RÉPUBLIQUE FRANÇAISE

COMMISSION DE RÉGULATION DE L'ÉNERGIE

# DELIBERATION NO 2020-010

## Deliberation by the French Energy Regulation Commission of 23 January 2020 deciding on the equalised tariff for the use of GRDF's public natural gas distribution networks

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

**Present: Jean-François CARENCO, Chairman, Christine CHAUVET, Catherine EDWIGE and Ivan FAUCHEUX, commissioners.**

Articles L. 452-1-1 and L. 452-2 to L. 452-3 of the French energy code empower the French energy regulatory commission (CRE) to define the methodology for establishing the tariffs for the use of the natural gas distribution 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 or investment expenses.

The provisions of Article L. 452-1-1 of the energy code states that the tariffs for the use of the public natural gas distribution networks shall be equalised within the service area of each distribution system operator, with the exception of the new public distribution networks mentioned in Article L. 432-6 of that same code[1].

The current tariff for the use of GRDF's natural gas distribution networks, known as the ATRD5 tariff[2], entered into force on 1 July 2016 for a duration of roughly four years, in accordance with CRE's deliberation of 10 March 2016[3]. CRE has defined a new tariff for gas distribution applicable as at 1 July 2020, in accordance with the initially scheduled timetable.

Given the need to provide visibility to market participants and the complexity of the issues to be addressed, CRE ran four public consultations:

- the first, launched on 14 February 2019, concerned the regulatory framework applicable to regulated infrastructure operators for the next generation of tariffs. 41 answers were received;
- the second, launched on 27 March 2019, concerned the initial guidelines concerning the structure of the ATRD6 tariff. 27 answers were received;
- the third, dated 23 July 2019, concerned the conditions for injecting biomethane into the natural gas transmission and distribution networks and the introduction of an injection charge. 43 answers were received;
- the fourth, launched on 1 October 2019, concerned the level of GRDF's expenses to be covered for the ATRD6 period and the resulting tariff level, structure and regulatory framework. 72 answers were received.

The responses to these four public consultations are published, in their non-confidential version as the case may be, on CRE's website.

[1] Non-equalised tariffs for the use of the public natural gas distribution networks are addressed in specific deliberations by CRE for each new natural gas distribution network.
[2] ATRD: third-party access to the distribution network
[3] Deliberation by the French Energy Regulatory Commission of 10 March 2016 deciding on the equalised tariff for the use of GRDF's public natural gas distribution networks

The present deliberation is based in particular on GRDF's tariff proposal, as well as on numerous exchanges with the operator, on internal analyses, external auditors' reports[4] and on feedback from market participants in the different public consultations. CRE also interviewed GRDF, its shareholder, and organised on 7 November 2019, a round table with the main shippers and consumers that took part in the last public consultation.

In addition, in accordance with the provisions of Article L. 452-3 of the French energy code, in the present deliberation CRE took into account the energy policy guidelines forwarded by the minister of state, minister of the ecological and inclusive transition by letter dated 15 July 2019. These guidelines are published on CRE's website.

**Main issues**

In addition to simplicity, foreseeability and continuity objectives, CRE considers that the ATRD6 tariff must provide answers to the four priority issues below.

1- Maintaining the gas distribution network at a maximum security level

Guaranteeing the security of people and property is a main issue for GRDF, which implements numerous actions to renew and secure its infrastructure. The regulatory framework adopted in the present deliberation, in particular, through the coverage of all investments according to the expenses incurred by GRDF, provided that they are efficient, enables GRDF to implement the investment policy necessary for maintaining a high level of security. With regard to operating expenses, CRE took up the operator's security-related requests and accepted, in particular, the additional expenses compared to those covered in the ATRD5 tariff.

2- Supporting the energy transition: enabling biomethane injection

The energy transition is a challenge for gas infrastructure operators, particularly with the development of biomethane injection into the networks, which will require certain adaptations to gas infrastructure.

The ATRD6 tariff will enable GRDF to successfully integrate biomethane in the networks, by giving it the means to invest in order to connect biomethane producers and free up resources for accommodation of biomethane in the networks.

More generally, the ATRD6 tariff will enable GRDF to support the energy transition, particularly through a greater research and development budget compared to the ATRD5 tariff.

3- Control of the change in tariffs against a drop in gas consumption

Past and future energy efficiency efforts have led to a drop in unit consumption particularly for consumers using gas for heating. In this context, control of GRDF's expenses is a major challenge, to prevent the unit cost per MWh distributed from increasing too heavily. The ATRD6 tariff, which defines in particular GRDF's OPEX trajectories based on its 2018 performance and taking into account the expected benefits of the Gazpar project, meets this challenge.

4- Start of the industrial phase of the "Gas conversion" project

The ATRD6 tariff period will witness the start of the industrial phase of the project to convert the L gas zone to an H gas zone. In accordance with the legal framework associated with this project, GRDF is intervening outside its core business, with most of the actions to be conducted being located downstream of the meter. The ATRD6 tariff includes the estimated expenses related to the "Gas conversion" project. Given the exceptional nature of the challenges compared to GRDF's traditional activity associated with this very specific project and uncertainties about the implementation timetable, at the end of 2020, CRE will define the framework applicable for the 2021-2029 period as well as the final trajectories. Indeed, the pilot phase ends at the end of 2020 and CRE does not have any figures or sufficient feedback to define such a trajectory with enough precision.

**Tariff level**

GRDF formulated a tariff development proposal describing its estimated costs for the 2020-2023 period.

The integration of the elements in the tariff proposal addressed to CRE by GRDF would have led to an increase in the average unit tariff of an average 1.1% per year over the duration of the tariff.

This proposal presented, in particular, a considerable increase in net operating expenses deemed excessive by CRE, while gas consumption is on a downward path and the efficiency gains related to Gazpar are expected to emerge during the ATRD6 period.

To make its decision, in addition to its own analyses, broad consultation of participants and exchanges with GRDF, CRE drew on external auditors' assessments. These assessments cover the following topics:

[4] An audit of GRDF's proposal concerning operating expenses for the 2020-2023 period and an audit of its proposal regarding the remuneration rate for regulated assets, both of which are published on CRE's website.

- an audit of GRDF's proposal concerning operating expenses for the 2020-2023 period;
- an audit of GRDF's proposal concerning the remuneration rate of regulated assets; GRDF requests a weighted average cost of capital of 4.80% (real, before tax), compared to 5.00% in the ATRD5 tariff, whereas a drop in corporate tax has been programmed by the government.

The reports of these audits are published on CRE's website.

Following its analyses and additional exchanges it had with GRDF since the public consultation of 1 October 2019, CRE considers that GRDF's net operating expenses covered by the tariff must be limited, while leaving the operator with some financial flexibility to, one the one hand, maintain a high level of security and participate actively in the energy transition, and on the other hand, to successfully conduct the "Gas conversion" project.

In particular, for GRDF, CRE adopted an operating expense trajectory taking into account:

- an increase in security-related operating expenses, with the funding, in addition to programmes already covered during the ATRD5 period, of a programme for handling building anomalies and replacing pipes in apartment buildings;
- additional expenses related to the replacement of non-adaptable devices within the framework of the "Gas conversion" project, which had not been planned initially in the trajectories set for the pilot phase;
- strengthening of R&D, particularly covering the accommodation of new gases in the networks (development of hydrogen injection into the networks in particular);
- revision of the amounts associated with actions favouring client connection, to refocus them on promoting the sector which should have a greater portion of expenses related to security, and on the oil-gas conversion, in order to eliminate installations that use oil as quickly as possible;
- reaching the biomethane injection objectives set by the draft multi-annual energy plan (PPE).

The trajectory of net operating expenses set by CRE corresponds to an overall envelope. Therefore, GRDF is free to distribute this envelope among the different types of expenses as it chooses.

Moreover, as a reminder, GRDF's "network" investments are covered by the tariff depending on completed work, which are covered fully through the expenses and revenues clawback account (CRCP).

Given the analysis elements at its disposal and market observations, CRE adopts a drop in the weighted average cost of capital (WACC) which stands at 4.1% (real, before tax). The method used to establish this rate is the same as that used for the ATRD5 tariff. It is based on a standard-structure WACC and guarantees reasonable remuneration of capital investment, maintaining the attractiveness of energy infrastructure in France, with regard to other European countries.

The resulting WACC level, down 0.9 points compared to the ATRD5 tariff, takes into account, with the same method as for the previous tariffs:

- the drop in financing costs against a significant and sustainable drop in interest rates in the markets;
- the planned decrease in corporate tax, which shall drop from an average 34.43% to an average 28% over the tariff period;
- an increase in asset *bêta* to reflect the consideration of an increased financial risk, particularly stranded costs, which places the burden of the energy transition on gas infrastructure shareholders. While the respective risks of the transmission and distribution activities still remain slightly different, CRE considers that the difference in risk between these two activities has narrowed since the previous period.

CRE also adopts a reduction from 45 to 30 years for the depreciation period regarding building connections and pipes – riser pipes, which is a way to reduce the risk of stranded costs.

The average level of GRDF's expenses to be covered over the ATRD6 period shall total an average €3,205 million per year. Therefore, over the 2018-2023 period, it increases by an average 1.9% per year, as a result of an average increase in operating expenses of 2.1% per year and an average increase in normative capital expenses of 1.7% per year.

With regard to assumptions of gas quantities distributed and the number of consumers serviced, CRE globally adopts GRDF's proposal, which leads to a 0.40% drop per year in consumption and a relative stability in the number of consumers (-0.01% per year).

The change in the ATRD6 tariff is a result of the adopted level of expenses to be covered, assumptions about gas quantities distributed and the number of consumers serviced, and the significant drop in the CRCP reconciliation for the previous tariff period, which represented close to 5% of the allowed ATRD5 revenue. Therefore, the evolution

in the ATRD6 tariff is an average -0.4% as at 1 July 2020 and an average -0.3% per year for GRDF over the entire tariff period. Most of the difference with the tariff evolution associated with GRDF's proposal is due to the WACC level, lower than that requested by GRDF.

Tariff regulatory framework

For the ATRD6 tariff, CRE is maintaining the main regulatory incentive mechanisms in effect, adjusting them when necessary: incentive regulation for the control of operating and investment expenses, incentive regulation for service quality, and *ex facto* coverage of certain differences through the CRCP account.

However, taking into account the energy policy guidelines forwarded by the minister, CRE has eliminated the bonus/penalty mechanism implemented in the ATRD5 tariff relating to the incentive for consumer connection.

Tariff structure

For several tariff exercises, CRE has adopted a simple and stable tariff structure for the distribution of gas and is renewing, for the ATRD6 period, the main principles in effect while making a few adjustments, justified by the change in the uses of these networks:

- lowering of the threshold between the T1 and T2 options (from 6 to 4 MWh/year), to reflect the drop in average consumption used for heating and in line with the expected changes in profiles;
- the calculation of continuity between the tariff options without taking into account the tariff-based supply levy (CTA);
- application of a system of degression in the pricing of capacity in the T4 option, to introduce greater continuity between the distribution and transmission network tariffs.

The change in the pricing of T4 capacity will be implemented as at 1 July 2020. Given the need for visibility and in line with the estimated timetable of profile changes, the lowering of the threshold between options T1 and T2 and the calculation of continuity between tariff options excluding CTA will be implemented as at 1 July 2022.

Biomethane injection charge

Reaching biomethane network injection objectives (the draft decree relating to the multi-annual energy plan (PPE) submitted for consultation in January 2019 aims for 6 TWh of biogas injected into the natural gas networks for 2023 and sets an objective of 14 to 22 TWh by 2028) will require major investments in the gas transmission and distribution networks. CRE considers that the proper development of methanisation is of major importance for the energy transition. Given the costs for adapting the networks, the development of biomethane must follow the principle of economic efficiency so that the cost is optimised for the community. However, biomethane project promoters' decision to invest must also be made within the context of visible and stable economic conditions surrounding injection into the networks.

Therefore, within the framework of the deliberation of 14 November 2019[5], CRE defined the terms for implementing the right to inject biomethane, as provided for by the Egalim law[6] and the decree of 28 June 2019[7]. These provisions bring visibility to project promoters concerning their connection conditions, and enable coverage by the tariff of network reinforcement costs within the framework of connection schemes optimised at the community level.

To complement these provisions, in particular regarding the coverage of the operating expenses associated with these investments, CRE considers that it is necessary to introduce an additional signal for project promoters so that they take into account the costs resulting from their choice of location. In that regard, it has introduced a tariff injection charge in the ATRD6 tariff (and the ATRT7 tariff), based on the definition of three injection charge levels, depending on the necessary adaptations planned in the connection zone. This charge ranges between €0 and €0.7/MWh injected.

Transparency

CRE published on its website:

- the audit of GRDF's proposal concerning operating expenses for the 2020-2023 period;
- the audit of GRDF's proposal concerning the remuneration rate of regulated assets;

[5] Deliberation by the French Energy Regulatory Commission no. 2019-242 of 14 November 2019 deciding on the mechanisms governing insertion of biomethane into the gas networks
[6] Law no. 2018-938 of 30 October 2018 for achieving a balance in trade relations in the agricultural and food sector and for healthy, sustainable and accessible food for all
[7] Decree no. 2019-665 of 28 June 2019 relating to natural gas transmission and distribution network reinforcements necessary to enable injection of biogas produced

- the responses to the four public consultations (of 14 February, 27 March, 23 July 2019 and 1 October 2019), in their non-confidential versions as the case may be.

The Higher energy council (CSE), consulted by CRE on the draft decision, rendered its opinion on 14 January 2020.

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# 1. POWERS AND THE TARIFF ELABORATION PROCESS

## 1.1 CRE's powers

Article L. 134-2, 4° of the French energy code empowers CRE to specify the "*conditions for the use of natural gas transmission and distribution networks [...], including the methodology for establishing the tariffs for the use of these networks [...] and tariff evolutions*".

Articles L. 452-1-1 to L. 452-3 of the energy Code provide a framework for CRE's powers in terms of tariffs.

Article L. 452-1-1 states in particular that these tariffs "*are established in a transparent and non-discriminatory manner to cover all costs borne by these operators [...], as long as these costs correspond to those of an efficient system or installation operator. These costs take into account the characteristics of the service rendered and the costs related to this service, and include the obligations established by law and regulations as well as those costs resulting from the execution of public service missions and contracts mentioned in I of Article L. 121-46".*

Article L. 452-2 states that CRE shall define the methods used to set the tariffs for the use of natural gas networks.

In addition, Article L. 452-3 provides that CRE shall deliberate on changes to the tariff "*with, where applicable, the modifications to the level and structure of the tariff that it deems justified in view, in particular, of the analysis of the operators' accounts and any forecast changes in operating and investment expenses*". CRE's deliberation may provide for a "*multi-annual framework for the changes in tariffs as well as appropriate short- or long-term incentive measures to encourage operators to improve their performance related in particular, to the quality of service provided, integration of the internal gas market, the security of supply and productivity efforts*".

Article L. 452-3 also specifies that CRE shall "*consult energy market participants, based on the modalities that it determines".*

CRE's present deliberation defines the method for establishing the tariff for the use of GRDF's natural gas distribution networks, and sets GRDF's "ATRD6" tariff as from 1 July 2020 for roughly four years.

## 1.2 Tariff elaboration process

### 1.2.1 Consultation of stakeholders

To establish GRDF's ATRD6 tariff, given the need for visibility and the complexity of issues, CRE drew on, in addition to its own analyses and assessments by external consultants, the results of four public consultations:

- the first, launched on 14 February 2019, concerned the regulatory framework applicable to regulated infrastructure operators for the next generation of tariffs. 41 answers were received;
- the second, launched on 27 March 2019, concerned CRE's initial guidelines concerning the structure of the ATRD6 tariff. 27 answers were received;
- the third, dated 23 July 2019, concerned the conditions for injecting biomethane into the natural gas transmission and distribution networks and the introduction of an injection charge. 43 answers were received;
- the fourth, launched on 1 October 2019, concerned the level of GRDF's expenses to be covered for the ATRD6 period and the resulting tariff level, structure and regulatory framework. 72 answers were received.

The responses to these four public consultations, in their non-confidential version as the case may be, are published on CRE's website.

Following the second public consultation, CRE interviewed GRDF. After the fourth public consultation, CRE held a round-table with the shippers and consumers that took part in the consultation. It also had a new interview with GRDF, and a talk with its shareholder.

### 1.2.2 Energy policy guidelines

In accordance with the provisions of Article L. 452-3 of the French energy code, CRE takes into account the energy policy guidelines forwarded by the minister of state, minister of the ecological and inclusive transition by letter dated 15 July 2019. These guidelines address, in particular:

- the necessary control of costs against a drop in gas consumption, and consequently greater selectivity of investments, the latter needing to be focused mainly on security and integration of renewable gases;
- requirements related to the energy transition and therefore to the reduction in greenhouse gas emissions;

- the assumptions to be taken into account in terms of biomethane development, which are those set by the draft multi-annual energy plan currently under consultation, i.e. a biomethane volume injection of 6 TWh for 2023, all gas networks combined;
- consideration of the costs of the assessments related to the conditions for injecting hydrogen into the networks;
- incentives in favour of the connection of consumers resulting in aids for the connection of new clients or the retention of existing clients, which are requested to be stopped so as to avoid future stranded costs;
- continuity between the tariffs borne by a site connected to a transmission network and by a similar site connected to a distribution network;
- consideration of the costs related to the conversion of the low-calorific gas network (L gas).

The letter of 15 July 2019 is published on CRE's website.

#### 1.2.3 Transparency

CRE endeavours to ensure transparency in the network tariff elaboration work for all stakeholders.

In that regard, it has published all the external assessments used in the tariff elaboration process on its website. These assessments cover the following topics:

- an audit of GRDF's proposal concerning its operating expenses for the 2020-2023 period;
- an audit of GRDF's proposal concerning the remuneration rate of its regulated assets.

# 2. TARIFF REGULATORY FRAMEWORK

## 2.1 Main tariff principles

The elaboration of the ATRD6 tariff is based on the definition, for the upcoming tariff period, of GRDF's allowed revenue and a projected trajectory of the number of consumers and the quantities of gas distributed.

The ATRD6 tariff also defines a regulatory framework aimed, on the one hand, at limiting GRDF's and/or users' financial risk for certain predefined expense or income items, through an expenses and revenues clawback account (CRCP), and on the other hand, at encouraging GRDF to improve its performance thanks to incentive mechanisms.

All of these elements are used to establish the tariff applicable as at 1 July 2020, and the modalities for their yearly evolution.

### 2.1.1 Determination of allowed revenue

In the present deliberation, based on the tariff proposal forwarded by GRDF and its own analyses, CRE sets the target allowed revenue of GRDF over the 2020-2023 period. Allowed revenue covers GRDF's costs on a calendar basis as long as those costs correspond to those of an efficient operator (in accordance with Article L. 452-1-1 of the energy code).

This target allowed revenue comprises target net operating expenses (CNE), target normative capital expenses (CCN), and reconciliation of the balance of the expenses and revenues clawback account (CRCP):

$$RA = CNE + CCN + CRCP$$

Where:

- RA: target allowed revenue for the period;
- CNE: target net operating expenses for the period;
- CCN: target normative capital expenses for the period;
- CRCP: reconciliation of the CRCP balance.

The tariff framework guarantees collection of the allowed revenue.

#### 2.1.1.1 Net operating expenses

Net operating expenses (CNE) are defined as gross operating expenses minus operating income (capitalised production and non-tariff income in particular).

Gross operating expenses are mostly composed of energy costs, external consumption, staff expenses and taxes.

#### 2.1.1.2 Normative capital expenses

The target normative capital expenses include the return on and depreciation of the regulatory asset base (RAB). The RAB is determined based on the revalued net value of fixed assets, minus subsidies and contributions received from third parties.

The return on the RAB corresponds to the product of the value of the RAB and the weighted average cost of capital (WACC).

CCN = Annual depreciation of the RAB + RAB x WACC

Assets under construction (i.e. investment spending that has not yet led to the commissioning of assets) are not remunerated, with the exception of those related to the Gazpar project, remunerated as normal at the nominal cost of debt applicable during the tariff period. Within the framework of its public consultations of 14 February and 1 October 2019, CRE questioned the relevance of introducing, as is the case in transmission, remuneration of distributors' assets under construction (AuC), particularly on a case-by-case basis for long-cycle AuC (maturity greater than one year). Since GRDF stated that it identified no project (excluding Gazpar) that could fall under such a mechanism, there is no need to introduce this type of remuneration.

### 2.1.2 Return on assets and coverage of investments

#### 2.1.2.1 Method for the calculation of the rate of return

For the ATRD6 tariff period, CRE is readopting the method used to set the rate of return on assets in effect for the ATRD5 tariff, which is based on a WACC with a normative financial structure. GRDF's level of remuneration must in fact enable it, on the one hand, to service the interest payments on its borrowing, and on the other hand, generate a yield on shareholders' equity comparable to that which it could obtain for investments entailing an equivalent level of risk. This cost of equity is estimated based on the capital asset pricing model (CAPM).

Within the framework of its public consultations of 14 February and 1 October 2019, CRE looked into the possible introduction, for the ATRD6 tariff period, of a differentiation between the rate of return on historic assets and on new assets. Given the slow evolution in the single rate of return, calculated from long-term calculation parameters, such a development could provide better signals for investment.

GRDF and its shareholder have however stated that the business is generally financed globally, without any distinction between new assets and new debts for the year. They also highlight the complexity and the lack of clarity of such a mechanism for investors.

CRE considers that this complexity is limited. However, it would be a major evolution in the remuneration modalities for GRDF, which, against a relative stability of investments over the next tariff period (excluding investments related to the Gazpar project and biomethane), is of limited interest. Therefore, CRE has not adopted this possibility of development in the calculation of the rate of return for the ATRD6 tariff period.

#### 2.1.2.2 Method for the calculation of the regulated asset base

The valuation of the capital used by the operator to provide the natural gas distribution service includes both historic assets and investment forecasts forwarded by the operator.

The treatment of assets for determining the projected RAB varies depending on whether the assets became operational before or after 1 January 2003.

*Initial RAB value as at 31 December 2002 (assets commissioned before 1 January 2003):*

Assets employed before 31 December 2002 are valued by means of adjusting historical costs for inflation using the following method:

- historic gross asset values are restated for the revaluation variances permitted in 1976, subsidies received in respect of carrying out these investments, and contributions received from the beneficiaries of these investments;
- these restated gross values are adjusted as at 31 December 2002 by applying the "market-sector GDP" price index;
- these adjusted gross values are then depreciated using the straight-line method on the basis of the economic lifespan of the various asset categories (see table below). Assets commissioned in year *Y* are deemed to have become operational as at 1 July *Y* and are logged in GRDF's RAB in year *Y+1*;
- land is included at its non-depreciated adjusted historic value.

*Updating of the RAB value taking into account assets commissioned since 1 January 2003:*

Assets that became operational between 1 January 2003 and 31 December 2018 are included in the RAB at their gross value. Investments planned as from 1 January 2019 are included at their gross forecast value as communicated by GRDF.

For all assets, financial contributions from third parties are treated as they are in the accounts:

- when third-party contributions are recorded as liabilities by the operator, balancing the value of infrastructure recorded as assets, they are deducted from the value of assets included in the RAB;
- when third-party contributions are recorded as operating income by the operator, the assets are included in the RAB at their total value, and the third-party contributions are deducted from the operating expenses to be covered by the tariff.

The nominal date on which assets enter the inventory has been set at 1 July each year, and they are said to exit the inventory as of 30 June.

Once assets are included in the RAB, their value is updated using the following method:

- assets are revalued on 1 January each year using the rate of inflation for the period from July to July. This element is essential for analysing the reality of the WACC; for this reason, CRE adopts a real WACC not including inflation. Since 2016, the revaluation index used is the 001763852 index for consumer prices, excluding tobacco, for all households residing in France;
- assets are depreciated using the straight-line method on the basis of their economic lifetime. Land is recorded at its revalued undepreciated historical value.

The lifetimes adopted for the main categories of assets are:

| Asset category | Normative lifetime |
|---|---|
| Pipes and connections | Between 30[8] and 45 years |
| Delivery, regulation and metering stations | 40 years |
| Compression | 20 years |
| Other ancillary installations | 10 years |
| Constructions | 30 years |

Assets scrapped before the end of their economic lifetime are removed from the RAB and no depreciation or financial return is included for them.

The only development compared to the ATRD5 tariff is the reduction from 45 years to 30 years of the standard lifetime of building connections and pipes – riser pipes as from 2020 (see section 3.1.3.3).

#### 2.1.2.3 Treatment of assets removed from inventory (stranded costs, asset disposals)

##### 2.1.2.3.1 Treatment of stranded costs

By “stranded costs”, CRE refers to the net book value of assets withdrawn from inventory before the end of their lifetime, as well as costs related to technical studies and upstream processes that could not be immobilised if the projects concerned were not carried out.

The regulatory framework set up for the ATRD5 tariff did not provide for the coverage of stranded costs, with the exception of the rollout of the Gazpar project, for which accelerated depreciation of pre-existing meters uninstalled before the end of their book lifetime is covered by the tariff.

Within the framework of the public consultations of 14 February and 1 October 2019, CRE proposed extending the current principles of stranded cost coverage applied to the gas TSOs to the ATRD tariffs.

Most shippers and industrial participants were in favour of the principles of stranded cost coverage envisaged. Several infrastructure operators and shippers however were opposed to the setting up of an incentive-based trajectory for outflows of assets before the end of their book lifetime. They request coverage through the CRCP, because of the uncontrollable nature of some of these costs.

[8] For building connections and pipes – riser pipes put in service in or after the year 2005

Given all of these elements, CRE adopts for the ATRD6 period, the following treatment of stranded costs, upon presentation of requests by GRDF:

- upholding of the current incentive for recurring or foreseeable stranded costs;
- coverage of other stranded costs, examined by CRE on a case-by-case basis, based on substantiated requests submitted by GRDF.

The costs to be covered, where applicable, by the tariffs, are taken into account at their book value minus any disposal proceeds.

##### 2.1.2.3.2 Treatment of disposed assets

When an asset is disposed of by an operator, it exits the RAB and therefore ceases to generate capital expenses (depreciation and remuneration). This disposal may generate a profit for the operator, equal to the difference between the proceeds from the disposal and the book value of the asset.

In its public consultation of 1 October 2019, CRE questioned market participants about the treatment to be applied to disposed assets. Most participants are in favour of a portion of the profit being taken into account in the tariff, considering that the tariff contributed to financing the assets sold.

For the ATRD6 tariff, CRE adopts this principle in the case of a disposal of land or buildings:

- if the disposal gives rise to an accounting gain, the disposal proceeds net of the sold asset's net book value are included at 80% in the CRCP so that network users can benefit from the greater part of the gains drawn from the resale of these assets, given that these users bore the acquisition costs (operators' allowed revenue covering annual depreciation and remuneration of assets in the RAB), while maintaining an incentive for GRDF to maximise this gain. GRDF keeps the remaining 20% of the gains;
- a disposal giving rise to an accounting loss shall be examined by CRE, based on a reasoned request submitted by GRDF.

### 2.1.3 Principle of the CRCP

CRE defines the ATRD tariff level based on assumptions about the level of forecast expenses and income. An *ex post* adjustment mechanism, the expenses and revenues clawback account (CRCP), was introduced in order to take into account all or a portion of the differences between actual expenses and income, and forecast expenses and income for predefined items (see section 2.3.3). Therefore, the CRCP protects operators against the variation in certain cost or income items. The CRCP is also used to take into account financial incentives (bonuses or penalties) resulting from the application of incentive regulation mechanisms.

The CRCP balance is calculated as at 31 December each year. It is reconciled from 1 July of year *Y* to 30 June of year *Y+1* within the limit of an annual tariff change associated with this reconciliation of +/-2%. If this limit is reached, the CRCP balance not reconciled during the year in question is carried over to the following year.

In order to ensure financial neutrality of this system, an interest rate equal to the risk-free rate taken into account in the calculation of the WACC applies to the CRCP balance (i.e. 1.7%).

In addition, the forecast CRCP balance remaining at the end of the tariff period is taken into account to establish the allowed revenue of the following period and is reconciled over four years.

