REDESIGN OF THE SUPPLY, TRANSPORTATION AND LOAD-BALANCING SERVICES, PHASE 2B, PART 2

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INTRODUCTION

In Exhibits Gaz Métro-5, Document 12 and Gaz Métro-5, Document 13, Énergir, L.P., (Énergir) dealt with the issues in Part 1, Phase 2B of the generic file on its cost allocation and rate structure, identified by the Régie de l'énergie (the Régie) in decision D-2020-006:

> " *[78] The Régie will therefore examine the Phase 2B issues as follows:*
>
> - *Part 1:*
> - *Functionalization and cost allocation of supply, transportation, load-balancing services and operational flexibility, including standardized deliveries;*
> - *Redesign of the interruptible service offering, including issues related to the conditions of service and rates of the redesign.*
> - *Part 2:*
> - *Conditions of service and rates for supply, transportation, load-balancing services and operational flexibility, including standardized deliveries, the level of cross-subsidization of these services and the supply service with transfer of ownership."* [translation]

This document is the continuation of Exhibits Gaz Métro-5, Document 12 and Gaz Métro-5, Document 13. It addresses the above-mentioned Part 2 issues and explains the changes to be made to the supply, transportation and load-balancing rates, which allow for application of the cost-causation principles and the phased functionalization method used in Part 1. The document contains all of Énergir's proposals in Exhibits B-0133, B-0136 and B-0485, with the exception of its proposal regarding the multiplier. Where the proposal differs from what has been presented in the past, the reader is alerted and an explanation of the change is provided.

The proposed tariff changes include eliminating the charge for transfer to the supply service, changing the entry and withdrawal notices and the minimum annual transportation obligations, and revising the parametrization of the load-balancing rate. Finally, the changes to be made to the *Conditions of Service and Tariff* (CST) text to reflect the proposed changes are discussed on a service-by-service basis.

1 SUPPLY SERVICE TARIFF

1.1 CHARGE FOR TRANSFER TO THE SUPPLY SERVICE

Currently, migration fees are set out in the CST for any customer who wishes to join or withdraw from the distributor's supply service without giving the 6-month prior notice of entry or withdraw (Article 11.1.2.3). The migration fees were introduced in the 2007 Rate Case.

> *"*[…] [Énergir] *pointed out at the time that when the distributor's natural gas price is lower than the market price, direct purchase customers might be strongly tempted to migrate to the distributor's supply service. However, this migration of customers could result in an increase in the level of supply purchase and lead to a change in the level of protection offered by financial derivatives."*[1] [translation]

At that time, the migration fees were calculated by dividing the projected effect of the prices protected by the financial derivatives for the following 12 months by the projected quantity of gas purchased for the same period. The result was then applied to $\frac{6}{12}$ of the customer's annual normalized consumption history.

Following decision D-2014-077, changes were made to the determination of migration fees. As a result, the migration fees now include a portion corresponding to the difference in the projected cumulative cost, calculated in the "deferred costs of the gas supply service" section of the monthly supply service cost calculation. Moreover, these migration fees are now invoiced on the total projected annual volume of the migrating customer, rather than on 6/12 of the consumption, as was the case before. The following formula illustrates the calculation:

$$\left\{\frac{[(\text{Expected effect of financial derivatives}) + (\text{cost difference})]}{\text{Forecasted purchase annual volume of system gas}}\right\} \times \text{Projected annual volume}$$

In addition to approving the new method for calculating migration fees, the Régie ended the financial derivative program. So the left part of the numerator on the expected effect of financial derivatives no longer affects migration fees.

In the current calculation method, all that remains is the impact of the "cost difference" component in the migration fees. Each month, the cost difference cumulates the gap between the price paid by Énergir for the natural gas it purchases (acquisition cost) and the projected price over a

[1] R-3837-2013, B-0093, Gaz Métro-6, Document 3.

12-month period (invoiced price). The cost difference is then given to customers or recovered from customers through the supply rate. However, the cost difference includes costs related to seasonal variations, until these costs are transferred to load balancing, which is done once a year. Furthermore, between the time when the seasonality cost is determined and the time when the cost transfer is approved, several months of the new rate case go by, during which the seasonal costs may build up in the cost difference account. Consequently, the cost difference account always contains some costs related to seasonality. Since these costs are subsequently charged to all customers through the load-balancing service, regardless of whether or not they use Énergir's supply service, charging these costs as migration fees and load-balancing costs results in double billing.

This is why Énergir is proposing to eliminate charges for transfer to supply service. Nonetheless, 60-day prior notices of entry or withdrawal would still be required for the purposes of administrative deadlines.

1.2 SUPPLY SERVICE WITH TRANSFER OF OWNERSHIP

In decision D-2016-126, the Régie asked Énergir to analyze the usefulness of retaining supply service with transfer of ownership.

Supply service with transfer of ownership has been offered by Énergir since 1985, after supply was deregulated. Supply service with transfer of ownership is an alternative to supply service without transfer of ownership for customers who wish to supply their own natural gas.

1.2.1 Cost-benefit analysis of supply service with transfer of ownership

Cost of supply service with transfer of ownership

Customers who undertake to supply their natural gas with transfer of ownership provide it to Énergir at an agreed-upon delivery point. In return for this ownership, the distributor pays an amount corresponding to the quantity delivered, at the price of the system gas service in effect. Then, for its measured withdrawals at its facilities, the customer pays Énergir an amount reflecting the quantity consumed, at the price of the system gas service in effect. When a customer uniformly delivers the amount it consumes during the year, but consumes more (or less) during certain months, this results in a difference between the amount paid at the time of the customer's delivery and the amount billed at the time of

consumption, if the system gas prices are different. Similar differences in costs are also seen for the customers of Énergir's supply service since the system gas price for 12 months of a year is not equal to the uniform average of the actual acquisition price, i.e. the functionalized cost to the supply service. In both cases, the differences tend to cancel each other out when the supply prices are stable over the long term, and they reflect the variability of the monthly price.

By comparison, Énergir does not buy back the commodity when it comes to supply service without transfer of ownership. In maintaining a uniform delivery profile, such customers do not generate any cost differences equivalent to those generated by customers using supply service with transfer of ownership.

Under the assumption that prices will remain stable over the long term, Énergir considers that supply service with transfer of ownership causes no harm to either system gas customers or to supply service customers without transfer of ownership.

Benefits of supply service with transfer of ownership

To begin with, supply service customers with transfer of ownership who experience a volume imbalance during the year expose themselves to less of a financial settlement at year end. If a customer delivers an amount that is less than (greater than) its consumption, the customer will already have paid the system gas price for units withdrawn in excess of (in deficit of) its delivery. Depending on the market price, a year-end adjustment could apply. This means that service with transfer mitigates the risk related to financial settlement at the end of the year.

Second, uniform delivery may be restrictive for customers who wish to purchase directly from a natural gas supplier. The uniform delivery requirement actually forces a customer to purchase natural gas months before using it. Since supply service with transfer of ownership requires Énergir to purchase delivered natural gas at the same price as the price paid for system gas, customers can go with the supplier of their choosing, regardless of their credit status. It should be noted that this mechanism of assuming the cost of financing the uniform supply purchase has not been designed at the expense of system gas customers. In fact, system gas customers benefit from an equivalent mechanism

because the rate is based on a uniform purchase, after functionalization, and customers pay only at the time of consumption.

Finally, decision D-2017-041 ensured that supply service with transfer of ownership was retained as a condition so that customers using renewable natural gas (RNG) and system gas get the service combination.[2]

For all of the benefits discussed and since this service is essential to the proper functioning of the RNG service combination, especially since supply service with transfer does not affect Énergir's supply service customers, it is entirely appropriate to retain this service.

2 TRANSPORTATION SERVICE TARIFF

The transportation rate is constructed in a fairly straightforward manner, since the unit transportation rate does not vary according to a customer's consumption profile, whether seasonal or not. It is based on the total transportation costs obtained in the preliminary step of functionalizing the costs and volumes forecast in the 2020–2021 Rate Case. The rate submitted and based on the current functionalization method is 2.331¢/m³.[3] For example, the distributor's transportation service rate for the 2020–2021 rate year would have been established as follows, according to the functionalization method proposed in Part 1, Phase 2B of this file:[4]

$$\text{Transportation basis price} = \frac{\text{Transportation revenue requirement}}{\text{Transportation volumes}} = \frac{\$143{,}445\ \text{k}\$\ ^{5}}{\$6{,}065\ \text{Mm}^3\ ^{6}} = 2.359¢/\text{m}^3$$

[2] R-3987-2016, B-0069, Gaz Métro-2, Document 1, section 4.2.

[3] R-4119-2020, B-0082, Énergir-Q, Document 3, line 16, column 4.

[4] Gaz Métro-5, Document 12, section 5.

[5] Gaz Métro-5, Document 12, section 5.5, line 8, column 3 of Table 21.

[6] The difference between the transportation volume of 6,065 Mm³ and the one from 2020-2021 Rate Case of 6,055 Mm³ (R-4119-2020, B-0082, Énergir-Q, Document 3, l. 16, col. 2) is due to addition of interruptible volumes, in order to reflect the assumption which provides no interruption under the new interruptible offer considered as a tool responding to peak needs.

Accordingly, the unit rate based on the new functionalization method is higher than the rate based on the current functionalization method, since the functionalized transportation amount is greater for relatively the same volume.

The method for setting rates has not changed per se, when comparing it to the current method. However, in the steps leading up to the rate-setting for transportation service, it was discovered that several elements related to transportation rates needed to be revised. The following subsections are therefore a review of the rate elements that Énergir is proposing to revise, i.e. the terms and conditions for entering and withdrawing the transportation service, as well as the minimum annual obligations (MAOs) for this service.

2.1 NOTICES FOR ENTERING AND WITHDRAWIN THE TRANSPORTATION SERVICE

In the spring of 2013, several major customers expressed a desire to return to Énergir's transportation service. At that time, Article 13.1.4.1[7] of the CST on notices for entering service required customers to notify Énergir in writing at least 60 days in advance. However, with returning customers, Énergir sometimes had to purchase more transportation tools, which would affect the cost of the service. As a result, the article was amended to make March 1 the deadline, with an implementation date of November 1 of that year.[8] This deadline allowed Énergir to take customer migrations into account in the supply plan and thus to implement a transportation rate that better reflected the costs.

As part of the 2015 Rate Case[9], a further change to Article 13.1.4.1[10] was proposed in order to allow a customer to reactivate the transportation service, even if the March 1 advance notice date was not met, in cases where it was possible for Énergir to accept the customer.[11] The purpose was to be able to let a customer return if it benefited the rest of the customers, but also to allow Énergir to take on its role as supplier of last resort. According to the distributor, the rule on notices for entering transportation service should not intended as an obstacle to Énergir in its obligation

[7] Currently 12.1.4.1.
[8] R-3837-2013, B-0256, Gaz Métro-2, Document 4, section 6.1.
[9] R-3879-2014.
[10] Currently 12.1.4.1.
[11] R-3879-2014, B-0421, Gaz Métro-16, Document 1, section 2.3.

to supply and deliver natural gas to any person who requests it in the area served by its distribution system.

Also in Rate Case 2015, Énergir proposed changes to the notices for entering and withdrawing the transportation service to accommodate new rules, which are listed below, for TransCanada PipeLines Limited (TCPL):

- Two years' notice of renewal before contracts expire;
- Fifteen-year contract for new transportation contracts between Parkway and the franchise; and
- Five-year term for all contracts on this section as of the date of implementation of the new capacities.

Article 13.1.4.2[12] of the CST was then amended to require 60 days' notice from all customers who wished to withdraw from the distributor's transportation service with a capacity assignment, and to suspend the clause allowing customers to withdraw from the distributor's service without a capacity assignment. In addition, it was proposed that the assigned transportation capacity be that of the M12 (Dawn–Parkway) and SH (Parkway–GMIT EDA/NDA) tools with a remaining term as close as possible to the total average remaining term of contracts available at the time of assignment.[13]

In its decision D-2015-181, the Régie approved the amendments to the CST on the prior notices of entry and withdrawal from the distributor's transportation service. However, the Régie asked Énergir to review the notion of profitability related to conditions for entry and withdrawal and to set up a working group to discuss and report on potential improvements to the existing arrangements:

> "*[73]* ***With respect to the conditions for entry and withdrawal from the Distributor's transportation service, the Régie requests that*** **[Énergir]** ***provide, in the next rate case, an analysis of the practical application of overall profitability, i.e. for supply, transportation, load-balancing and distribution services, over the life of the transportation contract, based on profitability criteria, objectives and their application, as required by the Canadian Federation of Independent Business (CFIB). This profitability should be reconciled with*** **[Énergir's]** ***obligation to serve.***

[12] Currently 12.1.4.2.

[13] R-3879-2014, B-0421, Gaz Métro-16, Document 1, section 2.4.

> *[74] The Régie also understands the concerns expressed by the Industrial Gas Users Association (IGUA) regarding changes to the Distributor's conditions for transportation service, which prevent customers from taking advantage of favourable market conditions.*
>
> *[75]* ***The Régie requests that* [Énergir] *set up a working group with representatives of all of its customer categories to evaluate the terms and conditions on prior notices of entry and withdrawal from the Distributor's transportation service, all in light of the current environment. A report outlining potential improvements should be submitted in the next rate case.****"* [translation]

A meeting of the working group was held on February 26, 2016, at which Énergir presented the new rules proposed in this exhibit. Before presenting these rules, the positions of those who spoke up on the issue need to be reviewed.

