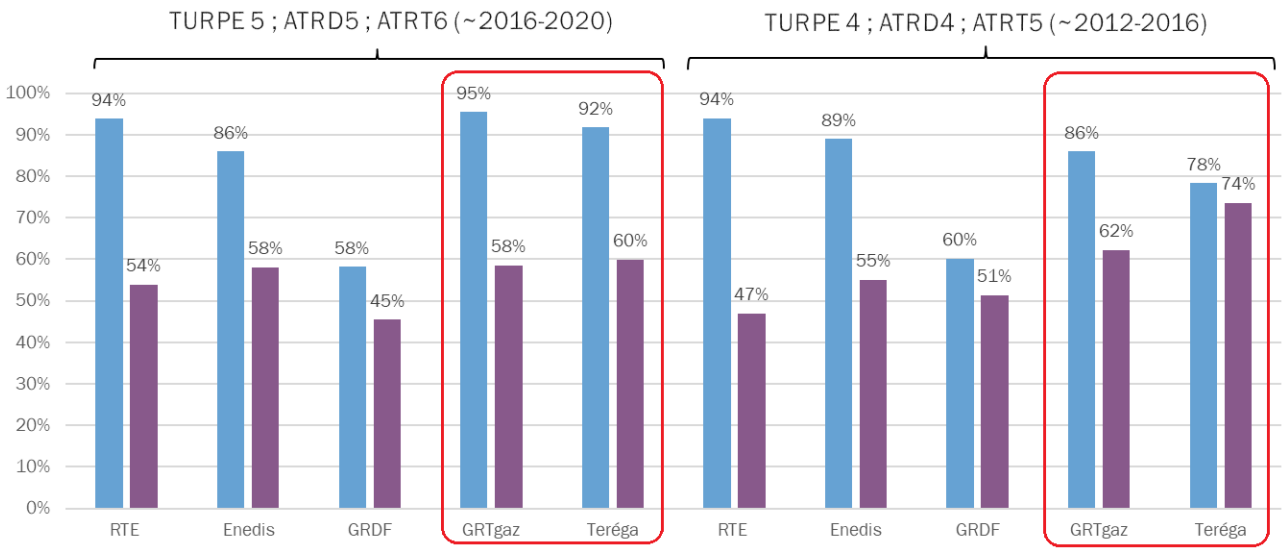
- The predictability: a predictable item is an item for which it is possible, for the operator and for CRE, to provide, with reasonable confidence, the level of costs incurred and the revenues perceived by the operator over a tariff period;
- The control: a controllable item is an item for which the operator is able to control the level of expenditure/income during a year, or has a power of negotiation or influence with regard to its level, if it results from a third party.

These principles have been widely shared by the contributors to the public consultation.

Furthermore, CRE considers that the tariff treatment cannot be summarised as a single alternative for coverage of the item, between 100% and 0% at the CRCP. Thus, for certain partially controllable and/or predictable items, CRE considers that it is relevant to partially encourage the operators.

In the ATRT6 tariff, almost all receipts (in blue below, about 95%) and over half of the charges (in purple below, about 60%) are covered by the CRCP:

% des charges et des recettes couvertes au CRCP, c'est-à-dire non incitées ou partiellement incitées (auquel cas une pondération est appliquée) pour chaque opérateur.



In fact, incomes are changing according to capacity subscriptions that depend mainly on factors that cannot be controlled by the operators (climate, industrial activity, etc.).

Capital charges, which account for more than half of the charges for gas transmission operators, are fully covered at the level of the realised, *via* the CRCP.

CRE foresees for the period ATRT7 to maintain the terms of coverage by the CRCP of the following items:

- Capital charges borne by GRTs, taken into account at 100%, with the exception of those which are the subject of the incentive-based regulation mechanism of "non networks" capital charges and for which only the inflation difference is taken into account (cf. paragraph 2.3.1);
- Operating energy costs (gas and electricity) and the purchases and sales of CO_2 quotas by TSOs. To encourage the TSOs to control these charges, the differences in this item are covered 80% by the CRCP;
- The difference between the provisional inflation taken into account by CRE for the annual update of the TSO's operating expenses and the inflation actually recorded, covered 100% by the CRCP;
- The tariff revenues downstream from the PEG, on which the TSOs have no influence, covered 100% by the CRCP:

  - Revenues from the marketing of exit capacities from the main network, distribution on the regional network and delivery;
  - Revenues from the marketing of storage entry and exit capacity;
  - H gas to B gas peak conversion revenues;
- Revenues collected on the main upstream network (excluding the main network exits, storage entries and exits) are covered at 80% to encourage TSOs to maximise subscriptions. The same applies to the following additional expenses and revenues:
  - Revenues from access and transactions at the PEG (gas exchange point);
  - Revenues from the Alizés balancing services for GRTgaz and SET for TERÉGA;
  - Revenues received in application of UIOLI (*Use it or lose it*) and UBI (*Use it and buy it*) mechanisms;
  - Revenues from the auctioning of daily capacities;
- The connection products of combined cycle gas turbines (CCGT) and combustion turbines (CTGs) are covered at 100% by the CRCP, as the project execution schedule is uncertain;
- Revenues from services for third parties linked to major development work in the territory whose execution is uncertain and on which TSOs have no influence (for example, rail or motorway projects) are covered at 100%;
- The charges for GRTgaz and the revenues for Teréga linked to the agreement between GRTgaz and Teréga for the use by GRTgaz of Teréga's network. The amount of these charges and revenues is covered at 100% by the CRCP. The impact of a variation in the contract amount is zero for the overall cost of gas transmission in France;
- The related costs, if applicable, to remuneration by the TSOs of the consumers connected to the transmission networks that have signed an interruptibility contract on the basis of Article L.431-6-2 of the French Energy Code are covered at 100%;
- The R&D operating expenses, with a special treatment (see 2.5): at the end of the tariff period, an assessment of the amounts actually spent by each GRT is carried out taking into account the actual inflation. If the TSO has spent less than the forecast trajectory, the difference is returned to the users. If the TSO has spent more than the forecast trajectory, the difference remains the responsibility of the operator;
- The charges and revenues resulting from congestion decumulation mechanisms under the single market place are covered at 100%.

Furthermore, CRE plans to upgrade two other items currently in the CRCP:

- As a result of the new methods for accessing the area serviced with B gas defined by CRE in its deliberation of 13 December 2018[7], CRE foresees a 100% coverage by CRCP of all GRTgaz charges relating to H gas to B gas conversion service, and not just as a result of changes in the volumes converted;
- The differences between the forecast and the refund made between Teréga and GRTgaz as part of the revenues received at the Pirineos network interconnection point (PIR), following CREation of the single marketplace on 1st November 2018, would be covered at 100% by the CRCP. CRE plans to adapt the coverage of the revenues from Teréga to Pirineos PIR, whose differences between forecast and actual results are covered at 80%. Thus, the 20% incentive for this difference would be maintained on the share of revenues maintained by Teréga, whereas the share of income paid to GRTgaz would be covered at 100%, to avoid an undue gain or loss for Teréga.

Among the items covered by the CRCP at 100% in the ATRT6 tariff, CRE plans to delete the following two items:

- The charges linked to the extrication of the R&D activities of GRTgaz and the Engie company, the costing of which was still uncertain during the development of the ATRT6 tariff, covered subject to CRE's approval of the contracts concluded for this purpose between Engie and GRTgaz. GRTgaz and Engie's R&D activities are now separate;
- The provisional costs of the pilot project for the conversion of B area to H gas, based on the results of the techno-economical study, which had not yet been conducted by CRE at the time of fixing the ATRT6 tariff. As the end of the pilot is scheduled for 2020, the project will enter into its industrial deployment phase, and the

[7] Deliberation of the Energy Regulation Commission no. 2018-258 of 13 December 2018 on the decision relating to the conditions for access to the area serviced with gas with low calorific value ("B gas")

charges for the ATRT7 period will be covered as the rest of the tariff's charges ("network" capital expenditure covered at 100% by the CRCP, incentive operating costs);

CRE also plans to add the following items to the CRCP:

- Connection costs of the biogas production units and the NVG stations. In fact, this sector's revenues in emergence are difficult to predict due to the uncertainty on the connection trajectories;
- The added values achieved as part of the transfer of assets.

Furthermore, GRTgaz has requested to reintegrate into the CRCP the investment costs for the renovation of its commercial IT system and ERP software. All capital charges related to the SI, vehicles and real estate have been encouraged from the ATRT6 tariff (as well as other system operators). Defined as "non-network capital charges", they are handled as operating expenses. However, GRTgaz indicates that significant adaptations of the IT system will require investment during the next tariff period due to changes in the gas transmission network: requirements for the provision of data, the emergence of decentralised productions, changes in tools and network operation methods. Those needs are, at this stage, are poorly defined and GRTgaz would like to an agile method in order to avoid exposure itself to adjustments when needed during the period.

CRE considers that changes in the GRT's activity must be carried out at a controlled cost, and that it must therefore be encouraged by the charges enabling it to conduct this activity. However, for certain IT investments relating to the operation of the network, arbitration may exist with investments in the network, the costs of which are covered by the CRCP. Where applicable, CRE may then be in favour of coverage by the CRCP. In the present case, the renovation investments of the commercial information system and the ERP software are not part of this category. CRE is therefore not in favour, at this stage, of the coverage by the CRCP of the cost discrepancies for these projects.

Lastly, CRE proposes not to retain the demand from Teréga to incorporate the costs relating to taxes and duties into the CRCP. In fact, in the public consultation of 14 February 2019 relating to the tariff framework, CRE has indicated that it is a reasonably predictable expenditure item.

CRE does not anticipate any significant legislative or regulatory change concerning the corporate-tax and taxation of TSOs during the ATRT7 period. Nonetheless, if such an evolution took place, with an impact of more than 1% on the TSOs' net operating expenses, it would be likely to justify an examination of the level of these charges in the context of the review clause (see 2.2.3/2.3.1.2). The trajectory of net operating expenses to cover the last two years of the ATRT7 tariff (2022, 2023) can be modified after this examination.

Question 5 Are you in favour of the scope of the expenses and revenues covered by the CRCP envisaged by CRE for the ATRT7 tariff?

2.3.2 Incentive Regulation Mechanism for Investments

Over the past 15 years, GRTgaz and Teréga have significantly developed their networks, creating new interconnection capacities with neighbouring countries and increasing entry capacities from the LNG terminals and the strengthening of the national network to eliminate congestion and reduce the number of market areas. These improvements have allowed consumers to benefit from a more diverse range of sources and have reinforced France's integration within the European gas market.

French Energy Regulation Commission (CRE) considers that the French transmission network is currently sufficient. Furthermore, the stagnation of consumption for 10 years and its predictable decrease by 2030, led CRE to be particularly vigilant in the examination of any new investment project that will be submitted by the TSOs. In this respect, CRE recalls that they must be subject to robust cost-benefit analyses in order to spare the end user any useless costs.

This target, which is pursued by CRE, corresponds to the energy policy orientations issued from the appointed government Minister, the Minister for Ecological and Inclusive Transition, which encourage to "a *greater selectivity of future investments. Those should focus on security and renewable gas integration. Network expansion must be contained in order to avoid the risk of stranded costs inevitably borne by gas consumers then on the national community*".

2.3.2.1 Incentive for controlling costs for network investments with a budget of over €20 million

The ATRT6 tariff provides for an incentive to control costs for projects with a budget of more than €20 million: the latter are subject to an audit allowing a target budget to be set, and a bonus or penalty is allocated to the operator depending on the difference between the target budget and the expenses actually observed, with a neutrality range of +/- 10% around the target budget.

In its public consultation of 14 February 2019 on the regulatory framework, CRE indicated that it wished to maintain the incentive mechanism defined by CRE for the ATRT6 period while reducing the neutrality range to 5% around the target budget. The majority of the contributors have expressed their commitment in favour of this proposal.

As a result, CRE maintains its orientation for the ATRT7 tariff by offering a neutrality range limited to +/-5%, with the exception of interconnection projects subject to a cross-border cost allocation decision on the basis of article 12 of regulation (EU) no. 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure: for these projects, CRE considers that, taking into account the delay between the date of adoption of the cost allocation decision and the planned date for the completion of the investment, it is appropriate to retain a neutrality range of 10%.

2.3.2.2 Incentives for controlling costs of network projects outside major projects

The incentive system for controlling project costs by an amount greater than or equal to €20 million previously mentioned concerns a limited number of projects. In its public consultation of 14 February 2019, CRE was concerned about the relevance of random auditing of projects or categories of investment projects for which the budget is below the threshold of €20 million. The majority of the contributors have expressed their commitment to extending incentive-based regulation to smaller projects.

As a result, CRE has maintained its proposal to introduce an incentive-based mechanism based on the random selection of a few projects or project categories for which the budget is below the threshold of €20 million, in order to audit them and apply an incentive-based regulation comparable to that applicable to investment projects with a budget over €20 million.

2.3.2.3 Incentives for projects to create new capacity on interconnections

The ATRT6 tariff provides for an incentive-based mechanism to create new capacity on interconnections. This mechanism was not applied during the period 2017-2019 due to the absence of a project.

Taking into account the considerations set out in 3.3.2, CRE considers that this system is no longer adapted to the context and plans to delete it in the ATRT7 tariff.

2.3.2.4 Incentives for controlling costs for "non-network" investments

The ATRT6 tariff deliberation introduced a mechanism encouraging TSOs to control their capital expenditure in the same way as their operating expenses on a scope of so-called “non-network” investments comprising assets such as real estate, vehicles and information systems (SI).

This mechanism encourages TSOs to optimise all charges globally in the interest of network users. It consists in defining, for the tariff period, the trajectory for the evolution of these capital costs which would then be excluded from the CRCP scope. The gains or losses made are therefore kept at 100% by the operators during the tariff period. At the end of the tariff period, the effective value of assets will be taken into account in RAB, which, for the following tariff periods, allows the sharing of gains or extra costs with users.

CRE, in its public consultation of 14 February 2019, intends to renew the main principles behind this mechanism. The majority of the contributors have expressed their commitment in favour of this proposal.

Given its recent introduction into infrastructure tariffs, feedback on the effectiveness of this mechanism is difficult to implement. CRE proposes to maintain the existing mechanism for the ATRT7 tariff in its outlines.

However, Teréga has proposed a mechanism close to the TOTEX (common OPEX and CAPEX trajectory) to manage its expenses relating to the Information Systems, in which the assets would enter the RAB of the operators at the amount fixed in the TOTEX trajectory, and not on the basis of the actual expenses incurred. At this stage, CRE continues its work to analyse the feasibility of an experimental TOTEX mechanism for the ATRT7 tariff.

Question 6 Are you in favour of the incentive-based regulation mechanisms for investments proposed by CRE for the ATRT7 tariff?

2.4 Incentive regulation mechanism for quality of service

The incentive regulation of the quality of service of TSOs which is for the purpose of improving the quality of service provided to transmission system users in the fields considered particularly important for the correct operation of the gas market.

In its public consultation of 14 February 2019, CRE presented an assessment of the incentive regulation mechanism for service quality since 2009, the date of its entry into force in gas transmission tariffs. CRE noted that the quality of service for operators had improved in the fields considered necessary for network users.

In their responses, stakeholders indicate sharing this positive review and consider that it is a pillar of the tariff regulation framework, which ensures that economic efficiency is not at the expense of services provided by the networks. They also consider, like CRE, that this is an important issue for the next tariffs and approve CRE's approach concerning the pursuit of ambitious service quality objectives.

2.4.1 Reminder of the current service quality incentive regulation mechanism

For the tariff period in force (ATRT6), the service quality of TSOs is monitored by means of 14 indicators, 5 of which are financially incentivised.

These indicators have been set by CRE after a large consultation with shareholders, with the aim of improving quality of service and promoting the proper functioning of the market in light of the challenges of the period, in particular the provision of information necessary for users to balance their portfolios.

The 14 existing indicators concern the following topics:

- Quality and availability of the data made available to shippers by the TSOs (7 indicators including 5 financially incentivised);
- Compliance with the forecasts provided to shippers for the TSO's maintenance programmes (5 indicators);
- The environmental impact of TSOs (2 indicators).

The 5 performance indicators subjected to a financial incentive concerning the quality of the consumption measurement data provided to the shippers and needed for their balancing operations:

- Quality of the measured quantities at the transmission/distribution interface points (PITD) and sent to the GRDs the following day for calculating the provisional allocations;
- Quality of daily quantities remotely metered at points of delivery to consumers (PIC) connected to the transmission network and sent the next day;
- Quality of intra-day quantities remotely metered at points of delivery to consumers (PIC) connected to the transmission network and sent during the day;
- Quality of the overall consumption forecasts at the end of the gas day performed the day before and during the day;
- Monitoring the provision of the five items of information most useful for balancing on the public sites of the TSOs.

The results of these performance indicators are published on the GRTs' websites each month. Since 2016, the latter have developed and published on their website a qualitative analysis report of their annual performance.

2.4.2 Assessment of the service quality incentive regulation system over the ATRT6 period

Between 2015 and 2018, the TSOs have made substantial progress in the indicators linked to financial incentives, particularly in the area of quality of data transmitted to stakeholders, and have overall maintained a high level of service quality. In particular, TSOs have improved in the consumption data forecasts domain.

The TSOs have been awarded a financial balance each year since the mechanism was introduced (outside Teréga in 2009), although in varying amounts, depending on the performance in each of the indicators compared to the standards required by CRE:

In k€	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GRTgaz	840	3,880	1,367	1,197	909	1,515	48	828	1,042	1,774
Teréga	-506	678	241	365	47	202	428	585	766	605

Overall, over the last tariff periods, the monitoring and incentives for service quality indicators has enabled the performance of TSOs in the targeted areas to be improved. To remain effective, the indicators and the associated incentives must nevertheless change.

2.4.2.1 Simplification and adaptation of the current service quality monitoring system

The quality of service incentives have evolved in order to take account of the results obtained and feedback. The incentives and targets for the operators have been gradually increased in order to improve their performance.

GRTgaz and Teréga led a discussion with stakeholders and proposed changes to meet the expectations expressed by stakeholders as part of the preparation of the ATRT7. Two themes emerged in particular:

- Quality and access to data;
- Quality of customer service.

- **Simplification of the current system**

In order to simplify the service quality monitoring system, CRE proposes removing the indicators which are no longer part of the priority needs of shareholders:

- Monitoring the provision of the five items of information most useful for balancing on the TSO websites. This indicator, which was introduced on 1st April 2016 as part of the implementation of the balancing network code, has been subjected to a financial incentive since 1st April 2017. During the Consultation, the stakeholders noted that the quality of this information was now satisfactory and gave priority to other information (see paragraph 2.4.3.4);
- The availability rate of the user portals, calculated according to the ratio of the number of hours of availability of the user portals and the public platforms of TSO data over the month related to the total number of opening hours planned over the month for the interfaces. This indicator has been no longer encouraged since 1st April 2018. During the Concerltation, the shareholders noted that the availability was satisfactory and gave priority to other indicators (see paragraph 2.4.3.4).

- **Strengthening of the current system**

In order to maintain a high level of service quality, CRE proposes to modify the following indicators:

- **Quality of inter-day quantities remotely metered at points of delivery to consumers connected to the transmission network and sent during the day**. For the ATRT6 period, the indicator is based on the comparison between, on the one hand, data on the 5 time slots published on the same day and, on the other hand, the same data as published the following month. On this basis and on a proposal from the TSO, CRE is in favour of adopting this indicator on the basis of an hour by hour comparison, without modifying the incentive;
- The **overall consumption forecasts carried out on the day before and during the course of the day**. The financial incentive covers the monthly average of high quality information rates, to which a bonus is applied for each high quality percentage point, and a penalty for each percentage point of poor quality. With regard to the forecasts made on the day before, the quality of the information depends on the difference, in absolute value, between the consumption forecast values of the day D published on the day before and the final measurement of the energy consumed on the day D sent on 20 of M+1: if this difference is strictly less than 4%, then the information is of very good quality; if the difference is between 4% and 7%, the information is of good quality; if the difference is strictly greater than 7%, the information is of poor quality. CRE plans to strengthen the requirements relating to the quality level of the information: thus, information would be of very good quality if the difference was strictly less than 3%, of good quality if the difference was between 3% and 6%, and poor quality if the difference was strictly greater than 6%;
- The **reliability of the projected working stock** published by TSOs on their website. This indicator is an estimate, made by TSOs, of the gas level in each balancing zone at the end of the gas day in progress (5:00) and provides information on the network voltage. The projected working stock published at time T is said to be compliant if the difference with the last compliant projected working stock value is less than 150 GWh on the GRTgaz network and 30 GWh on the Teréga network. For this purpose and on a proposal from the GRTs, CRE proposes to modify the definition as follows: the projected working stock published at time T would be considered as non-compliant if at least one of the data that has been used to calculate it is non-

compliant or if the result of the calculation is non-compliant. A component would be considered non-compliant if the deviation[8] for each component is greater than 30 GWh and analysed as being abnormal. The main components of the calculation would be:

- Consumption forecasts;
- The quantities scheduled;
- The physical working stock calculated at 6 a.m.

Furthermore, the results on the quality indicator of the quantities remotely metered at the consumers' delivery points and sent the next day are higher than the objective set by the ATRT6 tariff. CRE considers that the level of performance achieved is satisfactory and must be maintained. Consequently, it does not envisage developing the methods for calculating the quality indicator for the quantities remotely metered at the consumers' delivery points and sent the next day, or the bonus and penalty levels. On the other hand, it plans to revise the annual total amount of ceilings, currently set at k€600 thousand per year for GRTgaz and k€300 thousand for Teréga. CRE plans to introduce an asymmetric incentive on these ceilings as follows:

- The maximum amount of the bonus which GRTgaz can receive is set at k€300 thousand and the penalty is maintained at k€600 thousand;
- The maximum amount of the bonus which may be received by Teréga is k€150 thousand and that of the penalty is maintained at k€300 thousand.