## 2.2 Tariff calendar

### 2.2.1 A tariff period of roughly four years

The ATRD6 tariff shall apply for a period of roughly four year, as from 1 July 2020. It aims to cover the expenses of the calendar years from 2020 to 2023. It will change annually, as at 1 July of each year, based on the terms described in section 2.2.2 of the present deliberation.

In their responses to the consultation of 14 February 2019 relating to the tariff regulatory framework, market participants were in favour of maintaining this duration of four years, considering, like CRE, that it provides the market with visibility into the development of infrastructure tariffs and that it allows operators the time needed for undertaking productivity efforts.

In addition, the ATRD6 tariff provides for a *rendez-vous* clause, as was the case for the previous tariff, which can be activated by GRDF at the end of two years. Therefore, any 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 (2022 and 2023) if the level of net operating expenses adopted in the ATRD6 tariff is modified by at least 1%.

### 2.2.2 Principles of the annual tariff update

In its public consultation of 1 October 2019, CRE presented, on the one hand, the average update of GRDF's tariffs excluding the $R_f$[9] charge, taking into account an illustrative assumption of the tariff level, and on the other hand, a proposal of an update of the $R_f$ charge. Most contributors were in favour of the direction envisaged by CRE to update the $R_f$ charge based on the terms defined by CRE's deliberation no. 2017-238 of 26 October 2017[10] associated with an inflation-based update.

Therefore, the ATRD6 tariff will change annually, as of 1 July of each year, according to the following principles:

a) the level of tariffs, excluding the $R_f$ charge and excluding the injection tariff for biomethane producers will be updated as at 1 July of each year *Y* based on the following variation percentage, compared to the level of the tariff in effect as at 30 June of year *Y*:

$$Z = CPI + X + k$$

Where:

- $Z$ is the variation in the tariffs as at 1 July of year *Y* expressed as a percentage and rounded off to two decimal points (0.01%);
- $CPI$ is, for an adjustment of the tariffs as at 1 July of year *Y*, the forecast rate of inflation for year *Y* taken into account in the draft finance law of year *Y*;
- $X$ is the annual update factor for the tariffs set by CRE in the present tariff deliberation, equal to – 1.9%;
- $k$ is the update in the tariffs, expressed as a percentage, resulting from the reconciliation of the CRCP balance; k ranges between +2% and -2%;

b) the $R_f$ charge changes according to the terms provided by the abovementioned CRE deliberation no. 2017-238 of 26 October 2017, associated with an inflation-based update;

c) the level of the injection tariff charge for biomethane producers remains stable;

In addition, CRE may take into account, during annual updates of GRDF's ATRD6 tariff, changes in the incentive regulation of GRDF's service quality (addition, modification or suppression of indicators, objectives or financial incentives).

### 2.2.3 Calculation of the CRCP balance as at 1 January of year Y

The overall CRCP balance is calculated before the definitive closure of GRDF's annual accounts. It is equal to the amount to be paid into or deducted from the CRCP for the year passed (year *Y-1*), to which is added the balance of the CRCP not reconciled over former years.

The amount to be paid into or deducted from the CRCP is calculated by CRE, as at 31 December of each year, based on the actual difference, for each item concerned, compared to the reference amounts defined in Annex 1. All or part of the difference is paid into the CRCP; the portion is determined based on the coverage rate specified by the present deliberation.

The expenses and income items fully or partially covered through the CRCP for the ATRD6 period are defined in section 2.3.3 of the present deliberation. The accounting data presented by GRDF shall be used as a basis for the expenses and income taken into account through the CRCP, when possible. Where appropriate, inclusion of the different items through the CRCP will be combined with effective and careful inspection of the costs incurred. Such inspections may in particular focus on the investments undertaken by GRDF and the expenses related to various losses and discrepancies. The financial consequences of audits conducted by CRE will be included in the CRCP.

The projected CRCP balance as at 31 December 2019 is taken into account to define the target revenue of the ATRD6 tariff, and will be reconciled over the four-year tariff period. The CRCP balance as at 1 January 2020 is equal to the difference between the final CRCP balance (which will be determined after the closure of GRDF's 2019 accounts) and the forecast balance taken into account in the ATRD6 tariff. The reference amounts and the coverage rates used to calculate this final balance are defined in the deliberation on GRDF's ATRD5 tariff of 10 March 2016[11].

[9] Average amount taken into account for financial considerations paid to suppliers for their management of clients on behalf of DSOs.
[10] The deliberation by the French Energy Regulatory Commission no. 2017-238 of 26 October 2017 amending CRE's deliberations of 25 April 2013, 22 May 2014 and 10 March 2016 deciding on the equalised tariffs for the use of the public natural gas distribution networks specifies, in particular, that the $R_f$ charge (i) for tariff options T1 and T2 are updated as at 1 July of each year to take into account the distribution of clients under market offers and under the regulated sales tariff, in GRDF's historical service area and based on the average costs estimated per client category, and (ii) for tariff options T3, T4 and TP, the amount of the $R_f$ charge is stable.
[11] Deliberation by the French Energy Regulatory Commission of 10 March 2016 deciding on the equalised tariff for the use of GRDF's public natural gas distribution networks

#### 2.2.4 Calculation of the k coefficient for the reconciliation of the CRCP balance

The annual tariff update, as at 1 July of year *Y*, takes into account a coefficient k, which is used to reconcile, as at 30 June of year *Y+1*, the CRCP balance seen as at 1 January of year *Y*. The coefficient k is capped at +/-2%.

The k coefficient is determined so as to enable the actual tariff change implemented to cover, within the limit of the k coefficient cap, the sum of the following costs to be covered:

- the smoothed target allowed revenue for year *Y* defined by the present deliberation, adjusted for inflation;
- the forecast reconciliation of the CRCP balance, for year *Y*.

The projected income resulting from the application of the tariffs actually implemented over this period is based on forecast quantities of gas distributed and the forecast number of consumers serviced considered in the present deliberation.

### 2.3 Incentive regulation for controlling costs

#### 2.3.1 Incentive regulation for operating expenses

The ATRD5 tariff provided for a 100% incentive for net operating costs, with the exception of certain predefined items difficult for GRDF to control.

Given the positive results over the last ten years and the favourable feedback from participants expressed within the framework of the public consultations of 14 February and 1 October 2019, CRE is renewing this principle for the ATRD6 tariff.

Therefore, with the exception of the expense and income items fully or partially covered through the CRCP, presented in section 2.3.3 of the present deliberation, GRDF will bear or benefit from any difference compared to the trajectory set for the ATRD6 period.

#### 2.3.2 Incentive regulation for investments

The energy policy guidelines forwarded by the minister of state, minister of the ecological and inclusive transition, specify that the "*prospect of a drop in gas consumption increases the importance of cost efficiency so that, on the one hand, customers do not bear excessive costs and on the other hand, to avoid the risk of stranded costs over time*".

In accordance with these energy policy guidelines, for the ATRD6 tariff, CRE is maintaining both the general principle of full coverage through the CRCP of differences between target and actual trajectories of capital expenses and the incentive mechanisms for efficient investment spending by GRDF. This includes, on the one hand, the mechanism for unit costs of certain network investments, which CRE is adjusting marginally, and on the other hand, the mechanism aimed at “non-network” investments. Participants were in favour of maintaining these terms for the regulation of investments.

##### 2.3.2.1 Unit costs of network investments

The ATRD5 tariff introduced an incentive regulation mechanism for the unit costs of network investments in order to ensure that GRDF optimises its costs of investments in the network carried out under its management without compromising the completion of works needed for the operation and security of its network.

In its public consultation of 1 October 2019, CRE presented as assessment of the incentive regulation mechanism for unit investment costs for the ATRD5 period. In the light of this positive feedback, CRE proposed to readopt the mechanism, with a few minor adjustments. The great majority of contributors to the public consultation were in favour of maintaining the mechanism and the developments proposed by CRE.

<u>Presentation and assessment of the incentive regulation in the ATRD5 tariff</u>

The mechanism, set up in the ATRD5 tariff, covers most of GRDF’s network investments. It concerned roughly €455 million in investments in 2016 out of a total €760 million, all categories combined, network and non-network (2016 being the last year before the start of the industrial rollout of Gazpar), €455 million for 2017 and €429 million in 2018 (provisional amounts). GRDF’s investments concerned by this mechanism break down into 13 categories. The mechanism is based on the definition of a reference cost model for infrastructure commissioned by GRDF, taking into account their technical features and developing trends in costs over time.

For each year, the difference between the total cost of infrastructure commissioned and the total theoretical cost of this same infrastructure is evaluated. The total theoretical cost is calculated using the reference unit cost model applied to the volume of actual investments.

This difference, positive or negative, reflects the operator's efficiency as concerns the actual level of investments. It is shared between the operator and network users:

- the investments concerned are included in GRDF's regulated asset base (RAB) at their real value, subject to inspections CRE may perform into the efficient and careful nature of the costs incurred. The capital expenses related to these investments therefore remain covered on the basis of actual spending. Therefore, the end consumer benefits from or covers the operator's performance over the asset's lifetime through higher or lower normative capital expenses;
- a bonus or penalty is then applied, through the CRCP, equivalent to 20% of the difference between the total theoretical cost corresponding to the volume of investments made for infrastructure and the total real cost recorded. This mechanism therefore encourages GRDF to control its unit investment costs, without affecting the level of investments made. This annual incentive is limited to +/- €9 million per year.

The ATRD5 tariff provided for, within each of these 13 categories, a modelling of the cost of each investment by:

- a fixed portion (which does not depend on the year of commissioning);
- a variable portion based on the length of the pipe concerned or the number of units (which does not depend on the year of commissioning);
- an annual coefficient for the average change in unit costs (the same for all infrastructure categories, changing each year).

The values of these parameters had been determined based on the costs of investments brought into service between 2012 and 2014.

For the three years for which CRE has data (2016, 2017 and 2018 provisional), GRDF globally outperformed the reference trajectory for the scope of investments subject to incentives, by 2% in 2016, 5.7% in 2017 and 5.5% in 2018, i.e. an average global outperformance of 4.4%.

The end consumer will benefit, through lower normative capital expenses over the lifetime of assets, from a gain of €59 million compared to the reference trajectory.

Adaptation of the mechanism for the ATRD6 period:

For the ATRD6 period, CRE is readopting this mechanism. In order for users to benefit from the performance achieved during the ATRD5 tariff, the reference level for each of the 13 categories identified is updated based on the data from the years 2016 to 2018.

In addition, as proposed by GRDF, for greater accuracy of investment cost modelling for certain segments, a second cost driver (the number of connections) is added to the parameters of the model. The investment costs of these segments are therefore modelled by a fixed portion and two variable portions. This development was received favourably by the contributors to the public consultation.

In its tariff proposal, GRDF also requested for certain segments to be combined and for one segment to be eliminated. CRE considers that such modifications can reduce visibility into GRDF's performance, or simply eliminate the incentive in the second instance, and therefore, does not retain these modifications.

Lastly, concerning the introduction of a segment related to connections of biomethane production sites, proposed by CRE in its public consultation of 1 October 2019, which participants globally approved, the lack of hindsight makes it impossible to set up an incentive-based indicator as from the entry into effect of the ATRD6 tariff. CRE therefore requests GRDF to follow the "Connections of biomethane injection sites" segment in order to obtain reliable data on the evolution of the price of extensions (fixed portion + variable portion per meter), so that the possibility of introducing an incentive for this segment in the future can be studied.

The values of parameters and the annual coefficients for the average update in unit costs over the 2020-2023 period are defined in a confidential annex to the present deliberation.

#### 2.3.2.2 Incentive for controlling costs of "non-network" investments

In the ATRD5 tariff, CRE introduced a mechanism encouraging GRDF to control its capital expenses in the same way as its operating expenses on a scope of so-called "non-network" investments comprising assets such as real estate, vehicles and information systems (IS), excluding "IS transformation", "IS reconstruction" and "SAP S/4HANA[12]" projects.

By nature, these expense items are in fact likely to give rise to trade-offs between investments and operating expenses. Therefore, this mechanism encourages GRDF to globally optimise all of its expenses. In consists in

[12] SAP application for large companies

defining, for the tariff period, a trajectory of the estimated capital costs for this type of investment, which would be excluded from the scope of the CRCP. GRDF retains all of the gains or losses made during the tariff period. At the end of the tariff period, the effective value of assets will be taken into account in the RAB, which, for the following tariff periods, will allow the sharing of gains or extra costs with users.

In its public consultations of 14 February and 1 October 2019, CRE proposed readopting this mechanism, considering that the feedback about its effectiveness was still too limited for accurate conclusions to be drawn. Most contributors were in favour of CRE's proposal. However, GRDF and the other system operators request coverage through the CRCP of IS-related capital expenses, at least those related to "intangible" IS, which cover IS updates required by supplier demand, regulations and/or constraints imposed by software companies.

Given all of these elements, for the ATRD6 tariff, CRE is readopting the incentive mechanism for controlling non-network investment costs described above. In particular, with regard to IS investment expenses, CRE considers that these costs can generally be controlled by operators and may be traded for operating expenses; therefore the incentive should be maintained.

During the ATRD6 tariff, the capital expenses for these categories of assets will be calculated using the projected values defined in the present deliberation. At the end of the tariff period, CRE will analyse the commissioning trajectories of the different investments concerned in order to ensure that any gains made during the tariff period do not result in an increase in expenses for the following tariff periods, because of certain project delays for example.

The estimated amount of non-network investments subject to this incentive regulation for GRDF is an average €123.6 million per year, i.e. roughly 12.3% of the total investments planned in the operator's trajectory for the ATRD6 tariff.

### 2.3.3 Coverage of certain items in the CRCP

Network tariffs are calculated using income and expense assumptions that serve to define trajectories for the different items over the entire period covered by these tariffs.

As indicated in section 2.1.3 of the present deliberation, an *ex post* adjustment mechanism, the expenses and revenues clawback account (CRCP), takes into account the differences between actual expenses and income and projected expenses and income for certain items previously identified, which are difficult for GRDF to predict and control.

In its public consultation of 14 February 2019, CRE wished to specify the principles concerning the incentive for different expense and income items in the infrastructure tariffs. Therefore, the inclusion of an item in the CRCP is based particularly on the following two factors:

- predictability: a predictable item is an item for which it is possible, for the operator and for CRE, to predict with reasonable confidence, the level of costs incurred and the revenues perceived by the operator over a tariff period;
- 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 or influence with regard to its level, if it results from a third party.

These principles were shared widely by the contributors to the public consultation.

On this basis, CRE consulted about the scope of the CRCP to adopt for the ATRD6 tariff in its public consultation of 1 October 2019. Participants are globally in favour of the scope proposed, with alternative proposals for certain items to be included in or withdrawn from the CRCP.

Among these proposals, CRE does not retain CRCP coverage of IS-related capital expenses, which GRDF and other distribution and transmission system operators request (see section 2.3.2.2).

With regard to coverage of the "Gas conversion" project costs, for which GRDF and certain suppliers, infrastructure operators and consumer associations request full coverage in the CRCP in order to take into account not only the volume of non-adaptable devices to be replaced but also uncertainty about the acceleration of the project, CRE will set the framework applicable for the 2021-2019 period at the end of 2020, following the pilot phase, together with the project's financial trajectories. At that time, CRE will take into account the feedback on the pilot phase and the progress of discussions about accelerating the timetable, in order to determine the most suitable regulatory framework for this atypical and sensitive project. The difference between trajectories which will then be defined, and GRDF's request retained at this stage for the years 2021 to 2023 will be covered in the CRCP. However, the expenses related to the "Gas conversion" project for the year 2020, defined in part 3 of the present deliberation are not included in the CRCP.

In addition, for the purposes of harmonisation with the other infrastructure tariffs, CRE, as it had proposed in the public consultation of October 2019, is updating the mechanism for covering the various losses and differences so

that the difference between the annual reference trajectory revised *ex post* and GRDF's actual expenses are taken into account in the CRCP at 80% instead of 70% in the ATRD5 tariff. Most contributors to the public consultation were in favour of this proposal.

Lastly, certain participants requested for capacity subscription income to be covered in the CRCP in order to cover the DSOs against the risk of a drop in subscription as is the case for gas volumes transported. Considering, on the one hand, that GRDF has little means of influencing the level of capacity booked, or the distance of consumers from the transmission network, and that, on the other hand, certain participants' efforts to control gas consumption could lead them to lower their capacity subscription, CRE considers that it is relevant to include the corresponding tariff charges in the CRCP.

The items included within the scope of the CRCP for the ATRD6 tariff, which have not changed compared to the ATRD5 tariff, are as follows:

- for expenses and other related items:
    - capital expenses borne by GRDF, 100% covered, with the exception of those that are concerned by the incentive regulation mechanism for "non-network" capital expenses, and for which only the inflation difference is taken into account;
    - expenses related to the consideration paid by GRDF to suppliers for the management of clients under a single contract based on the terms specified by CRE's deliberation no. 2017-238 of 26 October 2017[13], 100% covered;
    - changes in expenses generated from consumers' outstanding amounts for their transmission portion which have been borne ultimately in full by GRDF since 2016, and for consumers under market offers over the period preceding 31 December 2015, 100% covered;
- for income and other related items:
    - income received by GRDF for tariff charges proportional to the quantities of gas supplied over the distribution network, 100% covered;
    - income received by GRDF for third-party participation, and income generated by other recurring services billed (e.g. meter rentals), 100% covered. The corresponding income is in fact rather considerable, the volumes are hard to predict and a major portion of the corresponding costs is generated by investment costs covered through the CRCP;
    - penalties received by GRDF for exceeding contracted capacities from clients under options T4 and TP, paid back in full in the CRCP, so as to ensure that the penalty system is financially neutral for GRDF;
    - income received by GRDF for other catalogue services in the event of changes in the price of these services over the tariff period, in order to neutralise the effect of such a price change on GRDF's income, when this change is different from that resulting from annual indexing formulae applied to service tariffs.

In addition, the financial incentives generated by incentive regulation mechanisms, both bonuses and penalties, are paid to or collected from GRDF through the CRCP:

- service quality, for all indicators concerned[14], in order to enable penalties, if the service quality level set is not attained, to be paid to network users, or bonuses to be paid to GRDF if objectives are surpassed (see section 2.4);
- R&D: at the end of the tariff period, an assessment of the amounts actually spent by the operator is conducted, taking into account actual inflation. If the operator has spent less than the target trajectory, the difference is returned to users. If the operator has spent more than the target trajectory, the difference remains the responsibility of the operator (see section 2.5). In the case of a request for a mid-period update of R&D operating expenses, the additional amount approved by CRE will be added to the incentive-based trajectory;
- unit investment costs (see section 2.3.2.1);

[13] Deliberation by the French Energy Regulatory Commission no. 2017-238 of 26 October 2017 amending CRE's deliberations of 25 April 2003, 22 May 2014 and 10 March 2016 deciding on the equalised tariffs for the use of GRDF's public natural gas distribution networks
[14] Except the one relating to compliance with client rendez-vous which is paid directly to the clients concerned.

- the "Gazpar" smart metering project, defined by CRE's deliberations of 17 July 2014[15] and 21 December 2017[16].

In addition, CRE has modified the item relating to energy costs: the annual reference trajectory is revised *ex post* to encourage GRDF to control these costs; the difference between this new reference amount and GRDF's actual expenses are 80% covered by the CRCP.

Lastly, in sum the new expense and income items included within the scope of the CRCP in the ATRD6 tariff are as follows:

- any profits made from the disposal of land or buildings, 80% covered in the CRCP;
- stranded costs or losses from disposals handled on a case-by-case basis for which CRE will approve coverage, 100% covered in the CRCP;
- income received by GRDF from tariff charges related to daily capacity subscriptions and the charge proportional to the distance from the transmission network, 100% covered in the CRCP;
- projected costs of the "Gas conversion" project not included in the target ATRD6 trajectories, taken into account through the CRCP, will be defined within the framework of a deliberation by CRE which will determine the corresponding reference amounts, 100% covered in the CRCP;
- income received by GRDF for the biomethane injection tariff charge, 100% covered;
- payment made by GRDF to TSOs for the portion of the biomethane injection charge collected from producers connected to the distribution network aimed at covering the OPEX associated with TSO backhaul (see section 4.5), 100% covered in the CRCP.

## 2.4 Incentive regulation for quality of service

The incentive regulation for the GRDF's service quality aims to improve the quality of the service provided to distribution system users in the fields deemed particularly important for the proper functioning of the gas market.

In its public consultations of 14 February and 1 October 2019, CRE presented an assessment of the incentive regulation mechanism for service quality since 2009. In that assessment, CRE noted that the quality of operators' service had improved in the fields of particular importance for network users.

In their responses, market participants shared this positive review and considered that the incentive regulation for service quality was 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.

The service quality indicators as well as the associated financial incentives are described in detail in Annex 2 of the present deliberation.

### 2.4.1 Presentation and assessment of the incentive regulation mechanism in the ATRD5 tariff

GRDF's service quality is monitored through indicators, which may be subject to a financial incentive or a simple monitoring. The financial incentives are based on the establishment of a reference objective. GRDF's performance, based on compliance or non-compliance with this objective, generates bonuses or penalties. These are in fact capped.

During the ATRD5 tariff period, 31 indicators were followed, 18 of which were subject to incentives. In addition to these indicators, there are also the specific indicators for monitoring the service quality of the Gazpar smart metering project, i.e. 15 indicators, 7 of which are subject to financial incentives.

The 31 indicators cover the following topics:

- client estimates and interventions (5 indicators);
- customer relations (4 indicators);
- supplier relations (6 indicators);
- metering and invoicing (11 indicators);

[15] Deliberation by the French Energy Regulatory Commission of 17 July 2014 deciding on the incentive regulation framework for GRDF's smart metering system
[16] Deliberation by the French Energy Regulatory Commission of no. 2017-286 of 21 December 2017 deciding on the incentive regulation framework for GRDF's smart metering system

- data exchanged with TSOs (4 indicators);
- GRDF's environmental impact (1 indicator).

The 15 indicators specific to the Gazpar smart metering project cover the following topics:

- the quality and availability of data coming from GRDF's smart metering system (7 indicators);
- claims received by GRDF (4 indicators);
- response by GRDF to users' data requests (4 indicators).

The results of these indicators are published on GRDF's website each month, as well as, for incentive-based indicators, in the annual tariff update deliberations. Since 2016, GRDF has elaborated and published an annual qualitative analysis of its performance on its website.

Between 2015 and 2018, GRDF's performance as concerns the incentive-based indicators has remained at a high level of service quality, globally reaching the objectives set by CRE. CRE notes for the ATRD5 period:

- the maintenance of a high level of performance regarding the amplitude of the distribution variance accounts (CED), which surpasses the objectives set;
- a progression in compliance with service execution deadlines (decommissioning, connections for the business market) and the rate of availability of the supplier portal;
- a slight deterioration in the indicators for the functioning of OMEGA (GRDF's information system for management of transmission data and associated client processes, ensuring communication between the DSO and suppliers) which, up until now, had remained stable at good levels;
- scope for progress in GRDF's performance in certain fields (rate of half-yearly readings based on actual indexes in particular).

The good performance observed over the previous period built on the progress made by GRDF since 2008.

Since 2017, GRDF's performance regarding the service quality indicators for the rollout of Gazpar smart meters has also been satisfactory. Out of the seven indicators subject to incentives:

- 4 indicators surpassed the target objective and generated bonuses in 2017 and 2018 (indicators relating to, within the scope of smart meters, the rate of publication of indexes for suppliers, the rate of cyclical indexes measured, the rate of cyclical indexes calculated three times and more and the rate of indexes rectified);
- 1 indicator saw its performance grow in 2018 to surpass the target objective and generate a bonus in 2018 (indicator for the rate of availability of data to end clients);
- 2 indicators had performances in between the basic objective and the target objective, and therefore did not generate either a bonus or penalty over the period (indicators for the rate of indexes measured upon contract claims and the rate of availability of the consumer portal).

Since 2010, improvement of GRDF's performance has enabled it to receive variable financial bonuses over the years, based on its performance concerning incentive-based indicators compared to the level of requirement defined by CRE. Over the ATRD5 period, the overall amount of financial incentives received by GRDF is positive and on an upward trend.

| *In €k* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| Overall incentives | 1,460 | 2,246 | 1,322 | 202 | 1,288 | 689 | 888 | 1,586 | 2,546 |
| *of which Gazpar* | - | - | - | - | - | - | - | *235* | *1,354* |

### 2.4.2 Adaptation of the mechanism for the ATRD6 period

Globally, over the last tariff periods, following and applying incentives to service quality indicators have led to the improvement of GRDF's performance in fields targeted. To remain effective, the indicators and associated incentives must however evolve regularly, depending on the results obtained and new challenges that emerge.

In that regard, and building on the guidelines envisaged in the public consultation of 14 February 2019, CRE proposed in the public consultation of 1 October to update the functioning of the incentive regulation mechanism for service quality. These developments aim mainly to adapt the list of service quality indicators with and without

incentives to the change in GRDF's activities and performance, as well as to the needs and expectations of network users.

#### 2.4.2.1 Simplification of the mechanism

In the public consultation, CRE proposed, for indicators for which a satisfactory and stable performance had been reached, to reduce the number of incentive-based indicators by switching to a simple monitoring of the three indicators previously subject to incentives. CRE also announced that it wished to eliminate an indicator monitored whose level had been stable over the last two tariff periods.

With the exception of two contributions that expressed concerns about a deterioration in the three incentive-based indicators identified by CRE to be switched to monitoring only, the contributors to the public consultation did not convey any opposition to these simplification proposals. However, some participants consider that there are still too many indicators followed and subject to incentives.

Therefore, CRE adopts the simplifications envisaged in the public consultation and identifies an additional indicator monitored which can be eliminated.

The following incentive-based indicators, presented in detail in Annex 2, are now switched to the list of indicators under simple monitoring, so that the level of GRDF's performance is still measured:

- quality of JJ[17] readings transmitted to TSOs for daily allocations at PITDs[18];
- transmission to TSOs of daily estimates of quantities loaded by suppliers at PITDs within a timeframe enabling them to be taken into account by the TSOs;
- rectified index rate (for 6M[19] consumers as for other consumers).

Among the indicators monitored, CRE is eliminating the two indicators for the performance of meter reading visits within the context of the rollout of Gazpar[20]. Indeed, their level of performance has been steady since at least one tariff period, and the rollout of the Gazpar project makes the monitoring of indicators for meter reading visits obsolete. In their responses to the public consultation, participants did not show any opposition to the principle of eliminating indicators for meter reading visits.

#### 2.4.2.2 Reinforcement of the mechanism

CRE proposed, for indicators whose quality improved during the ATRD5 period, and whose objectives have been reached, but which concern particularly sensitive topics for network users (connections in particular), on the one hand, to increase the level of associated objectives, and on the other hand, to introduce asymmetrical incentives between bonuses and penalties.

CRE proposed several types of asymmetrical incentives:

- complete elimination of bonuses and maintenance of penalties for 1 indicator;
- reduction in the level of bonuses and maintenance of the level of penalties for 2 indicators.

Most market participants were in favour of the list of indicators identified by CRE, as well as of the reinforcement of the incentive mechanisms and objectives for these indicators. However, system operators were opposed to the introduction of asymmetrical incentives, which they deem "punitive" and likely to drive operators to "overquality" for indicators with symmetrical incentives to offset any penalties.

However, CRE deemed the introduction of this type of incentive relevant given the history of bonuses generated by the three indicators identified. Asymmetrical incentives in fact serve to maintain a high performance incentive for GRDF while avoiding windfall effects for operators when they are asked to maintain the level of quality achieved, this level being deemed satisfactory.

For the ATRD6 period, CRE is therefore strengthening the incentives for the following indicators, outlined in Annex 2:

- rate of connections made within the timeframe agreed on for the mainstream market and the business market: elimination of bonuses, with maintenance of penalties;
- indicator for the amplitude of distribution variances: adjustment of the objective of a cumulated 3.6 TWh in 2020, with the setting up of higher penalties compared to bonuses;

[17] Energy supplied is measured daily and the index containing this measurement is read every day by the DSO.
[18] PITD: distribution-transmission interface point
[19] Energy supplied is measured half-yearly and the index containing this measurement is read half-yearly by the DSO.
[20] Rate of absence of 6M PCE customers at readings three times and more, and rate of absence of 6M PCE customers at readings two times and more.