Industrial Gas Users Association (IGUA)

In presenting its case,[14] IGUA agreed with Énergir's proposal regarding the prior notice of entry.

However, with respect to prior notice of withdrawal, the association considers that the mandatory assignment of capacity is contrary to the deregulated market and therefore prevents customers from taking advantage of favourable market conditions.

IGUA expresses its concerns on pages 21 and 22 of exhibit ACIG-0050 in file R-3879-2014:

> "*IGUA cannot support this amendment, which it considers discriminatory and contrary to the principles of a deregulated market in that it prevents customers from taking advantage of favourable market conditions to maintain their competitiveness.*"
>
> "*IGUA values access to the secondary market, which provides operational flexibility to customers. By suspending the right of customers to access the secondary market,* [Énergir] *is violating the spirit of an open market.*
>
> *IGUA therefore opposes the proposed change to section 2.3.2.*" [translation]

Canadian Federation of Independent Business (CFIB)

With respect to the prior notice of entry, CFIB is concerned about Énergir's flexibility to accept or refuse the return of customers who do not meet the March 1 deadline and the potential impact of a lack of transportation on the customer base as a whole:

[14] R-3879-2014, ACIG-0050, page 20.

> "*In the current environment where* [Énergir] *is unable to guarantee an adequate supply to meet demand in 2016, the ability to provide transportation service cannot be guaranteed and presents an unusually high level of uncertainty.*
>
> *CFIB believes that it is imprudent and contrary to the public interest for* [Énergir] *to allow such migrations and transfers when they jeopardize the security of supply for all customers and that the Conditions of Service and Tariff give* [Énergir] *the tools it needs to refuse them*." [15] [translation]

CFIB also adds that the notion of profitability, which is already present in the case of prior notices of withdrawal, should be added to the prior notices of entry and recommends that this notion be defined more precisely:

> "[CFIB recommends]:
>
> - *Including the notion of profitability in Article 13.1.4.1 so that it protects customers of the distributor's transportation service from price arbitration involving other customers in the market.*
> - *Ensuring that the notion of profitability can be put into practical use by imposing migration fees or other solutions that avoid the transfer of costs to the distributor's transportation service customers.*"[16] [translation]

In the case of prior notice of withdrawal, CFIB does not object to the rule proposed by Énergir.

To address the concerns expressed by the various stakeholders, Énergir proposes to review the rules for the transportation service's prior notices of entry to strike a balance between protecting customers and giving them flexibility.

2.2 CURRENT ENTRY RULES

The prior notice of entry currently provided for in the wording of the CST is as follows:

> "***12.1.4.1 Prior notice of entry***
>
> *A customer who wishes to avail itself of the distributor's transportation service at the earliest on November 1st must so notify the distributor in writing before the previous March 1st. Notwithstanding the compliance or not by the customer of the notice required under this Article, a customer may avail itself of the distributor's transportation service only if it is possible for the distributor to provide it.*"

Thus, if a customer wishes to use Énergir's transportation service no earlier than November 1,

[15] R-3879-2014, FCEI-0032, page 12.

[16] R-3879-2014, FCEI-0081, p. 11.

and so informs the distributor:

- before March 1: Énergir accepts;
- after March 1: Énergir accepts if it is possible to provide transportation to the customer without adversely affecting current customers.

In addition, under the conditions currently in effect, a customer's return to the distributor's transportation service is based on Énergir's ability to provide transportation. The notion of profitability is not included in this article.

Énergir believes that the notion of profitability is not something that should be added as a condition. When a customer moves from one service to another, the potential impact on costs can be rather significant, in either direction. It therefore becomes complex, if not impossible, to distinguish the impact directly caused by the movement of a particular customer. In addition, supply tools are acquired as a whole, the supply structure being designed to meet overall demand.

Énergir would like to establish a clear and simple rule that would continually and uniformly apply and which would encourage customers to notify the distributor before March 1, rather than establishing a rule aimed at covering specific stranded costs that could be generated by certain migrations.

2.3 PROPOSED ENTRY RULES

Énergir is proposing a late charge for customers who ask to have their transportation service reinstated after the March 1 deadline.

The fees in question would not be intended to cover all costs attributable to the fact that the customer announced its return after the due date. Énergir notes that these costs cannot be isolated precisely by customer and are not necessarily higher than for a customer who meets the March 1 deadline. The late charge would therefore not be estimated based on the costs generated by the customer as a result of returning to the transportation service. Instead, it would be set at a high enough level to encourage customers to submit their applications before March 1.

As previously mentioned, meeting the March 1 deadline benefits Énergir, since it allows the distributor to include the migrations in the transportation rate for the coming year. In this way, the

rate calculated at the time of the rate case better represents the transportation costs to be expected.

The charges would result in a 20% increase in the current transportation price, applicable for the next 12 months. This means that customers who wish to revert to the distributor's transportation service but request it after March 1 would be subject to the following adjusted transportation price:

Adjusted transportation price = Price T x (1 + 20%)

where Price T = Distributor's transportation service price (Article 12.1.2 of the CST)

The price adjustment would apply to the 12 months following the customer's return to the distributor's transportation service, regardless of whether the customer's return benefits existing customers. Lastly, the notion of profitability would therefore not need to be added to the article.

In all cases, the customer's return would remain conditional on the availability of the additional capacity needed.

In order to determine the adjusted transportation price premium, Énergir referred to a 2013 marketing study conducted by Extract on customers' price sensitivity.[17] The study found that Sales Major Industries (SMI) customers were the most likely to migrate from one service to another and that a variance of more than 2.5% in their total bill would put them out of their comfort zone. Moreover, a 20% increase in the transportation rate[18] represents an increase of approximately 2.5% in the total bill of customers in this category.

The results of this study show that in applying a 20% increase to the transportation rate over a 12-month period, late charges would be high enough to prompt customers to meet the notice deadline. Customers finding the price too high could always wait until the following year before returning to the distributor's transportation service without penalty.

[17] Appendix 1 outlines the results of this study.

[18] Based on the rates proposed in file R-4119-2020.

Since a customer's return to the transportation service could result in the purchase of transportation capacity on the market, Énergir also tried to estimate potential late charges based on the difference between the transportation rate and the price on the secondary market. On the other hand, as the market price is very volatile, particularly depending on the period observed, it is difficult to determine a consistent adjustment premium. This approach was therefore not adopted.

2.4 CURRENT WITHDRAWAL RULES

The CST article on prior notices of withdrawal currently reads as follows:

> "***12.1.4.2 Prior Notice of Withdrawal***
>
> *Subject to Article 12.2.1, a customer who wishes to opt out of the distributor's transportation service, in order to provide the service itself, must so notify the distributor in writing at least 60 days in advance.*
>
> *Notwithstanding the compliance or not by the customer with the notice required under this Article, the latter may opt out of the distributor's transportation service only if it is economic and operationally possible for the distributor to agree to it.*"

Currently, a customer who wishes to opt out of the distributor's transportation service in order to provide the service itself must notify the distributor in writing at least 60 days in advance. Such a customer could be denied withdrawal of transportation service if it is not cost-effective or operationally feasible for the distributor to accept it.

In addition to the prior notice of withdrawal, an assignment of transportation capacity is also required (Article 12.2.3.1 of the CST). A customer who wishes to opt out of the distributor's transportation service will be permanently assigned the transportation capacity already purchased for it by the distributor. The capacity assignment comes from the M12 (Dawn-Parkway) and SH (Parkway-EDA) contracts, which have a remaining term as close as possible to the total average remaining term of these contracts. On November 1, 2020, the average term of the SH Parkway-EDA contracts will be 9.3 years,[19] and the assignment would then be carried out based on 10-year contracts.

[19] Average term of SH Parkway-EDA contracts, R-4119-2020, B-0005, Énergir-H, Document 1, Appendix 7, p. 1, l. 25-30, col. 3

2.5 PROPOSED WITHDRAWAL RULES

Énergir proposes to maintain the minimum 60-day notice period prior to the effective date of the transportation assignment, in addition to disallowing customers to withdraw from the distributor's transportation service without being assigned transportation capacity, unless it is to purchase in-franchise produced renewable natural gas. The reasons for implementing these rules were detailed in the 2015 Rate Case[20] and are still relevant. However, Énergir is proposing that the notion of cost-effectiveness mentioned in article 12.1.4.2 of the CST be removed. Stranded costs related to a customer leaving the distributor's transportation service are virtually impossible to quantify, for the same reasons as those stated in the section on the prior notice of entry. Of course, the fact that profitability is no longer a factor should not, however, lead to greater risks for customers of the distributor's transportation service. It would therefore be important to institute rules to reduce the potential impact of a customer's migration on the rest of the customers. These additional rules, consisting of MAOs, are presented in section 2.6.2. In other words, Énergir is proposing to ensure the overall profitability of the transportation service by using both the rules for withdrawing from the transportation service and the MAOs for the load-balancing service.

2.5.1 Capacity assignment upon withdrawal

Énergir proposes that the assignment rules be amended to revise the period during which transportation capacity would be assigned and shorten it to five years. A reduction in the term of the assignment would provide more flexibility for customers who want to take advantage of favourable market conditions. Since the assignment would be shorter, Énergir would prefer to assign contracts on the basis of price rather than duration. Thus, the assigned capacity would probably come from an SH (Dawn-EDA) contract, which is more expensive than the M12 (Dawn-Parkway) and SH (Parkway-EDA) contracts.[21] However, in addition to price, Énergir should evaluate what can be optimally assigned based on its portfolio of supply tools at the time of assignment.

The assigned capacity could come from several contracts of varying term. If a contract longer than five years were to be assigned, the portion in excess of five years would be

[20] R-3879-2014, B-0421, Gaz Métro-16, Document 1, section 2.
[21] R-4119-2020, B-0005, Énergir-H, Document 1, Appendix 7, p. 2 of 3.

permanently reassigned to Énergir. A combination of contracts of shorter terms could also be assigned.

As a first option, Énergir would give priority to a *permanent* assignment of capacity. However, for permanent assignments, TCPL may request a financial guarantee based on the customer's credit rating. If the customer is unable to provide the required financial guarantee, the second option would apply, i.e., a *temporary* assignment. While a temporary assignment would ensure that Énergir would be liable to TCPL in the event of non-payment by the customer, the distributor would ensure that the contract contained clear clauses holding it harmless in such circumstances.

Énergir would also ensure, through article 12.2.3.1.3 of the CST, that it retains the right of first refusal on capacity transferred to a customer who wishes to dispose of it permanently. This measure is currently in place and assures the distributor that it can access any regular capacity not used by customers.

The amount of capacity assigned to the customer would be estimated based on the customer's average annual consumption to reflect what Énergir acquires in transportation on the customer's behalf. Annual consumption "A" used for the assignment in year "t" would be the maximum between: Actual A in year t-1, Forecasted A in year t-1 and Forecasted A in year t, multiplied by 365.

The proposed assignment rule would therefore give customers who want to withdraw from the distributor's transportation service more flexibility, since the assignment would be for five years and would be permitted at any time, provided Énergir is in a position to accept it. Customers would therefore be able to take advantage of market opportunities, thereby complying with the principle of rate unbundling.

Despite this greater flexibility offered to customers, Énergir wants to establish rules to limit the possibility of customers switching back and forth between the distributor's transportation service and direct purchase. This mitigation measure could take the form of stricter MAOs. The proposed changes to the transportation MAOs are discussed in section 2.6.2 of this document.

Inasmuch as the rules for entry to the distributor's transportation service were tightened, as well as those surrounding the MAOs, Énergir accordingly believes that a reduction in the assignment period is reasonable.

2.6 TRANSPORTATION MAOS

In decision D-2014-065, the Régie asked Énergir to review the rules governing MAOs for transportation service. It was concerned about how rates would be affected by the closure of a customer for which a significant amount of procurement tools had been contracted. It also felt that an MAO that decreased annually did not sufficiently protect customers.

The rules surrounding MAOs have therefore been reviewed to address the Régie's concerns and to account for the changes to the notices of entry and withdrawal and the assignment rules proposed in the previous section.

2.6.1 Current rules on MAOs

The MAOs for transportation service currently apply to all Rate-D_3, D_4 and D_5 customers[22]. For customers with a stable volume rate, the MAO corresponds to 78% of the projected annual volume or the volume of the last year. For volumes that decrease from one year to the next such that they are consistently lower than the MAO of the previous year, the MAO is readjusted downwards. When this occurs over an entire five-year contract, the MAO in the fifth year corresponds to 29% of the volumes projected in the first year of the contract.

Table 1

Year	MAO
1	78%
2	78% X 78% = 61%
3	61% X 78% = 47%
4	47% X 78% = 37%
5	37% X 78% = 29%

[22] A transportation MAO could also be applied to Rate D_1 customers, but only if an MAO is agreed to for distribution service.

For interruptible rate customers, the applicable MAO for each contract year is equal to the projected annual volume multiplied by the agreed-upon MAO percentage. This MAO is chosen by the customer and varies between 0% and 85%.

The distributor may reduce the customer's MAO bill if it has been able to partly or entirely meet its own transportation service obligations (article 12.1.3.4 of the CST).

In their current form, MAOs do not allow for the recovery of all stranded costs and do not account for a significant proportion of transportation revenues, as can be seen in the following table.

