E V I D E N C E R E L A T I N G

T O S T E P C

TABLE OF CONTENTS

IMPORTANT

This exhibit was revised on October 16, 2020 as a result of decisions D-2020-123 and D-2020-133 and the need to amend some aspects of the evidence by Énergir. A review of this exhibit is also required following the November 4, 2020 working session between Énergir, intervenors and Régie de l'énergie staff. Considering the numerous adjustments (i.e. those made in October 2020, combined with those made in response to requests expressed by participants in November 2020), they have not been greyed out and the revised exhibit is simply being refiled.

INTRODUCTION

July 7, 2017, Énergir, L.P. (Énergir) filed an application regarding measures relating to the purchase and sale of renewable natural gas (RNG). Its proposals in that application included the implementation of a feed-in tariff (FIT) for subsidized producers.

On March 20, 2019, the Québec government enacted the *Regulation respecting the quantity of renewable natural gas to be delivered by a distributor* (the Regulation). Under the Regulation, the minimum requirement is set at 1% of total volumes distributed for 2020–21, and will gradually increase to 5% by 2025–26.

Énergir's approach to procurement has evolved. On July 10, 2019, Énergir announced to the Régie de l'énergie (the Régie) that it intended to withdraw its initial evidence relating to the FIT from the file. It also informed the Régie that it would file new evidence on a purchase strategy for the first 1% of RNG under the Regulation.

In response to Énergir's proposal, the Régie stated in its August 7, 2019 letter (A-0051) letter how file R-4008-2017 would be processed and set out the future topics, particularly those to be dealt with in steps B and C:

> [Translation] "*The Régie considers that the next step (Step B) should be the examination, in accordance with section 72 of the Act, of the characteristics of the RNG supply contracts that Énergir intends to enter into so as to meet the minimum quantity of RNG delivered by natural gas distributors as of 2020. This step is considered a priority so as to enable Énergir to enter into agreements for the acquisition of RNG.*

[…]

The next step (Step C) will be the substantive review, pursuant to section 48 of the Act, of the treatment of the renewable natural gas supply rate, as mentioned by the Régie in paragraphs 39 to 41 of its decision D-2018-052. At the end of this phase, the Régie will decide on the RNG rate strategy. It is therefore at this step that there will have to be a demonstration, notably of customer interest in purchasing RNG units on a voluntary basis, as well as a proposal for the treatment of unsold RNG units and the pricing strategy to reduce the impact on customers."

On 2020-05-26, the Régie rendered Decision D-2020-057 regarding Step B, filed on September 11, 2019. In this decision, the Régie approved the purchasing characteristics of the RNG supply contracts proposed by Énergir with respect to the volumes required to meet the 1% RNG delivery target as of the 2020-21 Rate Year.

On December 10, 2020, the Régie rendered decision D-2020-166 regarding Gazifère Inc. (Gazifère) case R-4122-2020.[1] This decision relates to Gazifère's RNG strategies as of January 2021.

This document constitutes the evidence for Step C, which is the substantive review of the RNG supply rate under section 48 of the *Act respecting the Régie de l'énergie* (the Act). To this end, certain elements drawn from previous evidence are repeated as they provide an overview that will facilitate the review of this step by the Régie and by the parties involved in the file. The RNG rate strategy proposed by Énergir includes a demonstration of customer interest in purchasing RNG units on a voluntary basis, as well as a proposal for the treatment of unsold units, where applicable.

[1] Dedicated to the review of Gazifère Inc.'s applications for closure of the years 2019 and 2020 and the rates for 2021 and 2022.

1 BACKGROUND TO THE REGULATION

1.1 GOVERNMENT ENACTMENT OF THE REGULATION

As stated in the introduction, Énergir is subject to the Regulation in which the quantity of RNG to be delivered annually by Énergir is defined as follows:[2]