- indicator of the amplitude of distribution variances by meter reading frequency and by supplier: adjustment of the objective at a cumulated 4.5 TWh, with the setting up of higher penalties compared to bonuses.

#### 2.4.2.3 Introduction of new service quality indicators

In compliance with the proposal formulated in the public consultation, CRE has updated the list of indicators followed to take into account the changes in GRDF's activities and new requirements associated with its role as operator (development of biomethane and "Gas conversion" project).

The new indicators introduced in the ATRD6 tariff are not subject to financial incentives as of the start of the tariff period, but could be during the tariff period.

The indicators proposed received were approved by all of the contributors to the public consultation. CRE has introduced the monitoring of the following indicators, presented in detail in Annex 2:

- response time for fulfilling requests for detailed studies for biomethane project developers;
- number of claims following the connection of biomethane installations;
- number of claims related to the "Gas conversion".

#### 2.4.2.4 Environmental indicators

The ATRD5 tariff has an environmental indicator, not subject to a financial incentive, for monitoring greenhouse gas emissions into the atmosphere (in $CO_2$ equivalent) compared to the volume of gas transported.

This indicator for following greenhouse gas emissions encompasses both emissions proportional to the volumes of gas transported over which GRDF has partial control and is based mainly on the optimisation of gas flows, and the escape of methane in the networks, which results more directly from the network management mode, such as the use of gas recompression and reinjection operations during maintenance work (rather than discharge into the atmosphere).

Although certain participants consider that monitoring this indicator could be redundant with other indicators followed within the framework of GRDF's concession contracts, contributors were in favour of CRE's proposal to separately follow methane emissions. Therefore, CRE has introduced an indicator for following methane emissions in the networks (including the scope of fugitive losses, venting and accidents/incidents), compared to the volume of gas transported, presented in detail in Annex 2.

This indicator is not subject to a financial incentive.

### 2.5 Incentive regulation of R&D and innovation

Against a rapidly changing energy landscape, CRE attaches particular importance to the development of smart networks and the adaptation of networks to the energy transition. System 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 network operations tools. In return, they must use these resources transparently and effectively.

In order to meet these two requirements, the incentive regulation for R&D and innovation (R&D&I) set up by the ATRD5 tariff is based, in line with the mechanism implemented for all operators, on:

- a trajectory of R&D&I costs, with an asymmetrical incentive: at the end of the tariff period, the amounts not spent during the period are returned to consumers while GRDF bears the costs of exceeding the trajectories;
- preparation of a detailed annual report to be sent to CRE, which assesses the R&D&I actions undertaken, supplemented by a bi-annual public report.

In addition, a smart grid counter was 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 consultations of 14 February and 1 October 2019, CRE proposed to maintain the incentive for actual spending on R&D&I and to increase transparency of the associated projects and expenses, combined with the possibility to revise the expenses associated with smart grids mid-period. Most participants that answered the public consultations were in favour of CRE's proposals. Several participants however stated that the activities financed by the distribution tariff should be limited to system operators' missions only.

Given all of these elements, for the ATRD6 tariff period, CRE has set up incentive regulation based on the following principles:

- the incentive for controlling costs related to GRDF's R&D&I expenses is maintained, with the possibility for GRDF to revise this trajectory halfway into the tariff period so that it may have more flexibility to adapt its programme. At the end of the ATRD6 period, GRDF will present CRE with a financial report on R&D&I, and the amounts not spent during the period will be returned to consumers (through the CRCP), while the operator will bear the costs of exceeding the trajectory;
- transparency and verification of the efficiency of R&D&I spending are reinforced through two exercises, with the format to be determined conjunctively between CRE, GRDF and the other operators:
    - annual transmission to CRE of technical and financial information for all ongoing and completed projects, instead of the current report to CRE;
    - bi-annual publication by GRDF of a report for the public, in line with the mechanism currently in place. The reports will have to be harmonised between the operators having an incentive regulation mechanism for R&D, 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 smart grid counter is extended to GRDF: provided that it presents a favourable cost/benefit analysis, and for projects greater than €1 million falling within the scope of smart grid deployment, GRDF can therefore request, halfway into the tariff period, for any extra operating costs related to this type of projects to be integrated into its trajectory. Where necessary, elements of incentive regulation associated with these projects may be introduced;
- GRDF will consult market participants before summer 2021 concerning the major research topics they intend to develop.

## 2.6 Incentive regulation of costs related to various losses and differences

The various losses and differences correspond to the difference between quantities delivered by transmission system operators (TSOs) at the distribution network entry, to which are added the quantities injected by biomethane production sites, and the quantities actually billed to consumers in this network. These arise from:

- technical losses related to leaks, filling new networks, purging facilities before servicing or repair work and damage caused to facilities during engineering work;
- the margin of inaccuracy in gas metering at transmission stations at the interface with the distribution system and at customer delivery points (meter reading bias), together with other uncertainties related in particular to the conversion of the volumes read on meters into energy. Indeed, the conversion of the volume of gas (in $m^3$) into energy (in kWh) causes differences between the quantities of gas measured at distribution-transmission interface points (PITDs) and the quantities taken into account when the meters of end customers are read;
- non-technical losses such as fraud, discrepancies between the index recorded upon the departure of a customer and that recorded upon the arrival of a new customer, reading errors, errors in billing files, etc.

To offset the various losses and differences, GRDF purchases gas quantities in the wholesale market.

### 2.6.1 Incentive regulation introduced in the ATRD5 tariff and adaptations adopted for the ATRD6 tariff period

The various losses and differences break down into the following items:

- energy purchase costs, which are calculated as estimates for the tariff period on the same basis as all operating expenses. The estimated volumes are valued at the forward market price when the tariff is elaborated. These costs also include the cost of gas transmission from the marketplace (PEG) to the PITD;
- distribution variance accounts with suppliers, which ensures *ex post*, based on end consumers' readings, that each supplier pays for the gas actually consumed by its clients (the gas offset being valued at a market price). The differences were projected at zero for the ATRD5 period. For the ATRD6 period, 200 MWh in distribution variances are taken into account in favour of GRDF[21];

[21] Under-measurement at the transmission-distribution interface and conversion bias lead GRDF's network to virtually be a gas "generator" in summer. Consumption of customers connected to GRDF's network is thus higher than what is indicated at the distribution-transmission interface. These volumes are valued at the spot price.

- the inter-operator account between GRDF and the TSOs, which serves to settle metering differences at the PITDs. It is projected at zero.

Some factors over which GRDF has no control can vary significantly compared to projections: on the one hand, the quantities distributed (depending on weather conditions, in particular), and on the other hand, wholesale market prices. CRE therefore considers that coverage of these contingencies by the CRCP is justified. However, in order to encourage GRDF to control its costs, the difference between its forecast expenses and its actual expenses is only partly covered in the CRCP (80%, see section 2.3.3).

The ATRD5 deliberation had introduced an annual *ex post* revision of the amount of forecast expenses for various losses and differences initially covered by the tariff. The present deliberation readopts this mechanism and adapts it in connection with the consideration of summer distribution variances. This annual revision of the reference amount takes into account:

- the quantities of gas actually distributed: the reference volume is calculated as the product of quantities actually distributed and a theoretical loss rate defined in section 2.6.2;
- and market prices observed for a predefined reference basket of goods and described in a confidential annex to the present deliberation, whose composition is modified, compared to the ATRD5 period, to take into account both GRDF's programme for purchasing losses in winter and distribution variance volumes to be valued at lesser prices in summer.

The difference between this revised reference annual amount and the projected expenses covered by the tariff is fully covered through the CRCP. This mechanism enables variations in weather conditions and gas prices to be taken into account, and the allowed revenue to be adjusted subsequently. GRDF is therefore encouraged to control the volume of its losses, but does not bear the gas price risk.

In addition, the ATRD5 tariff provided for 70% coverage of the difference between the revised reference amount and GRDF's actual expenses. Since this rate was set at 80% for gas transmission operators and electricity transmission and distribution operators, in its public consultation of 1 October 2019 CRE proposed to align the coverage rate applied to GRDF with that of the other operators. Since a great majority of contributors were in favour of this alignment, the present deliberation implements a change in the coverage rate described above from 70% to 80%.

### 2.6.2 Theoretical loss rate adopted

GRDF presented CRE with a programme for purchasing losses corresponding to its best estimate for the ATRD6 period, declining roughly 3% per year over the period in connection with the gains brought by the Gazpar smart metering project:

| GRDF's loss purchasing programme | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| In volume (MWh) | 1,618 | 1,548 | 1,489 | 1,457 |
| In % of projected quantities distributed | 0.57% | 0.55% | 0.53% | 0.52% |

This loss purchasing programme, down sharply compared to that of the ATRD5 period, reflects the improvements made by GRDF during the previous tariff period, such as the replacement of a series of faulty meters in 2016 and 2017 (meters that under-read consumption, not related to the Gazpar smart metering project) and better detection of consumption of inactive metering and estimation points.

In its public consultation of 1 October 2019, CRE noted, despite this drop in the purchase volume, a difference between the loss rate corresponding to this volume of purchases and the average loss rate under average conditions over the ATRD5 period. While a majority of contributors were in favour of the evolution of the rate proposed by GRDF, some suppliers requested a downward adjustment to take into account the average ATRD5 rate.

As explained previously, the difference between the volume of loss purchases and the volume of actual losses is due to the existence of "negative" losses in summer. Therefore, with the terms for calculating the expenses associated with the various losses and differences projected described above, CRE retains for the ATRD6 period, for the calculation of GRDF's theoretical loss rate, the impact of distribution variances in the summer, which will partially offset the volume of losses in winter.

Therefore, the theoretical loss rates adopted by CRE are as follows:

| (in % of quantities distributed) | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Theoretical loss rate | 0.50%* | 0.48% | 0.46% | 0.45% |

*This "net" loss rate corresponds to the average observed over the last four years known.

These rates thus take into account:

- GRDF's loss purchasing programme;
- summer distribution variances;
- and the productivity gains related to the Gazpar smart metering project expected over the ATRD6 period.

# 3. LEVEL OF EXPENSES TO BE COVERED AND TRAJECTORY OF THE TARIFF FOR THE USE OF GRDF'S NATURAL GAS DISTRIBUTION NETWORKS

## 3.1 Level of expenses to be covered

### 3.1.1 GRDF's tariff request and main associated issues

GRDF considers that its tariff proposal aims to meet the following challenges:

- pursue the policy to modernise and adapt the network to guarantee continuous improvement of the level of security;
- support the development of renewable gas, in particular biomethane;
- preserve its clients purchasing power;
- develop its employees' skills in order to reallocate resources to new challenges/jobs;
- assist consumers, regional and local authorities and the entire gas sector with the energy transition and the associated changes in uses (stabilisation of the consumer portfolio but reduction in consumptions thanks to actions to control energy demand, development of cleaner mobility (NGV));
- finish rolling out Gazpar;
- increase R&D efforts;
- successfully complete the pilot phase and the launch of the industrial phase of the "Gas conversion" project, i.e. the conversion of L gas to H gas in the Hauts-de-France region.

Taking into account the above-listed issues has led GRDF to request, for 2020, a total of €3,208 million, i.e. €39.6 million less than expenses incurred in 2018 (i.e. -1.2%), given, in particular, the drop in capital expenses.

### 3.1.2 Operating expenses

#### 3.1.2.1 GRDF's request

The forecast net operating expenses, presented by GRDF in its tariff proposal for the 2020-2023 ATRD6 period, are as follows:

| *In current €M* | 2018 Actual | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|
| Net operating expenses (initial request + update) | 1,426 | 1,557 | 1,586 | 1,634 | 1,641 |

For net operating expenses, including energy costs, GRDF's request would lead to an increase by €131 million in 2020, i.e. +9.2% compared to the actual 2018 value. Over the 2020-2023 period, net operating expenses would then increase by an average 1.8% per year. Excluding energy, the increase between the actual figure for 2018 and the request for 2020 is +8.9%. Over the 2020-2023 period, net operating expenses, excluding energy, would then increase by an average 1.9% per year.

The main items showing an increase between 2018 and 2020 in GRDF's request are as follows:

- "Energy purchases": up considerably, the combined result of the drop in volumes and the increase in prices;
- "External consumptions": the sub-item "Supplies procurement and maintenance works" presents an increase up until the year 2022 before dropping significantly in 2023; these developments are related to the investment trajectory and the Gazpar project in particular, which ends in 2023. This increase is due to the implementation of a new programme to strengthen security in apartment buildings including the organisation of preventive visits to buildings and the correction of any anomalies that may be detected.

  In addition, the major increase in the "Other" sub-item is justified by GRDF by (i) the implementation of a security programme relating to smoke exhaust ducts in apartment buildings, (ii) the increase in the

insurance expense trajectory and (iii) an increase in expenses for outsourcing retirement costs over the ATRD6 period to take into account the long-term drop affecting social contributions;

- "Personnel expenses": the increase in expenses is related to the evolution in wages, partially offset by the drop in the number of employees;
- "Other day-to-day management costs": the strong increase in these expenses is mainly due to the increase in software licences and fees related to the transfer to GRDF of ownership of licences previously held by Engie IT;
- "Capitalised production": the increase in the trajectory is related to the growth in investments due to the development of biomethane and the continuation of Gazpar rollout in particular;
- the "Gas conversion" project, which generates extraordinary expenses, with a major increase as from the massive rollout phase in 2022.

#### 3.1.2.2 CRE's analysis

##### 3.1.2.2.1 Challenges identified by CRE and the approach adopted

- Maintaining the gas distribution network at a maximum security level

Guaranteeing the security of people and property is a main issue for GRDF, which implements numerous actions to renew and secure its infrastructure. CRE was particularly attentive, during its analysis, to ensuring that the regulatory framework is favourable to network security, by adopting, in particular, all of GRDF's security-related requests.

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

The energy transition requires all gas system participants, operators and regulators alike, to think differently.

System operators must reconcile two contradictory trends:

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

In order to control changes to future tariffs, against a foreseeable drop in consumption, updates to system operators' missions must be implemented using the existing resources as much as possible.

- Support the industrial phase of the "Gas conversion" project

The ATRD6 tariff period will witness the start of the industrial phase of the "Gas conversion" project. In accordance with the legal framework associated with this project, GRDF is intervening outside its core business, with most of the actions to be conducted being located downstream of the meter. Given the challenges associated with this project and uncertainties about the implementation timetable, CRE will define the framework applicable for the 2021-2029 period as well as the final trajectories, following the pilot phase, i.e. at the end of 2020.

- Innovation by operators must be encouraged

Innovation and the new possibilities offered by the digital revolution can be leveraged to optimise the costs associated with the transformation of networks imposed by the energy transition. System operators must favour the use of such innovative solutions if they help to reduce total costs for the community and/or the risks of over-investment or stranded costs.

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

CRE considers that system operators must have the necessary resources to successfully carry out these innovation projects, which are essential for providing an efficient and high-quality service to users of networks rapidly being modernised, and in particular, the resources to upgrade their network operation tools. In return, they must use these resources transparently and effectively.

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

Incentive regulation for operating expenses aims, by leaving operators with the differences between the actual trajectory and the tariff trajectory, at encouraging them to improve their efficiency over the tariff period. The efficiency level revealed during the ATRD5 tariff period must be taken into account to establish the ATRD6 tariff, so that network users benefit from these productivity gains over time.

The trajectory of net operating expenses set by CRE corresponds to an overall envelope. Therefore, GRDF is free to distribute this envelope among the different types of expenses as it chooses.

For these reasons, CRE requested GRDF to submit its tariff proposal in light of the latest actual figures, justifying any significant difference in relation to the actual 2018 figure, and by breaking down each item of the tariff matrix.

CRE commissioned the Pöyry firm to conduct an audit of GRDF's operating expenses. Work was conducted between April and July 2019. The auditor's report, based on the initial version of GRDF's requests, was published together with the document for the public consultation of 1 October 2019.

This audit enabled CRE to have a clear and complete picture of GRDF's operating expenses and revenues recorded during the ATRD5 period and the estimated operating expenses presented by the operator for the upcoming tariff period (2020-2023 period). More precisely, this audit aimed to:

- provide expertise on the relevance and justification of the operator's operating expense trajectory for the next tariff period;
- assess the level of actual expenses (2018) and forecast expenses (2020-2023);
- formulate recommendations about the efficient level of operating expenses to be taken into account for the ATRD6 tariff.

In addition, CRE analysed certain specific points, in particular R&D expenses, the "Gas conversion" project and the incentive for consumer connections.

The conclusions of the audit report gave rise to a debate with GRDF during the month of July 2019. GRDF was therefore able to express its observations about the results of the auditor's work.

Following the public consultation, discussions were continued between GRDF and CRE on a certain number of net operating expense items. The level finally adopted by CRE is the result of all of this work, these exchanges with GRDF and its own analyses concerning the adjustments recommended by the auditor.

#### 3.1.2.2.2 Analysis of the operating expense trajectory

At the end of its work, the auditor recommended the following trajectory for GRDF's operating expenses over the ATRD6 period:

| *In current €M* | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Trajectory request by GRDF (initial tariff proposal) | 1,546 | 1,576 | 1,627 | 1,635 |
| Actual costs 2018 (inflated) | 1,466 | 1,490 | 1,515 | 1,542 |
| Auditor's trajectory (before efficiency) | 1,515 | 1,546 | 1,600 | 1,592 |
| **Auditor's trajectory (after efficiency)** | **1,515** | **1,536** | **1,585** | **1,572** |
| Impact on GRDF's request (after efficiency) | - 31 | - 40 | - 42 | - 63 |

The main adjustments recommended by the auditor concern the "Personnel expenses", "Real estate – Contributions – Rentals", "Outstanding amounts", "Energy purchases", and across the board for the "Biomethane" project. Within the framework of work conducted since the public consultation of 1 October 2019, CRE made a certain number of adjustments to this trajectory. The main adjustments it adopts compared to GRDF's proposal are presented below.

**"Biomethane" project**

In its tariff proposal, GRDF presents trajectories of biomethane volumes injected exceeding the objectives of the multi-annual energy plan. Indeed:

- the objectives set by the multi-annual energy plan are roughly 6 TWh for 2023 for all networks combined (transmission and distribution);
- GRDF's projections are roughly 8 TWh and those of GRTgaz and Teréga, roughly 2 TWh for 2023.

The energy policy guidelines forwarded to CRE by the minister of state, minister of the ecological and inclusive transition, specify that the assumptions to be taken into account concerning biomethane development "*shall be based on the multi-annual energy plan currently under consultation. It sets and an objective for biomethane injection into the gas networks of 6 TWh HHV for 2023 and between 14 to 22 TWh HHV for 2028.*"

In connection with these guidelines, CRE adopts the assumption of a total volume of 6 TWh of biomethane injected for 2023, all networks combined, as specified by the draft multi-annual energy plan, i.e. a -40% drop in the trajectories requested by GRDF.

For GRDF, this adjustment equates to adopting 4.8 TWh of biomethane injected for 2023 (compared to 8 TWh in its request).

The overall net impact estimated by the consultant is a reduction in net operating expenses of roughly €4 million per year (i.e. €15 million for the ATRD6 period, distributed relatively equally over the four years).

In detail, the auditor differentiated the impact of this drop on the different tariff items, some of them being considered independent of the volumes injected (the items "IT and Telecommunications" and "R&D") while others are considered to be more directly related to volumes injected and are therefore adjusted in proportion to the correction of volumes considered, with, in particular:

- for income: the drop in "Non-tariff income" (an average +€9 million/year, i.e. +€35 million cumulated), which corresponds to biomethane site connection services, and "Capitalised production" (an average +€14 million/year, i.e. +€55.9 million cumulated);
- for expenses: the drop in "Procurement of supplies and materials" (an average -€14 million/year, i.e. -€57 million cumulated) and personnel expenses (-€5.6 million/year, i.e. -€22.3 cumulated).

CRE's analysis

CRE shares the auditor's general analysis about the reduction in operating expenses, in line with an injection objective of 4.8 TWh for 2023, for items in proportion to volumes injected. CRE considers, like the auditor, that the operating expenses associated with the "IT and Telecommunications" and "R&D" items must be considered as independent of the volumes injected.

However, concerning personnel expenses, CRE took into account GRDF's headcount at the end of 2019 to set the trajectory for the 2020-2023 period.

Therefore, for the ATRD6 period CRE adopts a stable headcount trajectory for the biomethane project, equal to the 2019 headcount, as presented in GRDF's initial tariff proposal (113 FTEs).

This trajectory will enable GRDF to elaborate connection zoning and manage the flood of connection requests at the start of the tariff period.

All in all, CRE adopts, with regard to biomethane, the following adjustments:

- an average -€3.6 million per year for the "Personnel expenses" item;
- an average -€21.0 million per year for the "External consumption" item;
- an average +€22.7 million per year for the "Operating income" item.

Personnel expenses

Excluding biomethane, the auditor conserved GRDF's FTE trajectory. The adjustments (an average -€7.5 per year, i.e. -€30 million over the period) correspond to:

- the assumption of developments in the basic national wage, lower than that used by GRDF;
- the reference taken to estimate expenses for the ATRD6 period: the auditor took the average of the years 2016 to 2018. Indeed, the years 2017 and 2018 present discrepancies in the payment of variable remuneration which the auditor corrected by using a multi-annual average;
- a different assumption about the rate of achievement of objectives, reducing the "Profit sharing and contribution to savings plans" item: the auditor deemed the assumption of 100% made by GRDF too optimistic and took the average over the ATRD5 period instead, i.e. 93%.

CRE's analysis

CRE agrees with the auditor's conclusions concerning the following two adjustments:

- the adjustment of the reference taken to estimate expenses for the ATRD6 period;
- the lowering of the trajectory of the "Profit sharing and contribution to savings plans" item over the ATRD6 period.

However, in line with the decision taken for natural gas TSOs, CRE did not adopt the auditor's adjustment of assumptions concerning changes in national basic wage for the electricity and gas industry regime.

Excluding biomethane, the amount of adjustments made for personnel expenses retained by CRE is an average -€20 million per year over the ATRD6 period.

Real estate – Contributions -Rentals

The auditor's trajectory is lower by an average €9 million per year for the entire item (-€36 million cumulated over the ATRD6 period). In detail, these adjustments correspond mainly to:

- -€2 million/year for the "real estate" sub-item (i.e. -2.2%): the auditor constructed its own trajectory;
- -€5 million/year for the "contributions" sub-item (i.e. -8.5%): the auditor retained the increase requested by GRDF for 2023 (approximately +€20 million compared to 2018) but considering that it will be more gradual;
- -€1 million/year for the sub-item "IT" (-55.8%): these expenses are considered constant as from 2018 in current euros.

CRE's analysis

CRE agrees with the auditor's conclusions concerning the following two adjustments:

- the adjustment of the "real estate" sub-item trajectory;
- stabilisation of expenses for the "IT" sub-item at the 2018 level.

However, in its exchanges with CRE, after the audit, GRDF proposed a new trajectory for the "contributions" sub-item, integrating an update of the renewal pace of concession contracts, to include the delays in national negotiations and to take into account the catching up process as from 2021. The impact of this update corresponds to an adjustment of its initial trajectory by roughly €7 million for 2020. For the ATRD6 period, CRE adopts GRDF's revised trajectory.

Outstanding amounts (item fully covered in the CRCP)

In the ATRD5 tariff deliberation, CRE took into account the consequences of the decision by CoRDiS of 19 September 2014[22], according to which the DSOs must bear the costs of the transmission portion of consumers' outstanding amounts, including the corresponding costs in the CRCP.

At the last annual update (1 July 2019), CRE corrected the way in which these costs are handled, using expenses actually recorded rather than the provisions made by the operator.

To establish its trajectory, the auditor used the actual figure for the first quarter of 2019, for which the final accounting data are available, considering in addition, that almost all reimbursements are made in January. This figure (€32.1 million, financial costs included) has been adjusted for inflation over the ATRD6 period.

CRE's analysis

CRE adopts the trajectory recommended by the auditor, which leads to an adjustment of an average -€1.1 million per year over the ATRD6 period.

Various losses and differences (item partially covered in the CRCP)

The auditor adopted an adjustment of -€1.5 million/year (-€5.8 million over the entire period) to GRDF's request in connection with the consideration of more recent and lower market prices than that in GRDF's demand.

CRE's analysis

Following its public consultation, CRE pursued its analysis of the "various losses and differences" item. As indicated in section 2.6.2, this analysis led CRE to lower the theoretical loss rate taken into account for the incentive regulation for losses, in connection with the different metering effects observed in summer and the seasonality of loss purchases described by GRDF. As a result, CRE adapted the forecast trajectory of expenses for the "various losses and differences" item, integrating 200 MWh of distribution variances, in favour of GRDF, at the forward market price for winter periods. The impact of this adjustment is -€3 million/year.

[22] Decision by CRE's committee for dispute settlement and sanctions of 19 September 2014 on the dispute between POWEO DIRECT ENERGIE and GRDF relating to the contract for transmission in the natural gas distribution network.

The trajectory adopted by CRE is summarised in the following table:

| | 2018 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|
| Trajectory of the volume of winter losses (MWh) | | 1,618 | 1,548 | 1,489 | 1,457 |
| GRDF's losses and differences trajectory (initial request, current €M) | | 37.3 | 33.3 | 32.2 | 31.5 |
| GRDF's losses and differences trajectory (updated request, current €M) | | 34.9 | 33.1 | 31.9 | 31.1 |
| Auditor's losses and differences trajectory (current €M) | | 32.1 | 31.9 | 30.9 | 30.3 |
| Valuation of summer distribution variances | | - 3.0 | - 3.0 | - 3.0 | - 3.0 |
| **CRE's losses and differences trajectory (current €M)** | **28.4*** | **29.1** | **28.9** | **27.9** | **27.3** |
| Impact on GRDF's updated request (current €M) | | - 5.8 | - 4.2 | - 4.0 | - 3.8 |

**Cost actually borne by GRDF for various losses and differences in 2018.*

The reference trajectory is updated annually and this amount is that which is adopted in the final allowed revenue calculated each year for the annual tariff update. The difference between the updated trajectory and the initial trajectory is fully covered in the CRCP. In addition, 80% of the difference, positive or negative, between the amount actually borne by GRDF and the reference amount is covered by the CRCP (see paragraph 2.6).

Incentive in favour of consumer connections

For the ATRD6 period, GRDF has requested the re-adoption of the mechanism set up for the ATRD5 tariff. This request would correspond to a budget of roughly €42.5 million per year (compared to an amount of approximately €45 million/year during the ATRD5 period), i.e. €170 million over the ATRD6 period, split across three major types of actions:

- actions to promote the activity (€90 million over the ATRD6 period);
- aids (€60 million over the ATRD6 period);
- R&D programme (€20 million over the ATRD6 period).

By letter dated 25 September 2019, GRDF requested an additional budget of €10 million/year to reinforce its actions to convert installations using oil.

CRE's analysis

The minister's energy policy guidelines however consider that the "*carbon neutrality objective will result in some gas consumers switching to other energies [and that] it is therefore not desirable to pursue incentive regulation mechanisms serving to develop the number of consumers connected to the gas networks*".

Given these elements and the challenges identified, CRE stated in the public consultation that it planned to eliminate the incentive mechanism set up by the ATRD5 tariff.

However, considering the risk of stranded costs in the long term against a drop in gas consumption but also the risk of a major increase in the tariff in the event of a quick drop in the number of consumers connected to gas, CRE stated that it considered it appropriate to enable GRDF to conduct actions to stabilise its customer portfolio.

Therefore, the directions envisaged by CRE in the public consultation of 1 October 2019 retained a budget of €22.5 million/year, i.e. €90 million over the ATRD6 period, to enable GRDF to refocus its expenses on promoting its activity and in particular on oil to gas conversion actions.

Most participants were in favour of CRE's directions, commending in particular, the objective to eliminate installations running on oil. However, opinions were divided on the budget envisaged by CRE, some participants considering that it was too low and others, that it was too high.

CRE pursued discussions on the topic with GRDF. Given the additional analyses conducted, feedback from participants, and the letter on energy policy guidelines, CRE considers that for the ATRD6 period, GRDF's expenses should be refocused:

- on the one hand, on promoting the activity, particularly because this is also a means for GRDF to strengthen the security of the entire gas chain. Therefore, it adopts a portion of the budget requested by GRDF devoted to the promotion of the activity, i.e. €7.5 million/year (€30 million over the ATRD6 period);

- on the other hand, on actions in favour of the energy transition, priority being given to the fast elimination of installations using oil. Therefore, CRE adopts the full budget requested by GRDF devoted to oil to gas conversion actions, i.e. €17.5 million/year (€70 million over the ATRD6 period).