Table 2

Link between MAOs and stranded transportation service costs

Rate year	MAO ($M)	Transportation revenues ($M)	Proportion (%)	Stranded costs ($M)
	(1)	(2)	(3) = (1) / (2)	(4)
2010	2.4	266.6	0.9	6.9
2011	1.1	328	0.3	7.7
2012	1.5	319.3	0.5	1.0
2013	1.3	287.6	0.5	0.0
2014	1	303.5	0.3	0.8
2015	0.6	392.2	0.2	0.0
2016	1	431.1	0.2	5.4
2017	0.5	287.7	0.1	1.8
2018	0.6	226.7	0.2	3.1
2019	0.8	172.5	0.5	0.0

Sources:[23] MAO: R-4114-2019, B-0042, Énergir-9, Document 1, page 2, l. 14. c. 5.
Transportation revenues: R-4119-2019, B-0042, Énergir-9, Document 1, page 3, l. 10, c. 5.
Stranded costs: No stranded costs in 2019.

Table 2 shows the relationship between the MAOs and stranded costs. Stranded costs are the difference between the actual cost of FTLH and FTSH transportation and the

[23] Only sources for 2019 are presented here. The sources for previous years are the equivalent exhibits of the annual reports for each year.

revenues resulting from FTLH and FTSH optimization transactions made during the fiscal year. There is no correlation between MAO revenues and stranded costs. In their current form, MAOs only allow for the recovery of transportation costs that result from downward changes in consumption by certain customers.[24]

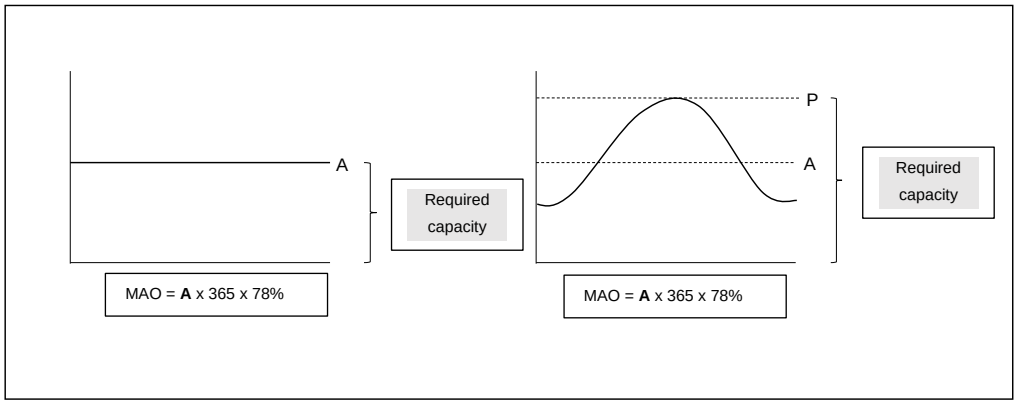
However, stranded costs are not only influenced by this kind of variation. Other elements that can generate stranded costs are temperature variation and forecast differences (for more information, see section 2.1.5 of Gaz Métro-5, Document 12). As a result, given the current method of calculating MAOs, the deficient amounts charged are not a means of fully recovering the stranded costs associated with reduced customer consumption. In addition, MAOs apply regardless of changing stranded costs: even if there are no stranded costs in a year, customers with a consumption deficit must pay a transportation MAO. In decision D-2015-140 concerning the complaint by Novelis, the Régie recognized that it is not possible for Énergir to even informally distinguish the impact of a customer's reduction in consumption:

> "*[55] As mentioned by* [Énergir]*, the Régie is of the opinion that the transportation MAO is a revenue stabilization tool that limits stranded costs related to unused transportation tools. Generally speaking, it is impossible to distinguish between the presence and absence of stranded costs related to unused transportation, such as fluctuating demand, impact of weather, deficient volumes of customers subject to an MAO. Consequently, it is very difficult for* [Energir] *to identify how a customer's specific consumption profile will affect the cost of transportation for the purposes of establishing the reduction.*" [translation]

Another peculiarity of MAOs in their current form is that they cover only the average annual transportation volume (A), regardless of the total supply tools acquired for the customer's peak (P) (if Load Factor (LF) < 100%).

[24] The term of the customer's contract affects the period over which the decrease in consumption is observed.

Figure 1



As a reminder, Énergir acquires procurement tools based on the projected demand on the peak day of all customers, not on the average annual consumption. Since MAOs are currently based on annual customer consumption, they are not a means of recovering the costs of meeting peak demand.

Furthermore, Énergir can reduce the cost of MAOs charged to customers.[25] When Énergir has surplus transportation sales, the average unit revenue from these sales, made in the previous fiscal year, reduces the cost of MAOs.

2.6.2 Proposed rules for MAOs

Transportation minimum annual obligations (MAOs) are revenue stabilization tools that help limit stranded costs related to unused transportation tools. However, as discussed earlier, in their current form, MAOs are not directly linked to stranded costs and do not allow for their full recovery.

As the entry and withdrawal conditions of the transportation service are revised, Énergir is also seeking to mitigate the impact of unused transportation capacity resulting from variations in the consumption profiles of its customers. Énergir proposes to achieve this by aligning the rules surrounding prior notices of withdrawal and transportation MAOs.

[25] Calculated yearly in the annual report (example in Exhibit R-4114-2019, B-0045, Énergir-9, Document 3).

By the use of the MAO described below, Énergir does not seek to bind all new customers for whom it may need to contract transportation capacity. In order to limit risk in such situations, specific contractual agreements should be put in place during the profitability study at the beginning of the project.

Rather than subjecting all customers to an MAO, Énergir proposes to impose an MAO on very large customers from the outset. The needs of these large customers can make up a significant portion of total supply costs, and reduced consumption on their part could result in significant stranded costs, even though they cannot be quantified precisely.

Énergir is proposing that the MAO should apply to customers with peak needs greater than or equal to 300 10^3m^3 (this would currently affect 7 customers). Customers in this category account for nearly 1% of the need for peak tools.[26]

The MAO would be determined based on customers' maximum consumption over a period of one year. Figure 1 demonstrates how the MAO would vary according to parameter P rather than parameter A, which is currently the case. Supply tools would be contracted based on customers' projected peak consumption. The higher the peak, the greater the contracted capacity required. When a customer's peak needs drop but all other factors remain constant, Énergir is left with unused transportation capacity. For this reason, it is important to protect customers from significant fluctuations in supply costs.

In addition, as the MAO would no longer be strictly tied to the transportation service and would also be linked to the load-balancing service, it would apply to both customers of the distributor's transportation service and customers who provide their own transportation service. It would therefore be added to the load-balancing service section in the CST, as described in Section 5.

[26] R-4119-2020, Énergir-H, Document 1, p. 74, Table 29: Peak of the 2020-2021 Rate Case = 36,723 10^3m^3.

MAO for customers of the distributor's transportation service

For customers of the distributor's transportation service, the MAO would be the minimum dollar amount to be recovered from transportation and load-balancing services (and would not refer to a volume, as is currently the case). The MAO would be calculated based on the supply costs associated with the customer's actual or forecasted peak service.[27] This amount would be multiplied by a fixed percentage of 75%, which corresponds to the target portion of costs to be protected by the MAO.

The MAO would be compared to the actual revenues generated by the customer from transportation and load balancing. In the event that these revenues were lower than the MAO, the customer would have to pay the difference to Énergir. The MAO would be calculated as follows:

$$MAO_t (\$) = (\text{Price } T_t \times \text{Peak Annual Volume} \times 75\%)$$

Where **Price T_t** = Price of Énergir's Transportation Service at year t
Peak Annual Volume = P x 365
P = Greater of (actual peak t-1; forecasted peak t-1; forecasted peak t).

For new customers or load additions, or even customers who are returning to the distributor's transportation service, with a projected P of ≥ 300 10^3m^3 and for which Énergir would have to contract additional transportation capacity, a fixed MAO would be fixed for five years with no possibility of reduction.

For all other customers with a projected P of ≥ 300 10^3m^3, including new customers from the sixth year onwards, an MAO would be calculated each year based on the actual and forecasted data for the current year and the forecasted data for the upcoming year. If the said MAOs were implemented, it would mean that all existing Énergir customers that meet the peak criterion would be assigned an MAO using the new proposed formula. As the concept of *forecasted peak t-1* is included in the formula to calculate the MAO, revenues related to these customers would be guaranteed at 75% for two years. To illustrate this

[27] The peak parameter (P) used for the MAO of year t would be the greater of: actual P for year t-1, forecasted P for year t-1 or forecasted P for year t.

point with a simple example, a customer who is known to be stable but who did not consume as forecasted in 2021 would have to meet the same MAO for 2020 and 2021.

Table 3

Forecasted P_{2019}	400 10^3m^3	**P_{2020} = 400 10^3m^3**
Actual P_{2019}	400 10^3m^3	
Forecasted P_{2020}	400 10^3m^3	**P_{2021} = 400 10^3m^3**
Actual P_{2020}	350 10^3m^3	
Forecasted P_{2021}	375 10^3m^3	**P_{2022} = 375 10^3m^3**
Actual P_{2021}	375 10^3m^3	
Forecasted P_{2022}	375 10^3m^3	

Furthermore, having a guaranteed revenue level for 2 years is consistent with the transporter's requirement for renewal notices to be issued 2 years in advance.

MAOs for customers who provide their own transportation service

For customers who provide their own transportation service, the principle for determining the MAO would be the same, but the customer's forecasted or actual average annual consumption, as determined for the purposes of evaluating the transportation capacity to be assigned (see section 2.6.1), would be subtracted from the annual peak consumption. This would have the effect of applying an MAO for the load-balancing service.

Implementing an MAO for customers who provide their own transportation would prevent customers seeking to evade their annual obligations from opting out of the distributor's transportation service, as the "transportation" portion would be recovered through the assigned transportation capacity and the "load-balancing" portion would be recovered through the MAO.

The MAO would only be compared to the revenue actually generated by the customer of the load-balancing service. In the event that these revenues were lower than the MAO, the customer would have to pay the difference to Énergir.

The duration of the MAOs would be the same as for customers of the distributor's transportation service, based on the different categories identified beforehand.

The MAO would be calculated as follows:

$$MAO_t (\$) = (\text{Price } T_t \times \text{Peak Annual Volume} \times 75\%)$$

Where **Price T_t** = Price of Énergir's Transportation Service at year t

Peak Annual Volume = (P-A) x 365

P – A = Greater (Actual peak t-1 – Actual average consumption t-1; Forecasted peak t-1 – Forecasted average consumption t-1; Forecasted peak t – Forecasted average consumption t).

It should be noted that customers anticipating a temporary increase in their peak consumption could take advantage of the load-balancing rate optimization option. This rate option, proposed in exhibit Gaz Métro-5, Document 13[28], sets the recognized peak during the winter, which could eliminate or limit the MAO.

Last, Énergir proposes eliminating the concept of reduction, since the 75% MAO percentage would ensure that 25% of the costs would have to be absorbed by the distributor. The revenue associated with the sale of transportation overages would partially offset the losses related to consumption decreases by all customers. Moreover, some customers estimating the residual value to be more than 25% of the total cost could request an assignment of transportation tools from Énergir so they can resell the transportation capacity on their own and reduce losses.

Énergir studied the impact of the changes to the withdrawal rules and MAOs by conducting a sensitivity analysis, which is outlined in Appendix 2.

3 LOAD-BALANCING SERVICE RATE

3.1 PROPOSED LOAD-BALANCING RATE

The current rate for the load-balancing service is calculated using the following formula:

$$\frac{\text{“Peak” price} \times (\text{P} - \text{W}) + \text{“Space” price} \times (\text{W} - \text{A})}{\text{Volume for the last 12 months}}$$

[28] Section 7.4.

This formula takes three factors into account: peak daily consumption (P), average daily winter consumption (W) and average daily annual consumption (A). However, the analysis of the causation[29] showed that only peak consumption (P) in relation to average consumption (A) affects the total supply cost:

> "*The difference between peak demand and average demand allows Énergir to calculate customers' unused units, regardless of their daily consumption profile. Furthermore, two different customers who have the same annual consumption and LF automatically generate the same number of used and unused units"* [translation].

The portion of the load-balancing rate used to recover costs that vary based on the LF should therefore only consider the daily peak consumption and the average daily annual consumption in the customer's consumption profile.

This is also true for the other portion of the load-balancing rate used to recover the costs of operational flexibility and costs not required to meet customer needs, which vary according to the volume consumed. As a reminder[30],

> "*Since the need for operational flexibility increases with the total volume to supply, the most direct and reliable causal link for operational flexibility is the volume consumed by the customers*". [translation]

Énergir therefore proposes a new load-balancing rate with two components:

1° Price component based on the LF;

2° Price component based on the volume consumed.

3.2 PRICE COMPONENT BASED ON THE LOAD FACTOR

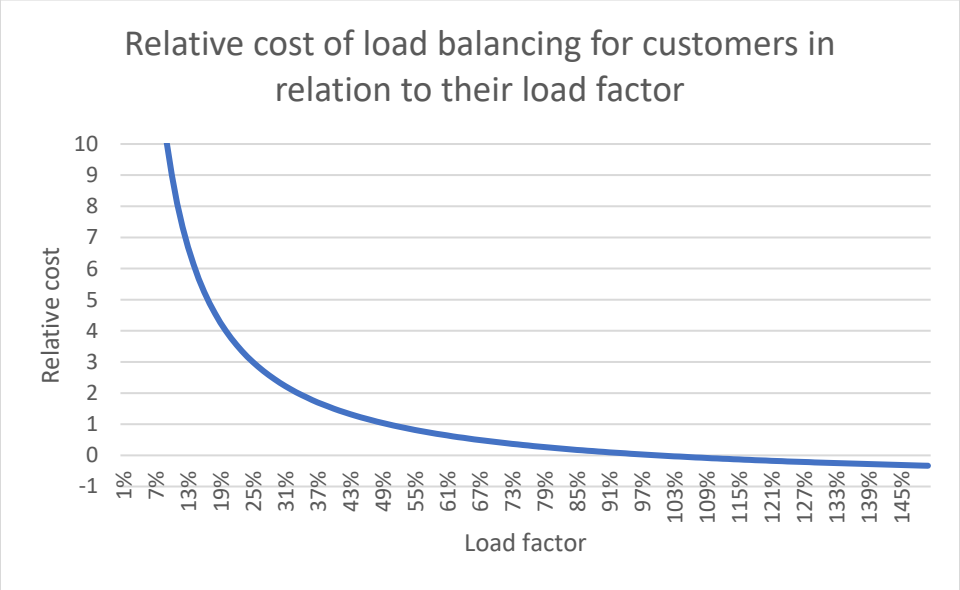
The first price component based on the LF must be established. This component makes it possible to allocate the seasonal supply costs.