- **Development of indicators relating to maintenance programmes**

The indicators relating to maintenance programmes aim, on the one hand, to provide visibility to all network users to better anticipate the network's unavailability and, on the other hand, to reduce the overall cost of unavailability for users.

The 5 indicators relating to the maintenance programmes in the ATRT6 tariff are as follows:

- Reduction of available capacity;
- Reduction of subscribed capacity;
- Compliance with the annual maintenance programme published at the beginning of the year by the TSO;
- Compliance with the committing maintenance programme published in M-2 by the TSO;
- Compliance with the best planned maintenance, non-committing, published in M-2 by the TSO.

These indicators are calculated monthly, with a value for each point of the network for each TSO. The categories of points retained are the PIR in the dominant direction, the entries from PITTM, the entries and exit from and to PITS and the interface between GRTgaz/Teréga in both directions.

In order to take into account the principle of auctioning of storage capacities since 1 January 2018, CRE plans to modify the schedule for publication of the maintenance programme and the indicators for maintenance programmes as follows:

- Deletion of the indicator relating to the reduction of available capacity. This indicator, calculated as the ratio between the firm capacities made available during the works and the firm technical capacities is not considered useful by the stakeholders present at the Concertation Gaz;
- Maintenance of the quantity indicator for reduction of subscribed capacities;
- The 3 indicators relating to compliance with maintenance programmes are replaced by the following indicators:
  - Compliance with the annual maintenance programme published in October and February. This indicator will be calculated based on two global values (October and February) with, for each value, a distinction between positive differences and negative differences[9];

[8] The differences are calculated between each hour.
[9] A difference is said to be positive or negative, respectively, when the capacity has been added, respectively removed, in relation to the published maintenance programme.

- Respecting the probable values published in October and February. Calculation of this indicator will be based on two global values (October and February) with, for each value, a distinction between positive differences and negative differences.

In order to simplify the monitoring of these indicators and to be able to carry out annual comparisons, CRE proposes that these indicators should be:

- calculated annually;
- aggregated for each category of points (PIR, PITTM, PITS) in the dominant direction of the flows, specifying the origin of the maintenance, located either on the GRTgaz network or on that of Teréga.

- **Introduction of new indicators**

The implementation of the single market area since November 2018 leads shippers to use a certain amount of information, as a priority, which is not subject to particular monitoring in the ATRT6 tariff. In light of the challenges for the proper functioning of the single market area, CRE suggests introducing the following two indicators:

- A monitoring indicator for providing the most useful information to shippers whose components would be:
  - Imbalance settlement prices: this component currently exists in the monitoring indicator for providing the five most useful items of information for balancing. The value monitored is unchanged: it is the average of the monthly availability rates for each price (weighted average price, marginal sale price, marginal purchase price);
  - Publication of data to customers (notice, slips, etc.) : the value monitored is the average of the monthly availability rates for each notice (execution slips, programming notice, intra-daily execution notice);
  - Substitution of measurements using *back-up* data for PITD data: the value monitored is the average of the *back-up* data rates correctly recorded as such;
  - Rate of availability of short-term firm capacity sales;
  - Transparency in the calls to locational *spreads*;
  - Vigilance information on the state of the network (green/orange/red, etc.) for the next day and up to D+5: the value monitored would be the availability rate of the vigilance information on the TSO sites.
- Setting up a monthly operation monitoring indicator for the single market area, the components of which would be as follows:
  - Average *end-of-day spread* between PEG and TTF;
  - Number of active participants at the PEG;
  - Occurrence of the appearance of congestion on the network;
  - Number of pooled restrictions;
  - Total cost of locational spreads;
  - Average cost of locational spreads.

The monitoring of claims is a strong expectation by shareholders as part of the public consultation on the regulatory framework. Furthermore, this topic was the subject of a point of attention from CRE in its Report on the respect of codes of conduct and independence of network operators 2017-2018 published in February 2019[10]. In particular, CRE requested GRTgaz to harmonise the definition of the concept of complaint and to provide greater transparency with regard to the number of actual requests from network users and on the response that was provided.

As such, CRE suggests introducing an indicator for monitoring the number of complains and the deadline for processing complaints as part of the quality of the customer service.

At this stage, CRE is not considering a financial incentive for these indicators.

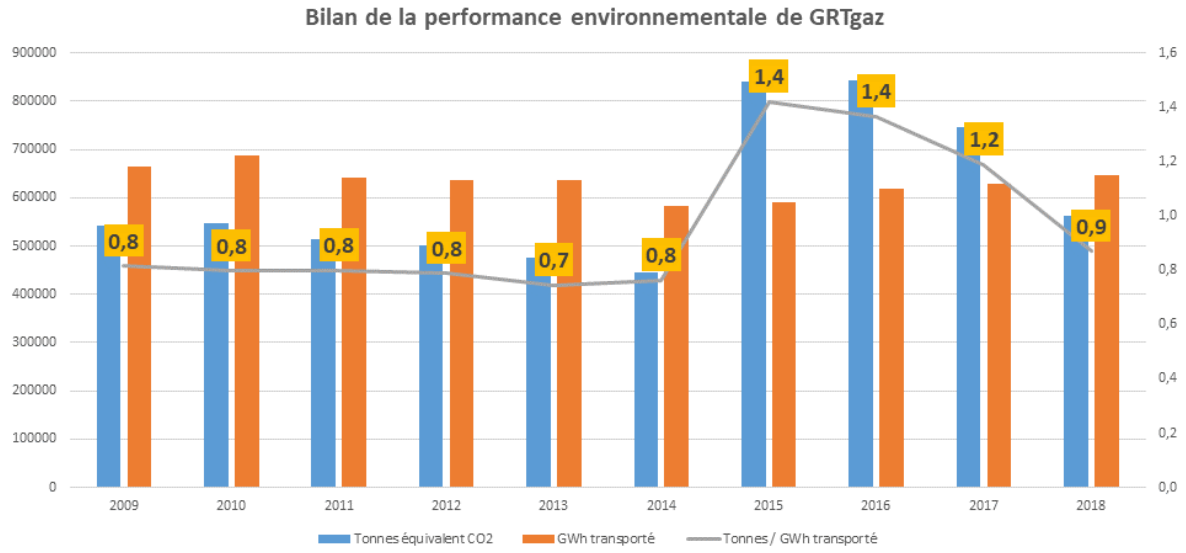
- **Environmental indicators**

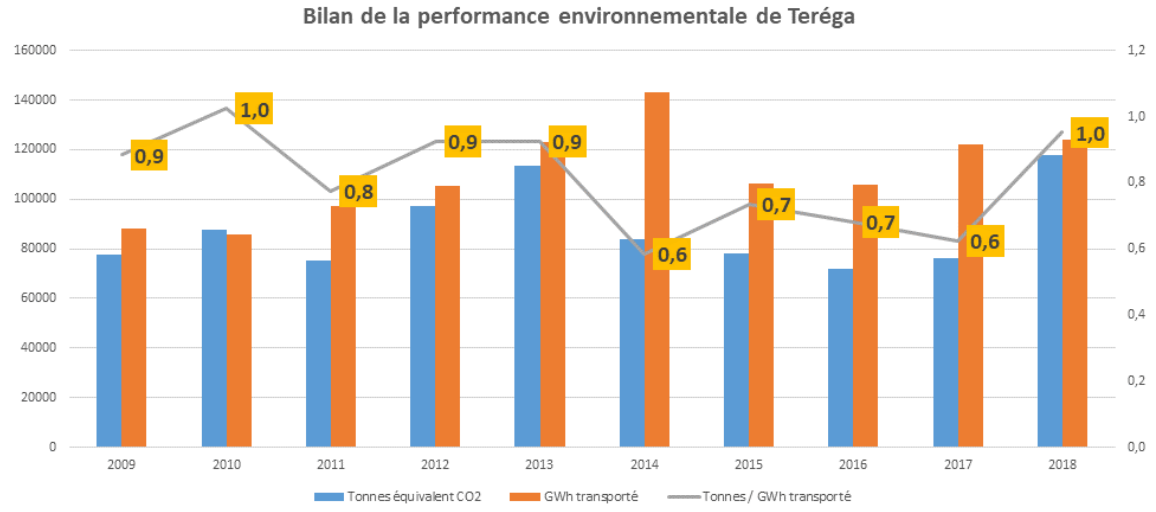
The ATRT6 tariff has two indicators relating to the environment, which are not subject to financial incentives:

[10] 2017-2018 report on compliance with codes of conduct and independence of electricity and natural gas network operators

- Annual greenhouse gas emissions (in equivalent CO_2);
- Monthly emissions of greenhouse gas related to the volume of gas transported.

Below is the review, over the past ten years, of greenhouse gas emissions from GRTgaz and Teréga:





These greenhouse gas emission monitoring indicators encompass both:

- emissions proportional to the volumes of gas transported for which the TSO control is partial and is mainly based on the optimisation of gas flows,
- emissions on the networks following more directly the network operation, such as recompression and gas re-injection operations during maintenance operations, rather than discharge into the atmosphere.

During the public consultation of 14 February 2019, stakeholders shared CRE's position to strengthen monitoring of environmental indicators. The question of methane emissions into the atmosphere is an essential issue. CRE plans to introduce a methane emission monitoring indicator on the networks (including the scope of diffuse losses, venting and accidents/incidents), related to the volume of gas transported.

At this stage, CRE is not planning a financial incentive for this indicator on start-up of the ATRT7 tariff.

Question 7 Are you in favour of changes to the incentive regulation mechanism for service quality planned by CRE for the ATRT7 tariff?

2.5 R&D and innovation incentive regulation

In a rapidly changing energy landscape, CRE attaches particular importance to the development of smart networks and the adaptation of networks to the energy transition. Network operators must have the necessary resources to successfully carry out their research and development (R&D) and innovation projects, which are essential for providing an efficient and high-quality service to users and developing their operating tools for their networks. On the other hand, Network operators must have a transparent and effective use of these resources.

In order to meet these two requirements, the incentive regulation of R&D and innovation (R&D&I) is currently based, for all operators, on:

- A trajectory of R&D&I costs incented asymmetrically: at the end of the tariff period, amounts not spent on the period are returned to consumers while the operators bear exceedings costs;
- Preparation of a detailed annual report to be sent to CRE, which assesses the actions undertaken in R&D&I, supplemented by a bi-annual public report.

In addition, a *smart grid* counter has been set up for electricity operators, allowing them to obtain additional funding during the tariff period, in particular for their *smart grid* demonstrator projects.

In its public consultation of 14 February 2019[11], CRE proposed:

- The maintenance of existing conditions for the coverage of costs related to the R&D&I of operators;
- Extension of the *smart grid* counter to gas operators;
- Improved transparency.

Most of the stakeholders that responded to the public consultation are in favour of reservations to CRE proposals. Overall, the contributors are very pleased about the functioning of current mechanisms, which make it possible to protect R&D&I expenditure while offering flexibility to operators, and would like to see them again in the next tariffs. Stakeholders are also in favour of greater transparency in the R&D programmes of operators. The reservations expressed by certain stakeholders mainly concern the scope of expenditure and projects eligible for the various mechanisms, the efficacy of mechanisms and the confidential nature of certain innovations making transparency difficult.

CRE is therefore planning to maintain its orientations. First of all, CRE suggests that the methods for coverage of R&D and innovation costs remain unchanged. They ensure that the operators are not encouraged to arbitrate between savings on their R&D&I expenditure and preparing for the future. In order to offer more flexibility to network operators in adapting their R&D&I programme, CRE is also considering introducing a revision of this trajectory halfway through the tariff period.

In order to encourage the deployment of *smart grids* technologies among all operators, CRE proposes to extend the *smart grids* counter mechanism to gas network operators. Subject to being able to justify a favourable cost-benefit analysis, and for projects exceeding €1 million resulting from the roll-out of *smart grids*, GRTgaz and Teréga could request the integration of additional operating expenses associated with this type of project to their trajectory once a year. Where applicable, incentive regulation elements associated with these projects could be introduced.

Finally, CRE proposes to ensure the transparency and control of the effectiveness of the expenditure relating to R&D and the innovation of operators through two exercises:

- Annual transmission of technical and financial information to CRE for all ongoing and completed projects, instead of the current report to CRE;
- Bi-annual publication by the operators of an R&D report for the public, in line with the mechanism currently in place. The reports will need to be harmonized between the operators, in particular thanks to standardised indicators, and enhanced with concrete elements concerning the benefits of projects for network users, as well as systematic feedback on the demonstrator projects financed by the tariff.

The definition of the format of these reports will be the subject of work between CRE and the operators.

Furthermore, to meet the demand of stakeholders, concerned with maintaining a control perimeter limited solely to the skills of system operators, CRE foresees requesting the operators to consult the market, at the start of the tariff period, on the major research themes that they plan to develop.

[11] Public consultation of 14 February 2019 no. 2019-003 on the tariff regulation framework applicable to regulatory infrastructure operators in France

Question 8 Do you have any comments regarding the incentive regulation framework and R&D foreseen by CRE for the ATRT7 tariff?

3. TARIFF LEVEL

3.1 Assessment of the ATRT6 period: operating expenses

3.1.1 GRTgaz

Over the period ATRT6, the net operating expenses borne by GRTgaz have been lower overall than the operating expenses forecast in the trajectory set by the tariff.

The ATRT6 tariff assumed an increase in GRTgaz's OPEX over the period 2017-2020 in the context of the "GRTgaz 2020" programme related to the company's adaptation to the energy transition.

In current €m	2017 Actual	2018 Actual
Net operating expenses forecast by the ATRT 6 tariff	763.9	785.5
Actual net operating expenses	736.0	769.6
Differences	-27.9	-15.9

Over the period 2017-2018, the cumulative difference between the ATRT6 tariff trajectory and the actual trajectory amounts to -43.8 M€, i.e. -2.8% compared to the estimated costs. These two years were marked by exceptional events. The associated costs were not forecast in the ATRT6 trajectory, such as the purchase of a storage space of 1 TWh at Manosque in order to form the security stock planned to remove the south-east congestion during winter 2017-2018 and the change in access rules regarding the area served with B gas[12].

In addition to these elements, explanations of the main differences are:

- Personnel expenses borne by GRTgaz below the tariff forecasts due to the observed changes in status-related costs lower than expected;
- The opening of the market for zone B to the competition slower than initially assumed, which has caused fewer capacity subscriptions as part of the H/B gas conversion contract;
- Property charges lower than the tariff forecasts due to the renegotiation of certain leases and the launch of new *facility management* contracts;
- Operational support expenses lower than the tariff forecasts deriving from gains on recurring operating expenses.

3.1.2 Teréga

Over the period ATRT6, the net operating expenses borne by Teréga have been lower overall than the operating expenses forecast in the trajectory set by the tariff.

In current €m	2017 Actual	2018 Actual
Net operating expenses forecast by the ATRT6 tariff	76.3	75.3
Actual net operating expenses	73.4	72.5
Differences	-2.8	-2.8

Over the period 2017-2018, the cumulative difference between the ATRT6 tariff trajectory and the actual trajectory amounts to -5.6 M€, i.e. -3.7% compared to the estimated costs. The main differences are explained in particular by:

[12] Deliberation of the Energy Regulation Commission of 13 December 2018 on the decision relating to the conditions for access to the area serviced with gas with low calorific value ("B gas")

- "Network surveillance" expenditures below the tariff forecasts as a result of the downward review of the network aerial surveillance plan;
- Personnel expenses borne by Teréga below the tariff forecasts due to changes in employer and social security costs lower than expected.

3.2 Operators' tariff demand and underlying main challenges

3.2.1 GRTgaz

GRTgaz believes that its tariff proposal aims at addressing several challenges, in particular:

- Adapting its infrastructure to accommodate in the short-term the quantities of biomethane provided for by the PPE project and in the longer term renewable or low carbon gases essential to achieving the complete decarbonisation objectives of the energy mix;
- Supporting consumers willing to improve the performance of their equipment or switching their uses to gas in order to reduce their environmental footprint;
- Identifying the final network uses in the context of reduced consumption;
- Adapting the IT system in the context of increasing risks of digital malicious acts on strategic infrastructure, rising use of digital tools and shared data volume growth;
- Improving the company's environmental footprint by reducing methane leaks and optimising energy consumption.

Taking into account the issues listed above leads GRTgaz to request, in 2020, a total of net operating costs, energy costs included, and capital expenses of 1,898.2 M€[13], i.e. 112.3 M€ (i.e. + 6.3%) more than the expenses incurred in 2018.

3.2.2 Teréga

Teréga has made its tariff proposal in line around its "Impact 2025" business transformation plan characterised by the following strategic drivers:

- Accelerating the digitalisation of the company through information systems transformation;
- Accelerating the development of technological solutions with, for example, the operational optimisation of of multi-energy systems;
- Strengthening security and cybersecurity;
- Improving the recognition and presence of the company in France and around Europe;
- Improving the company's energy efficiency and environmental responsibility.

Taking into account the issues listed above leads Teréga to request, in 2020, a total of net operating costs, energy costs included, and capital expenses of 276.7 M€[14], i.e. 35.3 M€ (i.e. +14.6%) more than the expenses incurred in 2018.

3.3 Operating expenses

3.3.1 Operators' demand

3.3.1.1 GRTgaz

The estimated net operating expenses, presented by GRTgaz in its demand for the ATRT7 2020-2023 period, are as follows:

In current €m	2018 Actual	2020	2021	2022	2023
Net operating expenses	769.6	832.5	851.8	874.8	890.1

With reference to net operating expenses, energy expenses included, GRTgaz's demand would lead in 2020 to an increase of +62.8 M€, i.e. +8.2% compared to 2018 on a like-for-like basis. Excluding energy, the increase between

[13] Excluding smoothing effects, CRCP clearing and inter-operator flows
[14] Excluding smoothing effects, CRCP clearing and inter-operator flows

the actual figure for 2018 and the demand for 2020 is +5.6% and, over the 2020-2023 period, net operating expenses then increase by +2.7% per year in average.

The main items showing an increase between 2018 and 2020 in the GRTgaz demand are the following:

- "Payroll": significant increase in staff over the ATRT7 period which GRTgaz justifies by the internalisation of key IS skills and the development of biomethane and new gases;
- "Other operational support": the upward staff trend as well as the end of major works and the business and company transformation involve, according to GRTgaz, a greater need for training, for commercial studies, strategy and forecasts;
- "Industrial system excluding R&D": the increase in expenses is linked to cyclical events associated with preventive maintenance and the number of dismantling and decommissioning operations.
- "Energy": GRTgaz foresees an increase, which it justifies on the one hand, by higher North-South flows than in 2018 due to a lower inflow forecast at the Fos LNG gas terminal, and a higher output forecast at Pirineos, and on the other hand, by the need to acquire CO_2 quotas during the ATRT7 period.

3.3.1.2 Teréga

The estimated net operating expenses, initially presented by Teréga in its demand for the ATRT7 2020-2023 period, are as follows:

In current €m	2018 Actual	2020	2021	2022	2023
Net operating expenses	72.5	88.0	92.2	93.8	97.2

Teréga has then provided a revised demand of its estimated operating expenses:

In current €m	2018 Actual	2020	2021	2022	2023
Net operating expenses	72.5	85.7	91.0	93.0	96.3

With reference to net operating expenses, energy expenses included, based on the revised demand, the Teréga demand would lead in 2020 to an increase of +13.2 M€, i.e. +18.2% compared to 2018. Excluding energy, the increase between the actual figure for 2018 and the demand for 2020 is +17.3%. Over the period 2020-2023, the net operating expenses then increase by +4.0% per year on average.

For its corporate project, Teréga intends to mobilise significant human and material resources with an upward impact on operating costs. The following items show the most significant increases between the actual 2018 figure and the 2020 forecast:

- "Personnel costs": increase linked mainly to a significant increase in the number of employees;
- "Telecommunications and IT": increase linked to the expansion of services accessed and subscriptions on the *Cloud*, as part of the implementation of the company's new IS strategy;
- "Major maintenance": increase linked to an expected increase in maintenance activities for compressor stations;
- "Energy": Teréga foresees a rise in electricity consumption and the use of green electricity leading to increased prices, as well as the integration of the TIC tax and CO_2 quotas in the trajectory.

3.3.2 Challenges identified by CRE and the analytical approach adopted

- **Reduction of expenditures associated with the development of major projects**

The improved functioning of the gas market, which is a main objective pursued by CRE since its creation, has been made possible thanks to the increased integration with neighbouring markets on the one hand, and the gradual simplification of the French market organisation on the other. These two areas have required significant reinforcement works on the transmission network, in particular to reduce congestions, and the implementation of information systems. The final stage after 15 years of major investments was reached with the implementation, on the 1st November of 2018, of the merger of the TRS and PEG North market places ("merger of the zones").

CRE considers that the French transmission network is now sufficiently sized and that the merger of the zones has marked the end of a cycle of major projects. This change in the TSO's activity perimeter should lead to a reduction in the costs associated with major investment projects and to the redeployment of the means concerned to other activities.

Furthermore, the energy policy orientations transmitted by the State Minister, minister for the Ecological and Solidary Transition, underline the "*importance of cost-efficiency in order not to, on the one hand, make consumers bear excessive costs and in order to, on the other hand, avoid stranded costs over time*".

- **The energy transition affects infrastructure operations and requires reinforced vigilance regarding future costs**

The energy transition requires all shareholders in the gas systems, operators and regulators alike, to think differently.

Network operators must aim at reconciling two contradictory trends:

- The reduction in gas consumption, driven in particular by energy demand control actions;
- The emergence of new costs to allow in particular the integration of renewable gases into networks.

In order to control the development of future tariffs, in the context of likely consumption reduction, the costs must, as much as possible, evolve in the same direction of consumptions.

Furthermore, the French transmission network is now sufficiently sized. The increase in OPEX observed over the last 10 years has therefore no reason to continue.