Consequently, CRE has eliminated the incentive mechanism in favour of consumer connection in effect in the ATRD5 tariff, and has adopted a net operating expenses budget of €25 million/year, i.e. €100 million over the ATRD6 period.

"Gas conversion project"

The "Gas conversion" project aims to convert a part of the Hauts-de-France region, which until now has been supplied with low calorific gas coming from the Groningen gas field in the Netherlands, currently being depleted, to enable the zone to accept high calorific gas, and therefore ensure the security of supply of 1.3 million consumers in that region. This project, which represents close to €400 million in additional operating expenses[23] for GRDF from now until 2029, particularly requires GRDF to carry out adaptations to the internal facilities of gas consumers in the region (roughly three visits on average per consumer).

The energy policy guidelines state that ATRD tariffs should enable "*financing of assistance mechanisms mentioned in article 183 of finance law no. 2018-1317 of 28 December 2018 for 2019*".

CRE decided on the financial trajectories of the "Gas conversion" project on 12 April 2018[24] for the project's pilot phase, i.e. for the years 2016 to 2020. These forecast trajectories were established based on the results of a technical and economic study published by CRE on 21 March 2018[25]. Given the uncertainties about certain operating procedures and the volumes of devices to be adapted in consumers' homes, CRE announced that the terms for covering the operating expenses for the industrial rollout phase (2011-2029) will be defined in a later deliberation taking into account, in particular, any acceleration in the project timetable and the feedback on the pilot phase, i.e. end 2020 at the earliest.

Moreover, the finance law for 2019[26] introduced an obligation for GRDF to facilitate the replacement of devices that cannot be adapted, within the framework of the conversion project, particularly through financial coverage by the distribution tariffs of the costs to replace these devices, within the limit of the caps defined by decree[27] and a scope of beneficiaries specified by order[28].

Therefore, for the trajectory of the ATRD6 period, CRE adopts:

- for the year 2020:
    - the net operating expenses indicated in the abovementioned deliberation no. 2018-080 of 12 April 2018, i.e. €18.9 million;
    - the net operating expenses associated with the replacement of non-adaptable devices anticipated by GRDF for 2020, revised to take into account the unit costs observed in the first set of zones, i.e. €3.1 million;
- for the years 2021 to 2023, GRDF's request formulated in its tariff proposal: end 2020, CRE will define the framework applicable for the financial handling of this project for the years 2021 to 2029; the difference between the trajectories adopted in the present deliberation (i.e. an average €69.9 million per year) and the expense amounts which will finally be adopted will be taken into account in the CRCP based on the terms set following the feedback from the pilot phase.

R&D

GRDF presented an increased demand for the "R&D" item for the ATRD6 period, with a budget envelope of €22.8 million per year (i.e. €91 million over the period), compared to €10.7 million per year over the ATRD5 period (i.e. a total of €42.8 million, spent in full).

[23] Excluding cost to replace non-adaptable devices
[24] Deliberation by the French Energy regulatory commission no. 2018-080 of 12 April 2018 deciding on the update of the equalised tariff for the use of GRDF's public natural gas distribution networks as at 1 July 2018.
[25] Deliberation by the French Energy Regulatory Commission no. 2018-051 of 21 March 2018 rendering its opinion on the project to convert the north zone in France from low calorific gas to high calorific gas.
[26] Article 183 of finance law no. 2018-1317 of 28 December 2018 for 2019
[27] Decree no. 2019-114 relating to the financial aid mentioned in II of article 183 of finance law no. 2018-1317 of 28 December 2018 for 2019.
[28] Order of 20 February 2019 relating to the financial aid mentioned in II of article 183 of finance law no. 2018-1317 of 28 December 2018 for 2019.

The trajectory requested by GRDF aims to finance research projects within the company, but also done in partnership with research laboratories. GRDF breaks down its R&D projects into four research axes:

- "security and operational performance" (€6.7 million/year): performance of investments and operational performance in the service of security, and control of metering and the quality of gas;
- "smart gas grids" (€3.9 million/year): developing the dynamic steering of the network, adapting and interconnecting the network;
- "green gas" (€6.6 million/year): improving the quality of gases produced and their compatibility with existing infrastructure and identifying the best mechanisms for connecting and injecting renewable gas;
- "downstream domain – security and flexibility" (€4.8 million/year): downstream security and regulation, compatibility concerning new gases and new uses, and flexibility, client knowledge, network complementarity.

CRE's analysis

Given the positions expressed by certain participants within the framework of the public consultation of 1 October 2019, and particularly the role played by GRDF in the elaboration of procedures and the implementation of actions contributing to securing natural gas installations, CRE considers that:

- the increase in R&D expenses anticipated by GRDF for its historical perimeter is not justified and must be limited to the level of 2018 expenses increased for forecast inflation over the ATRD6 period;
- however, the inclusion of the sub-items "compatibility new gases/new uses" and "flexibility, client knowledge, network complementarity" within GRDF's scope of R&D is justified, as is the inclusion of only the part of the sub-item "downstream security and regulation" which enables continuity with the programmes conducted by GRDF during the ATRD5 period concerning exhaust of combustion products.

As a result, CRE adopts the following R&D trajectory for the ATRD6 period:

| *In current €M* | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| R&D trajectory | 15.4 | 15.7 | 15.9 | 16.2 |

The trajectory of R&D expenses is subject to an asymmetrical incentive described in section 2.5 of the deliberation.

**Security of apartment buildings**

For the ATRD6 period, GRDF requests a target budget for security of apartment buildings which breaks down into two actions:

- the implementation of a new programme to strengthen security in apartment buildings including the organisation of preventive visits to buildings and the correction of any anomalies that may be detected (an average €5.8 million per year);
- aids for the adaptation, in apartment buildings, of smoke exhaust ducts, to enable the replacement of old boilers by high energy performance boilers (an average €3.1 million per year). This request is related to the R&D carried out by GRDF for the exhaust of combustion products.

CRE's analysis

Given the responses provided to the public consultation of 1 October 2019 and the additional elements described by GRDF during its interview with members of CRE's collegial board, this action could contribute to improving the security of the use of gas by reducing the risk of intoxication related to the production of carbon monoxide.

Therefore, on the security grounds presented by GRDF, CRE finally adopts its full request concerning the programme to secure apartment buildings.

**Analysis of operator efficiency**

In addition to the item-by-item analysis, the auditor measured the change in GRDF's overall productivity concerning its operating expenses, by analysing the change in the ratio of net operating expenses per km of pipeline.

The auditor considers that given GRDF's past performances, and in order to reach a level of performance consistent with those performances, an additional efficiency envelope of €11.3 million/year (i.e. €45 million cumulated over the period, based on a gradual growth in performance actions over the period) is necessary.

CRE's analysis

Following the item-by-item adjustments adopted by CRE, the level of GRDF's net operating expenses over the ATRD6 period is greater than a change based on actual expenses for 2018 adjusted for inflation. This increase is justified, according to GRDF, by the inclusion of the L zone conversion project, which generates additional costs, partially offset by the productivity efforts made by the operator.

CRE shares this analysis but highlights that the ATRD6 period is also the period during which gains on operating expenses associated with the Gazpar project are expected to materialise. Therefore, and in order to ensure that the end consumer benefits, ultimately, from drops in expenses for GRDF associated with the Gazpar project, CRE has decided to apply an efficiency objective for GRDF, equivalent to a 0.2% drop in net operating expenses over the period.

It adopts the following additional efficiency trajectory:

| *In current €M* | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Additional performance trajectory | - 0.0 | - 3.3 | - 5.0 | - 6.7 |

**Summary of CRE's analysis**[29]

The following tables summarise the trajectory of net operating expenses, resulting from the adjustments adopted by CRE for the ATRD6 tariff.

| *In current €M* | Actual 2018 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|
| GRDF's request | | 1,557.4 | 1,585.6 | 1,634.4 | 1,641.4 |
| Adjustment adopted by CRE | | - 43.2 | - 40.1 | - 39.6 | - 59.2 |
| **Trajectory adopted by CRE** | 1,426.1[30] | 1,514.2 | 1,545.5 | 1,594.7 | 1,582.2 |

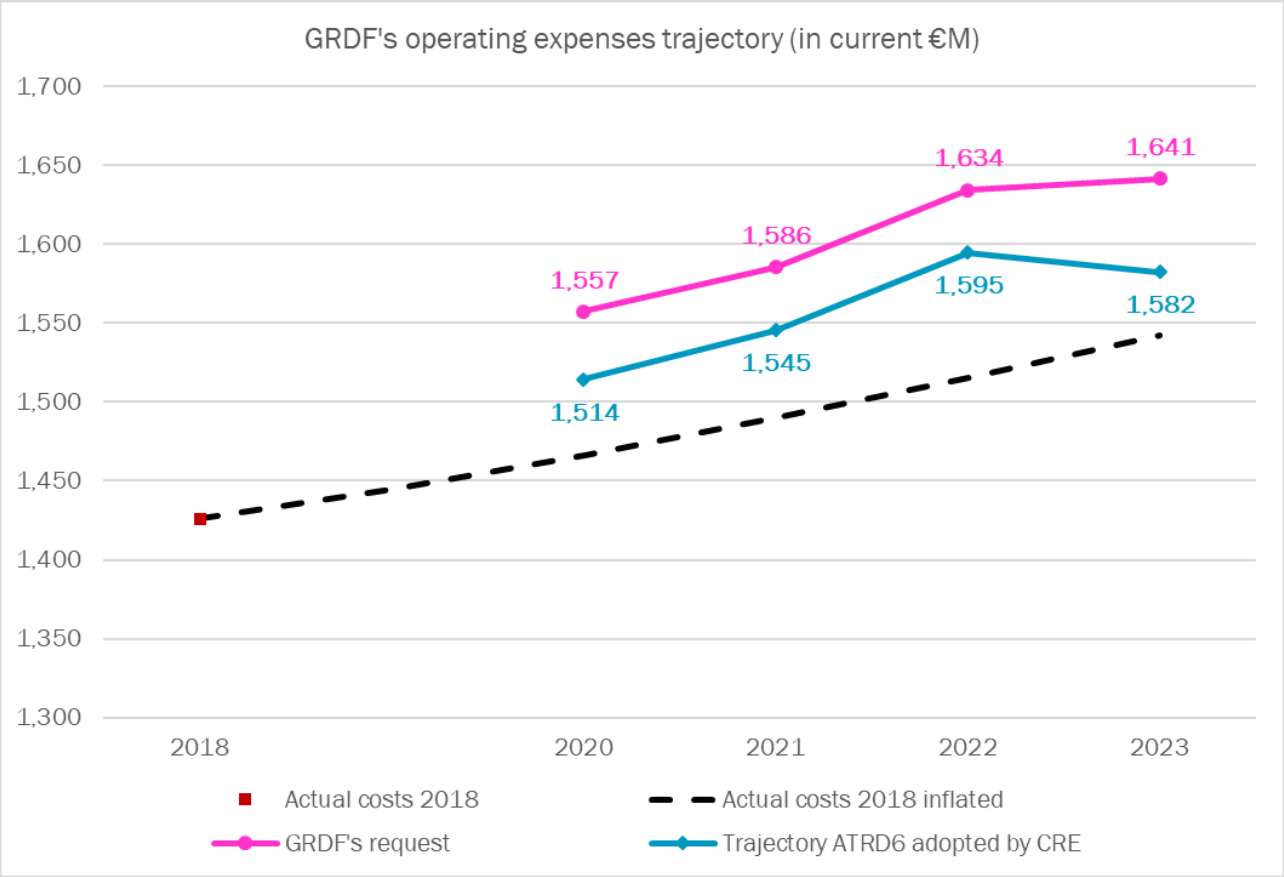
| *In current €M (excluding energy)* | Actual 2018 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|
| GRDF's request | | 1,522.5 | 1,552.5 | 1,602.5 | 1,610.3 |
| Adjustment adopted by CRE | | - 37.4 | - 35.9 | - 35.6 | - 55.3 |
| **Trajectory adopted by CRE** | 1,397.7[31] | 1,485.1 | 1,516.6 | 1,566.9 | 1,555.0 |

The trajectory adopted by CRE grants GRDF:

- an increase in security-related operating expenses, with the funding, in addition to programmes already covered during the ATRD5 period, of a programme for handling building anomalies and replacing ducts in apartment buildings;
- additional expenses related to the replacement of non-adaptable devices within the framework of the "Gas conversion" project, which had not been planned initially in the trajectories set for the pilot phase;
- strengthening of R&D, particularly covering the accommodation of new gases in the networks (development of hydrogen injection into the networks in particular);
- revision of the actions favouring consumer connection, to refocus them on (i) promoting the sector which should have a greater portion of expenses related to security, and on (ii) oil-gas conversion, in order to eliminate installations that use oil as quickly as possible;
- the means of attaining the biomethane injection objectives set by the draft multi-annual energy plan for 2028.

Therefore, the trajectory set by CRE projects a 6.18% increase in GRDF's net operating expenses between 2018 and 2020 (+6.25% excluding energy). The net operating expenses then increase by an average +1.48% per year over the 2020-2023 period (+1.55% per year, excluding energy).

[29] In the present document, all amounts are rounded off. However, the final results use only exact intermediate values not rounded off. Therefore, there might be a slight difference between the sum of intermediate values and total values. Only these values are official.
[30] Actual expenses
[31] Actual expenses




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

### 3.1.3 Calculation of normative capital expenses

#### 3.1.3.1 Weighted average cost of capital (WACC)

The principles for calculating capital expenses (in particular the methodology for determining the different parameters that are the basis for calculating the WACC in a CAPM methodology (see section 2.1.2.1)) were readopted with changes compared to the previous tariff periods. However, in the different tariffs, CRE modified its assessment of the WACC for the natural gas distribution.

**GRDF's request**

The WACC was set at 5.00% in the ATRD5 tariff. GRDF's request was established using a WACC lower than that of the ATRD5 tariff, i.e. 4.80% (real, before tax). This request is based on the conclusions of a study commissioned by gas operators from an external consultant.

**CRE's analysis**

CRE re-examined the various parameters used to calculate the WACC. In addition, it ordered an external consultant to audit GRDF's proposal concerning the return on capital. This study was published together with the public consultation of October 2019 and the present deliberation.

On the occasion of the public consultation of October 2019, CRE published a possible WACC ranging from 3.50% to 4.10% (real, before tax).

Among the contributors to this public consultation, a great number of participants stated that the range envisaged by CRE was justified, particularly given current market conditions, and supported the drop in the WACC envisaged by CRE, compared to that in effect during the ATRD5 period. The gas infrastructure operators and their shareholders requested the same WACC or a smaller reduction compared to that in effect over the ATRD5 period.

The WACC is calculated by applying the following formulas:

$$\text{Nominal WACC before CT} = [(\text{RFR} + \text{debt spread}) \times (1 - \text{deductibility of financial costs} \times \text{CT}) / (1 - \text{CT})] \times g + (\text{RFR} + \beta \times \text{MRP}) / (1 - \text{CT}) \times (1 - g)$$

$$\text{Real WACC before CT} = (1 + \text{nominal WACC before CT}) / (1 + \text{inflation}) - 1$$

For the ATRD6 tariff, CRE adopts a WACC (real, before tax) of 4.10% to remunerate GRDF's RAB. The values adopted by CRE for each of these parameters are shown in the table below:

| Parameters of the ATRD6 WACC | |
|---|---|
| Nominal risk-free rate (RFR) | 1.7% |
| Debt spread | 0.9% |
| Asset *bêta* | 0.48 |
| Equity *bêta* (β) | 0.83 |
| Market risk premium (MRP) | 5.2% |
| Leverage (debt/(debt + equity capital)) (g) | 50% |
| Corporate tax (CT) | 28.02% |
| Tax deductibility for financial expenses | 100% |
| Cost of debt (nominal, before CT) | 2.6% |
| Cost of equity (nominal, before CT)* | 8.4% |
| **WACC (nominal, before CT)** | **5.5%** |
| Inflation | 1.3% |
| **WACC (real, before CT)** | **4.10%** |

**i.e. nominal remuneration of equity after CT of 6.0% (6.1% for ATRD5)*

Compared to the values taken into account to define the WACC in the ATRD5 tariff, the main modifications, in line with the evolution in macroeconomic and financial data, relate, in particular, to the change in the risk-free rate, the asset *bêta* and taxation.

- The risk-free rate adopted stands at 1.7%. It is down 110 points compared to that adopted for the ATRD5 tariff (2.8%). This drop is justified by the significant and long-term fall in interest rates. The method adopted by CRE to estimate the risk-free rate applicable in the calculation of the WACC for the ATRD6 tariff remains unchanged compared to that adopted for the ATRD5 tariff.

  CRE bases its decision concerning the value of the risk-free rate on the observation of the yields of French government bonds ("OAT"), considered as the most low-risk investments, over a period of ten years, and for OATs with a maturity of 10 years. These parameters, used for all regulated infrastructure tariffs, had led to a risk-free rate of 2.8% in the ATRD5 tariff. The ten-year maturity of OATs is the most commonly used by sector regulators. A ten-year period of observation of ten-year OATs also makes it possible to take into account changes in the financial markets, while maintaining relatively stable and foreseeable conditions for remunerating energy infrastructure in France.

- The asset *bêta* – set at 0.48 – has increased compared to the level adopted for the ATRD5 tariff period (0.40).

  CRE bases its decision concerning the asset *bêta* on market observations and the *bêtas* of the activity of gas operators in Europe. It also takes into account the significant increase in uncertainty concerning long-term gas prospects in France, particularly in the light of the anticipated drops in gas consumption envisaged in France and the risk of stranded costs within the framework of the draft multi-annual energy plan. While the respective risks of the transmission and distribution activities still remain slightly different, CRE considers that the difference in risk between these two activities has narrowed since the previous period.

- Furthermore, CRE takes into account the developments set out by the draft finance law for 2020, which modifies the normal corporate tax rate gradually until 2022, when the normal 25% corporate tax rate will apply uniformly to all companies. Therefore, for the ATRD6 period, CRE adopts a corporate tax rate of 28.02%, which is the average corporate tax rate applicable to GRDF over the 2020-2023 period. The effect of this drop in the tax rate represents roughly 30 basis points in the drop in the WACC of the ATRD6 tariff compared to that in effect over the ATRD5 period.

#### 3.1.3.2 Investments

The calculation of the RAB and capital expenses for the ATRD6 tariff takes into account the investment projections supplied by GRDF.

The trajectory of GRDF's investment expenses over the ATRD6 period is marked by an acceleration in investment expenses, with average expenses of €1,013.5 million per year over this period, compared to roughly €888.4 million per year over the ATRD5 period. This increase is due in particular to the continuation of the Gazpar project, the growth in biomethane investments, the increase in investments to secure infrastructure as well as the increase in IS investments.

GRDF plans for the following investment expenses over the ATRD6 period:

| *In current €M** | Actual 2018 | 2020 | 2021 | 2022 | 2023 | Annual average ATRD6 | Annual average ATRD5** |
|---|---|---|---|---|---|---|---|
| Connection | 213.7 | 227.0 | 229.0 | 224.4 | 218.4 | 224.7 | 208.3 |
| Moving and adapting facilities | 295.6 | 318.5 | 345.8 | 354.3 | 357.1 | 343.9 | 305.8 |
| Customer meters and delivery points | 29.6 | 29.9 | 30.8 | 30.9 | 30.9 | 30.6 | 38.6 |
| Intangible assets | 157.3 | 90.9 | 113.2 | 139.0 | 131.0 | 118.5 | 118.2 |
| Logistics | 51.1 | 42.2 | 42.7 | 43.1 | 43.3 | 42.8 | 58.1 |
| Sub-total excluding projects | 747.3 | 708.4 | 761.5 | 791.6 | 780.7 | 760.6 | 729.0 |
| Biomethane | 20.1 | 36.8 | 59.7 | 73.5 | 92.7 | 65.7 | 14.3 |
| Smart metering | 198.2 | 246.6 | 236.1 | 187.8 | 37.9 | 177.1 | 140.1 |
| Gas conversion project | 4.8 | 10.7 | 8,5 | 11.3 | 10.1 | 10.1 | 4.9 |
| Sub-total projects | 223.1 | 294.2 | 304.3 | 272.6 | 140.7 | 253.0 | 159.3 |
| **Overall total** | **970.5** | **1,002.6** | **1 065,8** | **1,064.2** | **921.4** | **1,013.5** | **888.4** |
| **Total excluding smart metering** | **772.3** | **755.9** | **829,8** | **876.4** | **883.5** | **836.4** | **748.3** |

*GRDF's forecast inflation assumption: 1.3%/year
**Average of actual investment programmes for 2016, 2017 and estimated for 2019

In particular, GRDF projects:

- a sharp increase in investment expenses associated with smart metering, particularly for the Gazpar project, evaluated by GRDF at €177.1 million/year over the ATRD6 period, compared to €140.1 million/year over the previous period. The Gazpar project is expected to be completed in 2023;
- a major increase in investment expenses associated with biomethane, with average expenses (net of producers' participations) over the period of €65.7/year, compared to €14.3 million/year over the previous period. Expenses include, in particular, producers' connections (point and metering included) at roughly €36 million/year and network extension and reinforcement investments (meshing and shared extensions) at €20 million/year;
- an increase in investment expenses for securing infrastructure[32] (Paris network and buildings' riser pipes in particular), essentially for the modernisation of the network. Estimated at an average €343.9 million/year (compared to €305.8 million/year over the previous period), these investments will increase at the start of the period, and then level out as from 2022, in connection with the growth in network renovations (particularly replacement of asphalt ducts in Paris), building's connections and infrastructure;
- stability in investment expenses related to intangible assets, estimated by GRDF over the ATRD6 period at €118.5 million/year (compared to €118.2 million/year over the previous period), related, on the one hand, to an increase in expenses for the SAP S/4HANA migration project, and on the other hand, to the forecast drop in investment expenses for mapping, resulting from fewer geo-referencing needs given the amounts devoted over past tariff periods and the improvements obtained. Given these elements, and in line with the minister's energy policy guidelines, considering that in order to ensure *"the security of natural gas consumers and people living close to gas distribution installations,* [...] *it must be ensured that the distribution system operators have the means necessary to improve the mapping of their networks",* CRE adopts GRDF's full request regarding mapping.

[32] These investments are included in the item "moving and adapting infrastructure".

CRE looked into certain changes in the investment trajectory proposed by GRDF for the ATRD6 period, in particular with regard to expenses associated with the development of the biomethane sector, which is based on prospects of 8 TWh injected into the distribution networks for 2023, exceeding the objectives set out by the draft multi-annual energy plan and the minister's energy policy guidelines (i.e. 6 TWh of biomethane injected into the gas networks as a whole by 2023).

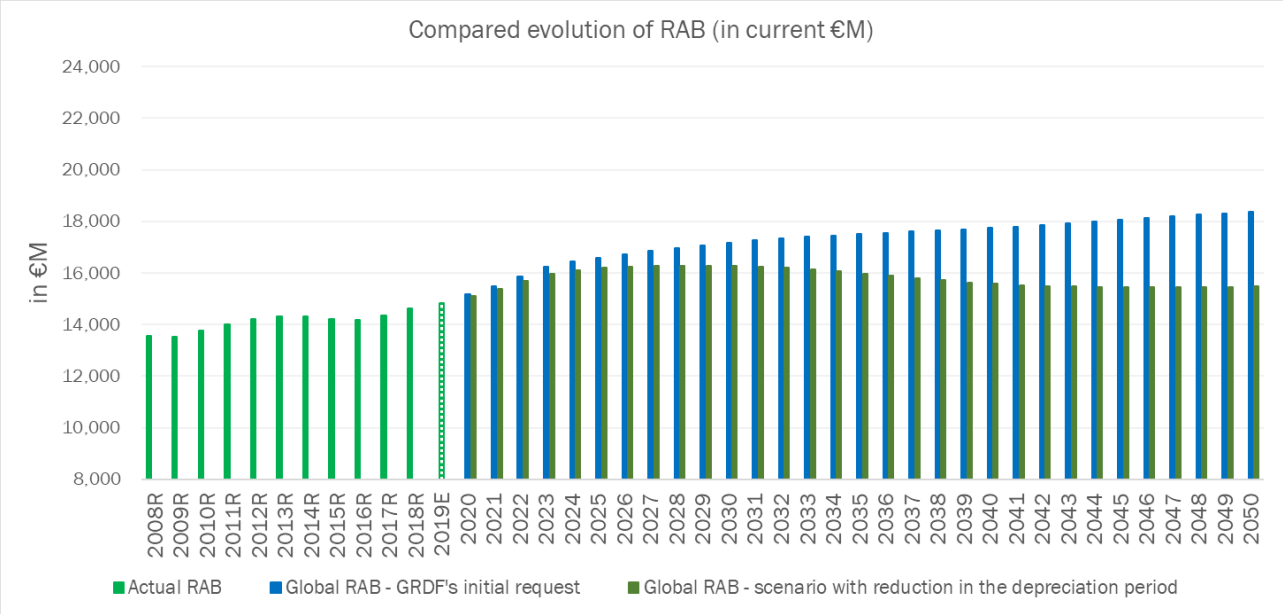
CRE reiterates that investments (with the exception of non-network investments subject to a specific regulation, see section 2.3.2.2) are covered on the basis of actual investments made. Therefore, since the differences with the forecast trajectory will be covered in the CRCP, CRE adopts all of the investment forecasts in GRDF's proposal.

#### 3.1.3.3 Reduction in the depreciation period for connection infrastructure

The energy policy guidelines forwarded to CRE by letter dated 15 July 2019 reiterate that reaching the objectives of the French strategy for energy and the climate will lead, in particular, to a gradual reduction in gas consumption. They consider that this "*increases the importance of controlling costs in order to, on the one hand, not pass on excessive costs to consumers, and on the other hand, to ultimately avoid the risk of stranded costs*".

In connection with these guidelines, GRDF proposed to CRE, by letter dated 25 September 2019, a reduction from 45 to 30 years for the depreciation period of building connections and pipes – riser pipes for new investments and stock commissioned as from 2005, in order to limit the risks of stranded costs. This 30-year period proposed by GRDF corresponds to the estimated duration of a consumer's gas connection (equal to two boiler renewals), with the depreciation period of other assets remaining unchanged.

The reduction in the regulatory deprecation period involves an increase in normative capital expenses over the upcoming tariff period, other things being equal, but contributes in parallel to accelerating the lowering of the RAB. It is neutral for the consumer in the long term.




*With a forecast inflation assumption of 1.3%, GRDF's projections.*

Considering that GRDF's proposal corresponds to that of a cautious operator, CRE questioned the market about this specific point on the occasion of the public consultation of October 2019. Most contributors were in favour of GRDF's proposal, considering that it contributes to the sustainability of the tariff in the long term. Moreover, most contributors considered that it was a pragmatic solution in response to the risk of passing on the risk of stranded costs to consumers in the long term. Lastly, numerous participants highlighted the favourable context of the concomitant drop in the rate of return which enables this reduction to be implemented without causing a major tariff increase.

The infrastructure assets targeted by GRDF (connection infrastructure) are those which make up network elements (i.e. individual parts) for which the risks of stranded costs are the highest (comparatively with the network core assets). Therefore, CRE adopts GRDF's proposal to reduce their regulatory depreciation period from 45 to 30 years.