Gaz Métro-5, Document 12, section 2.1.3.

Gaz Métro-5, Document 12, section 2.3.3.

As shown in the examination of the causation of costs based on the consumption profile, the lower a customer's LF, the higher the cost it generates.[31] The graph below represents the growth curve of the cost based on the customer's LF:

Graph 2



The formula used to distribute the costs based on this relationship is:

$$\left(\frac{1}{\mathrm{LF_i}} - 1\right) \mathrm{X\ Average\ peak\ rate}$$

Where LF_i = load factor of customer i determined by the ratio of average annual demand over peak consumption (A_i/P_i), both parameters being determined from the previous year's volumes. For customers with daily readings, the peak is the actual consumption peak observed between December 1 and the last day of February.[32] For customers with monthly readings, the peak corresponds to the highest average monthly demand between December and February, times the multiplier.[33]

[31] Gaz Métro-5, Document 12, section 2.1.3.
[32] See section 3.5.1. for more information.
[33] See section 3.5.2. for more information.

3.3 PRICE COMPONENT BASED ON THE VOLUME CONSUMED

A price component based on the volume consumed must also be established for costs that cannot be allocated based on the consumption profile.

The formula below allocates the costs based on volume consumed:

$$\text{Average “other cost” rate} = \frac{\text{Costs not related to consumption profile}}{\text{Total volumes forecast}}$$

The per-unit rate thus determined makes it possible to record costs by m³ consumed.

3.4 ADDITION OF PRICE COMPONENTS

For each m³ consumed, the load-balancing rate for customer i is established by adding up the various components:

$$\text{Éi rate } \left[\left(\frac{1}{LF_i} - 1\right) \times \text{Average peak rate}\right] + \text{Average other cost rate}$$

3.5 OTHER ITEMS TO BE REVIEWED

The numerous analyses related to load balancing have brought to light some other required changes, in addition to the formula for establishing the price. The additional analyses and resulting changes are discussed in the following sections.

IMPORTANT

The proposal for the peak service supplement was removed in the updated evidence. In fact, Énergir does not have sufficient data available at this time on customers potentially covered by this proposal.

3.5.1 Parameter calculation period

Further to the cost causation discussed in Section 2.3.4 of Gaz Métro-5, Document 12, regarding the determination of the winter period for measuring the peak demand of each of the in-franchise customers, Énergir proposes to adjust the peak demand observation period so that it begins on the first day of December and ends on the last day of February. This more restricted period minimizes the chances of excluding the franchise peak, while

also minimizing the risk of capturing an individual peak that does not correlate with the franchise peak.

3.5.2 Evaluation of peak for customers with monthly readings

In case R-3443-2000[34], Énergir proposed adding a multiplier to the load-balancing rate to evaluate the peak daily consumption of customers with monthly readings.

The method proposed by Énergir and approved by the Régie (D-2001-078) to determine this multiplier consisted in comparing the actual peak daily consumption, measured with or without a meter that takes daily readings, to the daily peak consumption extrapolated to 44 DD (baseline 18 °C) in the service cost allocation study. A regression was then done to determine the relationship between the LF and the ratio between the peak consumption at 44 DD and the peak consumption "read."[35] The following formula resulted from the analysis:

$$\text{Multiplier} = 2.1 - (1.1 \times A \div C), \text{ the minimum result being } 1$$

Where C = highest of the average daily loads of each month from November to March

Since then, this multiplier has been applied to customers of D_1 and D_3 distribution services with a consumption of 75,000 m³ or more, with the exception of customers simultaneously under rate D_3-D_5.

IMPORTANT

In its initial exhibit, Énergir proposed to modify the multiplier based on a more recent functional analysis.[36]

However, there are two reasons why Énergir is revising its proposal. On the one hand, the concept of the multiplier was based on the fact that the group of customers in question had meters that took monthly readings at the time. Since June 2017, all facilities consuming 75,000 m³ or more have been equipped with a meter that takes daily readings. Énergir is therefore able to collect actual daily consumption data for all of these high-

[34] R-3443-2000, SCGM-2, Document 1, section 5.2.1.
[35] R-3443-2000, SCGM-7, Document 2.
[36] B-0136, Gaz Métro-5, Document 3, section 7.

volume customers. On the other hand, using a multiplier still results in an estimate. Énergir reevaluated the multiplier based on data from the winter of 2019-2020, and the application of both the current and new multiplier resulted in a discrepancy between the customer's actual peak and billable peak. For this reason, Énergir does not consider it relevant to review the calculation of the multiplier. Alternatively, it proposes carrying out work to fine-tune the extracted daily data to transform it into billable daily data. This work mainly involves IT developments that would be integrated into the overall developments required to implement the new load-balancing service rate in the context of this case.

3.5.3 Minimum and maximum prices

In case R-3529-2004, Énergir suggested placing limits on customers' load-balancing rates. These limits were intended to prevent certain extreme cases leading to unreasonable load-balancing rates:

> *"For example, a customer simultaneously under rate D_4/D_5 who exclusively employs peak shaving in the interruptible service could, in a given year, withdraw a very low volume at rate D_5 but have a daily contract volume (DCV) attributed to this tariff. Once winter is over, the DCVs would be revised downwards to avoid a volume imbalance. This type of scenario could generate a load-balancing price of up to \$10/m³ in credit, whereas the average rate for all tariffs, according to the 2004 budget, is \$0.01525/m³. If, in the following year, the customer does not withdraw more volume and maintains the same delivery method, the price could be adequate. However, if the customer starts withdrawing more volume, then we would extend a very large credit for a completely different load-balancing service, thereby putting revenues at risk. Note that the situation could be reversed, although this is less likely.*
>
> *To prevent these extreme cases, we propose fixing a minimum and maximum price for the load-balancing service."*[37] [Énergir emphasis] [translation]

This proposal was accepted by the Régie in decision D-2004-194 (p. 20).

[37] R-3529-2004, SCGM-11, Document 2, p. 22.

Then, in the proposal to abolish rate D_M, Énergir suggested adjusting the calculation of the minimum and maximum load-balancing prices. Énergir's final proposal can be found in case R-3809-2012:

> "*To avoid an increase in credits granted and volatility of the load-balancing price pending completion of the work on its rate structure*[citation omitted]*,* [Énergir] *proposes to keep the minimum load-balancing price at -1.561¢/m³, as approved by decision D-2011-194.*
>
> *Although the maximum price before the change is established according to a consumption profile of 20% of the LF,* [Énergir] *finds this to be substantially higher than the historical maximum prices for the load-balancing rate, which were between 6.311¢/m³ (rate as at December 1, 2010) and 8.284¢/m³ (rate as at December 1, 2008). Moreover, work is under way on the load-balancing service, and proposals will be presented in the rate structure scheduled to be submitted with the 2014 Rate Case. Therefore,* [Énergir] *proposes maintaining the maximum load-balancing price at 7.638¢/m³, as approved by decision D-2011-194."*[38] [translation]

The Régie approved this proposal in decision D-2013-115.

The new formula proposed in section 3.2, based on the LF, eliminates the problems identified in the previous cases. In fact, the proposed formula has natural limits related to the costs to be allocated based on the customers. Let us take a closer look at the formula to determine these natural limits:

(1/LF – 1) * Average peak rate

At one extreme, a customer could withdraw natural gas on only one day of the year during the winter. In this case, the customer's LF would be 0.274% (i.e. 1/365). The formula is as follows:

(365 – 1) x Average peak rate or 364 x Average peak rate

The **maximum rate** for a customer is therefore equivalent to 364 times the peak rate.

[38] R-3809-2012, Gaz Métro-15, Document 2, p. 6.

At the other extreme, a customer could withdraw nothing during the winter, resulting in an LF tending toward infinity. In this case, the formula is as follows:

(0 – 1) x Average peak rate or -1 x Average peak rate

The **minimum rate** for a customer is therefore equivalent to -1 times the peak rate.

As per the data in the 2020-2021 Rate Case and using the proposed functionalization method, the average peak cost would be 1.576¢/m³. Using the proposed formula [(1/LF - 1) * Average peak rate] and without applying any limits (either maximum or minimum), Table 4 shows the potential load-balancing prices set for the various LFs:

Table 4

LF *(%)*	Price *(¢/m³)*
10,000,000	(1.576)
500	(1.261)
100	0.000
80	0.394
60	1.051
40	2.364
20	6.303
16	8.273
10	14.182
5	29.941
1	156.006
0.274	573.597

The minimum price would be -1.576¢/m³ and the maximum would be 574¢/m³. For information purposes, the rate based on the lowest LF observed among current customers would be 240¢/m³.

Although the proposed load-balancing formula has natural limits, Énergir believes it is reasonable to set a maximum limit at the balancing rate, equivalent to an LF of 10%. The limit would only apply to less than 0.01% of Énergir's customers subject to the personalized balancing rate (41 customers). In the rate simulation detailed in Section 3.6, the maximum balancing rate would therefore become 14.596¢/m³[39]. Applying this maximum limit would make it possible to avoid major rate shocks for some customers.

In short, Énergir is proposing to eliminate the minimum balancing price and to maintain a maximum balancing price based on an LF of 10%.

IMPORTANT

This proposal differs from the original evidence, in which it was also proposed to remove the maximum limit.[40] Indeed, Énergir was able to better estimate the rate impacts of this change on customers with very low LFs (in contrast to the previous evidence where no customers had very low LFs).

3.5.4 Threshold for the individualized price

Since October 1, 2012, the threshold for the individualized load-balancing price has been 75,000 m³ per year. This threshold was determined during the 2011 Rate Case.[41]

Énergir is not proposing to change the threshold in this phase of the rate review, but rather reevaluate it in phase 4, which consists of reviewing the rate structures for the distribution service. This will establish a threshold that will account for the new structure to be proposed and the new customer segmentation.

As such, during the review of the threshold in phase 4, customers whose annual consumption is less than 75,000 m³ will be subject to an average load-balancing rate. This

[39] The application of a maximum limit raises the average peak rate, therefore increasing the balancing rate corresponding to an LF of 10% from 14.182¢/m³ to 14.596¢/m³.

[40] B-0136, Gaz Métro-5, Document 3, section 5.

[41] R-3720-2010, Gaz Métro-12, Document 3.

average rate will be determined based on an LF calculated according to the cumulative profile for all customers in the same customer segment, i.e. all rate D_1 customers.

For customers whose consumption is greater than or equal to 75,000 m³, the LF will continue to be calculated on an individual basis.

3.5.5 Volume transposition for direct purchase customers

Direct purchase customers who deliver their supply to the franchise

As demonstrated in Section 2.2.6 of exhibit Gaz Métro-5, Document-12, the delivery variances are the same as the consumption variances for customers who deliver their supply to the franchise. Since the proposed load-balancing rates are based on consumption parameters A and P, which factor in seasonal costs, the use of the transposed peak for these customers is retained.

Direct-purchase customers who deliver their supplies outside the franchise

However, the transposition approach cannot be retained for customers who deliver to a reference point outside of Quebec. In fact, as demonstrated in Section 2.2.6 of exhibit Gaz Métro-5, Document 12, if the transposition approach were applied, these customers would be charged at an additional cost (positive or negative) for the impact of their delivery on the seasonal portion of transportation and supply costs, even though they generate no transportation costs. To correct the existing bias in the load-balancing rates for direct purchase customers who choose the distributor as their transportation supplier, Énergir proposes replacing the transposition service with adjustment fees calculated as at the customer's contract anniversary date.

The adjustment fees proposed by Énergir for direct purchase customers using the distributor's transportation service are based on the following concept:

$$\text{Adjustment charges} = \left[\sum_{i=1}^{N} \text{Price}_i \times (\text{TUD} - \text{DCV}_i)\right]$$

Where i = day of the contract period

Price_i = Day i market price at which Énergir should theoretically purchase the delivery shortage or theoretically sell the delivery overage

N = number of days in the contract period

DCV_i = daily contract volume on Day I; and

$\text{TUD} = \frac{1}{N}\sum_{i=1}^{N} \text{DCV}_i$.