- **Innovation among operators needs to be encouraged**

Innovation and the new possibilities offered by the digital revolution are a lever to optimise the costs associated with the transformation of networks imposed by the energy transition. TSOs must favour the use of such innovative solutions if they help reduce the total costs for the community and/or the risks of over-investment, not to mention stranded costs.

In addition, thanks to their central role in the gas system, TSOs must also be the enablers of innovation for the users of their infrastructure.

CRE intends to ensure that network operators have the necessary resources to successfully carry out these innovation projects, which are essential for providing an efficient and high-quality service to modernising networks' users, and in particular to upgrade their network operations tools. Network operators must in return use these resources effectively and in a transparent manner.

- **Approach adopted by CRE for the analysis of net operating expenses**

Incentive regulation for net operating expenses aims at, by leaving operators 100% of the differences between the actual trajectory and the tariff trajectory, encouraging them to improve efficiency over the regulatory period. The efficiency level revealed during the ATRT6 tariff period has to be taken into account to establish the ATRT7 tariff so that network users benefit from productivity gains over time.

For these reasons, CRE has requested the operators to submit their tariff proposals in light of the latest actual figures, justifying any significant difference compared with the actual figure for 2018 and breaking each item of the tariff matrix down to the first euro incurred.

CRE has appointed the consultancy firm Schwartz and Co to carry out an audit of the operating charges of natural gas transmission operators. The works were carried out between April and July 2019. The auditor's report, based on the first version of the operators' requests, is published for each operator jointly with this public consultation document.

This audit allows CRE to have a good understanding of the TSOs' actual operating expenses and revenues observed during the ATRT6 period and the estimated net operating expenses presented by the operators for the future regulatory period (period 2020-2023). The results of this audit have the following objectives:

- Providing expertise on the relevance and justification of TSOs' operating expenses trajectories for the next regulatory period;
- Assessing the level of actual costs (2018) and estimated costs (2020-2023);
- Formulating recommendations on the efficient level of operating expenses to be taken into account for the ATRT7 tariff.

CRE has also analysed certain specific items, in particular Research and Development (R&D) expenses, energy costs and congestion treatment costs.

3.3.3 Summary of the results of the external audit and additional adjustments by CRE on specific items

3.3.3.1 GRTgaz

- **Results of the external audit**

As the outcome of his works, the auditor has recommended the following trajectory for GRTgaz's operating expenses over the ATRT7 period:

GRTgaz, in current €m	2020	2021	2022	2023
Requested trajectory	832.5	851.8	874.8	890.1
Actual costs (2018 inflated)	791.3	804.0	817.6	832.4
Auditor's trajectory (before efficiency)	784.2	801.2	821.0	832.0
Auditor's trajectory (after efficiency)	**784.2**	**800.8**	**814.6**	**822.8**
Impact on GRTgaz's demand	-48.3	-51.0	-60.2	-67.3

The main adjustments recommended by the consultant relate to the costs associated with the personnel, the Information System and the Industrial System. These adjustments are as described below.

Personnel costs

GRTgaz intends to proceed with a net staff increase of 122 FTE employees, out of a total staff of circa 3,000 FTE employees over the period 2020-2023. Overall, GRTgaz assumes the opening of 230 positions, out of which 59 are to be filled by redeployed personnel (i.e. personnel previously assigned to other activities which ended, such as the major development projects of the network) and out of which 49 are to be filled thanks to productivity efforts (i.e. out of the 230 position openings, GRTgaz commits to fill 49 openings with the existing staff already mobilised on long-term activities).

The auditor considers that the number of job openings (excluding those associated with the internalisation of IS skills, which is the subject of an *ad hoc* treatment) required by GRTgaz is overestimated. Among the 230 position openings requested by GRTgaz, only 152 are to be retained relevant according to the consultant, for the following reasons:

- The increase in staff linked to the development of biomethane seems, according to the auditor, to be largely overestimated given the number of connections planned for the ATRT7 period (15 to 20 connections per year);
- The development stage at which hydrogen and *power to gas* are today and will likely be in the next 4 years does not justify the recruitment planned by GRTgaz.

Furthermore, as major projects are now ending, the auditor has analysed the level of in-house resources which can be redeployed to the activities which need job openings. Furthermore, the consultant has accepted the productivity target proposed by GRTgaz.

During the ATRT7 period, compared to 2018, the trajectory of personnel expenses proposed by the consultant is lower than the actual 2018 figure at current prices. The staff increase would be compensated by the expected reduction in rates (in particular the additional remuneration and the CNIEG rates) and the reduction of corporate social security contributions (as a result of the end of the CICE scheme from 2019).

As a result, the consultant proposes a downward adjustment to the GRTgaz demand for personnel costs of 23.9 M€ on average per year (that is, in total over the ATRT7 period, 95.5 M€), essentially linked to the assumption of lower job openings over the period and the reduction in applicable rates.

Information System ("IS")

GRTgaz has presented a project to internalise the key skills related to the information system, which the consultant does not call into question. The latter considers that the costs associated with internalised staff should be taken into account in the cost analysis for the IS. The consultant has considered lower IS cost trajectories than those of GRTgaz based on a total cost approach (labour + operating expenses + investments).

Furthermore, the consultant considers that the IS projects planned by GRTgaz come under the continuous transformation of the information system. According to him, these transformations are not, with the exception of

cybersecurity projects, likely to constitute an organisation breach justifying exceptional additional costs and must be carried out as part of the recurring budget allocated to the IS expenses.

The consultant defines a total IS costs trajectory (labour + operating expenses + investments) equal to the actual figure for 2018 at current prices, to which he adds the new operating costs related to cybersecurity as proposed by GRTgaz.

This approach leads to the adoption of a -6.9 M€ adjustment on average per year (i.e. -27.8 M€ in total over the ATRT7 period).

Industrial System

The consultant has elaborated the trajectory for most of the sub-items under this heading by indexing the actual 2018 figure on inflation, taking into account the exceptional increase of some costs (in particular the costs related to the treatment and replacement of air compressors) and ignoring the costs not justified by the operator (in particular costs related to the obsolescence management programme which are the subject of several reservations by the consultant). The trajectory proposed by the consultant is consequently in line with the actual 2018 figure (at current prices) on average over the ATRT7 period.

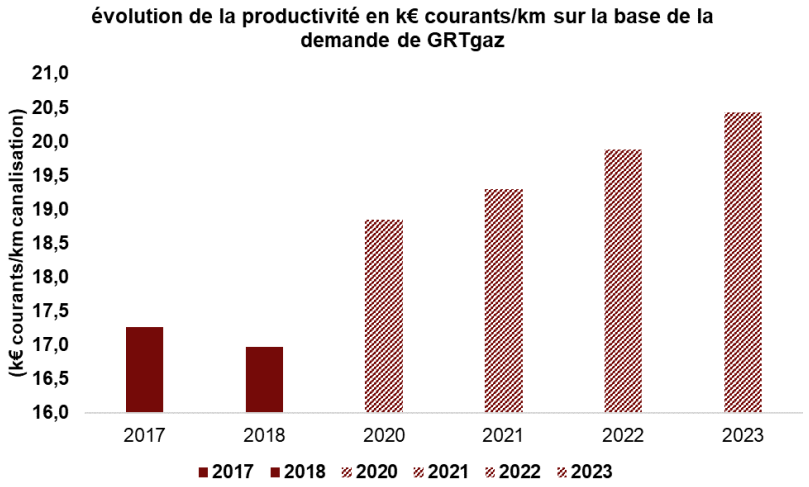
This results in a downward adjustment of -12.6 M€ per year on average (i.e. -50.2 M€ in total over the ATRT7 period) for the industrial system costs, while GRTgaz's demand is strongly higher than the actual level for 2018.

Analysis of operator productivity

In addition to the "item by item" analysis, the consultant has measured the change in GRTgaz's overall operating expense productivity, analysing the change in the ratio of net operating expenses to km of pipeline.

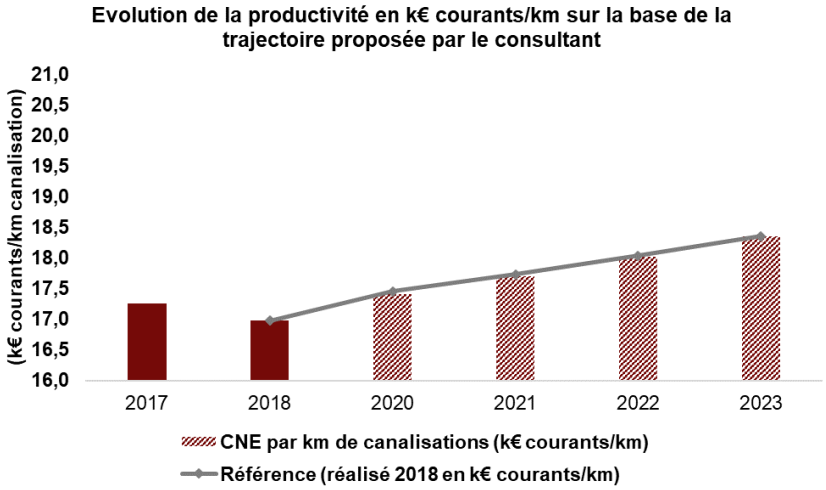
The choice of the "network length" criterion to assess productivity derives from the experience gained by the consultant when benchmarking transmission operators (statistical and econometric studies), from which it turns out that the number of km of pipeline is the parameter most correlated with net operating expenses.

Thus, the consultant has assessed the level of productivity achieved by GRTgaz during the period 2017-2018 and compared it with the projected productivity level on the basis of GRTgaz's tariff demand. In order to analyse productivity, the consultant has chosen a like-for-like activity perimeter, meaning that the most variable costs and revenues have been excluded (repayable revenues from service work, energy costs, etc.).



The chart above shows that GRTgaz's tariff demand for the ATRT7 period would lead to a significant deterioration of productivity compared to 2018 and 2017. This trend is explained by the increase in net operating expenses whereas the business cost drivers remain relatively stable (number of km of pipelines, volumes transported).

The consultant recommends targeting *at least* the stability of the operator's productivity and defining a productivity improvement target over the period 2020-2023, which aims to restore the productivity level of 2018 in 2023. He therefore recommends an additional efficiency of -4.0 M€ on average per year (i.e. -16.0 M€ in total over the ATRT7 period).



Inflation forecast considered +1.3% in 2019; +1.5% in 2020; +1.6% in 2021; +1.7% in 2022; +1.8% in 2023

- **Additional adjustments by CRE**
  - **Development of biomethane connections**

In their tariff proposals, GRTgaz, Teréga and GRDF overall present trajectories of biomethane volumes injected greater than the objectives of the PPE project[15]. In fact:

- The objectives set by the PPE project are about 6 TWh by 2023 for all networks combined (transmission and distribution);
- GRTgaz and Teréga forecasts are about 2 TWh and those of GRDF of about 8 TWh by 2023.

The energy policy orientations transmitted to CRE by the State Minister, minister for the Ecological and Solidary Transition, envisage that the assumptions to be taken into account in terms of biomethane development "*shall be based on the PPE currently discussed. It sets a target for biomethane injection in gas networks of 6 TWh in 2023 and between 14 and 22 TWh in 2028*".

In line with such orientations, CRE plans to retain a total volume of 6 TWh of biogas injected by 2023, as assumed by the PPE project, that is an adjustment of -40% to the trajectory requested by the network operators.

For GRTgaz, this adjustment comes down to retaining 1.1 TWh of biogas injected by 2023 (to be compared to 1.8 TWh in its demand) and an average annual rate of 12 new connections per year over the ATRT7 period (compared with 20 per year in the GRTgaz demand).

  - **Energy costs**

GRTgaz's demand for energy costs (gas, electricity, CO_2) is based on a significant increase in North to South flows compared to 2018. In fact, GRTgaz foresees in 2019 and 2020:

- A drop in the inflows into the Fos terminals (-37% compared to 2018) in connection with the merger of the zones that took place on the 1st November of 2018 which resulted in an increase in the North to South flows.
- A rise in flows to Teréga (+62%) linked to the merger of the zones that allows the Spanish market to increase its arbitrage capacity between LNG, gaseous gas from the North of Europe and gaseous gas from Algeria. GRTgaz assumes Pirineos will reach saturation point in terms of exit capacity (up to the subscribed firm capacity).
- A decrease in consumption in the South zone according to consumption forecasts in the blue scenario for gas prospects[16] (-4% in 2023 compared to 2018).

In 2023, GRTgaz makes entry assumptions for Fos and delivery to Teréga identical to those for 2020, a 13% drop in entry at the Dunkirk interconnection point and a 45% decrease in flows to Italy.

[15] PPE Project
[16] Natural and renewable gas prospects for 2018-2035

	2018 actual	2020	2021	2022	2023	ATRT7
Gas (€m) *Volumes (GWh)*	43 *2,768*	56 *2,869*	54 *2,757*	56 *2,655*	56 *2,533*	**221** *10,813*
Electricity (€m) *Volumes (GWh)*	35 *430*	44 *539*	42 *507*	40 *475*	37 *443*	**163** 1,965
CO_2 (€m)	-	-	5	5	6	**16**
TIC (€m)	7	8	8	7	7	**31**
Total energy costs (€m)	**85**	**109**	**109**	**108**	**105**	**431**

CRE intends to make several adjustments in relation to this request:

- The estimated volumes of energy consumption for the compressors are reduced to take into account less conservative assumptions regarding injection of liquefied natural gas (LNG) at the Fos PITTM, reflecting the trends observed over the latest months and forecasts on the evolution of the global LNG supply (commissioning of several Russian, American and Australian liquefaction plants);
  - For 2019, a flow of 215 GWh/day at Fos, equal to the actual annual flow from June 2018 to June 2019 is taken into account ;
  - For the ATRT7 period, an assumption regarding LNG flows change is made (+4% p.a. compared to 2018 in line with the forecast by Energy International Agency (EIA) about LNG importations).
- A +33% in delivery flow to Teréga compared to 2018, is taken into account to reflect the increase in flows at Pirineos from the merger of the zones and a slight drop in consumption in the Teréga area;
- The gas volumes adjustment leads to correcting the trajectory of the TIC (domestic consumption tax) and the trajectory of CO_2 quotas in line with the drop in consumption;
- prices observed in the gas markets for the years 2020 to 2023 (average of the calendar prices observed in June) are taken into account. These prices will be updated in the final tariff decision;
- Consideration of an "EBT" trajectory (deviation in the technical review) in line with the latest actual figures observed.

These hypotheses lead to a downward adjustment of the GRTgaz demand by about -66.0 M€ in total over the ATRT7 period, i.e. a drop of about -15%. These adjustments may further change to take into account the latest energy prices created and the free allocation of CO_2quotas.

- <u>Research and Development (R&D)</u>

With regard to R&D, GRTgaz's operational expenses were higher than the trajectory set by CRE. GRTgaz explains this by:

- An increase in research efforts linked to network adaptation to the energy transition and to the digital transition, while ensuring operational security (integrity, protection against asset ageing);
- The creation of an in-house research centre (RICE), to which ENGIE's CRIGEN "R&D gas infrastructures" activities were transferred. The incentivised trajectory therefore include the costs and revenues associated with RICE activities from 2018 onwards.

GRTgaz requests, for the ATRT7 period, a net operating expenses budget (excluding RICE revenues and indirect costs) of 134 M€ (i.e. 33 M€/year on average during the period), divided into three goals:

- Industrial Safety (29 M€): ensuring the safety of goods and people, and infrastructure ;
- Energy Transition (61 M€): encouraging the development of new gases, hydrogen and new gas uses, managing *smart grids,* and developing a long-term view of the energy sector;
- Operational Performance (44 M€): working on the company's attractiveness, optimising the design and operation of infrastructures, reducing environmental impacts and developing new materials.

For some programmes, the projected trajectories by GRTgaz increased during the ATRT7 period, without the TSO having duly justified these trends.

CRE intends to make the following adjustments:

- CRE considers that studies linked to the expected injection of biomethane into the networks are subject to continuous developments initiated during the ATRT6 period and do not justify exceptional additional costs;
- CRE considers that hydrogen development constitutes a new R&D challenge for the ATRT7 period to study the conditions for its injection into the networks. "*Energy policy orientations transmitted to CRE by the State Minister, minister for the Ecological and Solidary Transition, foresee furthermore that TSOs be able to have access to "adequate means to study from now on the technical and economic conditions for hydrogen injection in their equipment and those connected*"". However, GRTgaz poorly details its tariff demand and does not justify the growth of amounts over the ATRT7 period. Consequently, CRE intends to consider the increase requested between 2018 and 2020, and to maintain flat the budget allocated over the the period:
- CRE considers that the demand for additional resources to develop more robust models to forecast consumption and climate adjustments in line with a long-term shared view of future energies is relevant, in order to increase forecasts reliability for security of supply and infrastructure use studies in the context of forecast review and the TYNDP. However, GRTgaz does not justify the growth of amounts over the ATRT7 period. CRE intends to accept the amount planned by GRTgaz in 2020 and to keep it constant over the period;
- CRE also intends not to accept the costs associated with certain programmes, in particular those aimed at encouraging the role of natural gas in the energy mix on the basis that they are not part of the TSO's missions and are not intended to be covered by the tariff. Programmes related to the attractiveness of the company and the integration of new generations are also excluded, as CRE considers them without connection with R&D.
- Lastly, CRE considers an upward adjustment in RICE revenues: The latter are lower in GRTgaz's demand compared to 2018. Since the costs associated with the RICE activities are growing over the ATRT7 period, CRE considers that the revenues must be able to cover all these cost increases.

As a result, CRE plans to retain a trajectory of R&D charges worth 113.6 M€ over the ATRT7 period, i.e. 28.4 M€/year on an average, compared to expenses of 22.9 M€ in 2017 and 27.2 M€ in 2018.

- **Summary of the preliminary analysis**

GRTgaz's demand would lead to an increase of 5.6% in 2020 of the operating expenses excluding energy to be covered by the ATRT7 tariff compared to the level of charges recorded in 2018, followed by a rise of 2.7% on average per year over 2020-2023.

At this stage of analysis, CRE considers that the operator's demand is not justified.

The conclusions of the audit report have given rise to a contradictory discussion with GRTgaz during the month of June 2019. GRTgaz was therefore able to formulate its observations on the results of the consultant's work and questioned part of the adjustments identified by the consultant as part of this contradictory discussion.

The level finally selected by CRE will depend on the outcomes of the analyses in progress on the adjustments recommended by the auditor, as well as on other adjustments envisaged by CRE, where applicable.

At this stage, CRE considers that the level of the operator's net operating expenses could be between a "upper limit" corresponding to the operators' demand, and a "lower limit" based on:

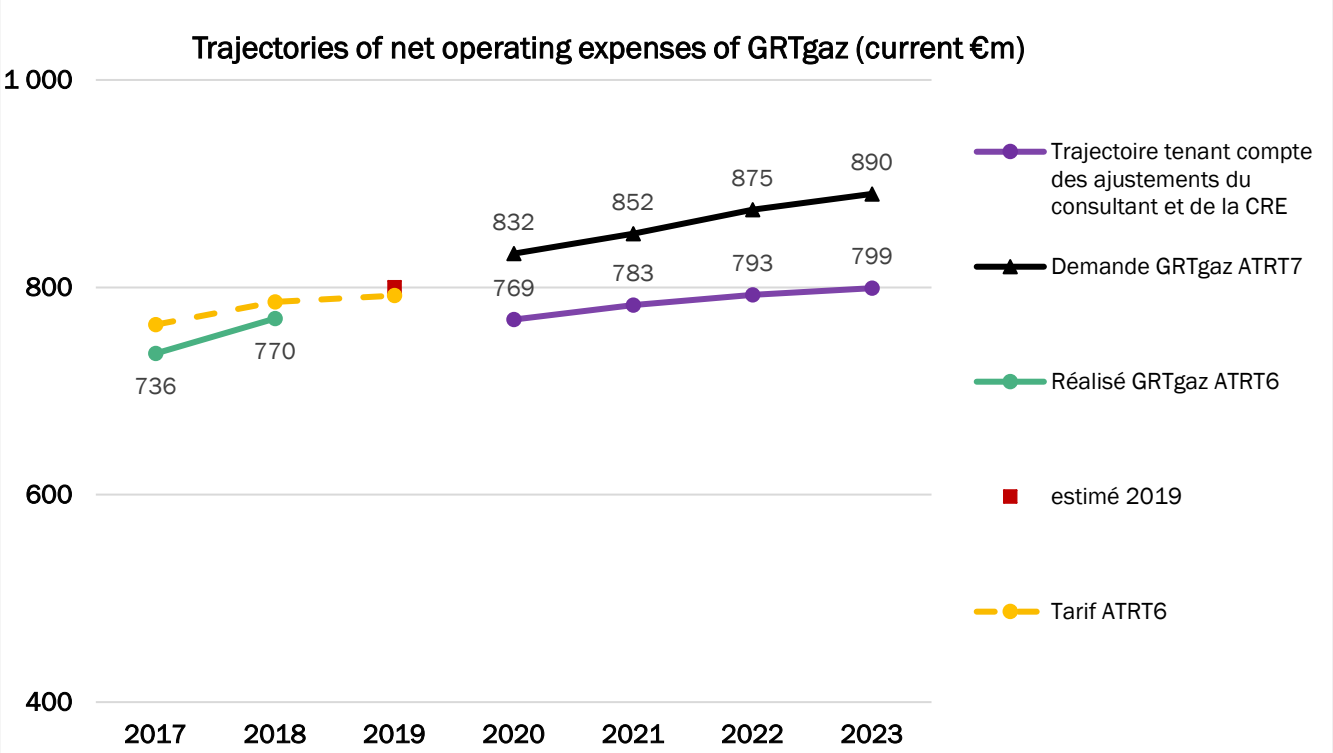
- All the conclusions of the external audit of GRTgaz's net operating expenses, including efficiency objectives;
- An additional adjustment of CRE on the "energy" item;
- An additional adjustment of CRE on the "R&D" item.