#### 3.1.3.4 Normative capital expenses

**Trajectory of normative capital expenses**

The table below presents the forecast trajectory of GRDF's RAB from 2020 to 2023:

| *In current €M*[33] | 2020 | 2021 | 2022 | 2023 | Average ATRD6 |
|---|---|---|---|---|---|
| **RAB as at 01/01/Y** | **15,090.2** | **15,405,8** | **15,777.4** | **16,137,0** | **15,602,6** |
| Commissioned | 1,002.6 | 1,065.8 | 1,064.2 | 921.4 | 1,013.5 |
| Depreciation | -929.6 | -958.0 | -990.0 | -1,004.3 | -970.5 |
| Re-evaluation of inflation | 242.6 | 263.7 | 285.3 | 208.7 | 250.1 |
| RAB as at 01/01/Y+1 | 15,405.8 | 15,777.4 | 16,137.0 | 16,262.8 | 15,895.7 |

The table below breaks down the forecast trajectory of GRDF's normative capital expenses from 2020-2023:

| *In current €M* | Average 16-19* | 2020 | 2021 | 2022 | 2023 | Average ATRD6 |
|---|---|---|---|---|---|---|
| Depreciation | 747.0 | 929.6 | 958.0 | 990.0 | 1,004,3 | 970.5 |
| Remuneration | 800.8 | 649.9 | 667.9 | 686.0 | 698.1 | 675.5 |
| Gazpar AuC | 0.7 | 0 | 0 | 0 | 0 | 0 |
| **Total normative capital expenses**<br>*of which "non-network" normative CAPEX* | **1,548.5**<br>119.7 | **1,579.4**<br>121.2 | **1,625.9**<br>121.7 | **1,676.0**<br>124.1 | **1,702.4**<br>127.1 | **1,645.9**<br>123.5 |

*These are the actual figures for the 2016-2018 period and an estimate for 2019.

**Trajectory of "non-network" normative capital expenses**

The table below breaks down the specific trajectory of GRDF's RAB and normative CAPEX for "non-network" assets from 2020 to 2023, which are subject to a specific regulation defined in section 2.3.2.2 of the deliberation:

| *In current €M* | 2020 | 2021 | 2022 | 2023 | Average ATRD6 |
|---|---|---|---|---|---|
| **RAB as at 01/01/Y** | **453.9** | **473.5** | **502.3** | **540.6** | **492.6** |
| Depreciation | 100.5 | 100.0 | 101.0 | 102.4 | 101.0 |
| Remuneration | 20.7 | 21.7 | 23.1 | 24.7 | 22.6 |
| **Total "non-network" normative CAPEX** | **121.2** | **121.7** | **124.1** | **127.1** | **123.5** |

[33] CRE adopts the following inflation assumptions for the ATRD6 period: 1.5% in 2020, 1.60% in 2021, 1.70% in 2022 and 1.80% in 2023 (source: IMF, April 2019).

### 3.1.4 CRCP as at 31 December 2019

The estimated total balance of GRDF's CRCP for the ATRD5 tariff to be taken into account in the calculation of allowed revenue is +€13.1 million and breaks down as follows:

| Components of the total CRCP to be reconciled as at 1 July 2020 | Amount (€M) |
|---|---|
| CRCP balance as at 1 January 2019 | €6.9 $M_{2019}$ |
| Allowed revenue calculated *ex post* for the portion proportional to quantities shipped for 2019 | €1,875.9 $M_{2019}$ |
| Income received by GRDF as part of tariff charges proportional to quantities of gas shipped for 2019 | €1,870.1 $M_{2019}$ |
| CRCP balance as at 31 December 2019 | €12.8 $M_{2019}$ |
| Update at rate of 2.8% | €0.4 million |
| CRCP balance as at 1 January 2020 | €13.1 $M_{2020}$ |

The *ex post* allowed revenue for the year 2019 for the portion proportional to quantities shipped totals €1,875.9 million, and is €6.8 million lower than the forecast amount taken into account in the ATRD5 tariff deliberation. This difference is due in particular to:

- lower normative capital expenses not subject to incentives (-€26.2 million);
- lower expenses related to outstanding amounts (-€6.7 million);
- higher expenses related to various losses and differences (+€9.6 million);
- lower non-tariff income (-€14.1 million).

In addition, the income received by GRDF for tariff charges proportional to gas quantities shipped for the year 2019 are estimated at €1,870.1 million, compared to a forecast amount of €1,882.8 million, i.e. an actual amount €12.7 million lower than the forecast figure.

The CRCP balance for the ATRD5 tariff, i.e. €13.1 $million_{2020}$[34], will be reconciled over a four-year period, in equal instalments, with an interest rate equal to 1.7%, which corresponds to the nominal risk-free rate applied annually.

This leads to an increase in the costs to be covered by the ATRD6 tariff of €3.4 million per year.

The CRCP balance for 2019 taken into account in the present decision is a provisional amount. The definitive amount will be taken into account when the tariffs are updated as at 1 July 2021.

### 3.1.5 Allowed revenue for the 2020-2023 tariff period

GRDF's allowed revenue for the 2020-2023 period is defined as the sum of the following elements:

- net operating expenses (see section 3.1.2);
- capital expenses (see section 3.1.3);
- reconciliation of the CRCP balance calculated as at 31 December 2019 (see section 3.1.4).

It breaks down as follows:

| *In current €M* | 2020 | 2021 | 2022 | 2023 | Average 2020-2023 |
|---|---|---|---|---|---|
| Net operating expenses | 1,514.2 | 1,545.5 | 1,594.7 | 1,582.2 | 1,559.2 |
| Normative capital expenses | 1,579.4 | 1,625.9 | 1,676.0 | 1,702.4 | 1,645.9 |
| Reconciliation of the ATRD5 CRCP balance | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 |
| **Allowed revenue** | **3,097.0** | **3,174.8** | **3,274.2** | **3,288,0** | **3,208.5** |

The average level of GRDF's expenses to be covered for the ATRD6 period (net CAPEX and normative CAPEX) will total an average €3,205 million per year. Over the 2018-2023 period, it will be updated by an average +1.9% per

[34] This amount is to be returned to GRDF.

year, as a result of an increase in operating expenses of an average 2.1% per year and an increase in normative capital expenses of an average 1.7% per year.

GRDF's allowed revenue (including CRCP reconciliation) thus changes by -1.8% between 2018 and 2020, and by an average 2.0% per year over the ATRD6 period.

## 3.2 Assumptions concerning the quantity of gas distributed and the number of customers served

### 3.2.1 Changes recorded in the period covered by the ATRD5 tariff

The ATRD5 tariff specified over the 2016-2019 period an average change of +0.05% in the number of consumers connected to GRDF's network and an average change of -0.75% per year in quantities distributed under average weather conditions[35].

Over the 2016-2018 period, the number of consumers actually connected changes by an average +0.27% per year. The actual quantities of natural gas supplied under average weather conditions dropped an average -0.28% per year.

Consumption data against average weather conditions and the number of consumers connected over the ATRD5 tariff period are as follows:

| | | 2016 | | 2017 | | 2018 | | 2019 | |
|---|---|---|---|---|---|---|---|---|---|
| | | Proj. ATRD5 | Actual | Proj. ATRD5 | Actual | Proj. ATRD5 | Actual | Proj. ATRD5 | Estimated |
| Number of consumers | | 11,047,345 | 11,057,401 | 11,051,185 | 11,073,873 | 11,057,190 | 11,116,442 | 11,063,796 | 11,137,121 |
| Consumption (GWh) | Under avg. weather conditions | 288,626 | 288,106 | 285,597 | 285,127 | 283,868 | 286,468 | 282,188 | 284,745 |
| | Under actual weather conditions | | 292,129 | | 284,400 | | 278,366 | | |

The increase in the number of consumers is mainly driven by the residential consumers market segment (options T1 and T2). GRDF explains this increase by a slight drop in the number of contract terminations associated with an increase in the number of new residential customers mainly in new housing.

According to GRDF, the lower drop in consumption compared to the forecast is mainly due to the increase in the overall consumption of residential consumers in connection with the growth in the number of consumers and the increase in consumption of the industrial market segment (options T4 and TP) in connection with the industrial growth seen over the period.

### 3.2.2 GRDF's request

GRDF expects, over the 2020-2023 period, the drop in consumption to continue with an average change of -0.40% per year[36] while the number of consumers will remain stable with an average change of -0.01% per year.

The outlook that GRDF proposes to retain as a reference for the ATRD6 period are as follows:

| | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Number of consumers | 11,168,861 | 11,181,048 | 11,178,841 | 11,164,042 |
| Evolution Y/Y-1 | | + 0.11% | - 0.02% | - 0.13% |
| Consumption (GWh) | 281,805 | 279,783 | 279,175 | 278,404 |
| Evolution Y/Y-1 | | - 0.72% | - 0.22% | - 0.28% |

These consumption forecasts take into account the change in the climate correction factor, related to the updating of the climate reference made by Météo France in 2016, which has an impact of -3 TWh on total forecast consumption.

[35] Calculation of changes compared to the year 2016 does not take into account the adjustment for the year 2016 which is a leap year.
[36] Calculation of changes compared to the year 2020 does not take into account the adjustment for the year 2020 which is a leap year.

This request is slightly different from that presented during the public consultation of 1 October 2019 because of the adjustment of the trajectory, made by GRDF, taking into account a better estimate of the number of consumers and the level of consumption at the end of 2019.

This trajectory is based on assumptions about the distribution of consumers by tariff options taking into account the structure changes envisaged by CRE in its public consultation of 1 October 2019 and finally adopted by the present deliberation.

GRDF considers that this trajectory should be revised in line with the budget that will be adopted for expenses relating to actions in favour of consumer connections.

#### 3.2.3 CRE's analysis

CRE considers that the trajectories proposed by GRDF are in line with the past developments in the number of consumers and the quantities of gas distributed.

CRE retains the assumptions about gas quantities distributed and the number of consumers serviced above corresponding to GRDF's initial demand adjusted against a better estimate of the consumer portfolio at the end of 2019.

### 3.3 Trajectory of the tariff for the use of GRDF's natural gas distribution networks

CRE is committed to the principle of tariff continuity. Therefore, to avoid major variations and sometimes of opposite direction between tariff periods, or from one year to another, it smooths the change in tariff charges based on the trajectory of expenses to be covered and the forecast subscriptions for the tariff period.

The tariff applicable as at 1 July 2020 is defined in section 5 of the present deliberation. It corresponds to an average 0.40% drop in the unit tariff compared to the current tariff.

The tariff update as at 1 July 2020, and the annual updates to tariffs over the years 2021 to 2023, according to the principles defined in section 2.2.2, are determined so that the total projected income resulting from the application of the ATRD6 tariffs to assumptions concerning quantities distributed and number of customers serviced is equal, in present value from 2020 to 2023, to the total allowed revenue for the period.

Given the balance between forecast tariff income and allowed revenue over the 2020-2023 period and annual updates to the tariffs, annual differences between income and the allowed revenue may exist. The discounted sum of these annual differences over the period is, by construction, equal to 0.

Therefore, for the ATRD6 tariff period, the forecast allowed revenue and estimated income are as follows:

| *In current €M* | 2020 | 2021 | 2022 | 2023 | Net present value |
|---|---|---|---|---|---|
| Forecast allowed revenue | 3,097 | 3,175 | 3,274 | 3,288 | 12,510 |
| Forecast tariff income (excluding reconciliation of the CRCP balance) | 3,244 | 3,216 | 3,202 | 3,165 | 12,510 |
| Annual differences between projected income and projected allowed revenue | 147 | 41 | - 73 | - 123 | 0 |

For indicative purposes, the elements underlying this tariff balance are as follows:

| | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Forecast inflation between year *Y-1* and year *Y* | 1.5% | 1.6% | 1.7% | 1.8% |
| Update factor X | - 1.9% | - 1.9% | - 1.9% | - 1.9% |
| Forecast change as at 1 July of year *Y* (excluding reconciliation of the CRCP balance) | - 0.40% | - 0.30% | - 0.20% | - 0.10% |

## 4. STRUCTURE OF THE TARIFF FOR THE USE OF NATURAL GAS DISTRIBUTION NETWORKS

### 4.1 Structure of the ATRD5 tariffs

In order to facilitate the opening of the market to competition and its proper operation, the structure of the ATRD tariff was established in 2003 so that each tariff option covers the costs generated by its consumers and taking into account the structure of regulated sales tariffs. It is common to all natural gas DSOs.

This structure has changed very little since then. The successive annual changes in level were applied in equal proportions to all tariff charges, except for the years when the tariff-based supply levy (CTA) was introduced and updated, and also the introduction as at 1 January 2018 of a tariff charge $R_f$ for the financial contribution paid to suppliers for management of clients under a single contract. This $R_f$ charge has its own updating rules.

The structure of the ATRD5 tariffs of natural gas DSOs is thus as follows:

- four main tariff options, corresponding to the following customer segments:
    - three options, T1, T2 and T3, each comprising two components, a subscription charge and a charge proportional to the quantities delivered:
        - T1: annual consumption between 0 and 6 MWh;
        - T2: annual consumption between 6 and 300 MWh;
        - T3: annual consumption between 300 and 5 GWh;
    - one option, T4, which includes three components: a subscription charge, a charge proportional to the daily capacity contracted, and a charge proportional to the quantities delivered, scaled for consumers with annual consumption higher than 5 GWh;
- for major consumers based close to the gas transmission network, a special tariff option referred to as the "proximity tariff", which includes three components (a subscription charge, a charge proportional to capacity contracted and a charge proportional to the distance to the transmission network). The charge proportional to distance is associated with a multiplier coefficient depending on the population density of the municipality where the delivery point in question is located;
- for consumers that do not have individual meters, the billing terms are as follows:
    - for all end customers in an apartment building or group of housing units without individual meters but where there is a collective meter and that have collectively signed a supply contract, a subscription equal to that of option T1 is billed, applied to the number of homes supplied with gas, and a proportional component equal to that of tariff option T1 is applied to the gas consumption measured by the collective meter;
    - for a customer without an individual or collective meter, a fixed price based on an annual consumption of 660 kWh is applied;
- for each of these tariff options, the subscription includes:
    - an $R_f$ charge corresponding to the average amount of the financial contribution paid to suppliers by the DSO taken into account for the management of clients under a single contract;
    - a subscription portion excluding $R_f$.

### 4.2 Change in the structure for the ATRD6 tariff

Since the implementation of the first tariffs in 2003, the gas consumer portfolio has evolved, particularly in the distribution of consumers according to consumption bracket, leading to a variation in the volume of each of these options and changes in average behaviour within these options.

In compliance with the ATRD5 tariff deliberations, in 2017 CRE and GRDF started analysis work on the structure of GRDF's portfolio and cost allocation. Similar work was undertaken with local distribution companies. This work resulted in different avenues for change which were submitted to market participants for their opinion during the public consultations of 27 March 2019 relating to the structure of tariffs for the natural gas distribution networks and of 1 October 2019 concerning GRDF's ATRD6 tariff.

In its two public consultations, CRE proposed to keep the general tariff structure of the ATRD tariffs implemented ten years ago while adapting it to meet certain major challenges identified for the natural gas distribution networks: changes in GRDF's portfolio structure resulting from the drop in unit natural gas consumption, reflection of the network costs generated by each category of user and establishment of greater continuity between tariffs for the gas distribution and gas transmission networks. CRE therefore submitted five possibilities for changing the structure of the ATRD tariffs, for market participants' opinion during the first public consultation:

- lowering of the cut-off threshold between options T1 and T2;
- the calculation of continuity between the tariff options without taking into account the tariff-based supply levy (CTA);
- splitting the T2 option into 2;

- introduction of a capacity portion for the T3 option;
- introduction of a tariff degression for the larger T4 consumers.

Following the feedback from this first consultation, CRE proposed to adopt the following three developments: lowering of the threshold between options T1 and T2 (see section 4.2.1), the calculation of continuity between options excluding the CTA (see section 4.2.2) and the introduction of a degression in the pricing of the capacity portion for option T4 (see section 4.2.3). These developments are presented in the sections below.

With regard to the other two avenues for change envisaged by CRE (splitting of option T2 and introduction of a capacity portion for option T3), most contributors to the public consultation were not in favour, considering:

- on the one hand, that the gains associated with these developments were not sufficiently quantified to justify the costs related to these changes in terms of the complexity in implementing and/or adapting information systems;
- on the other hand, regarding the splitting of T2, that the widespread deployment of Gazpar would provide more precise information ultimately to decide on the relevant threshold to be introduced.

CRE has decided not to implement these changes for the ATRD6 tariff. Additional work will be conducted on the relevant threshold for splitting T2 consumers, as well as the different possible solutions for improving the pricing of T3 clients given their diversity.

Lastly, the tariff structure must reflect the costs generated by the different user categories and was therefore constructed initially based on an allocation of costs among options. Having noted while re-examining this cost allocation method, that option T2 consumers could have a tendency to pay more than their costs, and on the contrary, that the income related to option T3 consumers does not cover the costs generated by those consumers, for similar financial volumes, CRE questioned participants, in both of its public consultations, about a rebalancing of expenses borne by the consumers of each tariff option. Most contributors did not express their opinion on this topic. If such a rebalancing were to be implemented, participants requested that specific attention be paid to the billing changes that would result, particularly for industrial consumers so as to preserve their competitiveness.

The current tariff, outlined in section 5 of the present deliberation, rebalance options T2 and T3, while containing any billing changes for option T3 consumers. On the occasion of a later tariff preparation, CRE will be able to determine whether additional rebalancing is necessary.

### 4.2.1 Lowering of the cut-off threshold between options T1 and T2

The threshold between options T1 and T2 was initially set at 6 MWh/year, in line with the P011 and P012 profiles[37], and distinguishes between consumers whose consumption, statistically, depends very little on the weather (cooking, domestic hot water) and consumers whose consumption is statistically more dependent on the weather (gas for heating).

Since then, efforts to control energy demand have led to a drop in unit consumption, particularly for options T1 and T2 options. Therefore, small thermosensitive consumers switched to option T1 because of their drop in consumption while maintaining gas consumption for heating. This development gradually introduced a bias for GRDF's calculation of their consumption estimates.

The portion of gas heating consumers in the 4-6 MWh bracket is constantly growing. In this context, and in line with work undertaken on the P011 and P012 profiles, CRE studied the appropriateness of lowering the threshold between options T1 and T2 from 6 to 4 MWh per year.

In both public consultations, most contributors were in favour of this reduction, requesting, in addition, that the threshold be lowered for the P011 and P012 profiles concomitantly. Participants' reservations were mainly related to the threshold to be adopted, some of them wishing for it to be set below 4 MWh/year, and others considering that it would be desirable to wait to have collected enough data from Gazpar meters so as to set it at the most appropriate level.

CRE considers, that as consumers' average consumption currently stands, depending on their use of gas (heating or not for heating), the threshold of 4 MWh/year is appropriate and it also presents the advantage of being consistent with the threshold envisaged for new profiles. Lowering the threshold below 4 MWh/year could lead to

[37] Two consumption profiles are associated specifically with customers under options T1 and T2, and are attributed automatically depending on the reference annual consumption of the PCE:
- the profile referred to as "P011" for customers with half-yearly readings or with a smart meter whose reference annual consumption is lower than 6 MWh per year. This profile enables estimation of the consumption of those customers that are statistically not dependent on weather conditions, since their main use of gas is for cooking and/or for domestic hot water;
- the profile referred to as "P012" for customers with half-yearly readings or with a smart meter whose reference annual consumption is higher than 6 MWh per year. This profile enables estimation of the consumption of customers who are heavily dependent on weather conditions, particularly because of their use of gas for heating.

attributing a thermosensitive consumption profile to consumers that are not thermosensitive. On the contrary, maintaining the threshold at 6 MWh does not correctly reflect the costs generated by certain thermosensitive consumers.

Therefore, CRE adopts the lowering of the threshold cut-off between options T1 and T2 to 4 MWh/year to establish the present tariff.

### 4.2.2 Calculation of continuity between the tariff options without taking into account the tariff-based supply levy (CTA)

Since the entry into effect of the first ATRD5 tariff, the tariff option charges have been defined to ensure continuity at the consumption thresholds separating each tariff option. This principle of continuity across thresholds is designed to prevent creating differences in level between options at those threshold, and to provide suppliers with an incentive to choose the most appropriate tariff option for the consumer's consumption. Since the ATRD2 tariff, continuity across thresholds is calculated with the CTA.

Including the CTA could however lead to deviating from the principle of reflecting network costs in GRDF's tariff charges. Since this contribution is based on the portion of tariffs independent of consumption, its inclusion in the calculation of continuity at thresholds creates a discontinuation in the choice of tariff options strictly regarding the ATRD tariff (i.e. excluding the inclusion of the CTA), and could therefore lead to cross-subsidies between populations of the different tariff options. For example, with the ATRD5 tariff charges, a major T1 consumer pays a higher ATRD tariff than a small T2 consumer for a comparable volume of consumption. In this context, CRE studied the appropriateness of no longer including the CTA in the calculation of continuity between the charges of the different tariff options.

In both public consultations, most contributors were in favour of this development. However, certain participants highlight that this change could create arbitrage between tariff options and possibly major changes in billing especially for small consumers (lower side of option T1). In addition, certain participants requested for the calculation of the CTA to be simplified and harmonised.

With regard to arbitrage possibilities, CRE identified this risk but considers that the CTA is not the only element or the only tax that could be a factor in arbitrage. The quantified analyses, conducted by CRE concerning the billing changes associated with this development as well as with the change in threshold between options T1 and T2, also show that this development would facilitate the change in thresholds between options T1 and T2, by limiting the associated billing changes. In addition, CRE agrees that the calculation of the CTA is complex and lacks transparency, but it reiterates that it does not have the power to define the terms for calculating this tax.

Therefore, CRE retains the calculation for continuity between the charges of the different tariff options without including the CTA to establish the present tariffs.

### 4.2.3 Application of a price degression for T4 option capacity

The energy policy guidelines forwarded to CRE by the minister of state, minister of the ecological and inclusive transition specify that "*in order to ensure fairness between gas consumers, reflections must be undertaken when preparing the tariffs for the use of the natural gas transmission and distribution networks concerning the means of ensuring better continuity between the tariffs borne by a site connected to a distribution network and the tariffs borne by a similar site connected to a transmission network*."

CRE fully agrees with this issue, and studied the implementation of a degressive system for pricing of option T4 capacity, while ensuring reflection of the costs generated by these users.

In both public consultations, most contributors were in favour of such a development.

The main arguments of participants not in favour were related to the complexity of implementation and the fact that a change in the calculation of the storage compensation presented by CRE already reduces the gap between transmission and distribution tariffs. Moreover, some participants consider that a modification of the TP option would be more relevant.

CRE considers that the change in the calculation of the storage compensation will indeed improve tariff continuity. However, it considers that the change in the TP option would only partially meet the challenge, since it would introduce continuity between consumers connected to the transmission and distribution network only for distribution network consumers geographically close to the transmission network.

Therefore, CRE adopts the application of degressive pricing of option T4 capacity above the subscription threshold of 500 MWh/d to establish the present tariff.

Some participants requested, in response to the first public consultation, that an exception be made for local distribution companies that would like to not apply this degressive pricing, due to some of them being heavily dependent on costs and therefore on sales income, to the tariffs paid by industrial consumers in their territory. In

response, CRE proposed, in its second public consultation, to implement a second homothety coefficient applicable only to option T4 charges in order to reflect the structure differences of local distribution companies' portfolios. This proposal was globally supported by participants, even though some of them regretted the end of homothety with the local distribution companies' tariffs. CRE considers that the similarity with local distribution companies' tariffs would only be slightly altered because of the low number of consumers concerned (there is already a break in similarity for the TP option). In addition, this homothety was introduced in order to facilitate opening to competition in the local distribution companies' territory, for which difficulties with access concern mainly residential clients and small businesses (options T1 to T3) for whom homothety will be maintained.

Early 2020, CRE will study the impact of the application of this degressive pricing for each local distribution company based on the respective portfolio of customers. If this development were to significantly impact the income of certain local distribution companies, CRE will deliberate early 2020 in order to define the principles for applying homothety for those companies, while introducing a second coefficient as needs be.

### 4.3 Timetable for the implementation of changes

Aware of the challenges inherent to any change in the structure of the ATRD tariffs, particularly in terms of the time required for adapting DSOs' and suppliers' information systems and the maintenance of similarity established between the tariffs of local distribution companies and that of GRDF, CRE questioned participants about the timetable for implementing changes to the tariff structure that seemed most appropriate to them.

In both public consultations, most contributors were in favour of implementation as at 1 July 2022, that is midway into GRDF's ATRD6 tariff, and upon the entry into effect of local distribution companies' ATRD6 tariffs. In their opinion, this date is most appropriate since it gives the different participants sufficient time to implement the changes associated, particularly regarding information systems, and that it is concomitant with the changes planned for profiles.

Some participants requested, in response to the first public consultation, that the structure changes be spread across the ATRD6 period, with priority given to the application of the degressive pricing system for capacity in the T4 option. Since the change in the T4 option concerns a few number of consumers, CRE proposed, in its second public consultation, to implement it as of 1 July 2020 and to implement the other structure developments as of 1 July 2022.

Lastly, several participants requested for the entry into effect of the transmission network and storage tariffs and profile changes to be concomitant, i.e. in effect as at 1 April.

CRE considers that the update of the ATRD tariff as at 1 July provides for good synchronisation with the gas regulated sales tariff.

Therefore, CRE adopts 1 July 2020 for the implementation of the change concerning the capacity pricing for T4 and 1 July 2022 for changes concerning the threshold between options T1 and T2 and the calculation of tariff continuity to establish the present tariff.

In the present deliberation, CRE therefore defines a tariff applicable as at 1 July 2020 taking into account the evolution in the structure applicable to option T4. In addition, it defines two reference tariffs for the purpose of preparing the structure changes which will occur during the tariff period:

- a reference tariff which will be used to calculate the tariff applicable as at 1 July 2021. This reference is defined so as to smooth the tariff impacts of the structure changes that will occur as at 1 July 2022. The tariff applicable as at 1 July 2021 will be obtained by applying the tariff update as at 1 July 2021 to this reference tariff;
- a reference tariff taking into account all structure changes as at 1 July 2022. The tariffs applicable as at 1 July 2022 and 1 July 2023 will be obtained by applying the tariff update cumulated since 1 July 2020 to this reference tariff.

### 4.4 Capacity subscription terms

For gas transportation in the distribution network, consumers under options T4 and TP can book daily capacity for an annual, monthly or daily duration. Intra-annual capacity can be booked by paying the cost of annual capacity multiplied by a certain coefficient depending on the duration and the time of the year. With regard to monthly capacity, the terms are identical in the transmission network. The coefficients in effect are as follows:

| Month considered | Monthly charge as a proportion of the annual charge |
|---|---|
| January - February | 8/12th of the annual tariff |
| December | 4/12th of the annual tariff |
| March - November | 2/12th of the annual tariff |
| April – May – June – September – October | 1/12th of the annual tariff |
| July - August | 0.5/12th of the annual tariff |

In addition, each month, exceeding subscribed daily capacity is subject to penalties. The excess over subscribed daily capacity taken into account for any given month is equal to the sum of the maximum excess over daily capacity for the month in question and 10% of the other excesses over daily capacity for the month that are greater than 5% of the contracted daily capacity. The penalty amount is then calculated based on the level of daily capacity excess and is proportional to the monthly charge of the month in question. These rules are specific to the distribution network.

During its public consultation on the structure of the natural gas transmission network tariffs, CRE in particular, questioned participants about GRTgaz's proposal to lower the January and February coefficients from 8/12th to 4/12th and to modify the penalty system for exceeding capacity booked in the transmission networks. Following this public consultation, CRE proposed, during the public consultation relating to GRDF's ATRD6 tariff, to extend the lowering of the January and February coefficients to the distribution network tariffs, however without harmonising the penalty system with that envisaged for the transmission networks.

Most contributors were in favour of the directions envisaged by CRE. With regard to the subscription of monthly capacity, the DSOs were concerned about the drop in subscriptions that might result from this development and therefore the drop in their income (since the DSOs are not covered against contingencies relating to the fixed charges of the ATRD tariff). As concerns the penalty system for exceeding capacity, some participants requested harmonisation with the TSOs' rules.

The studies conducted by GRTgaz show that lowering the January and February coefficients should have a positive impact on capacity by increasing the volume of subscriptions. In addition, as stated in section 2.3.3, the income associated with capacity subscriptions will be fully covered in the CRCP in the ATRD6 tariff. The impact for the DSOs of a possible drop in subscription would therefore be neutralised through the CRCP.

Moreover, CRE agrees with the proposal made by participants to harmonise the terms for calculating penalties. However, since the terms for booking capacity in the distribution and transmission networks are different (in particular, the absence of hourly subscriptions in the distribution networks), the rules for exceeding capacity are difficult to harmonise.

Therefore, CRE has lowered the capacity subscription coefficients for the months of January and February from 8/12th to 4/12th for the present tariff. However, CRE maintains the terms for calculating the penalties for exceeding contracted capacity.