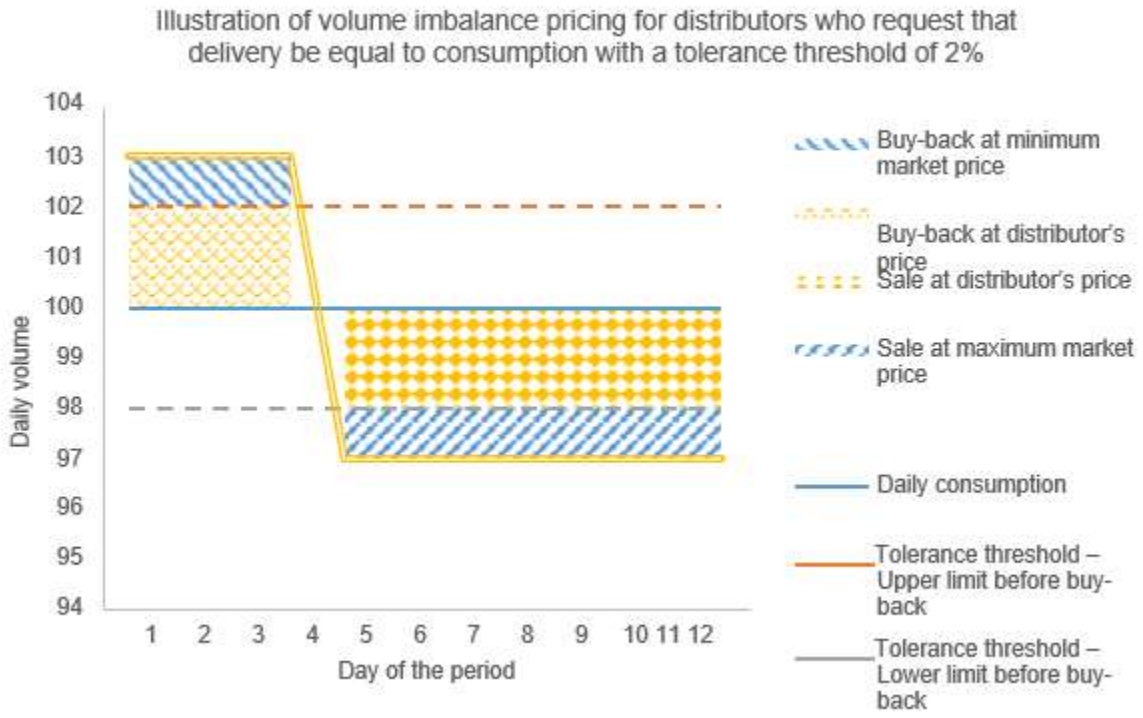
This formula estimates that when the customer delivers a volume higher than (or lower than) its uniform delivery, Énergir must theoretically sell (purchase) the overage (shortage) at the market price. If the price is the same throughout the year, the theoretical cost is zero.

Billing adjustment fees at the end of the year is an interesting approach, since a similar mechanism is already in place for annual volume imbalances (article 11.2.3.3.2 of the CST). Énergir's proposal involves recording a price impact at the end of the contract year and also allowing the financial settlement or carrying forward of the adjustment fees billed. Billing adjustment fees would therefore simplify the load-balancing rate for direct purchase customers who use Énergir's transportation service, given the elimination of transposition, without overly complicating the supply service for such customers, who are already accustomed to financial settlements at the end of their contract period. The financial settlement and the adjustment fees would be calculated and billed to the customer at the same time.

Énergir proposes that customers who only slightly modify their deliveries on an annual basis not be billed adjustment fees. Any price variance caused by a daily contract volume (DCV) between 98% and 102% of the uniform delivery would not be billed; the buy-back and sale price within this interval would be the distributor's price or the average price for the period. Outside the 2% variance, the buy-back price would be based on the market price.

The following graph shows that customers would pay seasonal supply costs only in cases where the variances exceed the daily flexibility margin. In fact, all imbalances below the threshold would be billed or credited at the same price, known as the "distributor's price." Only the actual acquisition costs incurred when the delivery variances exceed the 2% threshold would be billed to the customer.

Graph 3



This way of dealing with the seasonal nature of supply gives the customer some flexibility with respect to variations in the delivery profile throughout the year, while mitigating the impact on customers. The flexibility margin is based on the provisions of article 11.2.3.3.1 of the CST regarding daily volume imbalances. As per this article, Énergir intends not to bill any market price for daily volume imbalances below 2%.

Regarding the prices used, Énergir would use the market price available when the adjustment fees were calculated. However, it would make sense to apply the same logic used to settle volume imbalances in the supply service, i.e. to protect customers against

the cost of acquiring supply on the market. If Énergir has to purchase more supply to offset a delivery shortage, the financial settlement would therefore use the greater of market price and system gas price (or uniform price), and the lesser of market price and system gas price (or uniform price) if Énergir has to sell supply to offset a delivery overage.

Finally, in the case of grouped customers, adjustment fees would be calculated based on the daily sum of the DCVs for each customer in the group; the theoretical uniform delivery (TUD) would be calculated based on these DCVs. The adjustment fees would then be prorated among customers to the volumes withdrawn during the contract period or to the DCVs, if the latter were provided by the customers.

Appendix 3 presents the current and proposed load-balancing rate impacts for different delivery profiles, both for those who deliver to a reference point outside of Quebec and those who deliver to a franchise.

Customers who have entered into a fixed-price supply agreement with the distributor

According to article 13.1.4 of the CST, for customers subject to the calculation of a customized load-balancing price and who have entered into a fixed-price supply agreement with the distributor provided by a specific supplier, the calculation of their load-balancing price is based on a transposed consumption profile. However, as illustrated in the previous sections, the cost incurred by the delivery profile to a reference point outside of Quebec is not the same as the consumption profile. The supply for customers who have entered into a fixed-price agreement is delivered to a reference point outside of Quebec.

Moreover, unlike customers who supply the natural gas that they withdraw at their facilities, customers who have entered into a fixed-price supply agreement are not grouped within the meaning of article 10.4 of the CST. This makes the application of adjustment fees much more complicated. First, customers who are grouped under the same supply contract are grouped only because they all have a supplier in common. Therefore, separate adjustment fees must be calculated for each customer because the customers are not necessarily related; otherwise, a customer who generates costs could end up paying nothing because of the savings generated by a customer within the same grouping. Then, because the daily contract nomination or delivery stems from an overall projection of the annual consumption for the customer grouping, a customer's individual

DCV may be affected by the changes made by another customer in the grouping. Customers with stable and predictable consumption, whose DCV would have been perfectly stable had they had their own supplier, could therefore be charged because they are bundled with other customers.

Between October 1, 2019 and September 30, 2020, approximately 14% of customers with a fixed-price supply agreement had an annual consumption greater than 75,000 m^3, with an average of nearly eight customers in each grouping. This means that not only would few clients be affected by the adjustment fees charged to customers with a fixed-price agreement, but also that the individual adjustment fees would be affected by an average of seven other customers.

For the above reasons, Énergir proposes that the volumes of customers with a fixed-price supply agreement no longer be transposed and that no adjustment fees be applied.

To conclude, a few rate decision follow-ups required by the Régie are presented in Appendix 4.

3.6 RATE SETTING

After determining the costs to functionalize balancing, the rates for this service can be constructed by subdividing the balancing costs to be recovered between the component based on the consumption profile and the volume-based component. The revenue requirements that need to be generated through the seasonal profile component (average peak rate) amount to $129.3M[42], while the required revenues to be generated through the consumed volume component (average rate other costs) amount to $7.2M[43].

Énergir has recalculated the prices according to the new rates it is proposing. The average peak rate is calculated based on the sum of the consumption profiles of each customer. Furthermore, since Énergir is proposing to shorten the winter period, all of the customer peaks have been recalculated.

[42] Gaz Métro-5, Document 12, section 5.5, Table 21, l. 8, col. 4.
[43] Gaz Métro-5, Document 12, section 5.5, Table 21, l. 8, col. 5.

In order to reflect the assumption made during the functionalization of supply costs, consumption volumes of interruptible rate customers have been adjusted. In fact, the plan that incorporates the new interruptible service (considered a tool to meet peak demand) does not foresee any interruption[44]. As a result, the difference between the balancing volume used in the rate simulation presented, 6.117 Mm³, and the one appearing in the 2020-2021 Rate Case, 6.107 Mm³[45], is the addition of the projected interruptible volumes.

For the 2020-2021 Rate Case, the A[46] and P[47] parameters used are the actual parameters for 2019-2020. Using the data obtained from all customers (*n* customers), we can determine the average peak rate for load-balancing:

$$\text{Average peak rate} = \frac{\text{Seasonal balancing cost of } \$129{,}338\text{K}}{\sum_{i=1}^{n}\left[\left(\frac{1}{LF_i}-1\right)\times Annual\ volume_i\right]} = 1.622\ ¢/m^3$$

This average peak rate can be inserted in the formula to calculate the prices per customer: $\left(\frac{1}{LF_i}-1\right)\times 1.622\ ¢/m^3$. Table 5 presents the results by distribution rate for the 2020-2021 Rate Case:

[44] Gaz Métro-5, Document 12, Table 18 : The planned variable compensation, paid on condition that there is one or more days of interruption, is zero.

[45] R-4119-2020, B-0086, Énergir-Q, Document 7, l. 41, col. 2 dated May 7, 2020.

[46] A before interruption calculated without modification of the parameter for Rate D_5 customers.

[47] P before interruption observed between December 2019 and February 2020. P without modification of the parameter for Rate D_5 customers.

Table 5
Portion of proposed balancing revenues associated with the profile

Distribution rate	A (10^3m^3/day)	P (10^3m^3/day)	Average LF (%)	Average rate based on LF (¢/m^3)	Expected volumes (10^6m^3)	Revenues based on LF ($000)
D1	7,927	25,142	31.53	3.522	2,757	95,687
D3	770	1,190	64.66	0.886	283	2,508
D4	7,427	11,024	67.37	0.786	2,829	22,701
D5	678	2,651	25.59	4.716	248	8,442
Total					**6,117**	**129,338**

We must next calculate a volumetric rate to recover the stranded costs not related to temperature and the costs related to operational flexibility. Dividing these costs by the total forecast consumption volume gives us a rate per m³:

$$\text{Average other cost rate} = \frac{\text{Total other costs for É}}{Annual\ volume_{global}} = \frac{\$7{,}153\ \text{k}}{6{,}117\ km^3} = 0.117¢/m^3$$

By combining this second component of per-volume rate with that of the rate obtained based on the LF, the total rate and the total balancing revenue are as follows:

Table 6
Total proposed balancing revenues

Distribution rate	Expected volumes (10^6m^3)	Volume rate (¢/m^3)	Volume revenues ($000)	Revenues based on LF ($000)	Total revenues ($000)
D1	2,757	0.117	3,224	95,687	98,911
D3	283	0.117	331	2,508	2,839
D4	2,829	0.117	3,308	22,701	26,009
D5	248	0.117	290	8,442	8,732
Total	**6,117**	**0.117**	**7,153**	**129,338**	**136,491**

The revenues obtained can be compared with the revenues proposed in the 2020-2021 Rate Case[48]:

Table 7
Comparison of total balancing revenues

Distribution rate	Proposed method revenues ($000)	%	Current method revenues ($000)	%	Differential ($000)
D1	98,911	72	103,462	81	(4,550)
D3	2,839	2	2,310	2	528
D4	26,009	19	20,113	16	5,896
D5	8,732	6	1,502	1	7,230
Total	**136,491**	**100**	**127,387**	**100**	**9,104**

The balancing revenues obtained with the proposed method are higher than those in Rate Case 2020-2021 for several reasons:

- The proposed balancing revenues include this rate case forecasted Dawn storage's fixed premiums and transportation's tools functionalized to load-balancing that Énergir […] (see

[48] According to the information appearing in the rate documents filed on May 7, 2020.

section 5.5 of Exhibit Gaz Métro 5, Document 12 for more details);

- The proposed balancing revenues include the inventory revenues previously functionalized in supply and transmission;
- Since the proposal for the interruptible offer no longer adjusts the calculation parameters for the balancing price, these customers are billed much higher balancing costs than before. This price increase that affects the interruptible customers mainly benefits rate D_1 customers. However, interruptible customers will be compensated differently, as shown in Exhibit Gaz Métro-5, Document 13[49].

3.6.1 Result of calculation of proposed rates per customer

In balancing, Énergir's proposal has a different effect based on the specific LF of each customer. Moreover, eliminating the minimum limit and raising the maximum limit has an additional effect on the balancing prices.

For customers with less than 75,000 m³/year billed at the average D_1 price, the average price drops from 3.839 ¢/m³[50] in the 2020-2021 Rate Case to 3.638 ¢/m³ with the proposed rate, or a decrease of about 5.3%.

Énergir also calculated new balancing prices for customers consuming 75,000 m³/year or more that have a customized balancing price.

[49] Section 4.
[50] R-4119-2020, B-0083, Énergir-Q, Document 4, l. 26, col. 1.

Table 8
Customized balancing prices proposed

Price (¢/m³)	D1 > 75K m³/year (# customers)	D_3, D_4 and D_5 (# customers)	Total (# customers)	Total (% customers)
[-1,622; 0]	79	8	87	1.42
[0; 1.5]	367	296	663	10.83
[1.5; 3]	1,203	98	1,301	21.25
[3; 5]	2,603	16	2,619	42.79
[5; 7.5]	1,206	8	1,214	19.83
[7.5; 14.596]	228	9	237	3.87
Total	**5,686**	**435**	**6,121**	**100.00**

Most of D_1 customers with a customized rate pay a price between 3¢/m³ and 5¢/m³. Customers with D_3, D_4 and D_5 rates generally have prices between 0¢/m³ and 3¢/m³.