In fact, for GRTgaz, the lower limit varies between 768.9 M€ in 2020 and 799.2 M€ in 2023, i.e. 786.0 M€ on average over the period, and the upper limit varies between 832.5 M€ in 2020 and 890.1 M€ in 2023, i.e. 862.3 M€ on average over the period.

These levels remain higher than that observed in 2018, which amounted to €769.6 million:

- Upper limit: change 2018-2020 of +8.2% and a CAGR 2020-2023 of +2.3%.
- Lower limit: change 2018-2020 of -0.1% and a CAGR 2020-2023 of +1.3%.

The possible scenarios for net operating expenses are as presented below:



Inflation forecast considered +1.3% in 2019; +1.5% in 2020; +1.6% in 2021; +1.7% in 2022; +1.8% in 2023

3.3.3.2 Teréga

- **Results of the external audit**

As the outcome of his works, the auditor has recommended the following trajectory for Teréga's operating expenses over the ATRT7 period:

Teréga, in current €m	2020	2021	2022	2023
Requested trajectory	85.7	91.0	93.0	96.3
Actual costs (2018 inflated)	74.6	75.8	77.0	78.4
Auditor's trajectory (before efficiency)	80.0	84.2	86.1	87.4
Auditor's trajectory (after efficiency)	**80.0**	**81.6**	**81.1**	**80.7**
Impact on Teréga's demand	-5.7	-9.4	-12.0	-15.6

The main adjustments recommended by the consultant involve personnel and shared resources costs.

Personnel costs

In its tariff proposal, Teréga requests a net increase of 40 personnel for the ATRT7 period (based on 561 personnel at the end of 2018), including 19 employees to support the reorganisation of the Operations business line.

The consultant has considered that the 19 position openings to support the roll-out of the reorganisation of the Operations business line do not meet a long-term need and should therefore not be a recruitment motive for internal personnel. The consultant also considers that Teréga should organise recruitment by targeting employee number stability from 2019, which involves coordinating recruitments and retirements. As a result, the consultant retains a net increase of 21 personnel over the ATRT7 period compared to 2018.

The consultant has consequently accepted a trajectory of personnel costs higher than the actual figure for 2018 at current prices, mainly due to the increase in workforce.

The consultant therefore proposes an adjustment of -3.7 M€ in average per year (i.e. -14.7 M€ in total over the ATRT7 period, compared to Teréga's revised request).

Shared resources

Most of the difference between the consultant's trajectory and that requested by Teréga comes from the Telecommunications/IT section. Actually, Teréga presents a strongly increasing IS cost trajectory based on the alleged need to adapt the IS tool in a context of digitalisation and cybersecurity strengthening.

The consultant considers that the IS projects presented by Teréga to justify the significant increase in expenses come down to a recurring need to adapt the SI tools instead of an extensive transformation project. In line with a cost-efficiency target, the consultant considers that such projects should be carried out with the budget already allocated to the IS item.

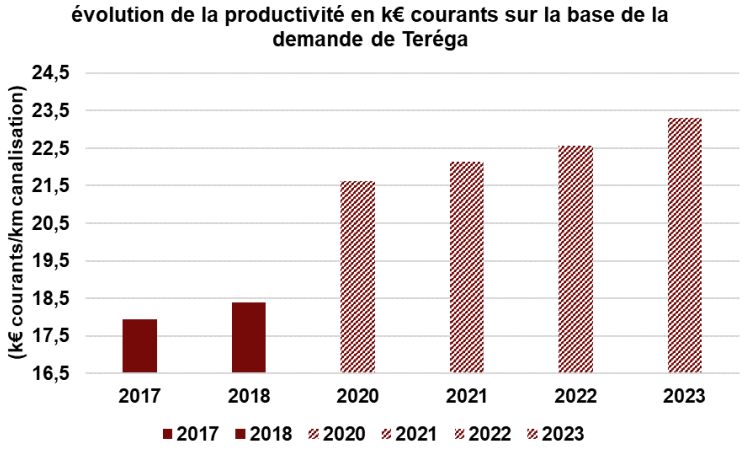
The consultant has built the projected trajectory for Teréga's total IS expenses based on a comparative analysis with GRTgaz (which expresses the same needs in terms of IS transformation) for transport-related expenditures.

The consultant therefore proposes an adjustment of -5.6 M€ on average per year (i.e. -22.3M€ in total over the ATRT7 period, compared to the revised demand).

Furthermore, the consultant recommends an adjustment of -1.5 M€ on average per year (i.e. a total of -6 M€ over the ATRT7 period, compared to the revised demand) on production costs, essentially linked to the fact that the consultant took into account, in order to forecast certain items, the historical average observed or the actual level achieved in 2018.

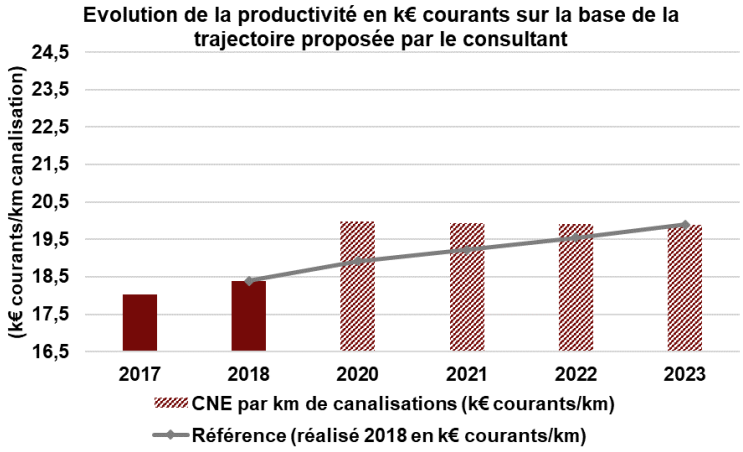
Analysis of operator productivity

In addition to the "item-by-item" analysis, the consultant has measured the change in Teréga's overall operating expenses productivity. To do so, he has measured the productivity level achieved by Teréga during the 2017-2018 period and has compared it with the projected productivity level resulting from Teréga's tariff demand. In order to analyse productivity, the consultant has chosen a like-for-like activity perimeter, meaning that the most variable costs and revenues have been excluded (revenues related to third party services, revenues associated with inter-connections and transit, storage costs, and energy costs).



The chart above shows that the tariff demand from Teréga for the ATRT7 period would lead to a significant deterioration in productivity compared to 2018 and 2017. This trend is explained by a significant increase in net operating costs even though the business cost drivers remain relatively stable (number of km of pipeline). The increase in net operating expenses results from the implementation of the company's transformation project ("Impacts 2025" project), which was initiated by Teréga in 2018.

The consultant recommends targeting *at least* the stability of the operator's productivity and defining a productivity improvement target over the period 2020-2023, which aims to restore the productivity level of 2018 in 2023. He therefore recommends a an additional efficiency of -3.6 M€ on average per year (i.e. -14.3 M€ in total over the ATRT7 period).



Provisional inflation considered: +1.3% in 2019; +1.5% in 2020; +1.6% in 2021; +1.7% in 2022; +1.8% in 2023

- Additional adjustments by CRE
  - Energy costs

Teréga's demand concerning energy costs (gas, electricity, CO_2) is based on the assumption of significant gas flows to Spain and the partial replacement of the gas consumed by Teréga for its compression requirements by electricity. Furthermore, in its demand, Teréga introduces the TICPE tax (domestic consumption tax on energy products) as well as CO_2 quota purchases.

	2018 actual	2020	2021	2022	2023	ATRT7
Gas (€m) *Volumes (GWh)*	4.6 *258*	4.5 *206*	4.4 *206*	4.3 *206*	4.2 *206*	**17.3** *823*
Electricity (€m) *Volumes (GWh)*	1.9 *19*	3.0 *35*	3.0 *35*	3.0 *35*	3.0 *35*	**12.0** 141
CO_2 (€m)	-	-	-	0.5	0.6	**1.2**
TIC (€m)	-	0.6	0.6	0.6	0.6	**2.4**
Total energy costs (€m)	6.5	8.1	8.0	8.4	8.5	**33.0**

CRE envisages, on the basis of flow assumptions that are consistent with those envisaged for the Teréga's energy costs, making several adjustments in relation to the demand, in particular:

- A downward adjustment in gas and electricity volumes for certain compressor stations, the increases presented by Teréga being insufficiently justified;
- An upward adjustment in the trajectory of the EBT (deviation in technical review) which seems overestimated by Teréga compared to historical levels. The average volume observed over the last 4 years is retained.
- The gas volumes adjustment implies correcting the TIC projected trajectory (domestic consumption tax) and the CO_2 quotas projected trajectory in line with the drop in consumption;
- The taking into account of prices observed on gas markets for the years 2020 to 2023 (average of the calendar prices observed in June). These prices will be updated in the final tariff decision;

These hypotheses lead to a downward adjustment of the GRTgaz demand of about -4 M€ in total over the ATRT7 period, i.e. a decrease of about -12.5%. These adjustments may further change to take into account the latest actual energy prices and the free allocation of CO_2 quotas.

Energy costs are covered at 80% through the CRCP mechanism and are updated every year.

- Research and Innovation (R&I): net operating expenses

Teréga's expenses in terms of R&I have been cumulatively lower than the trajectory set by CRE over 2017 and 2018. Teréga explains this by, on the one hand, delays when launching studies at the beginning of the tariff period, and on the other hand, the start of the "Impact 2025" plan at the end of 2017 which involved an increase in internal resources in order to be able to launch the studies necessary for the integration of renewable gases.

Teréga has requested, for the ATRT7 period, an opex-related R&I budget of 11.1 M€ (i.e. 2.8 M€/year on average over the period). This budget is as follows:

- **Control of greenhouse gas emissions and Energy Efficiency (0.9 M€)**: Deployment of solutions for the reduction of methane emissions, and energy optimisation;
- **Infrastructure integrity (4.0 M€):** Control and adaptation of methods for pipeline protection, implementation of innovative tools and methods for the inspection of inaccessible structures.
- **Operational Performance and Safety (0.6 M€):** Real time automated network surveillance, deployment of predictive maintenance on equipment, deployment of digital tools to safeguard and improve on-site operations.
- **New Gases (1.7 M€):** Green gases network integration maximisation and accounting control;
- **Regional Integration and environmental footprint (0.2 M€):** Biodiversity protection, environmental compensation and impact reduction measures in construction/operation;
- **Personnel and Shared Resources costs (3.6 M€).**

For some programmes (new gases, operational performance), Teréga's projected trajectories show a rise over the ATRT7 period, without the operator having duly justified these trends.

CRE envisages retaining the following adjustments:

- CRE considers that the sharp increase in costs linked to the biomethane impact study on installations is not justified. Actually, these studies were launched in 2017 and 2018 with an average budget of 70 k€/year and will continue over the ATRT7 period. CRE intends to retain the budget noted for these studies for these studies for the ATRT6 period;
- CRE does not intend to accept the expenses associated with projects that it considers without connection with the missions of the operator;
- Lastly, the expenditure linked to energy production projects is not sufficiently justified by Teréga. At this stage, CRE foresees retaining only one part.

As a result, CRE envisage accepting an R&I trajectory of 10.1 M€ in total over the ATRT7 period, i.e. 2.5 M€/year on average.

- **Summary of the preliminary analysis**

Teréga's demand would lead to an increase of +17.3% in 2020 in energy-excluded net operating expenses to be covered by the ATRT7 tariff compared to the actual level of expenses in 2018, followed by an increase of +4.0% in average per year over 2020-2023.

At this stage of analysis, CRE considers that the operator's demand is not justified.

The conclusions of the audit report have given rise to a contradictory discussion with Teréga over the course of June 2019. Teréga was able to formulate comments on the results of the consultant's work, and questioned some of the adjustments identified by the consultant as part of this contradictory discussion.

The level finally selected by CRE will depend on the results of the analyses in progress concerning the adjustments recommended by the auditor, as well as on other adjustments envisaged by CRE, where applicable.

At this stage, CRE considers that the level of operators' net operating costs could vary between an "upper limit" corresponding to the operators' demand, and a "lower limit" based on:

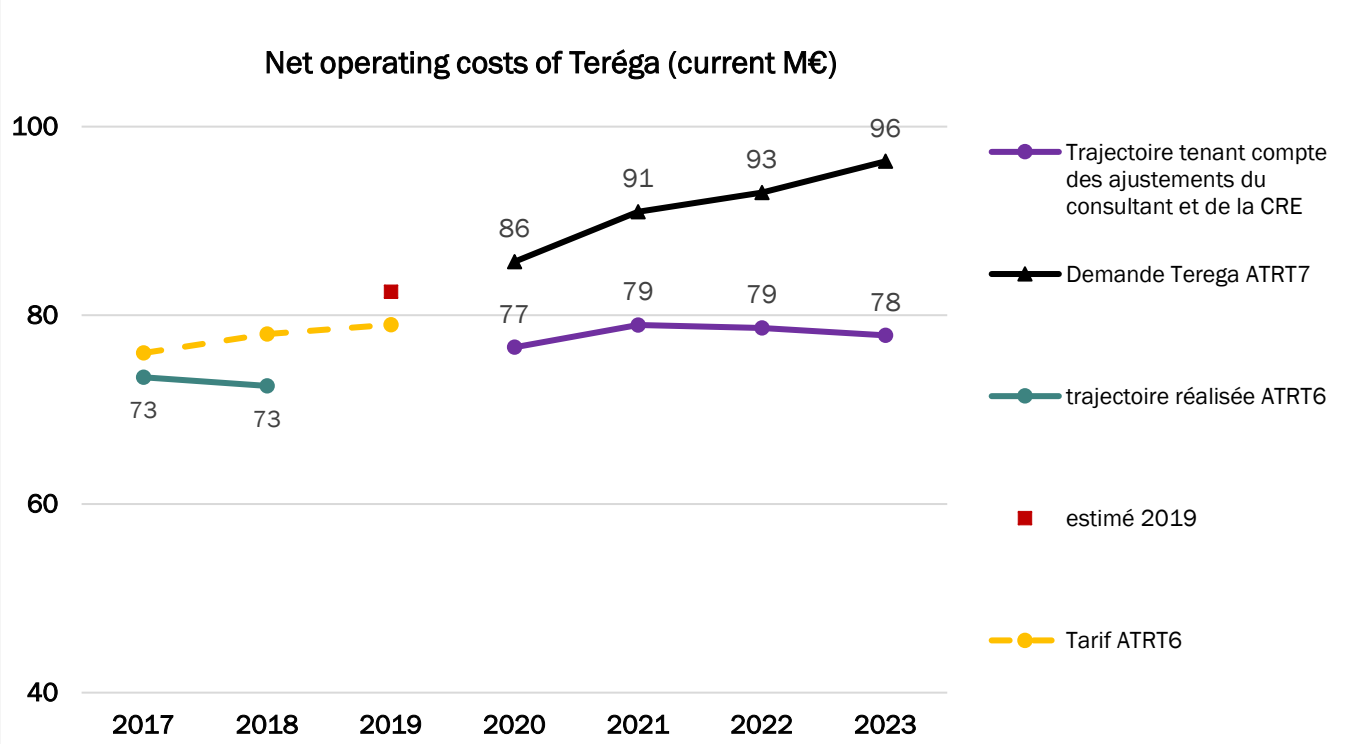
- all the conclusions of the external audit of the TSO's net operating costs, efficiency target included;
- an additional adjustment by CRE on the "energy" item;
- an additional adjustment by CRE on the "R&I" item;

Thus, the lower limit varies between 76.5M€ in 2020 and 77.9M€ in 2023, i.e. 78.0M€ in average over the period, and the upper limit varies between 85.7 M€ in 2020 and 96.3 M€ in 2023, i.e. 91.5 M€ in average over the period.

These average levels remain significantly higher than that observed in 2018, which amounted to 72.5 M€:

- upper limit: change 2018-2020 of +18.2% and an CAGR 2020-2023 of +4.0%;
- lower limit: change 2018-2020 of +5.5% and an CAGR 2020-2023 of +0.6%.

The possible scenarios for net operating expenses are as presented below:



Provisional inflation considered: +1.3% in 2019; +1.5% in 2020; +1.6% in 2021; +1.7% in 2022; +1.8% in 2023

3.4 Weighted average cost of capital

3.4.1 Operator's demand

3.4.1.1 GRTgaz

GRTgaz established its demand using a weighted average cost of capital (WACC) identical to that of the current ATRT6 tariff, i.e. 5.25% (actual, before taxes). It bases this demand on the conclusions of a study commissioned by the gas operators with an external consultant.

In its demand, GRTgaz also uses the rate of 3.20% (nominal, before taxes) for the remuneration of IECs.

3.4.1.2 Teréga

Teréga established its demand using a WACC of 5.50% (actual, before taxes), higher than that of the current ATRT6 tariff. This demand is based on the conclusions of a study commissioned by the gas operators with an external consultant, as well as on the results of a study commissioned by Teréga to a second external consultant.

In its demand, Teréga uses the same 5.50% rate for IEC remuneration.

3.4.2 Summary of CRE's external audit results

As part of the work to prepare the ATRT7 tariff, CRE re-examines the assumptions and parameters used for calculating the rate of remuneration for operators. To this end, it asked an external consultant to carry out an audit and an analysis of the demands for remuneration from both TSOs and of their consultants' conclusions.

The consultant carried out its work between May and July 2019. The consultant's report is published at the same time as this public consultation document. After an audit of the operators' demands, the consultant concludes with a range of WACC, real before tax, between 2.74% and 4.39% for TSOs.

3.4.3 Rate of remuneration envisaged at this stage

CRE attaches the utmost importance to the stability of its WACC determination principles in order to provide visibility to stakeholders. Thus, CRE renews the method of the WACC with a normative structure already used for the previous tariff periods.

CRE is not considering applying for the ATRT7 tariff the operators' WACC demands (5.25% and 5.5%, actual before taxes, requested by GRTgaz and Teréga respectively). CRE considers, in particular, that these requests do not sufficiently take into account the observed changes in interest rates on the markets since the period of determination of the ATRT6 tariff. Nor does CRE consider the lower level of the range recommended by the consultant appointed to audit demand from operators. This lower level would constitute an unjustified disruption in relation to the WACC from the ATRT6 tariff.

For the ATRT7 tariff, CRE is directed at this stage to a value of WACC which could be between 3.6% and 4.4% (actual, before taxes) to remunerate the regulated assets base of the two operators.

This range, down from 0.85 bp to 1.65 bp compared to the WACC for the ATRT6 tariff (5.25% actual, before taxes), takes into account, in particular:

- the significant and sustained fall in interest rates on the markets compared to the levels which prevailed when setting the ATRT6 tariff (as a reminder, 2.7%);
- the decrease in the corporate taxation rate pursuant to the legislation in force;
- a revision of the inflation hypothesis adopted in the calculation of WACC compared to that adopted for the ART6 tariff (as a reminder, 1.1%).

An illustrative scenario is constructed with a WACC of 4.0% (actual, before taxes), in which the assumption of cost of debt (nominal, before taxes), used to remunerate the IECs, is 2.8%.

3.5 Investments and capital expenditure standards

3.5.1 GRTgaz

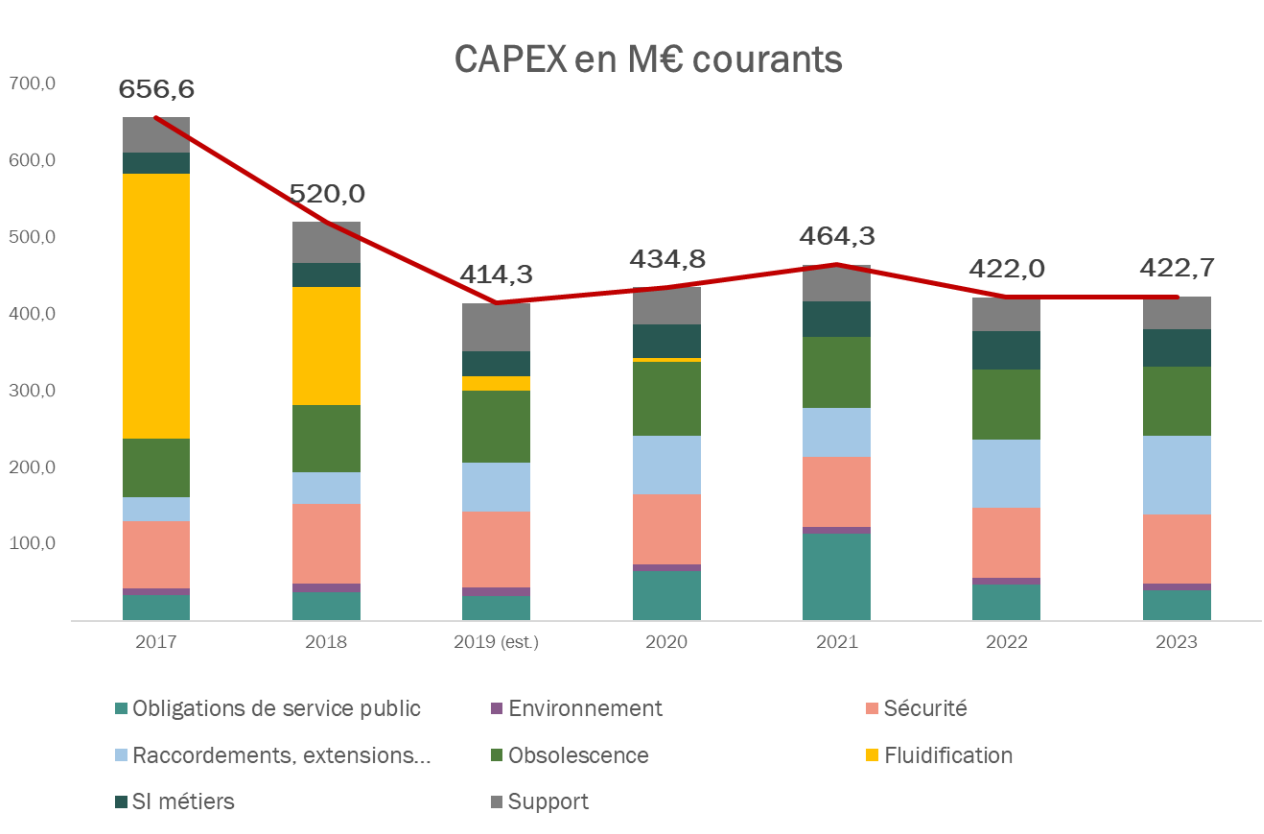
3.5.1.1 Trajectory of investment expenditure

The trajectory of GRTgaz's investment expenditure over the period ATRT7 is marked by the slowdown in investment expenditure, with average expenditure of €436m per year over this period, whereas this was approximately €530m per year during the ATRT6 period. This slowdown is due in particular to the end of major infrastructure development investments since CREation of the single marketplace.