### 4.5 Consideration of the development of biomethane

Reaching biomethane network injection objectives (the draft decree relating to the multi-annual energy plan (PPE) submitted for consultation in January 2019 aims for 6 TWh of biogas injected into the natural gas networks for 2023 and sets an objective of 14 to 22 TWh by 2028) will require major investments in the gas transmission and distribution networks.

Gas infrastructure was in fact built to transport gas from very few network entry points (domestic production zones almost inexistent today, interconnections with neighbouring countries, LNG terminals) to areas of consumption and storage facilities. From the transmission network, meshing (or pockets) in the distribution network ensure the delivery of gas to customers at increasingly low pressures. Gas infrastructure does not enable, except for specific investments, gas pressure levels to be increased, which can require the development of decentralised production, since a facility can only inject the amount corresponding to the level of consumption of the network pocket in which it is injecting (including the lower pressure levels to which it is attached). Therefore, the current networks can only accommodate a portion of the volumes contained in the objective for the development of biomethane injection. Accommodation capacity will be, in the short term in certain areas, limiting and will require reinforcement investments, evaluated at roughly €500 million for 2028 in the transmission and distribution networks (for an objective of 22 TWh), to which will be added connection investments estimated at over 1 billion euros.

CRE considers that the proper development of methanisation is of major importance for the energy transition. Given the costs for adapting the networks, the development of biomethane must follow the principle of economic efficiency

so that the cost is optimised for the community. However, operators' investment decision must also be made within the context of visible and stable economic conditions surrounding injection into the networks.

To ensure efficiency of projected investments, while guaranteeing visible and stable economic conditions surrounding injection over time, CRE, in its deliberation of 14 November 2019[38], specified the terms for implementing and governing the different mechanisms associated with this injection right as provided for by Articles L. 453-9 and D. 453-20 to D. 453-25 of the energy code.

This deliberation aims to bring visibility to project promoters concerning their connection conditions and specifies the terms for coverage of network reinforcement costs by the tariff within the framework of connection zoning schemes optimised at community level, in compliance with the abovementioned provisions of the energy code.

In addition, in order to supplement these provisions and send a relevant signal to producers to encourage them to make optimal location choices for the community, CRE looked into the introduction of an injection tariff.

In the two public consultations of March and then July 2019 addressing the subject, many contributions were against the introduction of an injection tariff. The participants consider that the introduction of a location signal through this tariff is useless since (i) this signal is already given through other mechanisms, (ii) project promoters have little freedom in the choice of their location and (iii) the injection tariff reduces the location signal compared to a direct payment at the time of connection. Some participants also consider that this introduction could hinder the development of the sector and therefore recommend deferring the introduction of an injection tariff to the following tariff period. Certain participants were however in favour of the introduction of an injection tariff charge, so as to not pass on biomethane development costs to gas customers, particularly industrial customers.

While CRE takes note of the concerns expressed by participants about the additional expense this tariff represents for project promoters, it nevertheless considers that:

- it is necessary to introduce an additional signal, enabling project promoters to take into account the network reinforcement costs generated by their choice of location (and more specifically the OPEX that are not taken into account in mechanisms that already exist);
- it is preferable, in terms of visibility for the sector, to introduce this tariff presently rather than when the sector will be more developed and the majority of projects will have already been decided without taking into account this tariff.

It therefore adopts the introduction of an injection tariff in the ATRT7 and ATRD6 tariffs which will be billed:

- to shippers for installations injecting into the transmission network;
- to producers for installations injecting into the distribution network.

### 4.5.1 Principles for constructing the injection tariff and level adopted

CRE worked to construct a tariff based on the following principles:

- sending a location signal to project promoters to encourage them to choose zones that generate the least operating expenses for adapting the network to the accommodation of biomethane;
- setting up a mechanism that ensures stability to the producer, and which enables each producer to be protected, once their connection terms are defined, from a deterioration in injection conditions in their zone.

The mechanism proposed by CRE in its public consultation is based on the definition of three injection tariff levels, to differentiate the amount paid by producers and shippers according to the cost generated by their choice of location. Three types of zones are distinguished:

- the zones requiring backhaul[39] or pooled compression will be attributed level 3;
- the zones not requiring backhaul will be attributed level 1 or level 2. The distribution between levels 1 and 2 will be performed based on the length of pipeline in the zone, in relation to the number of projects. There will be no level 2 for biomethane producers directly connected to the transmission network, since the areas requiring long pooled extensions will also require pooled compression, and will be allocated level 3.

In order to ensure stability in the amount paid by each producer over the lifetime of the biomethane production installation, CRE proposed to attribute a level to each production site which will not be modified in the medium term. Therefore, if the technico-economic injection conditions in a zone deteriorate, it will not directly impact the level of

[38] https://www.cre.fr/Documents/Deliberations/Decision/mecanismes-encadrant-l-insertion-du-biomethane-dans-les-reseaux-de-gaz
[39] Compressor used for injecting gas into a higher pressure network

producers that are already injecting, or modify the economic balance of their installation. Along the same line of reasoning, production sites that inject annually will be attributed level 1.

CRE adopts, in the present tariff deliberation, the general principle of a tariff at three levels, attributed to each production site during the D2 connection study[40], based on the connection zoning scheme[41] in effect in the zone, and remaining unchanged in the medium term. It can however decide, for production sites to which level 3 is attributed, to re-examine their situation at the end of five years, if backhaul (or pooled compression) is not actually implemented.

Classing of zones by level type is done based on the connection zoning scheme in effect in the zone and is updated at the same time as the zoning scheme update:

- if zoning provides for backhaul or pooled compression, the zone's future production sites are attributed level 3;
- if zoning does not provide for backhaul or pooled compression:
    - if the zoning scheme includes meshing[42] and/or a shared extension[43], the zone's production sites are attributed level 2;
    - for the other zones, the zone's production sites are attributed level 1.

With regard to the levels proposed in the public consultation, based on an estimate of target costs associated with the injection objective of 22 TWh in 2028, these were not welcome by contributors, on the grounds that such a method of construction proposed by CRE to reduce variability in the level of the injection tariff between tariff periods, would be disconnected from the costs estimated for subsequent tariff periods.

In order to respond to concerns expressed by producers, while taking into account the responses in favour of the principle of an injection tariff and of a tariff that covers the operating costs associated with the development of biomethane, CRE has modified the calculation method.

CRE studied the operating expenses associated with the development of biomethane, with the exception of general OPEX, particularly those related to management of biomethane activities and functioning of information systems, which are not directly connected to producers' choice of location.

For each category ("backhaul OPEX" related to backhaul and pooled compression, and "pipeline OPEX" related to meshing and other pipelines), the following methodology was applied:

- estimation of the OPEX volume over the 2020-2023 period, based on the volume of investments related to the development of biomethane presented by the operators in their tariff proposal, adjusted in line with the 6 TWh objective for 2023 set in the draft PPE. The estimated volumes are as follows:
    - 4% of investment costs (excluding studies) for backhaul and pooled compressions;
    - 0.2% for pipelines (meshing, shared extensions and other connection structures);
- allocation of these costs to the different zones, based on whether or not they include backhaul, and in line with the pipeline investments they require, in the connection zoning scheme;
- estimate of the projected volumes for the 2020-2023 period for each type of zone, excluding from the analysis the capacity already installed, which will be attributed level 1;
- calculation of the ratio between total OPEX anticipated over the period for each of the three types of zones and the total volumes associated for 2023.

In addition, CRE has decided, as presented in the public consultation, given the low operating expenses estimated for level 1 to set this level at 0.

[40] Sites queued that have already exceeded the D2 milestone, but are not yet injecting biomethane, will be attributed an injection tariff level when the connection contract is signed, following identical principles.
[41] Result of the study, done jointly by the network operators, determining the optimal network configuration on the basis of the zoning technico-economic criterion.
[42] Two distribution meshes of equivalent pressure are connected physically.
[43] Extension of a gas network enabling connection of new sites, shared between several sites.

The tariff resulting from this methodology, and its breakdown, is as follows:

| | Tariff adopted (€/MWh injected) | Total OPEX (€/MWh) | *of which backhaul OPEX (€/MWh)* | *of which pipeline OPEX (€/MWh)* |
|---|---|---|---|---|
| Level 3 | 0.7 | 0.71 | *0.65* | *0.06* |
| Level 2 | 0.4 | 0.35 | *0.00* | *0.35* |
| Level 1 | 0 | 0.09 | *0.00* | *0.09* |

#### 4.5.2 Payment by DSOs to TSOs for biomethane backhaul

In its public consultation of 23 July 2019, CRE proposed for the injection tariff to be billed as follows:

- to shippers for installations injecting into the transmission network;
- to producers for installations injecting into the distribution network.

In addition, CRE proposed for the income received by the DSOs from producers to whom coefficient 3 applies, mostly associated with the use of backhaul, to then be transferred to the TSOs to finance the OPEX of backhaul benefiting distribution networks.

Some contributors considered that this difference in billing, as well as the transfer of income between DSOs and TSOs, could generate operational complexities with the collection of the injection charge.

CRE considers that the principles envisaged in the public consultation must be maintained since they are adapted to the respective operational realities of the transmission and distribution system operators.

CRE has set the portion of income received for the level 3 injection tariff, returned by the DSOs to the TSOs concerned, at €0.65/MWh corresponding to the share of backhaul OPEX. Payment will be done annually, based on the volume of injection income actually received during the year, for producers connected to distribution networks to which the level 3 injection tariff apply. The volumes associated with these inter-operator transfers are fully taken into account in the CRCP.

# 5. TARIFF FOR THE USE OF GRDF'S NATURAL GAS DISTRIBUTION NETWORKS, APPLICABLE AS AT 1 JULY 2020

## 5.1 Tariff rules

### 5.1.1 Definitions

**Delivery point:**

Exit point from a distribution network where a DSO delivers gas to an end customer in fulfilment of a supply contract on the distribution network.

**Injection point:**

Entry point in a distribution network where gas is injected under an injection contract between the gas producer and the DSO.

**Distribution-Transmission Interface Point (PITD):**

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

**Metering and estimate point (PCE):**

Point in the distribution network where a quantity of energy is calculated using meters or estimates.

**Annual reference consumption (CAR):**

The CAR corresponds to the estimate of the annual consumption of a PCE for an average weather year.

**Biomethane injection charge:**

Charge applicable to quantities of biomethane injected into the gas distribution network.

**$R_f$ charge:**

Average amount taken into account for the financial considerations paid to suppliers for their management of clients on behalf of DSOs.

**Options T1, T2, T3 and T4:**

Main tariff options of the tariff, applicable to the different consumers connected to the distribution network based on their level of natural gas consumption. They include a subscription charge and a charge proportional to the quantities of gas consumed. The T4 option also includes two charges proportional to the daily capacity contracted.

**Proximity charge (TP):**

Tariff option created for large customers located near to the gas transmission system and already supplied by the distribution networks. It includes a subscription charge, a charge proportional to the daily capacity contracted and a charge proportional to the straight-line distance between the delivery point and the closest transmission network, to which a multiplier coefficient is applied, which depends on the population density of the municipality where the consumer is based.

### 5.1.2 Services covered by the tariff for the use of GRDF's public natural gas distribution networks

Use of GRDF's distribution networks cannot give rise to any billing other than that resulting from application of the tariff herein, with the exception of other services performed exclusively by natural gas distribution system operators for which the tariffs are set by CRE's decision.

The services whose costs are covered by the tariff for the use of GRDF's public distribution networks are the following in particular:

- services relating to quality and security:
  - continuity of supply under the conditions set out in Article 121-11 of the French energy code;
  - notice of service interruptions for engineering work, in accordance with Article R. 121-12 of the energy code;
  - provision of a number for reporting emergencies and troubleshooting, available 24/7;
  - emergency service 24/7 for safety-related problems, in compliance with the order of 13 July 2000 on safety regulations for the distribution of combustible gas through pipelines;
  - guaranteed calorific value specified by the administrative orders of 16 September 1977 and 28 March 1980;
  - available pressure upstream from the delivery point, in compliance with the standard delivery terms and conditions published by the DSO;
  - initial response on the customer site for troubleshooting or repair in the event of gas supply failure;
  - assessment of indoor equipment that has been idle for over six months and measures to raise the awareness of customers and gas industry stakeholders of the safety issues surrounding indoor equipment;
  - support to customers in situations of serious and immediate danger;
- services relating to consumption metering:
  - provision of a meter when the flow rate is under 16 $m^3/h$;
  - periodic checking of meters and converter calibration;
  - continuity of metering and depressurisation;
  - periodic meter reading, as set out in section 5.1.4 hereunder;
  - notice of meter-reader visits for customers under half-yearly meter reading;
  - option for customers under half-yearly meter reading, to read their own meters and forward the index reading;
- services relating to contract management:
  - supplier changeovers;
  - decommissioning (or termination);
  - mass modification of tariffs for the use of networks at the request of suppliers;

- data transmission services:
  - transmission of aggregated consumption data to building owners or managers;
  - transmission of aggregated consumption data to public entities;
  - communication of gas consumption data at a consumer's delivery point to a supplier or a third party;
- services relating to the rollout of Gazpar smart meters:
  - communication to a consumer of gas consumption data at a delivery point, technical PCE data and contract data;
  - access to the pulse outputs of Gazpar meters;
  - daily transmission of consumption data;
  - choice of the publication date of monthly indexes;
  - reading at a chosen date;
- other:
  - making telephone appointments for all technical operations requiring an assessment;
  - use of network instrumentation to perform a detailed assessment for biomethane producers.

### 5.1.3 Structure and choice of tariff options

The tariff includes four main options:

- three options with two components, T1, T2 and T3, each comprising a subscription charge and a charge proportional to the quantities delivered;
- one option with four components, T4, comprising a subscription charge, two charges proportional to the contracted daily capacity, and a charge proportional to the quantities delivered.

The supplier decides which tariff option is applied to the client concerned and to each delivery point.

For all end customers in an apartment building or a group of housing units without individual meters but where there is a collective meter, and where a supply contract has been taken out collectively, the tariff applicable includes two components comprising:

- a subscription charge equal to that of tariff option T1 applied to the number of housing units supplied with gas;
- a proportional charge equal to that of tariff option T1 applied to the gas consumption measured by the collective meter.

For end customers without individual or collective meters, the tariff applicable is a fixed price, based on the T1 option and gas consumption of 660 kWh per year.

The tariff also includes a tariff option referred to as the "proximity tariff" (TP), for large customers located near to the gas transmission system and already supplied by the distribution networks. This tariff option comprises a subscription charge, a charge proportional to the contracted daily capacity, and a charge proportional to the straight-line distance between the delivery point in question and the nearest transmission system. The charge proportional to distance is associated with a multiplier coefficient depending on the population density of the municipality where the delivery point in question is located, equal to;

- 1 if the population density of the municipality is under 400 inhabitants per $km^2$;
- 1.75 if the population density of the municipality is between 400 and 4,000 inhabitants per $km^2$;
- 3 if the population density of the municipality is over 4,000 inhabitants per $km^2$.

For each of these tariff options, the subscription charge includes:

- an "$R_f$" charge corresponding to the average amount of the financial contribution paid to suppliers by the DSO taken into account for the management of clients under a single contract;
- a subscription portion excluding "$R_f$".

For biomethane production sites, classing of zones by level type is done based on the connection zoning scheme in effect in the zone and is updated at the same time as the zoning scheme update:

- if zoning provides for backhaul or pooled compression, the zone's future production sites are attributed level 3;
- if zoning does not provide for backhaul or pooled compression:
    - if the zoning scheme includes meshing[44] and/or a shared extension[45], the zone's production sites are attributed level 2;
    - for the other zones, the zone's production sites are attributed level 1.

The charge level is attributed to each production site during the D2 milestone connection study[46], based on the connection zoning scheme[47] in effect in the zone.

### 5.1.4 Delivery point meter-reading method

Cyclical meter reading is done at the following frequency:

1) For a newly commissioned metering or estimation point (PCE), the standard meter reading frequencies of a delivery point in the public natural gas networks are as follows:
    - if the reference annual consumption (CAR) declared is lower than 300 MWh, the standard meter-reading frequency is half-yearly, with the exception of customers equipped with a smart meter that have a standard monthly meter reading;
    - if the CAR declared is between 300 MWh and 5 GWh, the standard meter reading is on a monthly basis;
    - if the CAR declared is higher than 5 GWh, standard meter reading is on a daily basis.
2) For a PCE already connected to a gas distribution network, standard meter reading frequency of a delivery point in the public natural gas network is as follows:
    - if the CAR is lower than 500 MWh, the standard meter-reading frequency that was applied the previous year is maintained, with the exception of PCEs equipped with a smart meter which have a standard meter reading on a monthly basis;
    - if the CAR declared is between 500 MWh and 10 GWh, the standard meter reading is on a monthly basis;
    - if the CAR is higher than 10 GWh, standard meter reading is on a daily basis.

    Exceptions to these rules:
    - once the PCE posts for the third consecutive year an CAR between 300 MWh and 500 MWh, standard meter reading frequency is on a monthly basis;
    - if the CAR is between 1 and 10 GWh, the standard meter reading frequency that was applied the previous year is maintained, if it was on a monthly or daily basis;
    - once the PCE, for which the standard meter frequency was on a daily basis the previous year, posts, for the fourth consecutive year an CAR lower than or equal to 5 GWh, standard meter reading frequency of the delivery point is on a monthly basis;
    - once the PCE posts for the third consecutive year an CAR higher than 5 GWh, the standard meter reading of the delivery point is on a daily basis.

    For the application of the rules outlined above, only the CARs used as from 1 April 2016 are taken into account.
3) In all cases, the meters of customers with major intra-monthly consumption variations are read on a daily basis. Customers considered as such are those that meet the following conditions for the second consecutive year:
    - the CAR is higher than 2 GWh;

[44] Two distribution meshes of equivalent pressure are connected physically.
[45] Extension of a gas network enabling connection of new sites, shared between several sites.
[46] Sites queued that have already exceeded the D2 milestone, but are not yet injecting biomethane, will be attributed an injection tariff level when the connection contract is signed, following identical principles.
[47] Result of the study, done jointly by the network operators, determining the optimal network configuration on the basis of the zoning technico-economic criterion.

- the quantities shipped over the two highest consumption months of the year are greater than 50% of the annual consumption recorded. This ratio is calculated over the annual period between 1 April and 31 March.

Customers cannot have their standard meter-reading frequency switched back to a monthly basis, if they were considered to have heavy consumption variations during one of the last three years.

4) Customers that have subscribed to tariff options T4 and TP have daily meter readings, regardless of their CAR.

The supplier may choose a more frequent meter reading than that defined by the rules above for the customer concerned and for each delivery point. The tariff applied is indicated in the DSO's service catalogue.

### 5.1.5 Monthly or daily subscriptions for daily capacity

Tariff option T4 includes two charges for annual subscription of daily capacity, and the TP tariff option includes a charge for annual subscription of daily capacity. It is also possible to book daily capacities on a monthly or daily basis.

The charge for monthly subscription of daily capacity is equal to the charge for annual subscription of daily capacity corresponding to the level of annual capacity contracted, multiplied by the following coefficients:

| Month considered | Monthly charge as a proportion of the annual charge |
|---|---|
| January – February - December | 4/12th of the annual tariff |
| March - November | 2/12th of the annual tariff |
| April – May – June – September – October | 1/12th of the annual tariff |
| July - August | 0.5/12th of the annual tariff |

When smooth running of the network so allows, daily subscriptions of daily capacity are sold by GRDF, to meet sporadic and exceptional end-customer needs.

The charge applicable to daily subscription of daily capacity is equal to 1/20th of the charge applicable to the corresponding monthly subscription.

### 5.1.6 Change in the annual subscription level for a delivery point

For a delivery point connected to a distribution network and having a subscription-based tariff option:

- a change, upwards or downwards, in the annual subscription level of a delivery point is authorised if no change in the opposite direction occurred within the 12 months preceding the requested date of effect;
- for an upward change in the annual subscription level of a delivery point occurring less than 12 months after a downward change, the daily capacity equal to the lower value between the subscription level before the downward change and that resulting from the increase shall be deemed subscribed as from the date of the drop for the period concerned;
- a downward change in the annual subscription level of a delivery point, for which the date of effect requested is less than 12 months after an increase in the annual subscription level, is not authorised;
- the previous provisions apply including in the event of a change in supplier for the delivery point in question or of decommissioning followed by a reactivation if the end user does not change.

### 5.1.7 Penalties for exceeding contracted daily capacity

Each month, for tariff options T4 and TP, exceeding daily capacity contracted is subject to penalties.

The excess over daily capacity taken into account for any given month is equal to the sum of the maximum excess over daily capacity for the month in question and 10% of the other excesses over daily capacity for the month that are greater than 5% of the contracted daily capacity.

The penalty is payable when the excess calculated in this way is greater than 5% of the contracted daily capacity. For the portion of the excess between 5% and 15% of the contracted daily capacity, the penalty is equal to this portion of the excess multiplied by two times the monthly charge for daily capacity as defined in the section 5.1.5.

For the portion of the excess higher than 15% of the contracted daily capacity, the penalty is equal to this portion of the excess multiplied by four times the monthly charge for daily capacity as defined in the section 5.1.5.

### 5.1.8 Grouping of delivery points

Under option T4, the grouping of daily capacity subscriptions of several delivery points is permitted when the following conditions are simultaneously met:

- the delivery points in question are in the distribution network of the same DSO and are supplied by the same PITD;
- the gas delivered to each of the delivery points in question is intended to meet, after transformation, the needs of the same end user at the same site. This use leads to alternate consumption of all or part of the natural gas delivered.

The charges for annual subscription of daily capacity for option T4 is increased by 20% in the case of a grouping of subscriptions of several delivery points. The annual subscription charge remains due for each delivery point.

### 5.1.9 Supply of a delivery point by several suppliers

When several suppliers simultaneously supply a single delivery point, they must select the same T4 tariff option.

The provisions related to this T4 tariff option apply fully to each supplier as if it were two physical independent points, with the exception of the amount due monthly for the subscription, which is split between the two suppliers in proportion to the capacity booked for the month in question. When, for a given month, the total contracted capacity is zero, the amount is split based on that of the previous month.

## 5.2 Tariffs for the use of GRDF's natural gas distribution networks

The tariff for the use of GRDF's public natural gas distribution networks is equalised within GRDF's service area, with the exception of the new public distribution networks mentioned in Article L. 432-6 of the energy code.

The tariff defined hereunder is designed to apply for approximately four years as from 1 July 2020, with a mechanical adjustment as at 1 July of each year.

For customers, the tariff is applied per delivery point. The amounts owed for each delivery point, for a supplier's clients, are totalled in the monthly bill sent to that supplier. For producers, the injection charge applies per injection point.

### 5.2.1 Tariffs as at 1 July 2020

The tariffs applicable from 1 July 2020 to 30 June 2021 are as follows:

- Main tariff options

| Tariff option | Annual subscription excluding $R_f$ (in €) | Annual subscription (in €) | Proportional price (in €/MWh) | Charge for annual subscription of daily capacity (in €/MWh/d) | |
|---|---|---|---|---|---|
| | | | | Portion of capacity subscription lower than 500 MWh/d | Portion of capacity subscription higher than 500 MWh/d |
| T1 | 33.48 | 33.48 + $R_f$ | 29.79 | | |
| T2 | 132.12 | 132.12 + Rf | 8.43 | | |
| T3 | 792.48 | 792.48 + Rf | 5.94 | | |
| T4 | 15,607.20 | 15,607.20 + $R_f$ | 0.83 | 204.72 | 102.48 |

- "Proximity tariff" (TP) option:

| Tariff option | Annual subscription excluding $R_f$ (in €) | Annual subscription (in €) | Charge for annual subscription of daily capacity (in €/MWh/d) | Annual distance charge (in €/metre) |
|---|---|---|---|---|
| TP | 36,703.56 | 36,703.56 + $R_f$ | 102.12 | 67.08 |

A multiplier coefficient is applied to the annual distance charge. It is equal to:

- 1 if the population density of the municipality is under 400 inhabitants per km²;
- 1.75 if the population density of the municipality is between 400 and 4,000 inhabitants per km²;

- 3 if the population density of the municipality is over 4,000 inhabitants per km².

- Customers with no individual meter but having a collective meter

For all end customers in an apartment building or group of housing units without individual meters but where there is a collective meter and a collective supply contract, a subscription charge equal to that of tariff option T1 is billed, applied to the number of units supplied with gas, and a proportional charge equal to that of tariff option T1 is applied to the gas consumption measured by the collective meter.

- Customers without individual or collective meters

For end customers with no individual or collective meter associated with a collective supply contract, the tariff applicable is an annual fixed charge of €53.16, excluding the $R_f$ charge.

When a gas meter consumption reading simultaneously includes consumption payable at both the old and new tariffs, it is split in proportion to the number of days in each period.

- Biomethane producers

The biomethane injection tariff introduced in the ATRD6 tariff is based on the definition of three levels of injection charges, to differentiate the amount paid by producers according to the costs generated by their choice of location. The levels are as follows:

| Level | Injection tariff charge (€/MWh) |
|---|---|
| Level 3 | 0.7 |
| Level 2 | 0.4 |
| Level 1 | 0 |

### 5.2.2 Tariffs applicable as from 1 July 2021

#### 5.2.2.1 Update in the tariff applicable to consumers, excluding $R_f$ charge

##### 5.2.2.1.1 Update in tariff charges

Each year *Y* as from 2021, the tariff charges applicable from 1 July *Y* to 30 June *Y+1*, with the exception of the $R_f$, charge, are equal to the tariff charges of a reference tariff to which is applied a coefficient Y proportional to the tariff update as at 1 July *Y*. The coefficient Y is defined as follows, rounded off to four decimal points (0.0001):

$$Y_N = Y_{N-1} \times (1 + Z_N)$$

Where:

- $Y_N$ is the update coefficient in effect from 1 July of year *Y* to 30 June of year *Y+1*, rounded off to 0.0001, with $Y_{2020} = 1$ ;
- $Z_N$ is the variation in the tariff coefficient level as at 1 July of year *N*, expressed as a percentage and rounded off to two decimal points (0.01%), calculated as follows:

$$Z_N = CPI_N + X + k_N$$

Where:

  - $IPC_N$ is the rate of forecast inflation for year *Y* taken into account in the draft finance law for year *Y*;
  - $X$ is the annual tariff update equal to – 1.9%:
  - $k_N$ is the tariff update, as a percentage, capped at +/- 2%, corresponding to the reconciliation of the balance of the expenses and revenues clawback account (CRCP) at the date of 1 January of year *Y* (calculated based on the terms described in section 2.2.4).

Among the tariff charges thus obtained, the annual subscriptions tariffs, excluding $R_f$, the charges proportional to the daily capacity booked and the charges proportional to distance are rounded off in order to be divisible by 12 to the last cent. These annual charges can then be split monthly to the last cent.

#### 5.2.2.1.2 Reference tariffs as at 1 July 2021

The reference tariffs applicable from 1 July 2021 to 30 June 2022 are as follows:

- Main tariff options

| Tariff option | Annual subscription excluding $R_f$ (in €) | Proportional price (in €/MWh | Charge for annual subscription of daily capacity (in €/MWh/d) | |
|---|---|---|---|---|
| | | | Portion of capacity subscription lower than 500 MWh/d | Portion of capacity subscription higher than 500 MWh/d |
| T1 | 32.86 | 30.85 | | |
| T2 | 128.86 | 8.51 | | |
| T3 | 820.80 | 6.05 | | |
| T4 | 15,478.05 | 0.84 | 204.74 | 102.33 |

- "Proximity tariff" (TP) option

| Tariff option | Annual subscription excluding $R_f$ (in €) | Charge for annual subscription of daily capacity (in €/MWh/d) | Annual distance charge (in €/metre) |
|---|---|---|---|
| TP | 36,691.97 | 102.11 | 67.08 |

- Customers with no individual or collective meter: €53.21 excluding $R_f$ charge.