In addition, a majority of customers will see their rate decrease compared to the prices proposed in Rate Case 2020-2021:

Table 9
Variation in customized balancing prices

Variation (¢/m³)	D1 > 75 Km³/year (# customers)	D3, D4 and D5 (# customers)	Total (# customers)	Total (% customers)
[-1.622; -0.5]	763	11	774	12.64
[-0.5; -0.25]	1,491	11	1,502	24.54
[-0.25; -0.1]	975	15	990	16.17
[-0.1; 0]	598	29	627	10.24
[0; 0.1]	428	70	498	8.14
[0.1; 0.25]	445	96	541	8.84
[0.25; 0.50]	394	93	487	7.96
[0.50; 1]	282	57	339	5.54
[1; 7.5]	310	47	357	5.83
[7.5; 14.782]	0	6	6	0.10
Total	**5,686**	**435**	**6,121**	**100.00**

For information purposes, 221 customers have a load-balancing rate above the current maximum threshold of 7.638¢/m³.[51]

Among customers subject to the personalized price calculation, 63.6% will see their prices decrease.

However, 32.7% of Rate D_1 customers and 84.8% of Rate D_3, D_4 and D_5 customers will see their prices increase. It should be noted that of the 53 increases of more than 1¢/m³ in rates D_3, D_4 and D_5, 50 occur among D_5 customers, for whom a peak adjustment was made using an assumption based on actual make-up gas consumption to avoid an interruption. As a result, the peak for Rate D_5 customers may be overestimated in some cases.

Two factors are behind the price reductions for some customers. First, the use of unmodified parameters for rate D_5 increases the rate of customers with an interruptible portion and in general reduces the rate of the other customers. Also, several customers

[51] R-4119-2020, B-0083, Énergir-Q, Document 4, l. 28, col. 7.

with a peak in November or March qualify for a price decrease related to a lower peak in the calculation of their price.

For D_4 customers, an overall increase is observed. The amount billed for this rate category would increase from 16% to 19% according to the proposal put forward by Énergir, as shown in Table 7. This difference is mainly due to the portion of balancing revenues recovered based on volumes consumed under the proposed method ("average other cost rate" equivalent for all customers). Indeed, this change has a greater impact on Rate D_4 customers, who account for a large proportion of the balancing volumes. Rate D_4 customers absorb 46% of the $7,153K to be recovered based on volume.

Overall, the price variations per customer relative to the 2020-2021 Rate Case accurately reflect the changes proposed in this evidence. The balancing price increases when the LF of customers decreases, which is in line with cost causation. The higher a customer's peak relative to its average consumption, the higher the costs to supply that customer.

4 CROSS-SUBSIDIZATION

Once the way to generate revenues between the different rate categories is established, the full cost allocation exercises can be carried out, as requested in paragraph 66 of decision D-2016-126:

> "*[66] In addition, the Régie orders the Distributor to file a document presenting the complete STL Study according to the current methods and another document presenting the complete STL Study according to the proposed methods.* […]" [translation]

The full cost allocation study developed using the current methods and rates is presented in Appendix 5, while the full cost allocation study developed using the proposed methods and rates is presented in Appendix 6.

The service cost allocation study aims to measure the level of cross-subsidization, i.e. the difference between the costs and revenues in each customer category and for each of the services. To ensure adequate measurement of cross-subsidization and enable a comparison, the functionalization between services, the allocation of each cost item between rate categories, and the distribution of revenues were assessed based on both the current and the proposed methods

and rates. This resulted in different costs and revenues for each service presented in appendices 5 and 6.

Also, since the functionalization and pricing of the supply, transportation and balancing costs are intended to be as close as possible to the same cost causation, the cross-subsidization for these services should aim for 100% for all of the customers. Moreover, it is normal to observe a certain level of cross-subsidization, provided that it is low and justified by a reason that does not result in tangible inequity between the different rate categories. Tables 10 and 11 present the results of the current allocation and the proposed allocation.

Before analyzing the results by service, it is worth recalling that in the proposed method, the volumes of interruptible rate (D_5) customers have been adjusted compared to those in the current method. Indeed, this adjustment aims to use volumes consistent with the assumption made at the time of cost functionalization, namely without planned interruption.[52] This is why supply, transmission and balancing volumes are higher with the proposed method.

[52] Gaz Métro-5, Document 12, Section 5.2, Table 18.

Table 10
Cost allocation – Current method

	Supply			Transportation			Load balancing		
	Revenue	Costs	Cross-sub.	Revenue	Costs	Cross-sub.	Revenue	Costs	Cross-sub.
	($M)	*($M)*	*(%)*	*($M)*	*($M)*	*(%)*	*($M)*	*($M)*	*(%)*
D_1 0 – 36,500	78.7	78.8	99.8	18.9	18.9	99.5	30.7	33.0	93.0
D_1 36,500 – 109,500	53.3	53.4	99.8	12.8	12.8	99.5	21.3	22.4	95.1
D_1 109,500 – 1,095,000	93.8	94.0	99.8	22.5	22.6	99.5	36.7	37.0	99.1
D_1 1,095,000+	45.5	45.6	99.8	10.9	11.0	99.5	13.1	11.6	113.6
D_3	19.2	19.8	96.7	6.5	6.7	97.0	2.4	2.3	102.4
D_4	44.4	43.1	103.0	66.0	65.2	101.2	21.7	20.5	105.7
D_5	13.7	13.8	99.2	5.6	5.9	95.6	1.4	0.5	304.8
Total	**348.6**	**348.6**	**100.0**	**143.2**	**143.2**	**100.0**	**127.4**	**127.4**	**100.0**

Table 11
Cost allocation – Proposed method

	Supply			Transportation			Load balancing		
	Revenue	Costs	Cross-sub.	Revenue	Costs	Cross-sub.	Revenue	Costs	Cross-sub.
	($M)	*($M)*	*(%)*	*($M)*	*($M)*	*(%)*	*($M)*	*($M)*	*(%)*
D_1 0 – 36,500	77.6	77.9	99.6	18.8	18.7	100.8	29.1	28.1	103.5
D_1 36,500 – 109,500	52.5	52.7	99.6	12.8	12.7	100.8	20.3	19.6	103.3
D_1 109,500 – 1,095,000	92.6	92.9	99.6	22.5	22.3	100.8	36.6	35.6	102.7
D_1 1,095,000+	45.1	45.2	99.6	10.9	10.9	100.8	13.0	12.6	103.1
D_3	19.2	19.8	97.0	6.5	6.3	102.7	2.8	2.8	100.5
D_4	44.4	42.7	104.1	65.7	66.6	98.7	26.0	26.2	99.3
D_5	14.6	14.8	98.9	6.2	6.0	103.3	8.7	11.5	75.7
Total	**345.9**	**345.9**	**100.0**	**143.4**	**143.4**	**100.0**	**136.5**	**136.5**	**100.0**

For the supply service, whether with the current method or the proposed method, cross-subsidization is used to offset a difference in the cost allocation method used, which differs from the one for revenue distribution. More specifically, a uniform average supply cost is assumed in allocating costs for all customers, whereas a variable supply price based on the type of supply (conventional natural gas or RNG, with or without a fixed-price agreement) is used to determine revenues. Since the cross-subsidization results solely from methodological bias and each customer actually pays a supply rate equivalent to the type of supply it consumes, this is considered acceptable. Additionally, a proposal for the costs of supplying RNG has been submitted as part of step C of case R-4008-2017[53].

With respect to the transportation service, the low level of cross-subsidization observed with the proposed method results solely from the merging of the Northern Zone and Southern Zone rates with the distributor's transportation service. Champion's revenues are recovered from all of the distributor's service customers on a uniform-rate basis, while its costs are allocated only to customers in the Northern Zone following the cost causation principle.

In light of these results, it is in the balancing service in particular that cross-subsidization varies much less under the proposed method than under the current method. The cross-subsidization of the load-balancing service can be explained by the proposed maximum limit, as described in Section 3.5.3. This cross-subsidization is mainly concentrated in Rate D_5 (7 customers would have a higher rate than the maximum). Revenues are generated based on a maximum LF of 10%, but costs are allocated based on the actual LF, which is much lower than 10% for the 7 customers in question. In addition, since these customers use higher volumes, the gap between revenues and costs becomes more pronounced (compared to a situation where lower volumes are blended into D_1, for example).

Énergir is of the opinion that the level of residual cross-subsidization in supply, transportation and load-balancing services is not significant and that it has demonstrated an optimal alignment between its proposed pricing and cost causation.

[53] B-0360, Gaz Métro-5, Document 4.

5 CHANGES TO CONDITIONS OF SERVICE AND TARIFF

This section contains all the changes required to the CST to enable the application and customer billing of Énergir's proposal for overhauling supply, transmission and balancing services. The changes are listed according to the hierarchy of the CST text in effect on December 1, 2019.

Eliminating the charge for transfer to the supply service would result in the deletion of Article 11.1.2.3. At the same time, articles 11.1.3.2, 11.1.3.3 and 11.2.3.4 should be amended to reflect the change to the prior notice for entry and withdrawal from 6 months to 60 days.

Additionally, several modifications would be required to reflect the changes to the prior notice for entry and withdrawal from the transportation service (articles 12.1.4.1, 12.1.4.2 and 12.2.3.2) and the rules for capacity assignments (articles 12.2.3.1.1 and 12.2.3.1.2).

Recovering the inventory-related expenses in balancing would result in the complete elimination of Section 14 (Inventory-Related Adjustments). This would mean that Section 15 (Distribution), Section 16 (Cap-and-Trade Emission Allowances System), Section 17 (Other Applicable Charges) and Section 18 (Effective Date and Transitional Provisions), along with all related articles, would have to be renumbered accordingly. Articles 11.1.2.2, 11.2.2.2, 12.1.2.2 and 12.2.2.2 in the supply and transportation services would also need to be deleted.

To reflect the transportation MAOs being moved to balancing, Article 12.1.3 in transportation would be deleted and Article 12.1.4 would become 12.1.3.

"***11. SUPPLY***

[…]

~~***11.1.2.2 Inventory-Related Adjustment***~~

~~*The supply price is accompanied by an adjustment to take into account variations in the value of inventories resulting from a change in the supply price, as well as costs associated with maintaining the inventories. This adjustment is described in the "Inventory-related Adjustments" chapter.*~~

~~***11.1.2.3 Charge for Transfer to Supply Service***~~

~~*Any existing customer who wishes to use or withdraw the distributor's natural gas supply service without giving the prior notice of entry or withdraw required in Articles 11.1.3.2, 11.1.3.3 or 11.2.3.4 shall be subject to a charge for transfer to the distributor's supply service payable in a single payment on the date the transfer is made.*~~

~~*This charge shall be calculated by applying the price of transfer to the distributor's natural gas supply service in effect at the date of the transfer to the customer's forecasted normalized annual consumption.*~~

~~*For each m³ of volume withdrawn, the price of transfer for the entry to the distributor's natural gas supply service, as of December 1, 2019, is 0.924¢/m³. This price is revised monthly.*~~

~~*For each m³ of volume withdrawn, the price of transfer for the withdrawal from the distributor's natural gas supply service, as of December 1,2019, is 0.000¢/m³. This price is revised monthly.*~~

[…]

11.1.3.2 Prior Notice of Entry

A customer who wishes to avail itself of the distributor's natural gas supply service must so notify the distributor in writing at least ~~6 months~~ 60 days in advance.

On shorter notice, the customer may avail itself of the distributor's natural gas supply service only if it is operationally possible for the distributor to provide it. ~~Moreover, the customer will be required to pay the charge for transfer to the distributor's natural gas supply service stipulated in Article 11.1.2.3.~~

11.1.3.3 Prior Notice of Withdrawal

Subject to Article 11.1.3.6, a customer who wishes to opt out of the distributor's natural gas supply service must so notify the distributor in writing at least ~~6 months~~60 days in advance.

~~*On shorter notice, the customer will be required to pay the transfer charge for the withdrawal from the distributor's natural gas supply service set out in Article 11.1.2.3.*~~

Notwithstanding the foregoing, the customer must have used the distributor's supply service for a minimum of 12 months prior to retiring from the service.

[…]

~~***11.2.2.2 Inventory-related adjustment***~~

~~***With transfer of ownership****: The natural gas supply price is accompanied by an adjustment to take into account variations in the value of inventories resulting from a change in the natural gas supply price, as well as costs associated with maintaining the inventories. This adjustment is described in the "Inventory-related Adjustments" chapter.*~~

~~***Without transfer of ownership**: The customer is not billed for inventory-related adjustment of the natural gas supply price.*~~

[…]

11.2.3.4 Prior Notice of Entry

Subject to Article 11.1.3.5, a customer who wishes to supply the distributor with the natural gas it withdraws at its facilities must notify the distributor in writing at least ~~6 months~~60 days in advance.

~~*On shorter notice, the customer will be required to pay the charge for transfer to the distributor's natural gas supply service set out in Article 11.1.2.3.*~~

Notwithstanding the foregoing, the customer must have used the distributor's supply service for a minimum of 12 months prior to retiring from the service.

11.2.3.5 Customer Obligations

A customer must:

1. *be the actual owner and end-user of the natural gas;*
2. *ensure the security of its supply. In particular, in the event that a supplier cease its deliveries, the customer shall, within a period not exceeding the last day of the month following the knowledge of the facts, identify a new supplier. The customer will be transferred to the distributor's natural gas supply service upon failure to provide the identification within the prescribed period and will be subject to article~~s 11.1.2.3 and~~ 11.1.3.5;*

[…]

12. TRANSPORTATION

[…]

~~***12.1.2.2 Inventory-Related Adjustment***~~

~~*The transportation prices are accompanied by an adjustment to take into account variations in the value of inventories resulting from a change in the transportation price, as well as costs associated with maintaining the inventories. This adjustment is described in the "Inventory-related Adjustments" chapter.*~~

[…]

12.1.4~~2~~3.1 Prior Notice of Entry

A customer who wishes to avail itself of the distributor's transportation service at the earliest on November 1st must so notify the distributor in writing before the previous March 1st. If less than the required notice is given, the customer will have to pay a 20% increase in the price indicated in Article 12.1.2.1 durant the 12 months following its return to the transportation service. Notwithstanding ~~the compliance or not by the customer of the notice required under this Article~~ the foregoing, a customer

may avail itself of the distributor's transportation service only if it is possible for the distributor to provide it.