GRTgaz forecasts the following investment expenditure during the next tariff period:

In current €M	2020	2021	2022	2023	Annual average ATRT7	Annual average ATRT6*
Smoothing	4.6	-	-	-	1.1	172.7
Public service obligations (PSO)	65.1	114.0	47.0	39.6	66.4	34.4
Environment	8.1	8.6	8.5	8.1	8.3	10.0
Safety	91.2	91.2	91.5	90.4	91.1	97.0
Obsolescence	96.3	92.3	90.5	89.9	92.3	86.1
Connections, extensions and services for third parties	76.7	64.1	89.5	102.7	83.2	45.6
IT system	44.7	46.9	50.2	49.4	47.8	30.4
Supports	48.1	47.2	44.8	42.6	45.7	54.2
Total (excluding subsidies)	**434.8**	**464.3**	**422.0**	**422.7**	**435.9**	**530.3**

*Average of investment programmes carried out 2017, 2018 and approved 2019



GRTgaz anticipates:

- the end of the smoothing investment in 2020;
- an increase in spending on the purpose of the public service obligations (PSO), which groups together the projects that contribute to meeting the continuity of supply requirements in particular. GRTgaz assesses the average expenses at €66m per year, compared to €34m per year for the ATRT6 period. This increase occurred notably in 2021 by a total investment peak of €464m, due to the projects to reinforce the South of Bretagne for connecting the Landivisiau combined cycle gas power plant planned in 2021 (€129m over the period) and the start-up of the industrial deployment of the conversion plan for zone B of gas H (€40m over the period);
- a rise in connection costs, with average expenditure of €83m per year over this period, compared to €46m per year over the previous period. This increase in investments is mainly driven by the connections of the biomethane production sites (15 to 20 connections per year in the GRTgaz demand) for €70m over the period and by the network adaptation needs for the reception of the injected biomethane (€54m over the period). GRTgaz also plans the Seine Nord Canal project for €20m over the ATRT7 period;
- an increase in expenditure from the IT system, with average expenditure of €48m per year over the period, compared to €30m per year for the ATRT6 period. GRTgaz forecasts the redrafting of bid applications (€70m) over the period. GRTgaz wants to transform its IT offer in depth, including Trans@ctions, which GRTgaz anticipates becoming obsolete in 2022;
- stabilisation of the costs for other purposes in relation to spending in the ATRT6 period, in particular for the Safety and Obsolescence outcomes. The main items of expenditure are the programmes for inspection and rehabilitation of pipework for €161m over the period, the industrial heritage protection programmes for €43M and the programme for treating hot spots for €41m planned by GRTgaz during the ATRT7 period.

3.5.1.2 Trajectory of capital expenses

The investment demands presented above, combined with a weighted average cost of capital of 5.25%, lead to the demand for the following capital expenses of GRTgaz:

In current €M	2020	2021	2022	2023	Annual average ATRT7
GRTgaz BAR trajectory	8,819	8,887	9,024	8,958	**8,922**
GRTgaz CCN demand (WACC by 5.25%)	1,066	1,085	1,103	1,096	**1,088**

3.5.1.3 CRE's preliminary analysis

CRE considers that the trajectory proposed by GRTgaz corresponds to the development of transmission network investments and is coherent with the end of a major investment cycle. The majority of major infrastructure projects have been completed and GRTgaz is embarking on a phase of slowing its investments.

However, CRE queries certain changes to the ATRT7 trajectory requested by GRTgaz, in particular concerning the costs associated with the development of the biomethane sector, which have been listed in the Connection purpose, which increase by 157% between 2018 and 2020. CRE notes that this rise is based on 10 TWh injection prospects in 2023, above the objectives set by the PPE project, which sets 6 TWh of biomethane injected into the gas networks.

With regard to the other GRTgaz projects and programmes, in accordance with the incentive regulation mechanism for investment expenditure (see paragraph 2.3.2), certain projects may be subject to audits to define a target budget. This is notably the case of the Seine Nord Canal Project, whose budget is estimated at €20m by GRTgaz and which is eligible for the incentive regulation mechanism for major projects.

As regards the expenses related to the IT system and supports, which represent on average €93m per year over the period and are up due to the project to redraft the tender (€70m over the ATRT7 period), they are eligible for the incentive regulation for investments outside of infrastructure (see paragraph 2.3.2.2).

At this stage, CRE is not planning to make any changes to the investment trajectory requested by GRTgaz, but considers that additional justification elements from GRTgaz remain necessary, with regard to biomethane in particular. It also points out that Articles L. 134-3 and L. 431-6-II of the French Energy Code provide for approval of the annual investment budgets of the natural gas TSOs.

3.5.2 Teréga

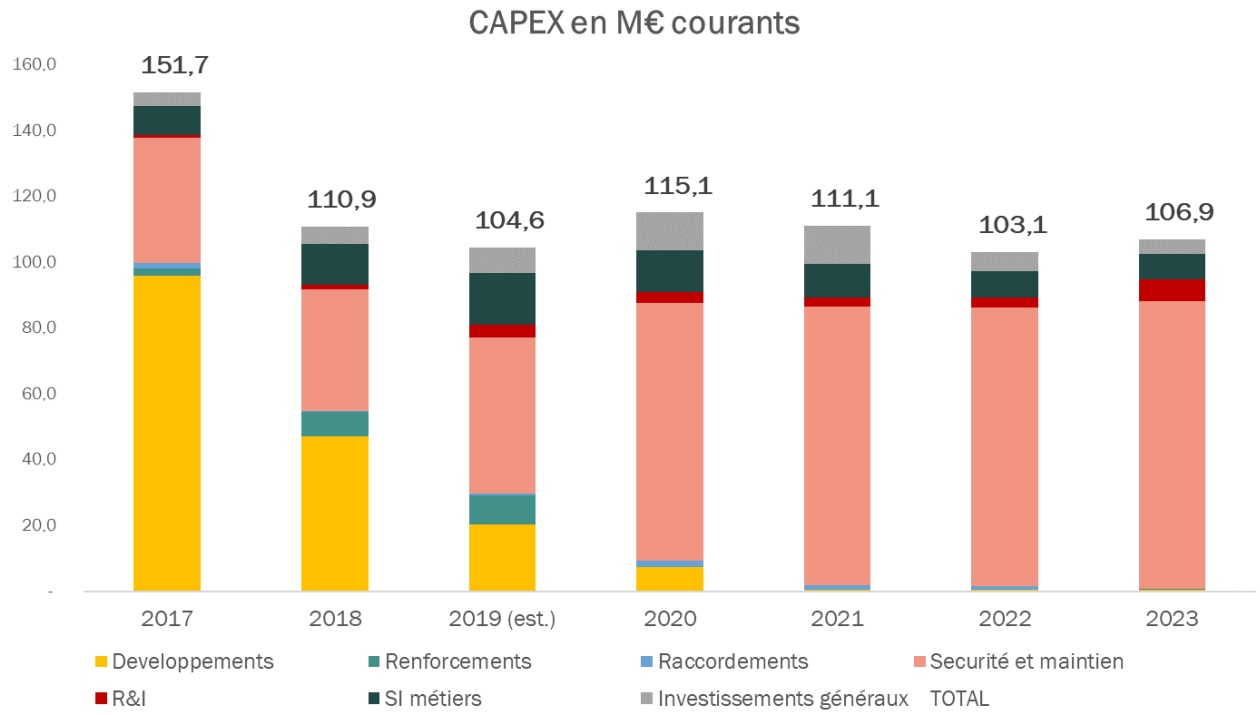
3.5.2.1 Trajectory of investment expenditure

The trajectory of the investment expenditure of Teréga over the period ATRT7 is marked by the slowdown in investment expenditure, with average expenditure of €110m per year over this period, whereas this was approximately €122m per year during the ATRT6 period. This slowdown is linked, in particular, to the end of major infrastructure development investments since CREation of the single marketplace. This fall is partially offset by increases in certain items of expenditure.

The following investment expenses are expected over the next tariff period:

In current €M	**2020**	**2021**	**2022**	**2023**	**Annual average ATRT7**	**Annual average ATRT6***
Developments	10.5	3.3	3.5	7.0	6.1	56.5
Reinforcements	-	-	-	0.2	0.0	6.1
Connections	1.9	1.2	1.1	-	1.1	0.8
Safety and maintenance	78.5	84.7	84.7	87.6	83.9	40.9
General investments	24.2	21.9	13.7	12.2	18.0	18.1
TOTAL	**115.1**	**111.1**	**103.1**	**106.9**	**109.1**	**122.4**

*Average of investment programmes carried out 2017, 2018 and approved 2019



In particular, Teréga envisages:

- the reduction in investment in development in 2020, limited on the one hand, to the residual expenditure linked to the Gascogne-Midi project, and to investments in research and innovation, assessed by Teréga at €4m per year during the ATRT7 period, compared to €2m per year during the ATRT6 period;
- a significant rise in spending on the safety and maintenance purpose, with average expenditure of €84m over the period, whereas this was €41m over the previous period. This purpose includes in particular the Mont-Ogenne projects (€25m over the period) and Capens-Pamiers projects (€25m over the period), as well as the pipe and connections programme, including numerous projects, whose average expenses are estimated by Teréga at €62m per year over the period, compared to €32m per year for the ATRT6 period. It considers these expenses necessary given the ageing of infrastructures and the corrections to be made following the regulatory inspections of 2016. Moreover, Teréga envisages a compression programme of €5m per year on average compared to €1m per year during the ATRT6 period;
- a stop in consolidation spendings over the period ATRT7, whereas the average spend over the ATRT6 period reached €6m per year. Some projects are currently being studied but are not mature enough to be offered by Teréga in its trajectory;
- stabilisation of the connection costs, with average expenditure of €1m per year over the period, similar to the spend of the ATRT6 period. However, Teréga predicts a development of the biomethane producers' connections;
- a rise in spending on real-estate investment over the period, with average expenditure of €7m per year over the period, whereas this was €5m per year over the previous period, mainly due to a reorganisation of the company. The expenses of the business IS, estimated at €10m annually on average over the ATRT7 period, are down in relation to the ATRT6 period, to €12m per year.

3.5.2.2 Trajectory of capital expenses

The investment trajectories presented above, combined with a weighted average cost of capital of 5.5%, leads to the normative demand for the following capital expenses of Teréga:

In current €M	2020	2021	2022	2023	Annual average ATRT7
Trajectory of Teréga's BAR	1,589	1,635	1,705	1,804	**1,683**
CCN demands from Teréga (WACC by 5.50%)	191	197	204	207	**200**

3.5.2.3 CRE's preliminary analysis

Although the end of the expenditure linked to the development of the network is consistent with changes in investments on the transmission network, CRE questions the trajectory of the investment expenditure put forward by Teréga over the period ATRT7, in particular on significant increases in certain categories of expenditure. In particular, concerning:

- safety and maintenance costs, which increase by 112% during the ATRT6 period and the ATRT7 period. CRE notes, in particular, that the annual average expenditure allocated to the pipe and connections programme increases by 83% between the two periods, without Teréga having specified the entirety of the projects contained in this envelope;
- the R&D expenditure, which grew by 115% between 2018 and 2020, with a peak seen in 2023, caused by the IMPULSE project, aiming to create a demonstrator of the storage-transport-electricity-hydrogen synergies as part of the Impacts 2025 business plan (see paragraph 3.2.2). In its deliberation dated 11 July 2019 relating to the mid-year performance review of the Teréga investment programme, CRE approved phase 1 of the project, which may be of interest to the energy efficiency transport activity for €0.3m;
- real property investment expenditures, which increase by 143% between 2018 and 2020 due to the Impacts business plan of Teréga. CRE wondered about the efficient nature of these expenses and their coverage in the transmission tariff. CRE has already approved the construction of a new head office for Teréga in the ATRT6 period for €22m.

At this stage, CRE is not considering making any changes to the investment trajectory requested by Teréga, but considers that additional justification elements from Teréga remain necessary for the items that increase sharply. It also points out that articles L. 134-3 and L. 431-6-II of the French Energy Code provide for approval of the annual investment budgets of the natural gas TSOs.

3.6 CRCP at 31 December 2019

3.6.1 GRTgaz

Operator demand

In its tariff demand, GRTgaz estimated the balance of the CRCP at 31 December 2019 at €19.0m, as a deduction from the expenses to be covered, including €-34.6m for the remaining amounts from previous CRCPs, €-3.8m for final 2018 CRCP, and €19.4m for provisional CRCP 2019. The latter mainly consists of:

- lower subscription revenues for 2019 than the tariff forecasts in the GRTgaz demand, in particular subscriptions at the PITS;
- lower CCCG connection revenues than the tariff forecasts in the GRTgaz demand;
- higher than forecast capital charges mainly related to the inflation rate used to re-assess the RAB which is higher than the forecast used in the tariff trajectory;
- higher than forecasts expenses for the H-L conversion service following CRE's deliberation of 13 December 2018 relating to the conditions for accessing the area serviced with gas at low calorific power (gas L)[17];

The GRTgaz CRCP was negative for the period ATRT5 (balance to be returned to the network users). This trend continued in 2017 and 2018. In 2019, the amount to be returned by GRTgaz to the users of its network was significantly reduced, in particular due to the fact that, on the one hand, the revision of the operating rules for L gas zone that led to an increase in the capacities subscribed by GRTgaz as part of the H gas to L gas exchange service, and on the other hand, the inclusion of a bonus linked to the timely commissioning of the Val de Saône project. Capital expenses were also higher than forecast for the period, due to actual inflation higher than the forecasted one.

In its demand for the ATRT7 period, GRTgaz takes account of the discharge from 2020 of the total amount of CRCP remaining to be cleared, i.e. an amount of €19.0m to be returned to the users of its network.

CRE's analysis

The balance of the CRCP at 31 December 2019 estimated by CRE in the calculation of GRTgaz's allowed revenue amounted to €29.0m, which will be deducted from the charges to be covered. The difference compared to GRTgaz's demand (€10m) comes mainly from the adjustment of assumptions on energy charges (see section 3.3.3). This amount of CRCP is preliminary and may change in CRE's final decision.

[17] ERC deliberation dated 13 December 2018 on the decision relating to the conditions for access to the area serviced with gas with low calorific value ("gas B")

3.6.2 Teréga

Operator demand

In its tariff demand, Teréga estimated the balance of the CRCP at 31 December 2019 at €3.5m in addition to the expenses to be covered, including €4.0m for the remaining amounts from previous CRCPs , €1.3m for final 2018 CRCP and €-1.7m for provisional 2019 CRCP. The latter mainly consists of:

- higher than forecasts subscription revenues for 2019, in particular revenues at the Pirineos exit point;
- higher than forecast capital charges mainly related to the inflation rate used to re-assess the RAB which is higher than the forecast used in the tariff trajectory;
- higher than tariff forecast inter-operator repayments.

The CRCP of Teréga was negative for the period ATRT5. This trend reversed over the period ATRT6. In fact, capital expenses were higher than forecast for the period, due to actual inflation higher than the forecasted one. The bonus linked to the timely commissioning of the Gascogne-Midi project has also been integrated into the CRCP.

In its request for the period ATRT7, Teréga takes into account the 4-year discharge of the total amount of CRCP remaining to be cleared, i.e. an amount of €3.5m, which is added to the expenses to be covered.

CRE's analysis

The balance of the CRCP at 31 December 2019 estimated by CRE in the calculation of Teréga's allowed revenue amounts to €3.2m, which will be added to the expenses to be covered. The difference compared to Teréga's demand (€0.3m) mainly comes from the adjustment of assumptions on energy charges (see section 3.3.3). This amount of CRCP is preliminary and may change in CRE's final decision.

3.7 Allowed income

3.7.1 Operator demand

3.7.1.1 GRTgaz

The GRTgaz demand results in an allowed revenue evolution of +2.3% in 2020 as compared with 2019, and an average annual increase of +2.3% over the period ATRT7.

In current €M	2019	2020	2021	2022	2023
Net operating expenses		832.5	851.8	874.8	890.1
Normative capital charges		1065.8	1085.4	1103.0	1096.4
Inter-operator repayment*		-19.2	-19.6	-19.9	-20.3
balance of the CRCP		-19.0			
ATRT6 smoothing term		-24.1			
Allowed revenue	**1795.3**	**1836.0**	**1917.7**	**1957.9**	**1966.1**
Change in allowed revenue	-	+2.3%	+4.4%	+2.1%	+0.4%

* financial flow from Teréga to GRTgaz introduced by the ATRT6 tariff upon the creation of the single zone.

3.7.1.2 Teréga

The updated demand from Teréga leads to an allowed revenue evolution of +8.9% in 2020 as compared with 2019, and an average annual change of +4.7% over the period ATRT7.

In current €M	2019	2020	2021	2022	2023
Net operating expenses		86.7	92.0	94.0	97.3
Normative capital charges		191.0	196.9	203.8	207.0
Inter-operator repayment		19.8	20.8	21.1	20.9
balance of the CRCP		0.9	0.9	0.9	0.9
ATRT6 smoothing term		-3.0			
Allowed revenue	**271.3**	**295.5**	**310.6**	**319.9**	**326.1**
Change in allowed revenue	-	+8.9%	+5.1%	+3.0%	+2.0%

3.7.2 CRE's analysis: preliminary allowed revenue

At this stage, CRE dispose of the elements of analysis provided in the audit reports on the TSOs' operating expenses and on the rate of remuneration of their capital.

In the following tables, CRE give an illustrative allowed revenue for each TSO, based on the central values of the ranges that it presented earlier for the net operating costs and WACC, i.e.:

- for capital charges: by way of illustration, the investment trajectories requested by the operators and a WACC of 4.0%;
- for operating expenses: an illustrative trajectory taking account of 50% of the adjustments (energy and R&D included) envisaged at this stage;
- clearing of the CRCP estimated at the end of the ATRT6 period;
- the inter-operator flow estimated by Teréga.

3.7.2.1 GRTgaz

In current €M	2019	2020	2021	2022	2023
Net operating expenses		800.7	817.4	833.8	844.6
Normative capital charges		952.3	970.9	987.6	981.4
Inter-operator repayment		-19.8	-20.8	-21.1	-20.9
balance of the CRCP		-7,4	-7,4	-7,4	-7,4
ATRT6 smoothing term		-6,2	-6,2	-6,2	-6,2
Allowed revenue	**1795.3**	**1719,6**	**1753,8**	**1786 ,6**	**1791,5**
Change in allowed revenue	-	-4,2%	+2,0%	+1,9%	+0,3%

The ATRT6 smoothing term is a term set by CRE in its deliberation of 15 December 2016 deciding on the tariff ATRT6. This term (€-24m for GRTgaz in 2020) corresponds to the difference between the estimated revenues and the provisional allowed revenue in the ATRT6 tariff. CRE plans to smooth this amount over the 4 years of the ATRT7 period.

This illustrative scenario leads to an average change of -0.1%/year between 2019 and 2023.

3.7.2.2 Teréga

In current €M	2019	2020	2021	2022	2023
Net operating expenses		81.3	85.2	86.0	87.3
Normative capital charges		164.3	168.9	175.0	178.0
Inter-operator repayment		19.8	20.8	21.1	20.9
balance of the CRCP		0,8	0,8	0,8	0,8
ATRT6 smoothing term		--0,8	-0,8	-0,8	-0,8
Allowed revenue	**271.3**	**265,5**	**274 ,9**	**282,2**	**286,2**
Change in allowed revenue	-	-2,1%	+3,6%	+2,7%	+1,4%

The ATRT6 smoothing term is a term set by CRE in its deliberation of 15 December 2016 deciding on the tariff ATRT6. This term (€-3.0m for Teréga in 2020) corresponds to the difference between the estimated revenues and the provisional allowed revenue in the ATRT6 tariff. CRE plans to smooth this amount over the 4 years of the ATRT7 period.

This illustrative scenario leads to an average change of +1.4%/year between 2019 and 2023.

In its tariff decision, CRE may, at full equivalent revenue, conduct a smoothing of annual changes.

Question 9 Are you in favour of the orientations envisaged by CRE concerning the level of charges to be covered for the ATRT7 period for GRTgaz and Teréga?

3.8 Capacity subscriptions forecast

3.8.1 Operators' demand

3.8.1.1 GRTgaz

GRTgaz submits two trajectories of subscriptions, mainly differentiated by the peak consumption forecast used for subscriptions to the regional network. These two scenarios are based on the following hypotheses:

- **reduction of inflows from the Fos Tonkin terminal;**
- **reduction of PIR/PITTM entries and exit subscriptions mainly linked to the expiry of certain long-term contracts;**
- **reduction in subscriptions to the regional network based on a drop in the forecast winter peak.**

- Scenario 1

% increase in capacity subscriptions per year	2020	2021	2022	2023	Average change
Main network	-2.9%	-3.2%	-2.3%	-1.2%	-2.4%
Regional network	-2.3%	-1.7%	-0.9%	-1.1%	-1.5%

- Scenario 2

% increase in capacity subscriptions per year	2020	2021	2022	2023	Average change
Main network	-2.8%	-2.7%	-1.8%	-1.2%	-2.1%
Regional network	-2.0%	-0.9%	-0.7%	-1.0%	-1.2%

3.8.1.2 Teréga

Teréga is proposing a forecast scenario based on the following assumptions:

- lower subscription capacity linked mainly to the expiry of certain long-term contracts;
- reduction in subscriptions to the regional network based on a reduction in the forecast winter peak;
- high storage filling level.