#### 5.2.2.1.3 Reference tariffs as at 1 July 2022 and 1 July 2023

The reference tariffs applicable from 1 July 2022 to 30 June 2024 are as follows:

- Main tariff options

| Tariff option | Annual subscription excluding $R_f$ (in €) | Proportional price (in €/MWh | Charge for annual subscription of daily capacity (in €/MWh/d) | |
|---|---|---|---|---|
| | | | Portion of capacity subscription lower than 500 MWh/d | Portion of capacity subscription higher than 500 MWh/d |
| T1 | 32.16 | 31.91 | | |
| T2 | 125.51 | 8.57 | | |
| T3 | 849.24 | 6.16 | | |
| T4 | 15,334.74 | 0.84 | 204.46 | 102.23 |

- "Proximity tariff" (TP) option

| Tariff option | Annual subscription excluding $R_f$ (in €) | Charge for annual subscription of daily capacity (in €/MWh/d) | Annual distance charge (in €/metre) |
|---|---|---|---|
| TP | 36,643.86 | 101.98 | 66.99 |

- Customers with no individual or collective meter: €53.23 excluding $R_f$ charge.

### 5.2.2.2 Update in the $R_f$ charge

The $R_f$ charge changes according to the terms provided by CRE's deliberation no. 2017-238 of 26 October 2017[48], associated with an inflation-based update (see Annex 1).

[48] Deliberation by the French Energy Regulatory Commission no. 2017-238 of 26 October 2017 amending CRE's deliberations of 25 April 2003, 22 May 2014 and 10 March 2016 deciding on the equalised tariffs for the use of GRDF's public natural gas distribution networks

#### 5.2.2.3 Update in the tariffs applicable to biomethane producers

The level of the injection charge for biomethane producers as from 1 July 2021 is identical to that in effect as at 1 July 2020.

## DECISION

CRE defines the equalised tariff for the use of GRDF's natural gas distribution networks as from 1 July 2020, based on the methodology and parameters described in the present deliberation.

CRE defines, in particular:

- the tariff regulatory framework and the incentive regulation parameters applicable to GRDF for a period of roughly four years (part 2);
- the trajectory of operating expenses, the WACC and the forecast change in the tariff (part 3);
- the tariff structure (part 4);
- the tariffs applicable as from 1 July 2020 (part 5).

The present deliberation will be published on CRE's website, forwarded to the minister of the ecological and inclusive transition as well as the minister of the economy and finance, and published in the *Journal officiel de la République française* (Official journal of the French Republic).

**Paris, 23 January 2020**

**For the Energy Regulatory Commission,**

**The Chairman,**

**Jean-François CARENCO**

# ANNEX 1: REFERENCES FOR THE ANNUAL UPDATE OF THE TARIFFS FOR THE USE OF GRDF'S NATURAL GAS DISTRIBUTION NETWORKS AS FROM 1 JULY 2021

## 1. Calculation and reconciliation of the CRCP balance

The CRCP balance of GRDF's ATRD6 tariff, as at 1 January 2020, is equal to the difference between the definitive amount of the CRCP balance of the ATRD5 tariff and the provisional amount, equal to €13.1 million, taken into account to prepare the ATRD6 tariff.

For each year *Y*, as from the year 2020, the definitive balance of the CRCP as at 31 December of year Y is calculated as the sum:

- of the forecast CRCP balance as at 31 December of year *Y*;
- and the difference, for year *Y*, between:
    - the difference between the definitive allowed revenue, as defined hereafter, and the forecast allowed revenue adjusted for inflation;
    - the difference between the income received by GRDF and the forecast income re-evaluated based on actual changes already applied to the tariffs.

The forecast CRCP balance as at 31 December of year *Y* is defined as the sum of the CRCP balance as at 1 January of year *Y* and the difference for year *Y* between the forecast allowed revenue adjusted for inflation and the forecast income calculated using the assumptions about the quantities distributed and the number of consumers serviced adopted in the present deliberation, re-evaluated based on actual changes already applied to the tariff.

The income received by GRDF is defined as the sum, on the one hand, of income actually received by GRDF for the share proportional to the quantities transported, capacity subscriptions and the charge proportional to distance, and on the other hand, forecast income related to subscriptions excluding the $R_f$ charge re-evaluated based on actual changes already applied to the tariff.

The CRCP balance as at 1 January of year *Y+1* is obtained by discounting the CRCP balance as at 31 December of year *Y* at the risk-free rate in effect of 1.7%.

The CRCP balance at the end of the tariff period also takes into account the amounts from the incentive regulation concerning research and development (R&D) expenses.

The tariff update as at 1 July of year *Y* takes into account a coefficient $k_N$, which aims to:

- end the reconciliations generated by the k coefficients applied the previous years;
- reconcile, by 30 June of year *Y+1*, the CRCP balance of 1 January of year *Y*.

The coefficient $k_N$ is capped at +/-2%.

## 2. Reference values for the calculation of the final allowed revenue

For each year *Y* as from the year 2020, the final allowed revenue is equal:

- to the sum of the amounts adopted for the following expense items:
    - estimated incentive-backed net operating expenses;
    - estimated incentive-backed normative "non-network" capital expenses;
    - normative capital expenses not giving rise to incentives;
    - expenses related to various losses and differences;
    - expenses related to outstanding amounts;
    - net expenses related to the contribution paid to suppliers for the management of clients under a single contract;
    - expenses related to the "Gas conversion" project;
    - expenses related to the biomethane injection charge;
    - expenses related to stranded costs and losses from disposals handled on a case-by-case basis for which CRE will approve coverage:
    - the annual difference between projected income and projected allowed revenue;
    - reconciliation of the provisional CRCP balance of the ATRD5 tariff;

- from which is deducted the sum of the amounts adopted for the following income items:
  - non-tariff income not giving rise to incentives;
  - differences in income related to unplanned changes in the rates for additional services;
  - income from the biomethane injection charge;
  - any profits made from the disposal of land or buildings;
  - income related to penalties received from customers under tariff options T4 and TP for exceeding the capacity contracted;
- and to which is added the sum of the amounts adopted for financial incentives as part of:
  - incentive regulation for unit costs of investments in the networks;
  - incentive regulation specific to the Gazpar smart metering project;
  - incentive regulation for research and development expenses;
  - incentive regulation for quality of service.

For each item, the method for calculating the amount adopted is presented in detail below.

### i. Expense items taken into account to calculate the final allowed revenue

#### a) Estimated incentive-backed net operating expenses

Estimated net incentive-backed operating expenses correspond to the net operating expenses taken into account for the ATRD6 tariff, with the exception of expenses related to various losses and differences, which are subject to a specific incentive regulation, and non-tariff income not associated with any incentive.

The reference values for estimated net incentive-backed operating expenses are as follows:

| *In current €M* | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Reference value for estimated net operating expenses giving rise to incentives | 1,595.5 | 1,627.2 | 1,676.5 | 1,665.7 |

The amount used in the calculation of the final allowed revenue takes into account the difference between forecast and actual inflation.

This amount is equal to the reference value for year *Y*:

- divided by forecast inflation between the year 2019 and the year *Y*:

| | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Forecast inflation between year 2019 and year *Y* | 1.50% | 3.12% | 4.88% | 6.76% |

- multiplied by actual inflation between year 2019 and year *Y*. Actual inflation is defined as the change in the average value of the consumer price index excluding tobacco, as calculated by INSEE for all households in the whole of France (INSEE reference 1763852), recorded for calendar year *Y*, compared to the average value of the same index recorded for calendar year 2019.

#### b) Estimated normative "non-network" capital expenses giving rise to incentives

The reference amount used for the calculation of the final allowed revenue is equal to the normative capital expenses related to asset groups “G4B”, “G7” and “G8”, excluding new IS projects[49]. These asset groups include the assets "Property", "Fittings", "Equipment", "Vehicles", "IT" and "Micro-computing hardware". These normative capital expenses are calculated based on the forecast accounting base taken into account in the elaboration of the ATRD6 tariff and on actual inflation[50].

[49] "IS reconstruction", "IS transformation" projects and “SAP S/4HANA”
[50] For the calculation of normative capital expenses, actual inflation is calculated for the period from July *Y-1* to July *Y*. The index used is the INSEE (French national statistics office) index 001763852 for consumer prices excluding tobacco products, for the whole of France.

Estimated values for normative "non-network" capital expenses giving rise to incentives are as follows:

| *In current €M* | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Reference value for normative "non-network" capital expenses giving rise to incentives | 121.2 | 121.7 | 124.1 | 127.1 |

**c) Normative capital expenses not giving rise to incentives**

The reference amount taken into account for the calculation of allowed revenue is equal to the normative capital expenses, except for those taken into account in the "non-network" capital expenses giving rise to incentives, i.e. asset categories G4B, G7 and G8 excluding new IS projects[51].

Estimated values for these capital expenses are as follows:

| *In current €M* | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Reference value for normative capital expenses not giving rise to incentives | 1,458.2 | 1,504.2 | 1,551.9 | 1,575.3 |

**d) Expenses related to various losses and differences**

An annual reference amount for various losses and differences is determined for year *Y* using the following formula:

$$PDD_N = V_N \times P_N + CT_N$$

Where :

- $V_N$ is the reference annual volume;
- $P_N$ is the reference annual price;
- $CT_N$ is the reference annual cost of transport.

To calculate the final allowed revenue, the amount taken into account for various losses and differences is equal to the sum:

- of the reference annual amount $PDD_N$;
- 80% of the difference between actual expenses related to various losses and differences borne by GRDF for year *Y* and this reference annual amount $PDD_N$.

The parameters used to calculate the reference annual amount $PDD_N$ are defined as follows.

- Reference annual volume

The reference annual volume of various losses and differences is obtained by applying the rate of theoretical losses to the quantities actually distributed, i.e.:

$$V_N = rate\ of\ theoretical\ losses_N \times quantities\ actually\ distributed_N$$

The rate of theoretical losses adopted for the 2020-2023 period is as follows:

| *% of quantities distributed* | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Theoretical rate of losses | 0.50% | 0.48% | 0.46% | 0.45% |

The reference annual price $P_N$ is equal to the average price of a representative basket of products, sold at the single Trading Region France (TRF) gas exchange point (PEG). This basket of products and details concerning the reference prices used are specified in a confidential annex to this deliberation.

- Reference annual cost of transport

The reference annual cost of transport is calculated in particular based on charges in the tariff for third-party access to the transmission network (ATRT), applied to the reference volumes $V_N$. The breakdown of this reference annual cost of transport is specified in a confidential annex to this deliberation.

[51] IS reconstruction", "IS transformation" projects and “SAP S/4HANA”

### e) Expenses related to outstanding amounts

The reference annual amount taken into account to calculate the final allowed revenue corresponds to the expense actually borne by GRDF[52].

The projected values for expenses related to outstanding amounts are as follows:

| *In current €M* | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Reference value for expenses related to outstanding amounts | 32.5 | 33.0 | 33.6 | 34.2 |

### f) Net expenses related to the contribution paid to suppliers for the management of clients under a single contract

The amount adopted for the calculation of the final allowed revenue is equal to the difference between the sum of the contributions paid to suppliers by GRDF for the management of clients under a single contract and the sum of income received by GRDF for the $R_f$ charge.

For the contribution paid to suppliers by GRDF for the year *Y*, the maximum amounts for each delivery point, to which is added, as the case may be, interest expenses, are as follows:

| Type of delivery point | Period for which the contribution is paid to the supplier | Maximum amount taken into account for each delivery point (regardless of the year of payment, excluding any interest) | |
|---|---|---|---|
| | | Under market offer (€/year) | At the regulated sales tariff (€/year) |
| Under tariff options T3, T4, TP | until 31/12/2017 | 9.10 | 0.00 |
| | from 01/01/2018 to 30/06/2020 | 91.00 | 91.00 |
| | as from 01/07/2020 | 91.00* | 91.00* |
| Under tariff options T1, T2 or not having an individual meter | until 31/12/2005 | 3.15 | 0.00 |
| | from 01/01/2006 to 31/12/2006 | 3.14 | 0.00 |
| | from 01/01/2007 to 31/12/2007 | 3.14 | 0.00 |
| | from 01/01/2008 to 31/12/2008 | 3.10 | 0.00 |
| | from 01/01/2009 to 31/12/2009 | 2.97 | 0.00 |
| | from 01/01/2010 to 31/12/2010 | 2.87 | 0.00 |
| | from 01/01/2011 to 31/12/2011 | 2.83 | 0.00 |
| | from 01/01/2012 to 31/12/2012 | 2.79 | 0.00 |
| | from 01/01/2013 to 31/12/2013 | 2.71 | 0.00 |
| | from 01/01/2014 to 31/12/2014 | 2.54 | 0.00 |
| | from 01/01/2015 to 31/12/2015 | 2.32 | 0.00 |
| | from 01/01/2016 to 31/12/2016 | 2.12 | 0.00 |
| | from 01/01/2017 to 31/12/2017 | 1.96 | 0.00 |
| | from 01/01/2018 to 30/06/2019 | 8.10 | 5.50 |
| | from 01/07/2019 to 30/06/2020 | 8.10 | 6.15 |
| | from 01/07/2020 to 30/06/2021 | 8.10* | 6.80* |
| | from 01/07/2021 to 30/06/2022 | 8.10* | 7.45* |
| | as from 01/07/2022 | 8.10* | 8.10* |

*The amounts corresponding to the period between 01/07/*Y* and 30/06/*Y+1* will be indexed to actual and cumulated inflation between 2018 and *Y-1*.

[52] With the exception of the expenses that would be tied to outstanding amounts for the transmission portion of customers under a regulated sales tariff before 31 December 2015, in connection with the decision by Cordis of 19 September 2014.

**g) Expenses related to the "Gas conversion" project**

The amounts adopted in the trajectory of the ATRD6 period for net operating expenses concerning the "Gas conversion" project are as follows:

| *In current €M* | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Net operating expenses for the "Gas conversion" project included in the ATRD6 trajectory | 22.0 | 40.0 | 86.5 | 83.2 |

On the basis of feedback from the pilot phase of the "Gas conversion" project forwarded by GRDF to CRE, a deliberation by CRE will determine the amounts of net operating expenses to actually adopt in the ATRD6 tariff trajectory and any corresponding terms and conditions for coverage through the CRCP.

The reference amount for year *Y*, defined by the abovementioned deliberation, will be taken into account for the calculation of the final allowed revenue.

**h) Expenses related to the biomethane injection charge**

The reference amount taken into account for tariff income associated with biomethane injection, collected by GRDF and transferred to the TSOs, corresponds to the level 3 part of the biomethane injection charge corresponding to expenses for use of backhaul. The unit amount taken into account is €0.65/MWh injected by producers to whom level 3 is attributed.

**i) Expenses related to stranded costs and disposal losses**

CRCP coverage of stranded costs, apart from those deemed recurring and foreseeable, which are withdrawn from inventory before the end of their useful life, and losses from disposals are examined by CRE, based on reasoned requests presented by GRDF.

The annual reference amount taken into account for the calculation of the final allowed revenue corresponds to the expenses that will actually be adopted following this examination.

The forecast values for expenses related to stranded costs and disposal losses are zero.

**j) Annual differences between projected income and projected allowed revenue**

Annual differences between projected income and projected allowed revenue are those resulting from the balance over the 2020-2023 period between the projected income and the projected allowed revenue taken into account to define the ATRD6 tariff.

Year *Y*, the annual difference used for the calculation of the allowed revenue is as follows:

| *In current €M* | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Annual differences between projected income and allowed revenue | 147 | 41 | - 73 | - 123 |

**k) Reconciliation of the provisional CRCP balance of the ATRD5 tariff**

The reference amount taken into account for reconciliation of the CRCP balance for the ATRD5 tariff is as follows:

| *In current €M* | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Reconciliation of the provisional CRCP balance of the ATRD5 tariff | 3.4 | 3.4 | 3.4 | 3.4 |

### ii. Income items taken into account to calculate the final allowed revenue

**a) Non-tariff income not giving rise to incentives**

The reference amount used for the calculation of the final allowed revenue is equal to the non-tariff income actually received by GRDF for year *Y* as part of third-party contributions and income generated by other recurring services billed to suppliers (for example, meter rentals).

The forecast amounts taken into account in the ATRD6 tariff are as follows:

| *In current €M* | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Forecast amount of non-tariff income not giving rise to incentives | 142.9 | 143.6 | 143.2 | 144.9 |

**b) Differences in income related to unplanned changes in the rates for additional services**

The reference annual amount taken into account for the calculation of the final allowed revenue is equal to the difference between:

- income effectively received by GRDF for year *Y* for additional services for which the tariff evolves differently compared to the tariff resulting from the application of annual indexing formula in effect as at 1 January 2020[53], with the exception of other recurring services billed to suppliers;
- the income that GRDF would have received for year *Y* for these same services if the tariff applied had been that resulting from the application of annual indexing formula to the tariffs in effect as at 1 January 2020.

**c) Income from the biomethane injection charge**

The reference amount taken into account for the calculation of the final allowed revenue is equal to the amounts associated with the injection charge actually collected by GRDF from biomethane producers, based on the following rules:

| Injection charge level | Amount collected (€/MWh injected by producers to whom is attributed the injection charge level in question) |
|---|---|
| Level 3 | 0.70 |
| Level 2 | 0.40 |
| Level 1 | 0.00 |

**d) Profits from the disposal of land or buildings**

The reference amount taken into account for the calculation of the final allowed revenue corresponds to 80% of the proceeds from the disposal, net of the net book value of the asset sold.

**e) Income related to penalties received from customers under tariff options T4 and TP for exceeding the capacity contracted**

The reference amount taken into account for the calculation of allowed revenue is equal to the amount of penalties actually received by GRDF from customers under T4 and TP options for exceeding the capacity contracted.

### iii. Financial incentives under the incentive regulation

**a) Incentive regulation of unit costs of investments in the networks**

Investments concerned correspond to the following 13 categories defined according to the type of infrastructure concerned:

| Segments | Category of infrastructure | Driver 1 | Driver 2 |
|---|---|---|---|
| Segment 1 | Connection (without extension) – 6 and 10 m³/h (C0) | Part | N/A |
| Segment 2 | Connection - 6 and 10 m³/h - with extension < 35 m (A0) | Metre | N/A |
| Segment 3 | Connection - 6 and 10 m³/h - with extension < 35 m (B0, G0, I0) | Metre | N/A |
| Segment 4 | Connection of customers (E0, E1) | Metre | N/A |
| Segment 5 | Connection (without extension) – 16 m³/h and above (D0, H1) | Part | N/A |
| Segment 6 | Connection - 16 m³/h and more – with extension (H0) | Metre | N/A |
| Segment 7 | Industrial zone (ZI) – Joint development zone (ZAC) – Business zone (ZA) - (F0) | Metre | N/A |
| Segment 8 | Moving of infrastructure at the request of third parties (T0, U0) | Metre | Number of connections |
| Segment 9 | Structural work excluding replacement of dry pipes (M0, J0, K0, L0) | Metre | Number of connections |
| Segment 10 | Installation of dry pipes (Y3) | Metre[54] | N/A |

[53] The annual indexing formulae are defined by CRE's deliberation no. 2019-118 of 29 May 2019 deciding on services performed exclusively by the natural gas distribution system operators.
[54] Infrastructure in the "Installation of dry pipes" category include the laying of pipes (in metres) and the installation of taps (in parts). By convention, in order to calculate the annual quantities of infrastructure installed for the "Installation of dry pipes" category, the installation of a tap will be taken into account as one metre.

| | | | |
|---|---|---|---|
| Segment 11 | Updating of networks (and associated connections) (P1 to P4 -Y0-Y4-Y6-Y2) | Metre | Number of connections |
| Segment 12 | Updating of connections (and associated networks) (S4, S6, S7, P6, S8, Y8)) | Metre | Number of connections |
| Segment 13 | Updating of infrastructure in buildings (S0, S2, S3, S5, Q0, Q1, P5, Y7) | Part | N/A |

Within each of these 13 categories, the cost of each investment is modelled by:

- one or two variable portions based on (i) the length of the pipe concerned or the number of parts (Ai), and possibly (ii) the number of connections made (Bi); these variable portions do not depend on the year of commissioning;
- a fixed portion, which does not depend on the year of commissioning (Ci);
- an annual coefficient for the average change in unit costs, identical for all categories ($CU_N$).

The values of these parameters are determined, in particular, based on the costs of investments brought into service between 2016 and 2018. These values and the target annual coefficients for the average change in unit costs over the 2020-2023 are defined in a confidential annex to this document.

For a given year *Y*, the total modelled cost of investments is calculated using the volume of actual investments made, and the annual incentive corresponds to 20% of the difference between the real total cost of the infrastructure commissioned and the total modelled cost of this same infrastructure. This incentive is capped at +/- €9 million per year.

The annual incentive is first calculated based on provisional data, and the following year based on updated data.

Therefore, the reference amount taken into account for the calculation of the final allowed revenue for year *Y* is equal to the sum:

- of the amount of annual incentive for year *Y-1*, calculated based on available provisional data;
- of the difference between the annual incentive amount for year *Y-2*, calculated based on the updated data and that of this same incentive calculated the previous year based on provisional data.

Given the method for calculating the incentive on unit costs of investments in the networks (based on the investments of years *Y-1* and *Y-2*), the calculation of the incentive for years 2020 and 2021 will be based, in part, on investments made in 2018 and 2019. For these two years, the calculations of incentives on unit costs of investments to which they are associated will be done based on the parameters described in the ATRD5 deliberation.

#### b) Incentive regulation specific to the Gazpar smart metering project

The reference amount used for the calculation of the final allowed revenue is equal to the sum, for the year in question, of the financial incentives related to the "Gazpar" smart metering project, as defined by CRE's deliberation no. 2017-286 of 21 December 2017 concerning the incentive regulation framework for GRDF's smart metering system.

#### c) Incentive regulation of research and development (R&D) expenses

The reference amounts for R&D expenses (including expenses related to the smart grids projects) taken into account to define the ATRD6 tariff are as follows:

| *In current €M* | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| Reference amount for R&D expenses subject to incentive regulation | 15.4 | 15.7 | 15.9 | 16.2 |

The possibility exists for this reference trajectory to be revised mid-period.

If the total R&D expenses amount (including spending related to the smart grids projects) incurred over the 2020-2023 period is lower than the cumulated reference amounts used to define the ATRD6 tariff, the difference will be taken into account in the CRCP balance at the end of the tariff period.

Transparency and verification of the efficiency of spending associated with R&D&I are ensured, among other things, by the annual transmission to CRE of technical and financial information for all the projects completed and in progress.

This follow-up may be submitted for any audit deemed useful by CRE.

#### d) Incentive regulation for quality of service

Service quality monitoring has been set up for GRDF in the operator's key business areas. This monitoring consists of indicators regularly sent by GRDF to CRE and published on their *Fournisseurs* (suppliers) and *Grand Public* (general public) websites.

Some indicators, concerning areas that are most important for the proper functioning of the market, are subject to a financial incentive system.

The service quality monitoring indicators sent by GRDF to CRE must be certified by an external body. Moreover, GRDF's service quality monitoring system may be subject to any audit that CRE deems useful.

The list of indicators for GRDF's quality of service defined for the ATRD6 tariff is provided in the annex to the present document. The values of indicators are calculated and reported to CRE with two decimals.

The reference amount taken into account for the calculation of the final allowed revenue, as part of the incentive regulation for quality of service, is equal to the sum of the financial incentives defined in the annex.

## 3. Reference values for tariff income forecasts

The reference values are as follows:

- Forecast volumes of gas supplied (in MWh):

| Tariff option | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| T1 | 7,885,628 | 8,032,011 | 8,175,836 | 6,339,940 | 6,463,869 |
| T2 | 136,646,139 | 135,065,813 | 134,072,005 | 134,947,025 | 134,586,243 |
| T3 | 79,900,875 | 77,309,549 | 75,076,271 | 72,857,319 | 71,009,259 |
| T4 | 52,937,792 | 54,958,784 | 57,434,233 | 59,843,055 | 62,505,920 |

- Forecast average annual number of customers connected:

| Tariff option | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| Fixed price | 6,541 | 4,696 | 4,500 | 4,200 | 4,000 |
| T1 | 3,277,089 | 3,296,865 | 3,305,308 | 3,041,456 | 3,042,967 |
| T2 | 7,786,281 | 7,780,779 | 7,770,631 | 8,020,264 | 8,003,112 |
| T3 | 96,211 | 95,735 | 95,200 | 94,695 | 94,154 |
| T4 | 2,690 | 2,923 | 3,153 | 3,377 | 3,596 |
| TP | These values are specified in a confidential annex. | | | | |

- Forecast annual subscription of daily capacities (in MWh/d):

| Tariff option | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| T4 | 353,083 | 368,658 | 387,264 | 405,425 | 423,448 |
| portion ≤ 500 MWh/d | 332,543 | 347,755 | 362,377 | 376,384 | 389,802 |
| portion > 500 MWh/d | 20,540 | 20,903 | 24,887 | 29,041 | 33,646 |
| TP | These values are specified in a confidential annex. | | | | |

- Forecast distances for the proximity tariff (in m):

| Tariff option | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| TP | These values are specified in a confidential annex. | | | | |

- Forecast distances weighted by municipality density coefficients for the proximity tariff (in m):

| Tariff option | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|
| TP | These values are specified in a confidential annex. | | | | |

For switching from annual forecasts to half-yearly forecasts, the half-yearly breakdown for a year *Y* of gas volumes supplied per tariff option is as follows:

| Tariff option | 1st semester | 2nd semester |
|---|---|---|
| T1 | 53% | 47% |
| T2 | 57% | 43% |
| T3 | 58% | 42% |
| T4 | 59% | 41% |

Similarly, the half-yearly breakdown of a year *Y* of the number of customers connected per tariff option:

- the average number of customers connected the first semester is calculated as follows:

$$25\% \times average\ annual\ no.of\ customers_{Y-1} + 75\% \times average\ annual\ no.of\ customers_{Y}$$

- the average number of customers connected the second semester is calculated as follows:

$$75\% \times average\ annual\ no.of\ customers_{Y} + 25\% \times average\ annual\ no.of\ customers_{Y+1}$$

These two formulae are also applied identically to give a half-yearly breakdown by tariff option of the forecast annual subscription of daily capacities and forecast distances.

Half-yearly income for subscriptions, the charges proportional to capacity contracted and the charge proportional to distance are obtained by multiplying half-yearly forecasts by 50%.