12.1.43.2 Prior Notice of Withdrawal

Subject to Article 12.2.1, a customer who wishes to opt out of the distributor's transportation service, in order to provide the service itself, must so notify the distributor in writing at least 60 days in advance.

Notwithstanding the compliance or not by the customer to the notice required under this Article, the latter may opt out of the distributor's transportation service only if it is ~~economic and operationally~~ possible for the distributor to agree to it.

[…]

~~***12.2.2.2 Inventory-Related Adjustment***~~

~~*A customer shall not be billed for the inventory-related adjustment for the transportation price.*~~

[…]

12.2.3.1.1 Terms of Assigned Transportation Contracts

The transportation capacity assigned to a customer will come from the distributor's ~~contracts~~:

1. ~~*“Firm Transportation Short Haul between Parkway and Énergir’s franchise”*~~ *contracts with TransCanada PipeLines Limited or Enbridge Gas Limited. The term of the transportation capacity assignment is 5 years.~~*whose remaining term is closest to the average remaining term of all the distributor’s contracts; and*~~

2. ~~*“M12 between Dawn and Parkway” contract with Union Gas Limited whose remaining term is closest to the one described in the previous paragraph.*~~

12.2.3.1.2 Calculation of Assigned Capacity

The capacity assigned to a customer will be equal to the customer’s total annual requirements. The capacity assigned to meet the customer’s total annual requirements corresponds to the maximum of the actual annual volume of the previous year, the forecast annual volume for the previous year, or the forecast annual volume for the next year.~~is based on the average annual volume of the two years preceding the assignment or, as applicable for a new customer, the projected annual volume, divided by 365 days. The annual volume is normalized for temperatures for Distribution Rate D1 and D3 customers.~~

12.2.3.2 Prior Notice of Entry

A customer who wishes to provide its transportation service must so notify the distributor in writing at least 60 days in advance.

Notwithstanding the compliance or not by the customer to the notice required under this Article, the latter may provide its transportation service only if it is ~~economic and operationally~~ possible for the distributor to agree to it.

In addition to the modifications presented for the supply and transportation services, many changes would be required to the articles that make up the balancing service, should the Énergir proposal be approved.

To take into account the new splitting of the balancing service price into two components, the removal of parameter H from the calculation, and the elimination of the lower and upper limits, Article 13.1.2.2 of the balancing rate should be modified. Also in the balancing service, redefining the peak observation period to begin on the first day of December and end on the last day of February would require a change to Article 13.1.3.1.

Then, to more fairly price customers with low load factors by considering a different parameter from the other customers, an additional article and a change to Article 13.1.2.3 would be required:

> ***"13.1.2.2 Price for other customers and for customers subject, as of September 30, 2012, to Article 13.1.2.2 of Conditions of Service and Tariff in effect as of December 1, 2010***
>
> *For each m³ of volume withdrawn, excluding "Competitive Make-up Gas" and "Make-up Gas to Avoid an Interruption" volumes, the unit price in ¢/m³ is calculated as follows:*
>
> ~~*363.3 x (**P** – **W**) + 1567.3 x (**W** – **A**)*~~
> ~~*Annual volume*~~
>
> $$\left[\left(\frac{1}{\boldsymbol{LF}} - 1\right) \times x,xxx\right] + x,xxx$$
>
> *Where **LF: Load factor = Average Annual Daily Load (A)***
> ***Peak Daily Load (P)***
>
> ~~***A**: **A**nnual Average Daily Load*~~
>
> ~~***W**: **W**inter Average Daily Load (period from November 1 to March 31)*~~
>
> ~~***P**: **P**eak Daily Load*~~
>
> *The calculation of the **A** and **P** parameters is detailed in Article 13.1.3. ~~For D_5 distribution service customers, the **A**, **W** and **P** parameters used in the formula are the parameters modified to account for service interruption days.~~*
>
> *However, the price may not be ~~less than -1.561¢/m³ nor~~ greater than ~~7.638~~xx,xxx ¢/m³.*

13.1.2.3 Average Price

Subject to section 13.1.3.3, the Article 13.1.2.2 does not apply when the firm or interruptible service volume withdrawn between October 1, 2018 and September 30, 2019 is nil or does not represent 12 consecutive months of consumption.

[…]

13.1.3 CALCULATION OF PARAMETERS

Subject to articles 13.1.2.1 and ~~18.2.3~~17.2.3, the consumption parameters shall be calculated as follows:

13.1.3.1 Parameters for Distribution Rates D_1, D_3 and D_4 customers

$$A = \frac{\text{Volume from October 1, 2018 to September 30, 2019}}{\text{No. days from October 1, 2018 to September 30, 2019}}$$

~~$$W = \frac{\text{Volume from November 1, 2018 to March 31, 2019}}{\text{No. days from November 1, 2018 to March 31, 2019}}$$~~

P *= Maximum daily load from ~~November~~December 1, 2018 to ~~March 31~~February 28, 2019*

For Distribution Rates D_1 and D_3 customers except customers subject to rate combination D_3-D_5, the maximum daily load for the winter months is estimated as follows:

$$P = (MaxDL) \times multiplier$$

Where MaxDL = Highest of the average daily loads of each month from ~~November~~December 2018 to ~~March~~February 2019

Where multiplier = Maximum (2.1 - (1.1 x A ÷ MaxDL) ; 1)

Also in balancing, Article 13.1.4 on volume transposition should be amended to reflect the fact that volumes of direct purchase customers using Énergir's transmission service would no longer be transposed.

"13.1.4 ~~Volume transposition~~Processing of Deliveries

13.1.4.1 Adjustment Charges for Non-uniform Delivery

For customers subject to the load balancing price stipulated in Article 13.1.2.2, who supply the distributor with the natural gas and who purchase from the distributor the transportation used to bring the natural gaz they withdraw at their facilities to the distributor's territory, an adjustment charge shall be billed at the end of the supply contract period. Customers may choose between the following two billing methods: ~~or who have entered into a fixed-price supply agreement with the distributor, the calculation of the load balancing price is based on a transposed load profile determined as follows, subject to Article 18.2.3:~~

1° deferral of adjustment costs over the 12 months of the next contract period; or

2° financial settlement of adjustment charges at the end of the contract period; customers who change the services they purchase from the distributor during the year of the supply contract must always financially settle the adjustment charges at the end of the contract period.

The choice must be notified in writing to the distributor before the start of the supply contract. If this election is not notified within the time limit, the adjustment costs will be paid at the end of the contract period.

The value of the balancing charge is equal to the price impact generated by the daily differences between the DCV and the TUD based on the balancing charge calculation period beginning on the anniversary date of the supply contract and ending on the anniversary date of the contract the following year. The TUD is established as follows:

***TUD** = theoretical uniform delivery for the calculation period (sum of DCVs for the period in the calculation period ÷ # days in the calculation period)*

The excess DCV over the TUD is purchased by the distributor, and the shortfall of DCV over the TUD is sold to the customer at the following price:

- *from 0% to 2% of the TUD, at the distributor's average natural gas supply price during the calculation period;*
- *the lesser, in the case of an overage of more than 2% of TUD, or the greater, in the case of a shortage, of:*
  - *the distributor's average natural gas supply price during the calculation period, and*
  - *the market price at the time the discrepancy occurred.*

13.1.4.1.1 Bundling of Supply Service Customers

Adjustment charges for all customers in a Combination, if any, are calculated separately for each of the Combination Customers if individual DCVs were provided by the Combination or, if not, are allocated to each of the Combination Customers in proportion to their respective volumes withdrawn during the Contract Period. Adjustment costs are then billed individually to customers.

13.1.4.2 Transposition of Volumes

For customers who supply the distributor with the transportation used to bring to the distributor's territory the natural gas they withdraw at their facilities, the load-balancing price defined in Article 13.1.2.2 shall be calculated on the basis of a transposed load profile established as follows, subject to Article 18.2.3:

$$TL = L + TUD - DCV$$

where ***TL*** = *Transposed Load (monthly or daily, as the case may be)*

L = *Load (monthly or daily, as the case may be)*

TUD = *theoretical uniform delivery for the period (sum of DCVs from* October 1*, 2018 to September 30, 2019 ÷ # days from October 1, 2018 to September 30, 2019);*

DCV = *Daily Contract Volume*

The TUDs and DCVs are calculated on a monthly basis for customers without daily readings."

Finally, MAOs would be moved from the Transmission section to the Balancing section, so that Article 12.1.3 would be removed from Transmission Service and new items would be incorporated into Balancing Service under Article 13.1.5.

"***13.1.5 MINIMUM ANNUAL OBLIGATION (MAO)***

For any customer with a ***peak capacity demand*** *greater than or equal to 300,000 m³, the sum of the amounts billed for transmission and load-balancing must be at least equal to the MAO applicable for the same period.*

The ***demand for peak capacity*** *is determined as follows:*

- *For the distributor's transportation service customers, it is the greater of the actual daily peak of the previous year, the forecast daily peak of the previous year or the forecast peak of the next year;*
- *For customers providing their own transmission service, it is the greater of the actual daily peak in the previous year, the forecast daily peak in the previous year or the forecast peak in the next year, less the actual or forecast daily average.*

13.1.5.1 Establishing the MAO

For a new customer, an additional load or a customer returning to the distributor's transmission service, for which Énergir had to contract additional transmission capacity, the MAO is set for five years and is equal to the peak capacity demand multiplied by 365 and 75%.

For any other customer, the MAO is equal to the peak capacity demand, multiplied by 365 and 75%.

13.1.5.2 Invoicing the Revenue Shortfall Volume

If, at the end of a contract year, the customer has been billed for transport and balancing for an amount less than its MAO, it will be billed the deficit amount.

13.1.~~5~~6 TERMS AND CONDITIONS […]"

Since Énergir offers the balancing service an MAO in dollars, not in m^3 as MAOs are currently defined, a change to the definition in Article 1.3 of the CSTs would be required to distinguish between the two possible MAO units:

> "***MINIMUM ANNUAL OBLIGATION (MAO)***
>
> *In terms of distribution service, this represents a ~~M~~minimum annual volume of natural gas, for each contract year, that a customer agrees to pay for, in accordance with the Conditions of Service and Tariff, whether or not it withdraws or injects the natural gas.*
>
> *For the balancing service, it is a minimum revenue, for each year of the contract, that the customer undertakes to pay, in accordance with the text of the Conditions of Service and Tariff.*"

Finally, it should be noted that no changes are proposed with respect to uniform deliveries and the service of supply with transfer of ownership, as Énergir does not recommend that any changes be made.

6 ADMINISTRATIVE DEADLINES

The proposals set out in Gaz Métro-5, Document 12, in Gaz Métro-5, Document 13 and this one will require, subject to their approval, significant computer developments to lead to their application. Numerous updates, such as internal training materials and external documentation, will also be required.

The entry into force of the amendments proposed in this dossier will depend mainly on the progress of dossier R-4086-2019. In fact, the resources available at Énergir to complete the rate redesign work could be mobilized for the Enterprise Resource Planning (ERP) modernization program.

CONCLUSION

In conclusion, Énergir has made numerous proposals regarding the pricing of supply, transmission and balancing services under Phase 2B, Stream 2 of this application. The level of cross-subsidization resulting from the application of the proposed rate generation methodologies demonstrates that these proposals are consistent with the cost causation approach used as the

basis for Stream 1 of the submission[54]. As previously mentioned, no proposal differs from the original filing of the evidence, except for the proposal concerning the peak load evaluation for monthly reading customers and the maximum load-balancing price.