% increase in capacity subscriptions per year	2020	2021	2022	2023	Average change
Main network	-1.2%	-0.1%	-0.2%	-6.9%	-2.1%
Regional network	+0.6%	-0.7%	-0.7%	-0.7%	-0.4%

3.8.2 CRE's analysis

CRE considers that certain assumptions made by the TSOs are conservative, consequently considering a number of adjustments to their forecasts.

The expiration of some long-term commitments during the ATRT7 period actually implies a reduction in capacity subscriptions on the main network. However, short-term capacity subscriptions should partially offset this reduction in long-term subscriptions at a more important level than that provided by the GRTs, particularly by GRTgaz.

Secondly, CRE considers that the drop in winter peak for the subscription forecasts on the regional network must be uniform between the transmission and distribution operators and be in line with the reductions seen over the past few years.

In addition to subscription forecasts on the upstream and downstream network points, CRE anticipates investment at the PEG higher than foreseen by the TSOs, more coherent with market needs and with improved liquidity expected on the TRF.

Finally, CRE is planning to set the revenues from the other services, in particular the *UIOLI (Use it or lose it),* SET and Alizés, at least at the latest levels observed.

CRE will take into account these adjustments in its final tariff decision.

Question 10 Do you have any comments regarding the forecast subscriptions for GRTgaz and Teréga for the 2020-2023 period?

3.9 Annual tariff changes

3.9.1 Operator's demand

To calculate the tariff change on 1 April 2020 and every annual change, CRE plans to smooth out the change in estimated allowed income for operators as it did in the ATRT6 tariff. This smoothing has no impact on the charges picked up by the TSOs in total over the duration of the tariff, but avoids any significant changes in contrary directions from one year to the next. A constant annual tariff change over the four years of the tariff is calculated, also taking into account the provisional subscriptions.

Implementing of this smoothing, CRE shall ensure, as much as possible, that the level of tariff terms for the period ATRT7 reflects overall the costs and revenues of TSOs.

3.9.1.1 GRTgaz

In current €M	2020	2021	2022	2023
Allowed income	1836.0	1917.7	1957.9	1966.1
Smoothed allowed revenue	**1830.8**	**1886.1**	**1950.2**	**2011.9**
Smoothed allowed revenue annual change	+2.0%	+3.0%	+3.4%	+3.2%

The change of the allowed revenue requested by GRTgaz, combined with the subscription trajectories specified by the latter, would, after smoothing the allowed revenue to follow the trajectory of subscriptions, lead to the following tariff change over the period ATRT7:

%	Annual evolution over the ATRT7 period
Average tariff change – smoothed GRTgaz demand	+4.6%

3.9.1.2 Teréga

In current €M	2020	2021	2022	2023
Allowed income	295.5	310.6	319.9	326.1
Smoothed allowed revenue	**288.4**	**307.6**	**326.2**	**330.1**
Smoothed allowed revenue annual change	+6.3%	+6.7%	+6.0%	+1.2%

The change of the allowed revenue requested by Teréga, combined with the subscription trajectories specified by the latter, would, after smoothing the allowed revenue to follow the trajectory of subscriptions, lead to the following tariff change over the period ATRT7:

%	Annual evolution over the ATRT7 period
Average rate change – smoothed demand from Teréga	+6.6%

3.9.2 CRE's analysis

In the following tables, CRE presents the possible tariff change for each of the TSOs, based on an illustrative scenario, selecting:

- for capital expenses: by way of illustration, a WACC of 4.0%;
- for operating expenses: a trajectory taking account of 50% of the adjustments (energy and R&D included) envisaged at this stage;
- the CRCP 2020 estimated by CRE at this stage;
- the adjustment following ATRT6 smoothing over the year 2020;
- for subscriptions: scenario 2 of GRTgaz (the most optimistic scenario) and the trajectory demanded by Teréga.
- allowed revenue smoothing to follow the trajectory of subscriptions for the ATRT7 period.

- GRTgaz

In current €M	2020	2021	2022	2023
Allowed income	1680.1	1767.5	1800.2	1805.1
Smoothed allowed revenue	**1783.1**	**1766.4**	**1756.4**	**1742.4**
Smoothed allowed revenue change	-0.7%	-0.9%	-0.6%	-0.8%

%	Annual evolution over the ATRT7 period
Average tariff change – CRE illustration scenario	+0.5%

- Teréga

In current €M	2020	2021	2022	2023
Allowed income	265.6	274.9	282.2	286.1
Smoothed allowed revenue	**279.3**	**280.7**	**280.5**	**267.4**
Smoothed allowed revenue change	+3.0%	+0.5%	-0.1%	-4.7%

%	Annual evolution over the ATRT7 period
Average tariff change – CRE illustration scenario	+0.4%

4. TARIFF STRUCTURE

4.1 Pricing structure of the main network

4.1.1 Distribution of costs borne by TSOs by network use

4.1.1.1 Classification of services provided by TSOs

Article 4 of the Tariff network code distinguishes between the services provided by the TSOs, the transmission services[18] (Transmission Services) and those that are ancillary services[19] (Non-Transmission Services). This article stipulates "the revenue associated with transmission services is recovered by the capacity-based transmission tariffs" and "non-transmission services revenue shall be recovered by non-transmission tariffs applicable for a given non-transmission service.". The Tariff network code states that non-trans-mission services revenue must comply with the following principles: "a) cost-reflective, non-discriminatory, objective and transparent; b) charged to the beneficiaries of a given non-transmission service with the aim of minimising cross-subsidisation between network users." This distinction aims to strengthen transparency in allocation of costs and revenues generated by the operation of gas transmission networks.

GRTgaz and Teréga operate two different types of networks:

- the main network (midstream network): including all of the high pressure pipelines linking the interconnection points with (i) adjacent transmission networks, (ii) exits to the regional network, (iii) LNG terminals and (iv)

[18] "Transmission Services" means the regulated services provided by the transmission system operator in the entry/exit system for transport.
[19] "Ancillary services", regulated services other than transport services and other than services governed by Regulation (EU) No. 312/2014, which are provided by the transmission system operator

storage facilities. It covers more than 9500 km. The flows are generally two-way. It is used for both the transit and supply of domestic customers;

- the regional network (downstream network): composed of network elements that enable gas to be channelled from the main network to end customers or to distribution networks. It covers nearly 28.000 km. The flows are unidirectional. It is only used to supply domestic customers. These networks are part of the scope of distribution network operators in many European countries.

CRE envisaged in its public consultation of 27 March 2019 to order the services provided by the TSOs as follows:

- transmission services: services provided by the TSOs on the main network. Pricing in this network is based on an entry-exit model and according to capacity and distance;
- non-transmission services: services provided by the TSOs on the regional network. This network is not an entry/exit model since there is no entry charge. All the same, pricing in this network is transparent and takes into account in particular the distance from the main network. Moreover, as only domestic customers are using these networks, they support 100% of the costs, as in the ATRT6 tariff. Therefore avoiding any cross-subsidisation between transit and domestic flows.

Furthermore, in its public consultation of 27 March 2019, CRE considered that the storage compensation[20] collected by the TSOs from their customers and paid back to storage operators is a non-transmission service.

The stakeholders who responded to the public consultation are in favour of the classification envisaged by CRE for services provided by the TSOs on the main and regional networks.

With regard to the storage compensation, the majority of the stakeholders are in favour of its classification as a non-transmission service. Nevertheless, they expressed concerns and considered that this compensation does not reflect the principles imposed by the Tariff network code, in particular in terms of the reflection of costs and non-discrimination.

CRE plans to maintain its preliminary orientation on the classification of the main and regional networks. Regarding the storage tariff term, CRE considers that it is not intended to reflect the costs of a service provided by the TSO, but to compensate for the storage operators' allowed revenue in accordance with article L.452-1 of the *code de l'énergie*.

4.1.1.2 Balance between costs and revenues attributable to the main network and to the regional network

Since the first gas transmission tariffs were implemented, CRE has sought to ensure a balance, for each TSO, on the one hand, between revenues collected by the main network and its costs and, on the other hand, between revenues collected the regional network and its costs.

Nevertheless, at the end of the ATRT5 period, successive tariffs changes had led to imbalance, within the perimeter of France, between the costs attributable to each category of network and the revenues they generate. CRE has therefore adopted, for the ATRT6 tariff, a tariff change so that the balance between the revenues collected and the costs specific to each of these networks is reached on average over the tariff period. The distribution of these costs, within the perimeter of France, over the period 2017-2019 is as follows:

	Main network		Regional network	
	% of revenue	% of costs	% of revenue	% of costs
Average 2017-2019	47.5%	48.5%	52.5%	51.5%

Source: GRTgaz and Teréga

The balance is almost achieved on average over the period ATRT6.

For the ATRT7 period, the TSOs forecast the following expense distribution, within the perimeter of France :

[20] Compensation collected via the storage rate charge introduced by the ERC in its deliberation of 22 March 2018, due to the reform of third-party access to storage facilities, in order to compensate for the difference between the allowed revenue of the storage operators and the revenues received directly by the latter as part of their activity.

	Perimeter of France	
	% of charges in the main network	% of regional network charges
Average ATRT7	46%	54%

Allocation of operating expenses to each network category requires, for certain cost items, the application of a distribution key. If appropriate, the distribution key selected by the TSOs is a kilometre of network key for an objective estimation of the operating expenses borne by the main network and the regional network. The investments are generally attributable to one network or the other directly.

For the ATRT7 period, CRE envisages maintaining the principle of average balancing of expenses and revenues for the main and regional networks.

4.1.2 Methodology for determining tariffs for large-scale transmission

4.1.2.1 Main principles of pricing of the main network

- **Principle of capacity-based tariff**

The gas transmission tariff is based fully on booked capacity. In other terms, shippers pay for capacity they book, independently of the use they make of that capacity.

This pricing principle is compatible with the Tariff network code, which stipulates in its article 4 that the transmission services' revenue is recovered by capacity-based transmission tariffs.

Furthermore, this pricing principle makes it possible to take into account the positive effect that the predictable and stable clients have on the gas system, particularly in terms of investments reduction. Therefore, for equal consumption, the supplier of a thermal customer must book more capacity, to cover peak consumption, which can be far from average consumption.

Contributors to the public consultation of 27 March 2019 are in favour of maintaining this tariff pricing principle in the ATRT7 tariff.

CRE plans to maintain the principle of capacity-based tariff for the ATRT7 period.

- **Main network entry-exit system**

The main network tariff structure is based on an entry/exit pricing principle. This principle enables network users to book their network entry and exit capacities separately and thus transport gas between the points of their choice. The tariff terms, paid by users at the entry and exit points on the French network are identical, regardless of the origin and destination of the gas.

This entry-exit pricing principle complies with the provisions of (EC) regulation No. 715/2009 of 13 July 2009 concerning the conditions for access to the natural gas transmission networks, which stipulates that the tariffs applicable to network users are non-discriminatory and fixed separately for each transmission network entry and exit point.

Contributors to the public consultation on the structure are in favour of the renewal of this pricing principle in the ATRT7 tariff.

CRE plans to maintain this pricing principle for the ATRT7 period.

- **Harmonisation of tariffs between GRTgaz and Teréga**

The ATRT6 tariff provides for an equalization of certain tariff terms on a national scale. Thereby, entry tariffs at the Dunkirk, Taisnières H, Obergailbach, Oltingue and Pirineos PIRs are identical; this is also the case for the entry tariffs at the Dunkirk, Montoir and Fos PITTMs. In fact, the main network infrastructures contribute equally to the availability of entry capacities within these two categories of points. Equalizing these tariffs offers shippers the ability to choose the most competitive supply source.

Furthermore, the tariffs at the exits from GRTgaz' and Teréga's main networks exists to their regional networks are equalised. The tariffs at the PITS (transmission/storage connection points) are also equalised on both Teréga's and GRTgaz' networks.

Contributors to the public consultation are in favour of maintaining the harmonisation principles currently in effect in the ATRT6 tariff.

CRE plans to maintain, for ATRT7 tariff, the principles in effect in the ATRT6 tariff described above.

- **Distribution of costs and revenues between main network entry and exit points**

In addition to seeking to a balanced distribution of revenues and costs between the main and regional networks, the split of revenues between main network entry and exit points must also be considered.

Due to the presence of large storage capacities in France ensuring that the winter peak is covered, the capacities booked by the shippers at entry points in the French transmission networks are significantly lower than the capacities booked at exit points. As a result, in its consultation of 27 March 2019, CRE considered that a split other than 50%/50% is justified given of the particular configuration of the French network.

The majority of those who responded to the public consultation are in favour of the current distribution of revenues between the main network entry and exit points. Some are in favour of a distribution that is further away from 50-50 by reducing the entry tariff terms and increasing the exit ones. Whereas, on the contrary, others are in favour of a 50-50 distribution considering that the current distribution penalises the exit points from the main network.

CRE reminds that the entry-exit split at 50-50 is included in the Network Tariff Code for the sake of comparison with a common reference only. This split is not relevant in a country like France with large storage capacities.

For 2019, the distribution of revenues in the main network provided for by the ATRT6 tariff is as follows:

Split by type of point in %	France
entry points (PIR, PITTM)	**34%**
exit points (PIR exit points and exits to the regional network)	**66%**

CRE believes that this balance is satisfactory, at this stage. It sees no reason to change it significantly in the ATRT7 tariff.

4.1.2.2 Description of the tariff calculation method envisaged by CRE

CRE set the relative level of the pricing terms of the ATRT6 tariff to prevent cross-subsidies between the different categories of users of the transmission networks. For that, CRE verified the consistency of the unit transmission costs for France-Spain, France-Switzerland routes and to supply domestic consumers.

The Eni S.p.A. company, a gas and electricity supplier, had challenged this decision before the *Conseil d'Etat* (State Council). ENI was considering that CRE's deliberation was introducing a cross-subsidy between the different categories of users of the gas transmission networks, i.e. between shippers that supply domestic consumers and shippers that use the network for the purposes of transit to other countries.

In its decision of 18 March 2019[21], the *Conseil d'Etat* confirmed CRE's decision of 15 December 2016 on the ATRT6 tariff, considering in particular that it is non-discriminatory and that the principles used by CRE are not creating any cross-subsidies between categories of users of the main network since the average transmission unit costs resulting from the tariffs are set equivalent for each network use.

For the ATRT7 tariff, CRE therefore plans to decide a tariff framework based on the ATRT6 tariff, so that transit unit costs are aligned with domestic customers supply unit costs, in accordance with the Tariff network code.

Methodology envisaged by CRE

In compliance with the objectives pursued by the Tariff network code, CRE plans to apply a tariff methodology based on booked capacities and distance between the different main network entry and exit points, in accordance with article 8 of the Tariff network code. The tariffs are defined in order to ensure that the transit unit costs and the domestic consumer's unit costs are aligned.

a. **Distances calculation :**

- Transit:

In its article 8 which describes the capacity weighted distance reference price methodology, the Tariff network code provides that when certain entry and exit points can be combined in a relevant flow scenario, the reference distance to be considered is the shortest distance of the pipeline route between an entry point or a cluster of entry points and an exit point or a cluster of exit points.

The reference prices calculation methodology envisaged by CRE follows the same reasoning. In fact, CRE considers that it is economically relevant to retain the Dunkirk PIR as the main entry point for gas transiting through the PIR

[21] https://juricaf.org/arret/FRANCE-CONSEILDETAT-20190318-411580

Pirineos, Oltingue and Alveringem PIRs. The distances considered to determine the tariff terms are therefore the shortest pipeline distances between these exit points and the Dunkirk PIR.

The main distances travelled by gas for transit are as follows:

- Dunkirk PIR – Oltingue PIR: 762 km
- Dunkirk PIR – Pirineos PIR: 1072 km

▪ Domestic consumers:

The evaluation of the distance travelled by the gas to reach domestic consumers' delivery points is more complex, particularly given the:

- high number of main network exit points to the regional network (approximately 700 in France) ;
- diverse supply possibilities available to gas suppliers ;
- large storage capacities in France allowing to transport gas to inject it during summer and withdrawing it in winter;

CRE has therefore considered two flow patterns, a "summer" pattern and a "winter" pattern in order to model the routes supplying domestic consumers:

- in the "summer" pattern, the PIR and PITTM entry points are used to fill the underground gas storage capacities and to supply the domestic consumers pro rata to their annual reference consumption;
- in the "winter" pattern, domestic consumers are supplied at their peak consumption level with gas coming from the PIR and PITTM entry points as well as storage facilities.

On the basis of these patterns, a model determines the distance travelled by the gas:

- each delivery exit point is supplied first of all by the entry point closest geographically, while it still has available booked capacity;
- when the closest point no longer has available capacities, the exit point fulfils its supply by the second closest entry point while it still has capacity available, and so on until all consumption is satisfied.

In the summer flow pattern, the gas travels an average of 285 km from the entry points to feed the PITS and the domestic consumers.

In the winter flow pattern, the gas travels an average of 170 km from the entry points and the PITS to supply domestic consumers.

A single average distance for the domestic consumers supply is then calculated by weighting by the number of months of each season (7 months of summer, 5 months of winter. This distance travelled is 237 km.

The majority of those who responded to the public consultation of 27 March 2019 are in favour or in favour with reserve to these principles considering that they reflect the costs incurred by each network user. Some stakeholders are however unfavourable to these principles. They consider that the distances calculation methodology is discriminatory and that supplying transit by the Dunkirk PIR is not justified.

CRE considers that this methodology is compliant with the Tariff network code, which authorises the combination of entry and exit points in a relevant flow scenario. Once the relevant flow scenario is defined both for the supply of transit points and domestic consumers, CRE applies the same methodology for calculating distances, adopting the shortest pipeline distance between the entry and exit points in a given flow scenario.

The choice of the Dunkirk PIR for supplying the transit is economically justified. The analysis of the costs of alternative routes shows that they are less competitive and have limited interest. CRE also points out that the subscription and utilisation levels at the Dunkirk PIR have been extremely high for several years, indicating the market interest for this entry point.

Furthermore, in its decision of 18 March 2019, the *Conseil d'Etat* validated this methodology *by considering that " this methodology takes account of the actual use of the network infrastructures by each category of shippers, the Dunkirk PIR constituting in the facts, the gas entry point on the main network for the use of transit. It is therefore not likely to create discrimination between users of transit routes and those of domestic routes.*"

CRE plans to retain the calculation methodology for the distances described above.

b. Discount tariffs at storage entry and exit points

Article 9 of the Tariff network code provides that a discount of at least 50% is applied to capacity based transmission tariffs at entry points coming from storage and exit points towards storage facilities.

CRE plans to maintain the global relative tariff level at the PITS compared to those at the network entry and exit points in order to avoid degrading the attractiveness of storage facilities, to maintain an incentive to fill them and to take into account their role in the proper functioning of the system. This leads to a discount of about 80%, as it is the case for the ATRT6 tariff.

In their answers to the public consultation of 27 March 2019, some considered that the discount to be applied to storage facilities must be 100% in order to ensure that the storage facilities are correctly filled in all market conditions, while others recommend a 0% discount so that these prices strictly reflect the operating costs of these storage facilities for the transmission network.

CRE considers that setting the tariffs at the PITS to zero is not justified given the service provided by the TSOs making available injection or withdrawal capacities on these points. The discount that CRE plans to retain makes it possible to reflect the investment savings and the flexibility solutions that storage facilities provide to the transmission networks.

c. Consistency of unit costs per km (cost allocation test)

Article 5 of the Tariff network code provides that the national regulatory authority perform a cost allocation assessment relating to the transmission services revenue to be recovered by the transmission tariffs. This assessment aims to indicate the degree of cross-subsidy between intra-system (domestic consumption) and cross system (transit) network use based on the reference price methodology proposed. This article also provides that any difference in the distribution of these costs, greater than 10%, must be justified.

The result of the cost allocation comparison defined in this article and in application of CRE's reference price methodology is equal to 0%. In fact, the methodology for elaborating the tariff framework proposed by CRE results in an identical unit cost for the different transit routes and the supply of domestic consumers (taking into account the use of storage facilities).

Considering the capacities contracted in 2020 at the different GRTgaz and Teréga main network entry and exit points, and based on illustrative scenario of the allowed revenue (see section 3.7.2), this unit cost is around €0.67/MWh/d/year/km.

Unit cost for transit France – Switzerland:

$$\frac{TCE_{\,PIR\ Dunkerque} + TCST_{\,PIR\ Oltingue}}{762} \approx 0{,}67$$

Unit cost for transit France – Spain:

$$\frac{TCE_{\,PIR\ Dunkerque} + TCST_{\,PIR\ Pirineos}}{1072} \approx 0{,}67$$

Unit cost for domestic consumer supply:

$$\frac{0{,}56 \times TCE_{\,PIR/PITTM} + 0{,}27 \times TCSS_{\,PITS} + 0{,}57 \times TCES_{\,PITS} + TCS_{\,vers\ RR}}{237} \approx 0{,}67$$

Where:

- TCE: tariff at entry PIR
- TCST: tariff at exit PIR
- TCES: entry from PITS tariff (withdrawal)
- TCSS: exit towards PITS tariff (injection)
- TCS: exit to the regional network tariff

The supply of 1 MWh/d/year of a domestic customer requires, on average, taking into account capacity subscriptions for storage capacities, subscribing 0.56 MWh/d/year of entry capacity in France (PIR/PITM), 0.27

MWh/d/year of injection capacities at PITS, and 0.57 MWh/d/year of withdrawal capacities at PITS. These ratios are calculated on the basis of the capacities contracted.