# ANNEX 2: INDICATORS FOR MONITORING GRDF'S QUALITY OF SERVICE

## 1. Indicators associated with financial incentives

### 1.1 Number of scheduled appointments missed by GRDF

| | |
|---|---|
| Calculation | Reporting on 1st of month M+2 of the value:<br>*Number of scheduled appointments missed by GRDF and compensated during month M*<br>(i.e. two values monitored:<br>- for 6M[55]/1M[56] customers,<br>- for JJ[57]/JM[58]/MM[59] customers) |
| Scope | - all appointments scheduled, therefore validated by the DSO<br>- all service call appointments with a visit by a member of DSO staff and the customer's presence, missed because of the DSO and systematically identified by the operator<br>- 6M customers and JJ/JM/MM customers monitored separately |
| Monitoring | - frequency of calculation: monthly<br>- frequency of reporting to CRE: monthly<br>- frequency of publication: monthly<br>- frequency of incentive calculation: monthly |
| Objective | 100% of missed appointments automatically detected by the operator are compensated |
| Incentives | - payment: directly to suppliers<br>- penalties: amounts identical to those billed by GRDF in the event of non-execution of a scheduled service call because of the customer or supplier (absence at time of appointment, *etc.*), on the basis of the customer's reading frequency, for each appointment missed |
| Implementation date | Already in place since 1 July 2008 |

### 1.2 Rate of commissioning performed within the deadline requested

| | |
|---|---|
| Calculation | Reporting on 1st of month M+2 of the value:<br>*(Number of commissioning achieved during month M within the deadline requested (if this deadline is longer than the catalogue deadline) or within a deadline ≤ the catalogue deadline (if the deadline requested is shorter than the catalogue deadline)) / Total number of commissioning achieved during month M)*<br>(i.e. five values monitored:<br>- all customers combined<br>- 1M customers<br>- 6M customers<br>- MM customers<br>- JJ/JM customers) |
| Scope | - all commissioning involving a visit (with or without meter installation), excluding urgent commissioning<br>- all suppliers combined<br>- 6M customers, MM customers and JJ/JM customers monitored separately |
| Monitoring | - frequency of calculation: monthly<br>- frequency of reporting to CRE: monthly<br>- frequency of publication: monthly<br>- frequency of incentive calculation: yearly |
| Objective | - the financial incentive covers the overall rate value (all customers combined) calculated on an annual basis |

[55] Energy supplied is measured half-yearly and the index containing this measurement is read half-yearly by the DSO.
[56] The index containing the measurement of energy supplied is read monthly by the DSO for customers equipped with a Gazpar meter.
[57] Energy supplied is measured daily and the index containing this measurement is read every day by the DSO.
[58] Energy supplied is measured daily and the index containing this measurement is read monthly by the DSO at the end of the month for all days of the month.
[59] Energy supplied is measured monthly and the index containing this measurement is read monthly by the DSO.

| | |
|---|---|
| | - reference objective: 93% per calendar year |
| Incentives | - calculation: based on the results of the indicator rounded off to 2 decimal points<br>- penalties: €20,000 per one-tenth of a point if the annual rate is strictly lower than the reference objective<br>- bonus: €20,000 per one-tenth of a point if the annual rate is higher than or equal to the reference objective<br>- incentive limit value: - €2,600,000<br>- payment: through the CRCP |
| Implementation date | - monitored since 1 January 2011<br>- implementation of incentives: 1 July 2012 |

### 1.3 Rate of decommissioning completed within the deadline requested

| | |
|---|---|
| Calculation | Reporting on 1st of month M+2 of the value:<br>*(Number of decommissioning achieved during month M within the deadline requested (if this deadline is longer than the catalogue deadline) or within a deadline ≤ the catalogue deadline (if the deadline requested is shorter than the catalogue deadline)) / Total number of decommissioning achieved during month M)*<br>(i.e. five values monitored:<br>- all customers combined<br>- 1M customers<br>- 6M customers<br>- MM customers<br>- JJ/JM customers) |
| Scope | - Decommissioning following contract termination (excluding service disconnections for non-payment), at customer's request<br>- all suppliers combined<br>- 6M customers, MM customers and JJ/JM customers monitored separately |
| Monitoring | - frequency of calculation: monthly<br>- frequency of reporting to CRE: monthly<br>- frequency of publication: monthly<br>- frequency of incentive calculation: yearly |
| Objective | - the financial incentive covers the overall rate value (all customers combined) calculated on an annual basis<br>- reference objective: 93.5% per calendar year |
| Incentives | - calculation: based on the results of the indicator rounded off to 2 decimal points<br>- penalties: €20,000 per one-tenth of a point if the annual rate is strictly lower than the reference objective<br>- bonus: €20,000 per one-tenth of a point if the annual rate is higher than or equal to the reference objective<br>- incentive limit value: - €2,100,000<br>- payment: through the CRCP |
| Implementation date | - monitored since 1 January 2011<br>- implementation of incentives: 1 July 2012 |

### 1.4 Rate of connections completed within the agreed deadline

| | |
|---|---|
| Calculation | Reporting on 1st of month M+2 of the ratio:<br>*(Number of connections on stream during month M within the agreed deadline/number of connections on stream during month M)*<br>(i.e. two values monitored:<br>- connection of the general public<br>- connection of the business market) |

| | |
|---|---|
| Scope | - all connections<br>- connections of the general public on the one hand, and connection of the business market on the other hand monitored separately |
| Monitoring | - frequency of calculation: monthly<br>- frequency of reporting to CRE: monthly<br>- frequency of publication: monthly<br>- frequency of incentive calculation: yearly |
| Objective | - the financial incentive covers the overall rate value (all customers combined) calculated on an annual basis<br>- reference objective: 89% per calendar year |
| Incentives | - calculation: based on the results of the indicator rounded off to 2 decimal points<br>- penalties: €25,000 per point if the annual rate is strictly lower than the reference objective<br>- incentive limit value per type of connection: - €725,000<br>- payment: through the CRCP |
| Implementation date | - monitored since 1 July 2010<br>- implementation of incentives: 1 July 2012 |

1.5 Rate of half-yearly readings (6M) of actual indexes (read or self-read)

| | |
|---|---|
| Calculation | Reporting on 1st of month M+2 of the ratio:<br>*(Number of actual indexes read or self-read in month M for 6M PCE[60]) / (Number of 6M PCE indexes forwarded in month M)*<br>(i.e. one value monitored) |
| Scope | - all actual indexes read or self-read for 6M PCE<br>- gas indexes only |
| Monitoring | - frequency of calculation: monthly<br>- frequency of reporting to CRE: monthly<br>- frequency of publication: monthly<br>- frequency of incentive calculation: yearly |
| Objective | - the financial incentive covers the rate value calculated on an annual basis<br>- reference objective: 97.2% per calendar year |
| Incentives | - calculation: based on the results of the indicator rounded off to 2 decimal points<br>- penalties: €50,000 per one-tenth of a point if the annual rate is strictly lower than the reference objective<br>- bonus: €50,000 per one-tenth of a point if the annual rate is higher than or equal to the reference objective<br>- incentive limit value: - €2,600,000<br>- payment: through the CRCP |
| Implementation date | - monitored since 1 January 2009<br>- implementation of incentives: 1 July 2012 |

1.6 **Availability rate of supplier portal**

| | |
|---|---|
| Calculation | Reporting on 1st of month M+2 of the ratio:<br>*(Number of hours of actual portal availability during the week) / (Total number of scheduled hours of portal availability during the week)*<br>(i.e. one value monitored) |

[60] PCE: metering and estimate point

| | |
|---|---|
| Scope | - OMEGA portal only, all functionalities available to suppliers, excluding Webservices<br>- causes of unavailability: any event preventing, disrupting or significantly slowing down use of the portal by suppliers, scheduled or otherwise |
| Monitoring | - frequency of calculation: weekly<br>- frequency of reporting to CRE: monthly<br>- frequency of publication: monthly<br>- frequency of incentive calculation: yearly |
| Objective | - the financial incentive covers the rate value calculated on an annual basis<br>- reference objective: 99.5% per calendar year |
| Incentives | - calculation: based on the results of the indicator rounded off to 2 decimal points<br>- penalties: €50,000 per one-tenth of a point if the annual rate is strictly lower than the reference objective<br>- bonus: €50,000 per one-tenth of a point if the annual rate is higher than or equal to the reference objective<br>- incentive limit value: - €1,750,000<br>- payment: through the CRCP |
| Implementation date | - monitored since 1 July 2008<br>- implementation of incentives: 1 July 2008 |

### 1.7 Rate of responses to supplier claims within 15 calendar days

| | |
|---|---|
| Calculation | Reporting on 1st of month M+2 of the ratio:<br>*(Number of supplier claims closed within 15 calendar days during month M) / (Total number of supplier claims closed during month M)*<br>(i.e. one value monitored) |
| Scope | - all claims where a response must be provided to the supplier by the DSO (claims where the response must be provided to the customer by the DSO are not included)<br>- all claims filed on the supplier portal only, including claims about missed appointments<br>- all suppliers and all types of customers (T1/T2/T3/T4/TP) combined<br>- claim closed: claim where a "meaningful" response (not acknowledgement of receipt) has been sent by the DSO to the supplier |
| Monitoring | - frequency of calculation: monthly<br>- frequency of reporting to CRE: monthly<br>- frequency of publication: monthly<br>- frequency of incentive calculation: monthly |
| Objective | 96% per month of supplier claims filed on the supplier portal processed within 15 calendar days |
| Incentives | - calculation: based on the results of the indicator rounded off to 2 decimal points<br>- penalties: €2,000 per point if the monthly rate is strictly lower than the reference objective<br>- bonus: €2,000 per point if the monthly rate is higher than or equal to the reference objective<br>- incentive limit value: - €624,000<br>- payment: through the CRCP |
| Implementation date | - monitored since 1 July 2008<br>- implementation of incentives: 1 July 2010 |

### 1.8 Rate of responses to customer claims within 30 calendar days

| | |
|---|---|
| Calculation | Reporting on 1st of month M+2 of the ratio:<br>*(Number of customer claims closed within 30 calendar days during month M) / (Total number of customer claims closed during month M)*<br>(i.e. one value monitored) |
| Scope | - all claims where a response must be provided to the customer by the DSO (claims where the response must be provided to the supplier by the customer are not included)<br>- all written or oral means of reporting a claim<br>- all types of customers (T1/T2/T3/T4/TP) combined<br>- claim closed: claim where a "meaningful" response (not acknowledgement of receipt) has been sent by the DSO to the customer |
| Monitoring | - frequency of calculation: monthly<br>- frequency of reporting to CRE: monthly<br>- frequency of publication: monthly<br>- frequency of incentive calculation: monthly |
| Objective | 100% of customer claims processed within 30 calendar days |
| Incentives | - penalties: €25 per claim not processed within 30 calendar days<br>- incentive limit value: - €18,000<br>- payment: through the CRCP |
| Implementation date | - monitored since 1 July 2008<br>- implementation of incentives: 1 July 2010 |

### 1.9 Rate of publication by OMEGA for JJ/JM readings

| | |
|---|---|
| Calculation | Reporting on 1st of month M+2 of the ratio:<br>*(Sum between the 8th working day of month M and the 7th working day of month M+1 of the number of JJ/JM PCEs remotely read for which the reading was received and published by OMEGA over that period) / (Sum of the number of JJ/JM PCE remotely read for which the reading was received by OMEGA over that period)*<br>(i.e. one value monitored) |
| Scope | - all existing JJ/JM PCE<br>- all cyclical and service decommissioning readings (subscription readings not included)<br>- all suppliers combined<br>- calculation at D+7 |
| Monitoring | - frequency of calculation: monthly<br>- frequency of reporting to CRE: monthly<br>- frequency of publication: monthly<br>- frequency of incentive calculation: yearly |
| Objective | - the financial incentive covers the rate value calculated on an annual basis<br>- reference objective: 99.94% per calendar year |
| Incentives | - calculation: based on the results of the indicator rounded off to 2 decimal points<br>- penalties: €25,000 per one-tenth of a point if the annual rate is strictly lower than the reference objective<br>- bonus: €25,000 per one-tenth of a point if the annual rate is higher than or equal to the reference objective<br>- incentive limit value: - €985,000<br>- payment: through the CRCP |
| Implementation date | - monitored since 1 July 2008<br>- implementation of incentives: 1 July 2009 |

### 1.10 Rate of publication by OMEGA for MM readings

| | |
|---|---|
| Calculation | Reporting on 1st of month M+2 of the ratio:<br><br>*(Sum between the 8th working day of month M and the 7th working day of month M+1 of the number of MM PCEs read for which the reading was received and published by OMEGA over that period) / (Sum of the number of MM PCEs read for which the reading was received by OMEGA over that period)*<br><br>(i.e. one value monitored) |
| Scope | - all existing MM PCEs (not only remotely read)<br>- all cyclical and service decommissioning readings (subscription readings not included)<br>- all suppliers combined<br>- calculation at D+7 |
| Monitoring | - frequency of calculation: monthly<br>- frequency of reporting to CRE: monthly<br>- frequency of publication: monthly<br>- frequency of incentive calculation: yearly |
| Objective | - the financial incentive covers the rate value calculated on an annual basis<br>- reference objective: 99.93% per calendar year |
| Incentives | - calculation: based on the results of the indicator rounded off to 2 decimal points<br>- penalties: €25,000 per one-tenth of a point if the annual rate is strictly lower than the reference objective<br>- bonus: €25,000 per one-tenth of a point if the annual rate is higher than or equal to the reference objective<br>- incentive limit value: - €982,500<br>- payment: through the CRCP |
| Implementation date | - monitored since 1 July 2008<br>- implementation of incentives: 1 July 2009 |

### 1.11 Rate of publication by OMEGA for 6M readings

| | |
|---|---|
| Calculation | Reporting on 1st of month M+2 of the ratio:<br><br>*(Sum for month M of the number of 6M PCEs read for which the reading was received and published by OMEGA over the period) / (Sum of the number of 6M PCEs read for which the reading was received by OMEGA)*<br><br>(i.e. one value monitored) |
| Scope | - all existing 6M PCEs (not only remotely read)<br>- all cyclical and service decommissioning readings (subscription readings not included)<br>- all suppliers combined<br>- calculation at D+2 |
| Monitoring | - frequency of calculation: monthly<br>- frequency of reporting to CRE: monthly<br>- frequency of publication: monthly<br>- frequency of incentive calculation: yearly |
| Objective | - the financial incentive covers the rate value calculated on an annual basis<br>- reference objective: 99.98% per calendar year |
| Incentives | - calculation: based on the results of the indicator rounded off to 2 decimal points<br>- penalties: €25,000 per one-tenth of a point if the annual rate is strictly lower than the reference objective<br>- bonus: €25,000 per one-tenth of a point if the annual rate is higher than or equal to the reference objective<br>- incentive limit value: - €995,000<br>- payment: through the CRCP |

| | |
|---|---|
| Implementation date | - monitored since 1 July 2008<br>- implementation of incentives: 1 July 2009 |

### 1.12 Rate of PCE discrepancy in alternative suppliers' contract scope

| | |
|---|---|
| Calculation | Reporting on 1st of month M+2 of the ratio:<br>*(Sum of PCEs not included in alternative suppliers' portfolios on the last working day of month M) / (Sum of PCEs actually attached to alternative suppliers' portfolios in OMEGA on the last working day of month M)*<br>(i.e. one value monitored) |
| Scope | - all existing alternative suppliers' PCEs<br>- alternative suppliers only |
| Monitoring | - frequency of calculation: monthly<br>- frequency of reporting to CRE: monthly<br>- frequency of publication: monthly<br>- frequency of incentive calculation: yearly |
| Objective | - the financial incentive covers the rate value calculated on an annual basis<br>- reference objective: 0.04% per calendar year |
| Incentives | - calculation: based on the results of the indicator rounded off to 2 decimal points<br>- penalties: €25,000 per one-tenth of a point if the annual rate is strictly lower than the reference objective<br>- bonus: €25,000 per one-tenth of a point if the annual rate is higher than or equal to the reference objective<br>- incentive limit value: - €265,000<br>- payment: through the CRCP |
| Implementation date | - monitored since 1 July 2009<br>- implementation of incentives: 1 July 2009 |

### 1.13 Processing rate of refusals from month M corrected in M+1

| | |
|---|---|
| Calculation | Reporting on 1st of month M+2 of the ratio:<br>*(Number of refusals corrected during month M) / (Number of refusals generated during month M-1)*<br>(i.e. one value monitored) |
| Scope | - all existing PCE<br>- all suppliers combined |
| Monitoring | - frequency of calculation: monthly<br>- frequency of reporting to CRE: monthly<br>- frequency of publication: monthly<br>- frequency of incentive calculation: yearly |
| Objective | - the financial incentive covers the rate value calculated on an annual basis<br>- reference objective: 99.8% per calendar year |
| Incentives | - calculation: based on the results of the indicator rounded off to 2 decimal points<br>- penalties: €25,000 per one-tenth of a point if the annual rate is strictly lower than the reference objective<br>- bonus: €25,000 per one-tenth of a point if the annual rate is higher than or equal to the reference objective<br>- incentive limit value: - €950,000<br>- payment: through the CRCP |
| Implementation date | - monitored since 1 January 2010<br>- implementation of incentives: 1 July 2010 |

### 1.14 Amplitude of distribution variance accounts

| | |
|---|---|
| Calculation | Reporting on 1st of month M+2 of the ratio:<br>*Absolute value of the sum of distribution variances for month M in energy*<br>(i.e. one value monitored) |
| Scope | - all existing PCE<br>- all suppliers combined |
| Monitoring | - frequency of calculation: monthly<br>- frequency of reporting to CRE: monthly<br>- frequency of publication: monthly<br>- frequency of incentive calculation: yearly |
| Objective | 2020: 3.6 TWh cumulated over the calendar year<br>2021: 3.2 TWh cumulated over the calendar year<br>2022: 2.8 TWh cumulated over the calendar year<br>2023: 2.4 TWh cumulated over the calendar year |
| Incentives | - penalties: €0.5 per MWh above the reference objective<br>- bonus: €0.25 per MWh below the reference objective<br>- incentive limit value: - €2,250,000<br>- payment: through the CRCP |
| Implementation date | - monitored since 1 January 2011<br>- implementation of incentives: 1 January 2011 |

### 1.15 Amplitude of distribution variance accounts by reading frequency and by supplier

| | |
|---|---|
| Calculation | Reporting on 1st of month M+2 of the ratio:<br>*Sum of distribution variation accounts in energy and in absolute value for each reading frequency (JJ, JM/MM, 6M and 1M[61]) and for each supplier of month M*<br>(i.e. one value monitored) |
| Scope | - all existing PCEs<br>- all suppliers whose customer portfolios comprise, for at least one reading frequency, at least 1% of the sum of PCEs with this reading frequency |
| Monitoring | - frequency of calculation: monthly<br>- frequency of reporting to CRE: monthly<br>- frequency of publication: monthly<br>- frequency of incentive calculation: yearly |
| Objective | 4.5 TWh cumulated over the calendar year |
| Incentives | - penalties: €0.5 per MWh above the reference objective<br>- bonus: €0.25 per MWh below the reference objective<br>- incentive limit value: - €2,250,000<br>- payment: through the CRCP |
| Implementation date | - monitored since 1 January 2016<br>- implementation of incentives: 1 January 2016 |

[61] Energy supplied is measured monthly and the index containing this measurement is read monthly by the DSO. This designation is used for PCEs equipped with a Gazpar smart meter.

## 2. Other indicators for monitoring GRDF's quality of service

### Environmental indicators

| Indicator name | Indicator calculation | Indicator scope | Frequency of reporting to CRE and of publication | Implementation date |
|---|---|---|---|---|
| Atmospheric emissions of greenhouse gases relative to energy supplied | Ratio reported on the 1st of March of year Y+1:<br>*(Tonnes of greenhouse gasses ($CO_2$ equivalent) emitted into the atmosphere in year Y) / (Quantities of gas supplied over the DSO's network in calendar year Y)*<br>(i.e. one value monitored) | - methane leaks from distribution lines<br>- methane emissions during engineering or incident maintenance work, emissions caused by facilities operations<br>- Emissions from the DSO's vehicle fleet and its buildings<br>- the indicator result is posted with the quantities of gas supplied during the calendar year | Year | Already implemented |
| Methane escape into the atmosphere | Ratio reported on the 1st of March of year Y+1:<br>*(Quantities of methane emitted into the atmosphere in year Y) / (Quantities of gas supplied over the DSO's network in calendar year Y)*<br>(i.e. one value monitored) | - methane leaks from distribution lines<br>- methane emissions during engineering or incident maintenance work, emissions caused by facilities operations | Year | 1 July 2020 |

### Indicators for estimates and service calls

| Indicator name | Indicator calculation | Indicator scope | Frequency of reporting to CRE and of publication | Implementation date |
|---|---|---|---|---|
| Proportion of supplier changeovers completed within the requested deadline | Ratio, by customer type and type of service call, reported on the 1st of month M+2:<br>*(Number of supplier changeovers achieved within the requested deadline during month M) / (Total number of supplier changeovers achieved during month M)*<br>(i.e. six values monitored:<br>- supplier changeovers requiring a visit:<br>o 6M customers<br>o MM customers<br>o JJ/JM customers<br>- supplier changeovers not requiring a visit:<br>o 6M customers<br>o MM customers<br>o JJ/JM customers | - all supplier changeovers<br>- all suppliers combined<br>- 6M customers, MM customers and JJ/JM customers monitored separately | Month | Already implemented |

### Indicators for customer relations

| Indicator name | Indicator calculation | Indicator scope | Frequency of reporting to CRE and of publication | Implementation date |
|---|---|---|---|---|
| Call centre availability rate for customers | Ratio, by call centre number, reported on the 1st of month M+2:<br>*(Number of calls taken in month M) / (Number of calls received in month M)*<br>(i.e. two values monitored:<br>- Gas access reception service no. (AGNRC no.)<br>- Gas safety emergency no.) | - all types of calls taken/received during the call centre's opening hours<br>- all contact types<br>- all types of customers (T1/T2/T3/T4/TP) combined | Month | Already implemented |
| Number of customer claims by type | Value, by type of claim, reported on the 1st of month M+2:<br>*Total number of customer claims closed during the month M*<br>(i.e. ten values monitored:<br>- Total<br>- Delivery | - all claims where a response must be provided to the customer by the DSO (claims where the response must be provided by the supplier to the | Quarter | Already implemented |

| | | | | |
|---|---|---|---|---|
| | - Delivery-related service production<br>- Individual gas connection<br>- Business market gas connection<br>- Network<br>- Gazpar rollout<br>- Other development<br>- Transmission<br>- Other) | customer are not included)<br>- all written or oral means of reporting a claim<br>- all types of customers (T1/T2/T3/T4/TP) combined<br>- claim closed: claim where a "meaningful" response (not acknowledgement of receipt) has been sent by the DSO to the customer | | |
| Rate of customer claims processed within more than 2 months | Reporting on the 1st of month M+2 of the ratio:<br>*(Number of customer claims closed within more than 2 months during month M) / (Total number of customer claims closed during month M)*<br>(i.e. one value monitored) | | Month | Already implemented |

### Indicators for supplier relations

| Indicator name | Indicator calculation | Indicator scope | Frequency of reporting to CRE and of publication | Implementation date |
|---|---|---|---|---|
| Rate of responses to supplier claims within 5 calendar days | Reporting on the 1st of month M+2 of the ratio:<br>*(Number of supplier claims closed within 5 calendar days during month M) / (Total number of supplier claims closed during month M)*<br>(i.e. one value monitored) | - all claims where a response must be provided to the supplier by the DSO (claims where the response must be provided to the customer by the DSO are not included)<br>- all claims filed on the supplier portal only, including claims about missed appointments<br>- all suppliers and all types of customers (T1/T2/T3/T4/TP) combined<br>- claim closed: claim where a "meaningful" response (not acknowledgement of receipt) has been sent by the DSO to the supplier | Month | Already implemented |
| Number of supplier claims by type | Value, by type of claim, reported on the 1st of month M+2:<br>*Total number of supplier claims closed during month M*<br>(i.e. 8 values monitored:<br>- Total<br>- Reception<br>- Metering data<br>- Management and execution of services<br>- Quality of supply and network<br>- Reminder<br>- Other<br>- Gazpar rollout) | | Month | Already implemented |

| | | | | |
|---|---|---|---|---|
| Rate of supplier claims processed in more than 2 months | Reporting on the 1st of month M+2 of the ratio:<br>*(Number of supplier complaints closed in over 2 months during month M) / (Total number of supplier complaints closed during month M)*<br>(i.e. one value monitored) | | Month | Already implemented |
| Rate of multiple claims | Reporting on the 1st of month M+2 of the ratio:<br>*(Number of multiple claims for the same PCE and the same type of claim) / (Total number of claims)*<br>(i.e. one value monitored) | - all claims received by the DSO (where the answer must be made by the DSO to the supplier or to the customer)<br>- all channels for submitting a claim<br>- all suppliers and all types of customers (T1/T2/T3/T4/TP) combined | Month | Already implemented |

## Indicators for data exchanged with transmission system operators (TSOs)

| Indicator name | Indicator calculation | Indicator scope | Frequency of reporting to CRE and of publication | Implementation date |
|---|---|---|---|---|
| Transmission to TSOs of daily estimates of quantities loaded by suppliers at PITDs within the agreed timeframe | Reporting on the 1st of month M+2 of the ratio:<br>*Number of days in month M where the DSO did not send provisional allocations calculated D+1 within the agreed timeframe*<br>(i.e. one value monitored) | - all TSOs combined<br>- all days with a timeframe not met for one or both TSOs<br>- excluding days with deadline not met at the request of either TSO (such days are recorded as days where the deadline is met by the DSO) | Month | Already implemented |
| Transmission to TSOs of JJ intraday readings within the agreed timeframe | Reporting on the 1st of month M+2 of the ratio:<br>*(Number of transmissions of intraday meter readings of month M done by GRDF within the deadline agreed on by the TSOs and DSOs) / Maximum theoretical number of transmissions of intraday readings of month M)*<br>(i.e. one value monitored) | - all TSOs combined<br>- all transmissions with a deadline met for both TSOs<br>- all days with a deadline not met at the request of one or both TSO (such days are recorded as days where the deadline is met by the DSO) | Month | Already implemented |
| Quality of JJ readings transmitted to TSOs for daily allocations at PITDs | Reporting on the 1st of month M+2 of the ratio:<br>*(Sum for each day D of month M of the number of consumption values for remotely-metered JJ customers included in the allocation calculation at D+1) / (Sum for each day D of month M of the number of remotely-metered JJ customers recorded in the OMEGA IS for day D)*<br>(i.e. one value monitored) | - all values actually read<br>- no fall-back / replacement values are included<br>- all suppliers, all ZETs[62] and TSOs[63] combined | Month | 1 July 2020 |

[62] ZET: transmission balancing zone
[63] TSO: natural gas transmission system operator

| | | | | |
|---|---|---|---|---|
| Transmission to TSOs of daily estimates of quantities loaded by suppliers at PITDs within a timeframe enabling them to be taken into account by the TSOs | Reporting on the 1st of month M+2 of the value:<br>*Number of days in month M where the DSO[64] did not send provisional allocations calculated at D+1 within a timeframe enabling them to be taken into account by the TSOs*<br>(i.e. one value monitored) | - all TSOs combined<br>- all days for which the deadline is not met for one or both TSOs (the penalty is due if at least one TSO is affected by a delay)<br>- excluding days where deadline is not met at the request of either TSO (such days are recorded as days where the deadline is met by the DSO) | Month | 1 July 2020 |

### Indicators for index rectifications

| Indicator name | Indicator calculation | Indicator scope | Frequency of reporting to CRE and of publication | Implementation date |
|---|---|---|---|---|
| Rate of indexes rectified | Reporting on the 1st of month M+2 of the ratio:<br>- for 6M customers:<br>*(Number of readings reported with a "rectified" status for month M – Number of rectifications following commissioning for month M) / Total number of readings reported for month M*<br>- for other customers:<br>*(Number of active PCEs where the index was rectified in month M / Total number of active PCEs in month M)*<br>(i.e. 2 values monitored) | - all index changes, regardless of the triggering event, with the exception of rectifications following commissioning for 6M customers<br>- all real indexes, and also all indexes calculated for customers other than 6M customers<br>- all suppliers combined | Month | 1 July 2020 |

[64] DSO: natural gas distribution system operator

### Indicators for GRDF's new projects

| Indicator name | Indicator calculation | Indicator scope | Frequency of reporting to CRE and of publication | Implementation date |
|---|---|---|---|---|
| Response time for fulfilling requests for detailed studies for biomethane project developers | Reporting on the 1st of month M+2 of the value:<br><br>*Average timeframe between the date of reception of and the date of response to the request for detailed studies addressed to GRDF within the framework of the connection of a biomethane injection installation*<br><br>(i.e. 1 value monitored) | - requests addressed by a biomethane project promoter to GRDF according to the terms and conditions define capacity register management procedure (D1 milestone)<br>- requests initially addressed to a TSO and transferred to GRDF | Month | 1 July 2020 |
| Number of claims following the connection of a biomethane installation | Reporting on the 1st of month M+2 of the value:<br><br>*Total number of claims from producers following the connection of a biomethane installation closed in month M*<br><br>(i.e. 1 value monitored) | - all claims where the response must be made by GRDF to a biomethane producer<br>- all written or oral means of reporting a claim<br>- claim closed: claim where a "meaningful" response (not acknowledgement of receipt) has been sent by GRDF to the producer | Month | 1 July 2020 |
| Number of claims associated with the "Gas conversion" project | Reporting on the 1st of month M+2 of the value:<br><br>*Total number of claims associated with the "Gas conversion" project closed during month M*<br><br>(i.e. 1 value monitored) | - all claims where the response must be made by GRDF to a customer<br>- all written or oral means of reporting a claim<br>- claim closed: claim where a "meaningful" response (not acknowledgement of receipt) has been sent by GRDF to the customer | Month | 1 July 2020 |

## ANNEX 3: INCENTIVE REGULATION OF UNIT COSTS OF INVESTMENTS IN THE NETWORKS (CONFIDENTIAL ANNEX)

This annex is confidential.

## ANNEX 4: INCENTIVE REGULATION OF COSTS RELATED TO VARIOUS LOSSES AND DIFFERENCES (CONFIDENTIAL ANNEX)

This annex is confidential.

## ANNEX 5: REFERENCE VALUES FOR THE PROXIMITY TARIFF (CONFIDENTIAL ANNEX)

This annex is confidential.