Énergir asks the Régie to:

a) approve the abolition of the inventory adjustment service and processing of these costs in the load-balancing service;

b) approve the abolishment of the fees for migration to the supply service;

c) acknowledge and be satisfied with the responses to the follow-up to decision D-2016-126 regarding the transfer of ownership supply service presented in section 1.2;

d) approve the imposition of a late charge equal to 20% of the applicable transportation price for a 12-month period when the March 1 notice period for the distributor's transportation service is not respected;

e) approve the removal of the notion of profitability from the distributor's transmission service exit rules;

f) approve the new rules for the assignment of transmission capacity, as described in Section 2.5.1;

g) approve the elimination of transmission service MAOs and their replacement with applicable balancing service MAOs, as described in Section 2.6.2;

h) approve the new load-balancing rate formula, as described in Section 3.4;

i) approve the new definition of the peak observation period, i.e. from the first day of December to the last day of February;

[54] Gaz Métro-5, Document 12.

j) approve continued use of the multiplier for D_1 and D_3 customers, except for D_3-D_5 rate combination customers;

k) approve the abolition of minimum load-balancing service price;

l) approve a maximum price equivalent to a 10% LF in the load-balancing service;

m) to take note that the individualized load-balancing price accessibility threshold will be reassessed in Phase 4 of this file;

n) in the case of customers who supply the distributor with the natural gas they withdraw at their facilities and who use Énergir's transmission service, approve the replacement of the conversion of volumes to load-balancing by an adjustment charge with the application of a 2% leeway;

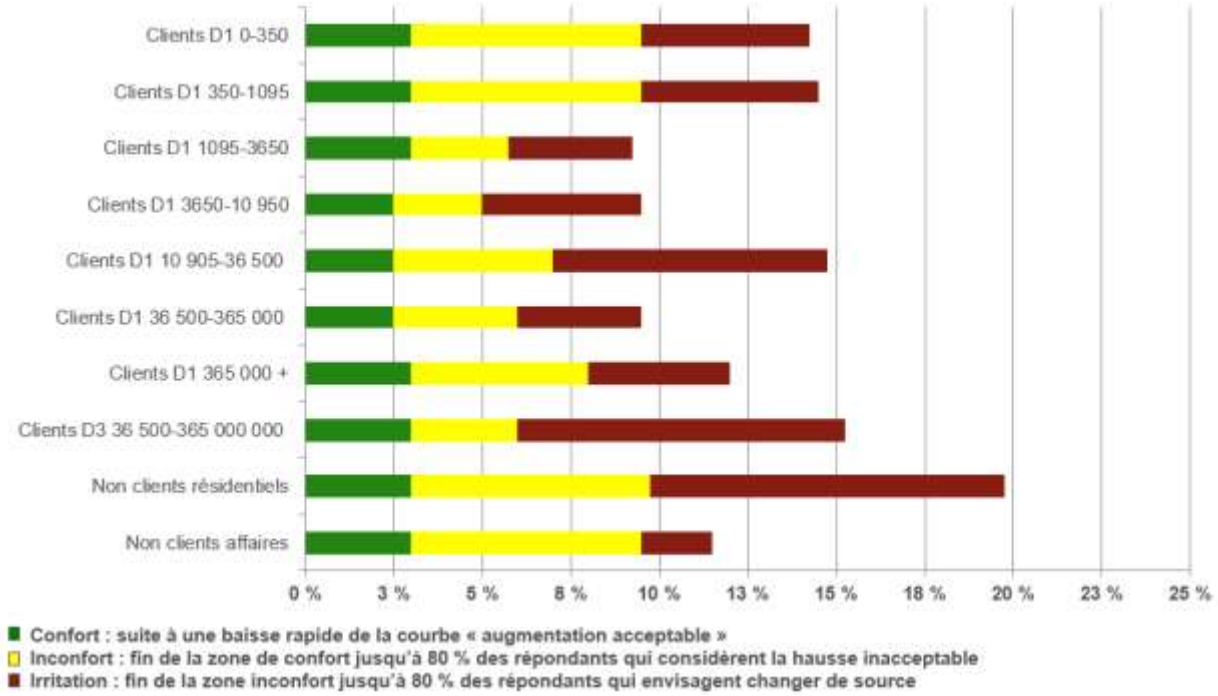
o) approve the withdrawal of volume shifting to load-balancing for customers who are committed to the distributor in a fixed-price supply agreement;

p) approve the changes to the Conditions of Service and Tariff set out in Section 5;

q) acknowledge and be satisfied with the responses to the follow-up on decision D-2016-126 as shown in Appendix 4.

APPENDIX 1 : PRICE SENSITIVITY ANALYSIS

Price sensitivity comparison between different customer groups(1)



(1) Price sensitivity extract from 2013 marketing study conducted by Extract Recherche Marketing.

APPENDIX 2 : SENSITIVITY ANALYSIS AND MARKUP IN RELATION TO THE RULES PROPOSED FOR THE TRANSMISSION SERVICE

Énergir studied the impact of the changes to the exit rules and MAOs by conducting a sensitivity analysis. The analysis in question makes it possible to assess the potential rate impact of different scenarios and to determine how the proposed measures will reduce this impact.

For the simulations, Énergir assumed that a large customer, ranking among the distributor's largest customers, forecasts a significant increase in its peak demand over the next few years, requiring Énergir to contract primary transmission for the customer. The capacities are contracted for 15 years, in accordance with TCPL's rules.

Five scenarios are evaluated:

Scenario A: The customer consumes as planned for the next 15 years. This scenario can also represent a 15-year divestiture (current exit rule) for a customer who would be leaving the distributor's transportation service.

Scenario B: The customer does not consume the contracted capacity and no action is taken to minimize stranded costs.

Scenario C: The customer does not consume, but leaves Transportation Service with a 5-year assignment.

Scenario D: The customer does not consume, but is subject to the new MAO rules.

Scenario E: The customer does not consume, but is subject to the MAO rules currently in effect.

The scenarios presented in Table 2.1 reflect an extreme situation in which no sales growth or resale strategy would reduce stranded costs. The maximum stranded costs are therefore presented.

Table 2.1
Sensitivity analysis of stranded costs

Scenario	Additional capacity to be contracted each year *(Mm³)*	Annual volume *Mm³*	Transportation revenues[55] over 15 years *($M)*	Losses over 15 years *($M)*	MAO revenues over 5 years[56] *($M)*	Stranded costs *($M)*	Rate impact[57] *(¢/m³)*
	(1)	(2)	(3)	(4)	(5)	(7)	(8)
A	170	170	59.4	0	0	0	0
B	170	0	0	59.4	0	59.4	0.982
C	170	0	19.8	39.6	0	39.6	0.654
D	170	0	0	59.4	18.6	40.9	0.675
E	170	0	0	59.4	15.5	50.0	0.726

The sensitivity analysis presents the measures taken independently and their rate impact. In a stranded cost situation, various alternatives are available to the distributor in order to minimize them. The rules proposed by Énergir are part of these alternatives, but do not have this sole objective. With the terms and conditions it offers, Énergir also seeks to establish clear, simple and easily applicable guidelines that allow customers to take advantage of market opportunities, without encouraging migration from one transportation service to another.

In addition, Énergir conducted a review of the rate conditions of Canadian gas distributors with respect to migration to transportation service. The information gathered via this rate watch is only partial, but has enabled Énergir to validate its proposals towards those of its peers.

Union Gas applies rules similar to the rules proposed by Énergir, where the main objective is to maintain equity between customers in a context of unbundled services[58] rather than to meet profitability criteria. Specifically, the Ontario distributor allows migrations between different combinations of services if the operational capability criterion is met. Finally,

[55] The transportation rate used is 2.331¢/m³ from the 2020-2021 Rate Case (R-4119-2020).

[56] To estimate the MAO, an LF of 80% is used.

[57] R-4119-2020, B-0082, Énergir-Q, Document 3: The rate impact would be applicable to the distributor's unit transportation rate (2.331¢/m³) and was estimated with the projected annual volumes of the 2020-2021 Rate Case (6,054,570 10³m³).

[58] https://www.uniongas.com/-/media/about-us/policies/ServiceSwitching.pdf?la=en.

Union Gas retains discretionary power over the acceptance of migration between the different services subject to the application of financial guarantees.

Enbridge Gas[59] allows migration to bundled rate or unbundled rate customer service if system and storage operational capacity permits. In addition, if the customer asks to migrate without the required notice, Enbridge will apply additional terms and conditions (MAO settlement and settlement of the balance between deliveries and customer consumption) to ensure that equity between customers is maintained.

Fortis BC does not currently offer unbundled transportation service comparable to Énergir's, and its unbundled service offer is for direct purchases only.[60]

In conclusion, Énergir notes that the cited Canadian distributors subject to rate watch rather determine the acceptability of a migration request based on the network constraint criterion. In addition, additional measures are in place to encourage clients to signal their intention to migrate with a delay that minimizes the impact on the rest of the customers. Nevertheless, it is important to note that the regulatory and market conditions in each province limit the comparability of rate conditions among Canadian gas distributors with respect to rate conditions for migration to transmission service.

[59] Understanding Unbundled Rates and Services: https://www.enbridgegas.com/Commercial-and-Industrial/Data-Sources/Unbundled (Modelling tool and material forms / Unbundled rates and Services).

[60] https://fbcdotcomprod.blob.core.windows.net/libraries/docs/default-source/about-us-documents/regulatory-affairs-documents/gas-utility/fortisbc_generaltermsandconditions.pdf?sfvrsn=202bc0bf_2 (Sections 26 and 27).

APPENDIX 3 : CURRENT AND PROPOSED BALANCING RATES FOR DIFFERENT DELIVERY PROFILES

Appendix 3 presents a simulation of the Balancing Service rate with current and proposed rates for a non-uniform delivery profile. Tables 3.1 to 3.4 provide an example of how the total bill for Load-Balancing Service is calculated.

The prices used to calculate the invoices are as follows:

- Monthly supply prices (column 4): Average cost of purchases from the supply service from October 2018 to September 2019, reported in the 2019 Annual Report, used to calculate the cost transfer from the supply service to the load-balancing service. These prices are used to calculate adjustment charges for non-uniform delivery;
- Space and Peak Load-Balancing Service Prices: Proposed load-balancing service prices that will be in effect from December 1, 2020, subject to approval. These prices are used to calculate the total bill for Load-Balancing Service using the current pricing method;
- Load-balancing rate – LF function: *Average peak rate* multiplied by $\left(\frac{1}{\text{LF}} - 1\right)$ as presented in Section 3.6 of this document. The result is then multiplied by the annual volume to obtain the balancing bill associated with the consumption profile;
- Load-balancing rate – Volume-dependent: *Average rate for other costs* presented in Section 3.6 of this document. The result is multiplied by the annual volume to obtain the balancing bill not associated with the consumption profile.

For customers who supply the distributor with the natural gas they withdraw at their facility, but who purchase transportation service from the distributor, the total bill for Load-Balancing Service is presented by applying the proposals in Sections 3 and 5 of this document, and reported as a rate to the volume withdrawn. However, Énergir cautions the reader to be cautious about interpreting a unit rate based on volume withdrawn, since the fee for adjusting the non-uniform delivery profile is not volume-based, but represents a dollar amount.

In Tables 3.1, 3.2 and 3.3 – filed separately in Excel format –, the rate impact of a non-uniform delivery profile is presented according to eleven different consumption profiles, including a consumption profile modelled on the delivery profile (deliver and burn), as well as a completely uniform consumption profile. Table 3.1 shows the rate impact with the rates in effect. Table 3.2 presents the rate impact for any customer who delivers its supply to the Énergir territory with the proposed rates. Table 3.3 shows the rate impact for any customer who delivers at the agreed-upon point outside Quebec with the proposed rates.

Table 3.4 shows the rate impact for eleven different delivery profiles, for any customer with a uniform consumption profile who delivers at the agreed-upon point outside Quebec, with the proposed rates.

APPENDIX 4 : FOLLOW-UPS ON DECISION D-2016-126

Peak/off-peak pricing

In decision D-2016-126,[61] the Régie asked Énergir to evaluate the possibility of offering customers peak/off-peak rates as a means of modulating their demand. Énergir feels that such an offer would not be useful for supply services.

Peak/off-peak pricing involves a rate differentiated on the basis of a criterion related to peak-period consumption. This criterion can be a predefined calendar period, or days during which the temperature is below a certain threshold.

To begin with, it would be unfair to bill a network gas rate or transportation rate differentiated on the basis of the time of year. In fact, since direct-purchase customers must deliver their supply according to a uniform profile, the price of Énergir's supply and transportation services must be annualized (based on 12 months).

In the case of load-balancing, Énergir prefers pricing based on the daily peak which targets the main cost inducer. In fact, peak/off-peak rates would not penalize customers that consume a large volume during the same day, even though they generate higher costs than if they had distributed their consumption evenly over all of the days of the peak period.

Furthermore, a differentiated rate for colder periods would not guarantee a reduction of the units consumed during the peak, unlike the interruptible service, for example. The tools and resulting costs could not therefore be reduced.

Infrastructure sharing

In decision D-2016-126,[62] the Régie asked Énergir to evaluate the possibility of sharing the advanced metering infrastructure deployed by Hydro-Québec for its distribution operations. In Appendix 7 of Gaz Métro-5, Document 12, Énergir presented the meter-reading technologies it uses.

[61] Paragraph 74.
[62] Paragraph 74.

The benefit of an advanced measurement infrastructure is the transmission of data in real time. To meet this need, Énergir notes that Hydro-Québec has equipment that allows the transmission of information from meters on cellular telephone networks. When it comes to supply services, Énergir would not derive any value from real-time transmission since the supplies are all contracted in advance and the network is monitored in real time by systems already in place to ensure safety or enable optimization transactions. Nor does Énergir foresee the need to utilize Hydro-Québec's infrastructure for real-time billing of the supply, transportation and load-balancing services.

Finally, given that the distribution rate structure will be determined in Phase 4 of this case, Énergir will evaluate the best method for data transmission at that time.

Parameters used for the load-balancing rates

In decision D-2016-126,[63] the Régie asked Énergir to study the possibility of using contract parameters for pricing the load-balancing service instead of the actual data from the previous year.

In Section 7.1.2 of the Gaz Métro-5, Document 12, it was demonstrated that the customers' consumption profiles always stay the same relative to each other. The importance of this constant relativity for adequately sharing the economies of scale was also explained in Section 7.1.4. The relativity of the profiles is explained by the fact that all of the profiles will vary based on the observed temperature in proportion to their consumption variability relative to the degree-days observed. So, for the relativity of the profiles to be maintained, the customer profiles considered must reflect equivalent degree-days. Using the customer consumption data from the previous winter, during which time the customers experienced similar weather conditions, meets this criterion. In contrast, the relativity of the profiles would be broken if the previous winter's consumption data were used for certain customers while maximum contract data were used for others.

Énergir therefore feels that using contract data instead of actual data would not be appropriate.

[63] Paragraph 74.

APPENDIX 5 : COST ALLOCATION STUDY – CURRENT METHODS

This appendix is filed in Excel format only.

APPENDIX 6 : COST ALLOCATION STUDY – PROPOSED METHODS

This appendix is filed in Excel format only.