Lastly, the calculation of distances based on CRE's model, shows that PITTM supply more, in proportion, domestic consumption points: the average distance travelled by gas from these points is, on average, lower than the average distance travelled from a PIR point. CRE therefore plans to apply a differentiation of 10% between the tariffs at the PITTMs and those at entry PIRs.

4.1.2.3 Specific case of the PIV Virtualys exit

The Alveringem PIR was created within the framework of the commissioning of the Dunkerque LNG terminal in 2016, and enables non-odourised gas to be shipped from France to Belgium. Two types of capacities are marketed:

- a direct entry capacity in Belgium from the Dunkerque LNG terminal marketed by Fluxys, which, for that purpose, contracts with GRTgaz a shipping service between the Dunkerque LNG terminal and the Alveringem PIR;
- an interconnection capacity between the North PEG and the Belgian market marketed in a coordinated manner by GRTgaz and Fluxys within the virtual interconnection point (PIV) Virtualys.

Given the short distance travelled in France by non-odourised gas to Belgium, a distance-based pricing principle cannot be used as it would not cover the development costs of the interconnection created. In addition, as the exit capacity at the Virtualys PIV is no longer contracted from 2020, a Capacity x Distance model can no longer be applied.

In its deliberation dated 12 July 2011[22], CRE adopted a pricing system for the exit capacity at Alveringem based on the actual cost of the investment noted at the end of the works and the total capacity level. In other words, the exit tariff at the Virtualys PIV has been calculated on the basis of an economic test so that subscriptions on this point of the network cover a sufficient part of the related costs. This reasoning is in line with the spirit of the provisions adopted retrospectively, on 16 March 2017, in the network codes Tariff (Chapter IX) and CAM (Chapter V) concerning the development of incremental capacity.

CRE's deliberation of 12 July 2011 provides that the tariff at this point will change in compliance with the rest of the GRTgaz tariff. CRE plans to maintain these pricing principles for the ATRT7 tariff.

4.1.2.4 The level of multipliers

The Tariff network code provides that for the quarterly and monthly capacity products, the multipliers' level shall be no less than 1 and no more than 1.5. For daily and within-day capacity products, the multipliers' level shall be no less than 1 and no more than 3 except in duly justified cases.

The Tariff network code also specifies that several aspects should be taken into account for the setting of these multipliers, including in particular:

- the balance between facilitating short-term gas trade and providing long-term signals for efficient investments in the transmission network;
- the impact on the transmission services revenue and its recovery;
- situations of contractual or physical congestion;

The multipliers applicable to the interconnection points in the ATRT6 tariff are presented in the table below:

Capacity	Special conditions	Coefficient	Multipliers
Quarterly	In the event of congestion*	1/4 of the annual tariff	1
	No congestion	1/3 of the annual tariff	1.3
Monthly	In the event of congestion	1/12 of the annual tariff	1
	No congestion	1/8 of the annual tariff	1.5
Daily	N/A	1/30 of the monthly tariff	1.5

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

The multipliers, which vary between 1 and 1.5, are within the limits set by the Tariff network code. These multipliers have been set, on the one hand, to maintain a high level of long-term capacity subscriptions and to facilitate short-term trades and promote the integration and liquidity of the market.

[22] Resolution of the Energy Regulation Commission forming a ruling on the conditions for connecting the Dunkirk methane terminal to the GRTgaz network and on the development of a new interconnection with Belgium in Veurne

CRE considers that these aspects, which have until now been reached with regard to the short and long-term subscription levels observed over the last few years, comply with those set out in the Tariff network code.

CRE plans to maintain the multipliers, applicable to the interconnections, at the level in force in the ATRT6 tariff.

4.1.2.5 Illustrative tariff levels for 2020

By way of illustration, and in application of the methodology described above, CRE presents an example of evolution of the main tariff terms of GRTgaz and Teréga networks between 2019 and 2020.

This example is based on the illustrative scenario of average tariff evolution presented in 3.9.2. of this public consultation.

The subscription levels used for this example correspond to GRTgaz's (scenario2) and Teréga's demand.

The table below presents the indicative tariff terms :

in €/MWh/day/year	Terms 2019	Illustrative terms 2020	Difference
PIR entry	104.97	105.77	+0.8%
PITTM entry	99.14	95.19	-4.0%
PITS entry	9.15	9.20	+0.5%
Oltingue PIR exit	407.02	406.12	-0.2%
Pirineos PIR exit	626.95	614.34	-2.0%
Virtualys PIR exit	41.37	41.58	+0.5%
PITS exit	21.39	21.50	+0.5%
exit from the main network to the regional network	91.78	91.89	+0.1%
Regional network transmission term (GRTgaz)	83.43	84.24	+0.97%
Regional network transmission term (Teréga)	79.64	81.32	+2.10%

In the illustrative scenario, these terms will evolve by approximatively +0.5% per year in current euros for GRTgaz and +0.4% per year for Teréga.

Question 11 Do you have any comments regarding the pricing principles and the method that CRE plans to retain for the ATRT7 tariff?

4.1.3 Pricing of interruptible capacities

The Tariff network code provides that interruptible capacity [23] tariffs are calculated by multiplying firm capacity tariffs by the difference between 100% and a discount level calculated *ex ante*. The discount level depends on the probability of interruptible capacity interruption and an adaptation coefficient A defined by the regulator.

[23] Gas transmission capacity that may be interrupted by the operator according to the conditions stipulated in the gas transmission system user agreement. For information purposes, the main parameters affecting availability of the enclosed spaces are the level of consumption and configuration of the network.

Article 16 of the Tariff network code stipulates that the probability of interruption can be calculated either per point or per cluster of points.

The tariff discounts currently in effect in the ATRT6 tariff are summarised in the table below:

entry/exit points from the main network	Rebate
PIR entry	50%
PIR exit at Oltingue and Pirineos	25%

CRE considers that the rates of interruptions seen over the last few years cannot be used. Before the merger of the zones (as at 1 November 2018), the interruptions and capacity limitations were mainly applied to the North-South link, which led to lower interruption rates on the different PIRs.

Furthermore, in order to check the consistency of these discounts with the probabilities of interruption, GRTgaz and Teréga performed an estimation of the rate of interruptible capacity interruption at the entry and exit points of their main networks, applying the Tariff network code.

In its public consultation of 27 March 2019, CRE proposed adopting a single rate of interruption for entry points on which the entry tariffs are identical. The estimated rate of interruption is about 52% in TSO forecasts. CRE has therefore proposed to maintain a 50% discount at the PIR entry points

With regard to the exit points, the TSOs' calculations[24] lead to an interruption probability of interruptible capacity of around 15% for Oltingue and 11% for Pirineos. In its previous public consultation, CRE proposed maintaining the current 25% discount and giving feedback in the light of the merging zones.

The majority of those who answered to the public consultation were in favour of maintaining the tariff discount in effect on entry points.

With regard to the exit points, the majority of the contributors went against the discount currently in force on these points. These stakeholders consider that a 15% discount, in line with the probabilities of interruptions estimated by the TSOs, would be more suitable.

Other stakeholders consider that the reduction in long-term capacity subscriptions could lead to improved availability of interruptible capacities, or even eliminate any risk of interruption. CRE should accordingly further reduce the applicable discounts on these entry and exit points.

CRE considers these latest observations to be relevant. At this stage, it foresees the following tariff reductions, in line with the estimated probabilities of interruption by the TSOs:

entry/exit points from the main network	Rebate
PIR entry	50%
PIR exit at Oltingue and Pirineos	15%

Furthermore, in its deliberation of 29 May 2019, CRE introduced[25] the interruption of exit capacity towards the PITS beyond the nominal levels, corresponding to the injection flow rates necessary for filling storage within reasonable deadlines. CRE plans to retain a discount of 50% for interruptible capacity tariff at the PITS.

Question 12 Are you in favour of the discount levels envisaged by CRE for interruptible capacities at the PITS?

4.1.4 Comparison with the reference methodology (CWD) provided for by the Tariff network code

In article 8, the Tariff network code describes in detail the methodology for calculating the reference price at entry and exit points based on the capacities contracted and the distances travelled by gas as weighting factors (*capacity*

[24] The detailed calculations are published on the TSO sites (see appendix 2)
[25] Deliberation of the Energy Regulation Commission of 29 May 2019 on the decision to change the decision of 26 October 2017 relating to the operation of the single market zone for gas in France

weighted distance reference price methodology (CWD)). The code provides that the methodology used by the regulator to calculate the reference prices shall be compared with this CWD methodology. CRE presents here the tariff levels that would result from the strict application of the CWD methodology :

in €/MWh/day/year	CWD entry	CWD exit
Virtualys PIR	176,79	
Taisnières B PIR	176,79	
Dunkirk PIR	176,79	
Obergailbach PIR	176,79	
Oltingue PIR	176,79	397 ,42
Pirineos PIR	176,79	559,10
Dunkirk PITTM	118,42	
Montoir PITTM	118,42	
Fos PITTM	118,42	
Exit to Regional network		60,35
PITS	6,03	19,09

The parameters of the reference price calculation methodology based on capacity and distance as weighting factors are similar to those of CRE's methodology. The main difference with CRE's methodology is the use of a 50/50 ratio for the distribution of revenues between entry and exit points. In fact, CRE considers that the application of a distribution at 50/50 is not adapted to the particular configuration of the French network (see section 4.1.2).

Moreover, the aim of the CWD methodology is to lead to uniform unit costs (€/MWh/d/year/km) for the different gas transmission network users. However, its practical application, since the same entry point can feed several exit points, does not necessarily lead to this result. Here, the unit cost for France-Switzerland is €0.75/MWh/d/year/km versus €0.68/MWh/d/year for France-Spain, and €0.66/MWh/d/year for domestic customers.

4.1.5 Subscription modalities

4.1.5.1 Capacity transfer offer at PIR

In a given context of decrease of long-term subscriptions at network interconnection points (PIR) during the ATRT7 period, GRTgaz proposed the implementation of capacity transfer offer at a preferential price, presented in the public consultation of 27 March 2019. CRE expressed its reservations on this proposal in the consultation.

Public consultation responses summary

The majority of industrialists that have responded to the public consultation have reservations concerning this offer: it seems beneficial for the development of the French market's liquidity, but could potentially have a negative impact, which is difficult to predict, on GRTgaz revenue.

A majority of shippers are favourable, as they believe that the capacities at the PIR would become more attractive. Other shippers consider that this offer would be discriminatory, in particular for new entrants, as it would be introducing price differentiation according to the portfolio of capacities already subscribed.

Finally, some participants believe that this offer would enable optimisation of subscribed capacities and that these transfers would be detrimental to daily subscriptions, resulting in a loss of income for GRTgaz.

CRE's analysis and guidance

Following the public consultation of 27 March 2019, CRE has maintained its initial analysis: the capacity transfer offer between PIR could decrease GRTgaz's revenue while the benefits for the attractiveness of the market seem uncertain. Such transfers of capacity could reduce daily subscriptions and new long-term subscriptions.

The impact studies supplied by GRTgaz show no significant gain for the tariff economy.

In addition, this offer would favored long-standing shippers with long-term capacities to the detriment of other shippers.

Lastly, it is not necessarily relevant to implement this offer only on the French side whereas the capacity is bundled (i.e. sold jointly on both sides of the border).

As a result, CRE does not plan to implement this capacity transfer offer at interconnections.

4.1.5.2 Subscriptions at Transport LNG terminal interface points (PITTM)

4.1.5.2.1 Day-ahead subscription

The ATRT6 tariff provides that the holding of regasification capacity at a LNG terminal involves the right and obligation to subscribe entry capacity on the transmission network for corresponding durations and levels.

In the public consultation of 27 March 2019, CRE intended to allow shippers to modulate their level of capacity day ahead, while maintaining the entire volume of capacity initially subscribed over the period.

Public consultation responses summary

Almost all of the participants to the public consultation are favourable to this development, which would enhance the appeal of French LNG terminals. A supplier stresses that this development would make it possible to remove a significant obstacle to the arrival of LNG in France. The majority of shippers declared in favour of this increased flexibility.

CRE's analysis and guidance

CRE considers that this development would provide flexibility to the allocations of capacity at the PITTM, without any risk on the network operation. CRE considers that LNG shippers should be able to react to the price signals and update their appointments on a daily basis at the PITTM. Lastly, this change will reconcile the subscription conditions for the PITTM capacities with those at PIR, which can be subscribed day ahead.

CRE is therefore planning to implement this change in the ATRT7 tariff, offering the possibility for a shipper to update its subscription to a PITTM the day ahead, while maintaining over the entire transmission period the entire volume of capacity initially allocated.

4.1.5.2.2 Pooling offer at PITTM

GRTgaz has offered to set up a *pooling* service between all PITTM, including that of Dunkirk. Any unused capacity at a PITTM could be transferred to another PITTM, as part of a subscription made after the 20th of month M-1 for month M. The cost of this transfer would be 10% of the initial price of the new capacity subscribed. This proposal was presented in the public consultation of 27 March 2019, in which CRE expressed reservations on this pooling service considering that it would have only a limited impact.

Public consultation responses summary

Almost all of the participants in the public consultation are favourable to this development. Shippers consider that pooling would provide a practical solution for dealing with events that do not enable discharging into the terminal initially planned (weather conditions, possibility of access to the estuary or to the terminal itself, etc). Moreover, it would benefit all shippers that have capacities in the terminals and would be consistent with the pooling already offered between the regulated terminals. One stakeholder stresses that the offer can only generate additional revenue for GRTgaz, which would be beneficial for the ATRT7 tariff.

Several shippers estimate that the price of the offer of 10% of the initial price of the subscribed capacity is not justified, and should be lower, to reflect the costs of implementing such an offer.

Finally, a participant is concerned about the potential loss of competitiveness for storage facilities in the event of increased flexibility at LNG terminals, and therefore a possible fall in auction revenue for storage operators.

CRE's analysis and guidance

CRE considers that the terms of the *pooling* offer proposed by GRTgaz would attract additional LNG cargo in France without substituting to other subscriptions, for the benefit of the French market. This offer is suitable for LNG, for which specific logistical constraints can legitimise a change of route, unlike terrestrial networks.

In addition, as the subscriptions to the PITTM are automatic as soon as a regasification capacity in the corresponding terminal is subscribed, this offer would supplement the offer of *pooling* of capacities to the regulated LNG terminals already introduced into the ATTM5.

CRE considers that this offer will not impair the competitiveness of storage facilities, taking into account their commercialisation by auction with a zero reserve price. In addition, the tariff charge at storage entry and exit points (PITS) already benefits from a significant discount (see 4.1.2).

With regard to the price of the offer, it must increase GRTgaz revenue, contributing to the coverage of GRTgaz costs while remaining attractive for shippers. CRE considers that the price of 10% of the initial price of the subscribed capacity proposed by GRTgaz sized well.

CRE suggests introducing the PITTM pooling service as of the entry into force of the ATRT7 tariff.

4.2 Pricing structure of the regional network

Pricing of transmission in the regional network depends on:

- the shipping capacity booked;
- the unit tariff for transmission in the regional network multiplied by a regional tariff level (NTR) between 0 and 10 (since the reform implemented in the ATRT6), specific to each delivery point, which takes into account the disparity of transmission costs on the regional network for each delivery point.

Delivery pricing depends on:

- delivery capacity booked;
- the unit delivery tariff (TCL) which differs depending on the type of delivery point;
- the number of delivery stations for industrial consumers or highly modulated industrial consumers, a fixed delivery charge applying to each delivery station.

In its public consultation of 27 March 2019, CRE was planning to maintain these principles to the ATRT7 tariff. The stakeholders' responses were in favour of CRE's proposal, which consequently maintains its direction.

4.2.1 Modalities of capacity subscriptions

4.2.1.1 Pricing of intra-annual capacities

At the exit from the main network and for transmission in the regional network and delivery, consumers connected to the transmission network can book daily capacity for an annual, monthly or daily period. It is possible to book on monthly or daily period by paying the annual period cost multiplied by a certain coefficient depending on the duration and time of the year. The coefficients in effect in the ATRT6 tariff are as follows:

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

GRTgaz proposed to lower the coefficients from January and February from 8/12th to 4/12th. In the public consultation of 27 March 2019, CRE declared in favour of this change.

Public consultation responses summary

The industrialists that responded to the public consultation were unanimous: this drop in the coefficients would offer additional flexibility in their capacity subscriptions and optimisation possibilities. Cogenerators in particular are very favourable to this winter flexibility gain.

Shippers and gas associations are mainly in favour of this measure, since such a change would allow them to take up additional monthly and daily capacities. However, a shipper considers normal for a subscription over the months where the consumption peak at risk "P2" is reached to cost more and is concerned about the possible fall in revenue for GRTgaz.

All the participants emphasise the need to maintain identical coefficients in transmission and distribution. The distribution system operators (DSO), GRDF and SPEGNN (association that groups local distribution companies), indicated that they need to examine the impact of this measure on their revenue.

CRE's analysis and guidance

CRE considers that the risk of seeing annual subscriptions disappear in favour of monthly subscriptions remains limited, as the level of the winter month coefficient remains important. Thus, as soon as a consumer needs to subscribe for capacities beyond 3 months of winter, which is the case for the vast majority of sites connected to the transmission network, it will retain an interest in favouring the subscription for annual capacities.

Lastly, CRE considers essential to maintain identical coefficients in transmission and distribution. As capacity subscriptions are marginal in the revenue of DSOs (2% of GRDF revenues for example), a change in coefficients will have no significant impact.

As a result, CRE plans to lower the tariff coefficients from January and February from 8/12 to 4/12 for the transmission and distribution capacities of natural gas.

4.2.1.2 Adaptation of penalties for exceeding capacity

Each day, penalties apply for exceeding the daily capacity of the exit from the main network, transmission in the regional network and delivery.

Each day, penalties also apply for exceeding the hourly capacity of transmission in the regional network and delivery.

Following work carried out by the TSOs and presented in gas Concertation, the TSOs suggested removing the 2nd penalty threshold. CRE expressed favourably to this proposal in the public consultation of 27 March 2019.

Public consultation responses summary

All the industrials that responded to the public consultation are in favour of this change. They consider the factor 20 of the 1st threshold to be already deterrent. In addition, experience shows that exceeding over the 2nd threshold is mainly due to operational incidents and not to arbitrations. The removal of the 2nd threshold would also be seen as a positive signal for the use of biomass with the use of gas as an emergency, which is particularly penalised in the event of an incident.

Shippers and gas associations are mainly in favour of this change. The infrastructure operators responded favourably to this change.

Several stakeholders are opposed to the current system of the addition of daily and hourly penalties, and suggest only the highest payment of the two for a given day.

Furthermore, some require harmonisation of the possibility of *a posteriori* subscription between transmission and distribution (retroactive subscription of monthly capacity in transmission and retroactive subscription of annual capacity in distribution).

Finally, many respondents wonder about the outcomes of the simultaneous removal of the penalties' 2nd threshold and the reduction in the coefficients of January and February.

CRE's analysis and guidance

CRE considers that the penalty level of the 1st threshold is already deterrent (20 times the price of capacity), including if taking into account the reduction in the coefficient for capacities' tariff of January and February at 4/12 of the annual. Furthermore, the capacities exceedings over the 2nd threshold, mainly due to operational incidents rather than voluntary arbitration, seem to be too penalising in the current system.

With regard to the addition of daily and hourly penalties, CRE reminds that each type of capacity fulfils a specific role for the TSOs and that, in this respect, each type of excess capacity is penalising for operating the network. The daily capacity corresponds to a balancing constraint, whereas the hourly capacity corresponds to a linepack constraint on a local scale. In addition, daily and hourly capacity does not necessarily correspond: the allocated hourly capacity is equivalent to 1/20th of the subscribed daily capacity, which allows modulation over the course of the day, but not the maintenance for 24 hours of a level strictly proportional to the daily capacity. It is also possible to reserve an additional hourly capacity.

The penalties are certainly set at a high level, all the more with the daily and hourly accumulation, but they only represent a limited total financial charge for consumers (in the order of 0.1% of the allowed revenue). CRE considers that their level is sufficiently incentive, but not excessively penalising, in particular taking into account existing flexibilities (penalty floor, subscription *a posteriori*).

Consequently, CRE plans to eliminate the 2nd penalty threshold for exceeding capacity, while maintaining the principle of addition of hourly and daily penalties.

4.2.1.3 Redistribution of penalties for exceeding capacity

Each TSO redistributes the amount of penalties for exceeding capacity collected each year, no later than June of the following year. In its public consultation of 27 March 2019, CRE proposed the end of this penalty redistribution system. The tariff would directly integrate penalties via the expenses and income clawback account (CRCP) as in distribution tariffs.

Public consultation responses summary

The participants in the public consultation are split with regard to the end of this redistribution mechanism.

Industrialists are in favour of this change as they believe that the current system lacks transparency and that suppliers are not always passing on redistribution to end customers. For their part, shippers and gas associations are highly split on this subject: some are in favour of more transparency and redistribution to all consumers, while others highlights that shippers bear the risk they generate and that maintaining the system would continue to favour virtuous behaviours. The infrastructure operators support this change.

Several stakeholders have expressed their commitment to maintaining distribution within the scope of the transmission tariff, only having a downward impact on the delivery tariff term, and not all of the terms via the CRCP.

CRE's analysis and guidance

CRE considers that the end of the redistribution of penalties to shippers and its integration to the CRCP would make the system simpler.

Furthermore, CRE recall that the amounts are barely significant (€2.7m/year for the networks of the two TSOs, based on an income of about 2 billion euros/year, i.e. 0.1%) and do not call into question the balance of the different pricing terms.

As a result, CRE plans to terminate the redistribution of penalties for exceeding capacity and to incorporate them directly into the tariff ATRT7 via the expenses and income clawback account (CRPC).

4.2.2 Pricing of highly modulated sites and IAPC offer

In the public consultation of 27 March 2019, CRE considered removing the short-notice interruptible transmission offer (IAPC), currently benefiting certain combined-cycle gas (CCGT) power stations.

Public consultation responses summary

The majority of the contributors responded favourably to this proposal, including all of the industrialists and some of the shippers. Industrialists believe in particular that the IAPC cannot coexist with a new interruptibility mechanism.

Some shippers that benefit from the IAPC are not opposed to its removal but wish the flexibility provided to the network by highly modulated consumers (among which are some of the power stations) would be taken into account in the tariff.

The other shippers benefiting from the IAPC are against its removal and believe that it will have potentially harmful economic consequences, which could impact the cost of electricity.

CRE's analysis and guidance

The IAPC was created in the ATRT3 tariff, which came into force on 1 January 2007, in a context of numerous connections of new combined cycle gas (CCGT) power stations. The CCGTs are very large customers for the gas network, both with their subscribed capacity (20 GWh/d per 400 MW unit) and their capacity to move very quickly (in 20 to 30 minutes) from 0 to maximum power.

The aim of this offer was to encourage CCGTs to set up close to entry points of GRTgaz network in order to avoid GRTgaz from making heavy investments to allow these sites to be supplied under all network conditions.

CRE considers that changes to the network since the installation of the IAPC in 2007 and its usage history question its continuation in the ATRT7 tariff. GRTgaz never activated this mechanism since its creation:

- on the one hand, the CCGTs are electricity generation resources necessary during cold peaks, which makes their interruption very complicated. GRTgaz must first coordinate with RTE to ensure that this interruption does not jeopardise the balance of the electricity transmission network;
- on the other hand, the French gas transmission network has been heavily reinforced since 2007. Two new LNG terminals became operational during this period (Cavaou and Dunkirk LNG). Furthermore, in order to implement the single market zone on 1 November 2018, GRTgaz and Teréga have made significant investments strengthening the main network (Val de Saône and Gascogne-Midi). The network has therefore been

highly reinforced with additional transmission capacities. Thus, the constraints anticipated in 2007 for the supply of the new CCGTs have been heavily reduced.

Finally, a regulatory interruptibility mechanism is being studied, which would be based on simpler activation conditions than those of the IAPC offer, and would risk being a duplicate.

However, CRE considers justified to take into account the visibility provided to the network by highly-modulated consumers. Indeed, they have to transmit to the TSO an hourly consumption profile for day ahead and in case of modification higher than 10% they have to communicate with a certain notice the new profile. Therefore CRE is studying the relevance of reducing, or even bringing to zero, the delivery charge for highly-modulated sites.

Question 13 Are you in favour of the removal of the IAPC and the reduction, or even bringing to zero, of the delivery tariff term for highly-modulated sites?

4.2.3 Proximity tariff discount

In the public consultation of 27 March 2019, CRE proposed removing the proximity tariff discount, which is deducted from the monthly bill of each shipper, for the quantities of gas consumed in certain exit zones of the main network close to the network interconnection points (PIR): Dunkirk, Taisnières and Obergailbach. This discount applies, for each shipper, to the quantity of gas equal, each day, to the minimum between the quantity of gas nominated at the point of entry on the transmission network and the quantity of gas consumed in the associated exit zone.

Public consultation responses summary

Almost all of the industrialists and some of the shippers are in favour of the removal of the proximity discount. Industrialists that favour removal believe it is a question of national fairness, and that this removal is coherent with the diversification of the power supply sources for the French network and the implementation of the single marketplace.

Industrialists that benefit from the proximity charge would prefer to keep this discount, with an obligation for shippers to transfer it to consumers.

A group of shippers, as well as local distribution companies operating on territories which benefit from the proximity discount, and a few other stakeholders, are opposed to the removal. They point out a reduction in the competitiveness of the territories concerned, which are sometimes already in economic difficulty.

Shippers opposed to the removal believe that this discount reflects the lowest costs incurred for the network by consumers close to the entry points. A shipper highlights in particular the coherence with the existence of the proximity tariff in the distribution tariff.

CRE's analysis and guidance

According to the principle of pricing for the main network retained by CRE, the exit tariff from the main network to supply domestic consumers is unique. Thus, whatever the exit zone of the main network where the consumer is located, he pays the same prices for the capacity.

The proximity discount aimed at continuity of pricing in the regions concerned when transitioning from a distance tariff system to an entry/exit tariff system in 2003. It is an exception to the principle of single pricing of capacity at the exit from the main network in France, since it is proportional to the quantities supplied and differentiates the exit zones.

CRE maintains its decision on removing this exception in the ATRT7 tariff. It also points out that the tariff signals at location are taken into account in the pricing of the regional network, with the regional tariff level (NTR), between 0 and 10 and specific to each delivery point, multiplying the charge of transport on the regional network.

4.2.4 Consideration of the development of biomethane

France has a high potential for methanization and the public authorities have defined ambitious targets for the injection of biomethane into its gas networks and the reduction of the carbon footprint of transmission. The current decree relating to the multiannual energy programme[26] (PPE) has defined a target of 8 TWh of biogas injected in 2023. At this stage, the draft decree relating to the PPE submitted for consultation in January 2019 provides for a slight reduction in these objectives for 2023 (6 TWh of biogas injected) but sets a target of 14 to 22 TWh of biogas injected into the networks between now and 2028.

[26] Decree no. 2016-1442 of 27 October 2016 relating to the multi-year energy programme

The natural gas networks do not cover the territory in a uniform manner and its reception capacity varies greatly from one region to another. Those characteristics will require an adaptation of the natural gas transmission and distribution networks to enable them to host numerous production sites. Thus, the connection of new injection installations will mechanically lead to an extension of the network (these extensions represent two-thirds of the provisional investment volume, linked to the development of biomethane), while the existing network shall have to be reinforced with the use of interconnections or backhaul, to support and distribute the excess volume injected into certain zones. At this stage, GRDF estimates it can carry out without any reinforcement only 30% of projects identified.

In its consultation of 27 March 2019, CRE proposed to enable development of the biomethane sector at a cost controlled for the community. It would send biomethane producers an economic signal to the location and to the injection capacity, following the example of electrical energies and renewable energies, either at the time of connection or *via* an injection tariff charge defined in the network usage rates.

At the same time as this consultation, CRE publishes a specific consultation on the development of biomethane injected into the networks, in which it deals with all the consequences for the network operators and for their users.

5. METHODS OF COLLECTING THE COMPENSATION FOR STORAGE

5.1 Reminder of the principle of covering storage costs

The Energy Code provides that the storage operators receive their allowed revenue, set by the ERC:

- on the one hand, through income which they receive directly, mainly from the marketing of their storage capacities at auction;
- on the other hand, in the event that the income they receive directly is lower than their allowed income, through compensation collected by the transmission system operators (TSOs) from shippers and transferred to the storage operators in accordance with article L.452-1 of the French Energy Code.

It is within this framework that CRE has introduced an additional tariff charge into the ATRT6 tariff (the "storage rate charge"). The methods for calculating and applying this charge are described in the decision of 13 December 2018[27].

Compensation is recovered from shippers present on the GRTgaz and Teréga transmission networks by applying the storage tariff charge, which depends on the winter modulation of their non-interruptible and interruptible customers connected to public gas distribution networks.

Underground storage of natural gas enables the seasonal modulation of demand to be met. By injecting gas into storage during summer and by extracting it during winter, suppliers can respond to their customers' consumption, which is highly dependent on the climate for most of them. The storage capacities thus cover almost 35% of the volumes of gas consumed in France during winter. Storage also offers flexibility allowing suppliers to cover different risks. This flexibility is essential, in addition with the one provided by interconnections and LNG terminals, to supply consumers in the event of a cold peak.

5.2 Calculation of winter modulation

5.2.1 Calculation formula in effect

Two types of consumers currently pay for the storage tariff charge:

- "Profiled" customers: the transmission capacities of these customers are automatically calculated by network operators and subscribed by shippers to cover peak needs based on a consumption profile and annual consumption;
- "subscribing" customers (corresponds to customers connected to the distribution network under pricing option T4): these customers choose the level of their capacity subscriptions to cover their peak needs. These are mainly industrialists.

The "subscription" customers account for about 12% of the capacities subscribed to the distribution network, the remaining 88% corresponds to "profiled" customers. All customers connected to the transmission network are "subscription" customers.

The calculation formula for the winter modulation, which is described in CRE deliberation dated 13 December 2018, applies in an identical manner to "profiled" customers and to "subscription" customers:

[27] CRE deliberation of 13 December 2018 deciding on the evolution of the tariffs for the use of GRTgaz and Teréga's natural gas transmission networks as of 1 April 2019

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

Where: - CJN: standardised daily capacity for profiled sites and subscribed capacity for subscription sites.

- CAR: annual site reference consumption.

- Int: interruptible capacity contracted by the customer.

As an exception, the Customer Modulation is set at 0 MWh/d for customers:

- declared as able to manage a load shedding: customers were declared loadable during the investigation conducted by network operators and thus committing to reducing their consumption at the level indicated during this investigation. During winter, these customers must be able to reduce their gas consumption to 90% of their average daily consumption, without any risk to the environment or their tools.
- counter-modulated: customers with a P013 profile (winter consumption accounts for less than or equal to 39% of the annual consumption) or P014 profile (winter consumption accounts for between 39% and 50% of the annual consumption). The profiles are set by the DSOs according to the methodology published on the GTG website[28].

In their response to the public consultation of 29 March 2019, industrialists have highlighted that their peaks in consumption are rarely caused by climatic phenomena, but most of the time by industrial events (for example, the shutdown of a producing gas unit, breakdown or breakage of a biomass boiler, etc.). Thus, the probability of occurrence at the same time as an exceptional winter phenomenon is very low.

As a consequence, the industrialists consider that the capacity is not relevant to assess their contribution to the need for storage. They also state that a unique formula applied only to residential customers as to industrial customers does not take account of fundamental differences in their way of consuming gas in winter, and therefore in the contribution of each to the storage requirement in order to pass the winter peak.

5.2.2 CRE's analysis

5.2.2.1 A contribution to winter peaks depending on the type of customer

CRE has analysed the methods of consumption and subscription for profiled customers and subscription customers.

This analysis confirms that the profiled consumers are mostly sensitive to the climate, and that their peak consumption corresponds, in fact, to the winter cold peak.

On the other hand, with regard to industrial customers, even if they consume on average more in winter than in summer, there is no direct correlation between their maximum consumption and the cold peaks, as is the case for a profiled customer, but are more associated with the needs of their industrial processes. These consumption peaks do not occur at the same time of the year, with each sector of activity having its own characteristics. Some sectors such as the sugar sector show maximum levels of uncorrelated consumption from the climate peak in a cyclical and predictable way (peak from October to December). Others experiences winter consumption peaks mainly linked to industrial process risks (chemists, petro-chemists, etc). Furthermore, some industrial sites use gas as an emergency service very occasionally. In this case, the annual consumption peak does not reflect the winter modulation.

5.2.2.2 Evolution of the calculation formula for the winter modulation

Given these differences between these two categories of customers with regard to the contribution to the winter modulation, CRE plans to adapt the modulation calculation formula for "subscription" customers. CRE believes that a comparison of the average winter consumption (between 1 November and 31 March, which is the reference period for calculating the winter share to allocate a profile to profiled customers) to average annual consumption would allow the characteristics of the industrial sites to be taken into account. In particular, it would take into account the absence of correlation between their peak gas consumption levels and the climatic cold peaks, while measuring their contribution to the need for storage infrastructures, in particular in terms of volume.

As a result, the formula for the subscription customers envisaged by CRE, which would apply from 1 April 2020, is as follows:

[28] Table of applicable profiles from 1 April 2018 to 31 March 2019

$$\textbf{Modulation (MWh/j)} = \text{Max}(0; \frac{\text{Winter consumption}}{151} - \frac{\text{Annual consumption}}{365} - \text{Int})$$

Where: - Winter consumption: site consumption from 1 November to 31 March

- Annual consumption: consumption from 1 April to 31 March

- Int: interruptible capacity contracted by the customer.

On 1 April of year N, the winter modulation of each customer is updated on the basis of its winter gas consumption from 1 November N-1 to 31 March N and its annual consumption from 1 April N-1 to 31 March N. This new modulation value would be used up to 31 March of year N+1.

All things being equal (allowed revenue of stockers to be collected €505.3m, result of auctions for the 2018-2019 campaign, etc), the impact on 1 April 2020 of this adaptation of the modulation formula for subscription customers is estimated as follows:

In M€	2018 realised	Adaptation of the formula to subscription consumers
Compensation paid by the distribution of profiled customers	473.6	488.7
Compensation paid by the distribution of subscription customers	31.8	16.6
TOTAL	505.3	505.3

This formula could apply to customers connected to the transmission network in the event of an extension of the collection of compensation to all consumers that cannot interrupt or reduce their consumption during the winter peak period.

Question 14 Are you in favour of adapting the calculation formula of the winter modulation for "subscription" customers planned by CRE for 1 April 2020?

5.3 Scope of the storage compensation

In the public consultation of 27 March 2019 relating to the structure of the next tariff ATRT, CRE presented guidelines on the evolution of the storage compensation's perception base in order to align the scope of the compensation with the dimensioning of the regulated perimeter and the implementation of the safety net.

CRE has considered that an extension of the compensation to all consumers that cannot interrupt or reduce their consumption during the winter peak period is subject to the implementation of measures allowing certain consumers to declare interruptible.

It questioned the stakeholders on an extension of the scope of storage compensation to consumers connected to the transmission networks only if prior implementation of an interruptibility mechanism allowing partial or total exemption from the storage compensation.

The majority of shippers and infrastructure operators who responded to the public consultation share CRE's analysis on the extension of the storage compensation to consumers connected to the transmission networks. Several stakeholders pointed out that the scope of the reform of the third-party access authorisation to the storage infrastructure established in 2018 aims to ensure the security of supply for all consumers whether they are connected to the transmission network or to the distribution network. Among the favourable stakeholders, some highlighted the need for implementing an interruptibility mechanism in order to ensure that the cost paid by the consumer is consistent with its contribution to the need for storage.

The majority of industrialists connected to the transmission network, however, have expressed doubt over an extension of the perimeter of the storage compensation to the transmission. They consider that they do not benefit from the security of supply for storage, because their supply is interrupted in priority before consumers connected

to the distribution network in the event of activation of the gas emergency plan[29], in order to preserve the gas supply for protected customers.

CRE maintains its preliminary analysis and considers that an extension of the scope of compensation to all consumers that cannot interrupt or reduce their consumption during the winter peak period is desirable. However, the implementation of the interruptibility mechanism provided for in articles 431-6-2 and 431-6-3 of the French Energy Code is necessary before this extension of scope. In this respect, CRE specifies that the draft of the orders referred to in the aforementioned articles have been submitted to it for review by post received on 21 june 2019.

As explained in 5.2.2.2, the extension of the clearing base for storage to customers connected to the transmission network would apply with the application of a new modulation calculation formula, specific to "subscription" sites and better adapted to the characteristics of industrial customers.

CRE notes that once the publication of the interruptibility texts, TSOs consider that a minimum period of 12 months will be necessary in order to ensure contracting interruptible capacity with network users. CRE plans to implement the extension of the storage perimeter once the carry out of this contractualization.

[29] Decree of 28 November 2013 concerning the adoption of the gas emergency plan pursuant to Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to guarantee the security of supply of natural gas and repealing Council Directive 2004/67/EC

6. SUMMARY OF QUESTIONS

Question 1 What is your position regarding the possible introduction of differentiation between the remuneration of historic assets and new assets for the ATRT7 tariff?

Question 2 Do you have any comments regarding the processing of transferred assets considered by CRE for the ATRT7 tariff?

Question 3 Are you in favour of the main tariff principles that CRE envisages for the ATRT7 tariff ?Are you in favour of the schedule and the pricing development principles planned by the CRE for the ATRT7 tariff?

Question 4 Are you in favour of the schedule and the tariff evolution principles planned by CRE for the ATRT7 tariff??

Question 5 Are you in favour of the scope of the expenses and revenues covered by the CRCP envisaged by CRE for the ATRT7 tariff?

Question 6 Are you in favour of the incentive-based regulation mechanisms for investments proposed by CRE for the ATRT7 tariff?

Question 7 Are you in favour of changes to the incentive regulation mechanism for service quality planned by CRE for the ATRT7 tariff?

Question 8 Do you have any comments regarding the incentive regulation framework and R&D foreseen by CRE for the ATRT7 tariff ?Do you have any comments regarding the forecast subscriptions for GRTgaz and Teréga for the 2020-2023 period?

Question 9 Are you in favour of the orientations envisaged by CRE concerning the level of charges to be covered for the ATRT7 period for GRTgaz and Teréga? Are you satisfied with the rebate levels envisaged by the CRE for interruptible monthly capacities?

Question 10 Do you have any comments regarding the forecast subscriptions for GRTgaz and Teréga for the 2020-2023 period?

Question 11 Do you have any comments regarding the pricing principles and the method that CRE plans to retain for the ATRT7 tariff?

Question 12 Are you in favour of the discount levels envisaged by CRE for interruptible capacities at the PITS?

Question 13 Are you in favour of the removal of the IAPC and the reduction, or even bringing to zero, of the delivery tariff term for highly modulated sites?

Question 14 Are you in favour of adapting the calculation formula of the winter modulation for "subscription" customers planned by CRE for 1 April 2020?Are you in favour of adapting the calculation formula of the winter modulation for "subscription" customers planned by the CRE from 1 April 2020?

APPENDIX 1: EVOLUTION OF SUBSCRIPTIONS FOR THE ATRT7 PERIOD

- evolution of revenues from subscriptions by type of point, inflated (considering the illustrative scenario from CRE):

evolution of capacity subscriptions in current M€	2020	2021	2022	2023
PIR revenue	387.0	383.8	375.7	356.2
PITS revenue	47.1	47.3	47.5	47.8
PITTM revenue	92.9	79.3	73.0	73.3
Revenue from the regional network	386.6	384.6	383.8	381.9
Regional network revenues	1135.2	1126.9	1128.0	1121.0
Other revenue	14.0	24.6	28.9	29.9
Total revenues (€m)	**2062.7**	**2046.5**	**2037.0**	**2010.1**

APPENDIX 2: INFORMATION TO BE PUBLISHED WITH THE CONSULTATION IN COMPLIANCE WITH THE NETWORK TARIFF CODE

Article	Information to be published	Release
26(1)(a)	Description of the reference price calculation methodology.	Section 4.1.2 of this public consultation.
26(1)(a)(i) 26(1)(a)(i)(1) 26(1)(a)(i)(2)	Information on the parameters used in the reference price calculation methodology (article 30(1)(a)) including: • justification of the parameters in connection with the technical characteristics of the system; • the values of these parameters and the assumptions made; • the technical capacities subscribed at the network's entries and exit points; • structural representation of the network; • additional technical information (length of network, diameter of pipelines, etc.).	The methodology for calculating tariff terms is based, in accordance with the Tariff network code, on the capacities contracted and the distances travelled by the gas: • The distances taken into account are given in section 4.1.2.2, paragraph (b). • Changes in capacities subscribed at entry and exit points are given in appendix 1. • The technical capacity data and all technical information shall be published on the TSO sites according to the ENTSOG template ○ GRTgaz ○ Teréga • The structural representation of the transmission system is published on TSO sites: ○ GRTgaz ○ Teréga
26(1)(a)(ii)	The value of tariff adjustments at the entries and exit from the storage and the LNG terminals (article 9 of the Network Tariff Code).	The discounts envisaged by CRE are indicated in section 4.1.2.1, paragraph (a).
26(1)(a)(iii)	The indicative table of reference prices.	Section 4.1.2.5.
26(1)(a)(iv)	The results and the detailed calculation of unit costs for supplying the various network users (*cost allocation test*).	Section 4.1.2.2 paragraph (c).
26(1)(a)(v)	Evaluation of the reference price calculation methodology chosen (article 7 of the Network Tariff Code)	Section 4.1.2.
26(1)(a)(vi)	Comparison with the CWD method	Section 4.1.4.
26(1)(b)	The indicative information indicated in article 30 (1)(b)(i), (iv), (v): • the operator's estimated allowed revenues; • revenues associated with the transmission services; • the distribution of transmission revenues between entry points and exit points;	• The estimated allowed revenues are listed in section 3.7. • The distribution of these revenues between the transmission services and the ancillary services is given in section 4.1.1.2. • The distribution of transmission services revenue between entry points and exit points and given in section 4.1.2.1. • The distribution of transport services revenues between transit and domestic consumption is

		around 24% for transit and 76% for domestic consumption.
26(1)(c)(i)	Information on tariffs based on the quantity of gas transmitted.	Not applicable
26(1)(c)(ii) 26(1)(c)(ii(1) 26(1)(c)(ii)(2) 26(1)(c)(ii)(3) 26(1)(c)(ii)(4)	• The pricing method for ancillary services; • the share of the revenue allowed to be recovered from these tariffs; • the way in which this revenue is recovered (Article 17); • the indicative tariff terms.	• The tariff principles for ancillary services (regional networks) are specified in section 4.2. • The share of the aallowed revenue to be recovered by these tariffs is set out in section 4.1.1.2. • The way in which this revenue is recovered (in particular the functioning of the CRCP) is indicated in section 2.1.3. • The indicative tariff terms for the regional network are given in section 4.1.2.5.
26(1)(d)	Explanations of differences in tariff levels between 2 tariff periods (Article 30(2)).	The differences between the tariffs levels of 2019 and 2020 (indicative) are specified in section 4.1.2.5 of this public consultation. The explanatory elements of these differences are discussed in section 3.
26(1)(e)	The information on the price to be paid at the interconnection points, within the framework of a price ceiling.	Not applicable.
28(1)	The level of the multiplication factors, as well as the price discount applied to interruptible capacity.	• The level of the multiplication factors is indicated in section 4.1.2.4. • The level of discounts applicable to interruptible capacity is given in part 4.1.3. The detailed calculations of the probabilities of interruptions are published by the TSOs: ○ GRTgaz ○ Teréga