> "1. *Natural gas distributors must deliver annually a quantity of renewable natural gas equal to or greater than the result of the following formula:*
>
> $$T \times \frac{(LRA3 + LRA2 + LPA1)}{3}$$
>
> *In the formula provided for in the first paragraph:*
>
> (1) the variable "T" represents
>
> *(a) a rate of 0.01 as of the distributor's rate year beginning in 2020;*
>
> *(b) a rate of 0.02 as of the distributor's rate year beginning in 2023; and*
>
> *(c) a rate of 0.05 as of the distributor's rate year beginning in 2025;*
>
> *(2) the variable "LRA3" represents the total of the distributor's actual natural gas deliveries to the major enterprise market and the small and medium flow market for the third rate year preceding the current year, subtracted from any quantity of renewable natural gas;*
>
> *(3) the variable "LRA2" represents the total of the distributor's actual natural gas deliveries to the major enterprise market and the small and medium flow market for the second rate year preceding the current year, subtracted from any quantity of renewable natural gas;*
>
> *(4) the variable "LPA1" represents the total of the distributor's estimated deliveries to the major enterprise market and the small and medium flow market for the rate year preceding the current year, subtracted from any quantity of renewable natural gas.*
>
> *The result of the formula and the variables described in subparagraphs 2 to 4 of the second paragraph are in millions of cubic metres (Mm^3).*"

For example, under the Regulation, the quantity of RNG to be delivered by Énergir in 2020–21 would be calculated as follows:

[2] Chapter R-6.01, r. 4.3, *Regulation respecting the quantity of renewable natural gas to be delivered by a distributor*; ***Act respecting the Régie de l'énergie***, Chapter R-6.01, s. 112, 1st paragraph, subpar. 4.

Table 1
Quantity of RNG to be delivered by Énergir in 2020-21[3]

Rate year	Annual volume* *(10^3 m^3)*	RNG delivered *(10^3 m^3)*	Net volume *(10^3 m^3)*
2017-18 (LRA3)	6,062,887	(1,397)	6,061,490
2018-19 (LRA2)	6,056,483	(4,290)	6,052,192
2019-20 (LPA1)	6,000,572	(6,450)	5,994,122
3-year average volume	6,039,980	(4,046)	6,035,934
RNG to be delivered (1%)			**60,359**

* Excluding the volumes of dedicated network biogas customers.

1.2 ACCOUNTING FOR VOLUMES DELIVERED WITHIN THE MEANING OF THE REGULATION

In Decision D-2020-057, the Régie concluded that, under the wording of the Regulation, the volumes of RNG delivered to interconnections located in the territory must be accounted for. According to the Régie, this would make it possible to meet the two objectives of the Energy Policy, i.e. increased RNG production in Québec and replacement of fossil natural gas by RNG for Québec consumers.[4]

This interpretation implies that volumes of RNG delivered within the territory but consumed outside the territory—for example, a Québec producer's RNG units sold in the United States—will have to be accounted for under the Regulation.

To ensure that it properly accounts for all the volumes of RNG that transit through its distribution network, Énergir will have to ensure that it can capture all potential scenarios. Volumes from three scenarios must be accounted for under the Regulation:

1. The volumes of RNG produced and injected into the Énergir system, consumed by one or more customers in the territory (volumes purchased by Énergir or by direct-purchase customers);
2. The volumes of RNG produced and injected into the Énergir system, consumed outside Énergir's distribution territory; and

[3] R-4119-2020, B-0009, Énergir-H, Document 4, p. 3.
[4] D-2020-057, paragr. 211, p. 60.

3. The volumes of RNG produced outside the territory, delivered in the territory for consumption by a customer or customers in the territory (volumes purchased by Énergir or by direct-purchase customers).

For scenarios 1 and 2, RNG volumes are already accounted for, since in order to inject RNG into the distributor's system, producers are subject to the receipt rate and all injected volumes are measured.

Currently, the volumes of RNG purchased by direct-purchase customers in the Figure 3 scenario may not be captured. To completely cover this third scenario, Énergir proposes, in Section 9.2, an amendment to Article 11.2.3.5 of the Conditions of Service and Tariff (CST) to require direct-purchase customers to inform Énergir of the quantities of RNG they supply.

As a result, Énergir believes that it will be able to account for all RNG volumes in accordance with the Regulation.

1.3 OBLIGATIONS OF A NATURAL GAS DISTRIBUTOR UNDER THE REGULATION

A natural gas distributor must deliver the quantities of RNG set out in the Regulation and is likely to end up with so-called "unsold" RNG units. This evidence addresses the regulatory treatment of these potential unsold units.

Before formulating its proposal, however, Énergir had to reconcile, on the one hand, the possibility of ending up with an inventory of unsold units, with certain passages of Decision D-2020-057 on the other. In these passages, in ruling on the "*obligations of a natural gas distributor under the Regulation,*"[5] the Régie seems to exclude the possibility that the distributor may hold RNG units required for the purposes of the Regulation, without these units being acquired voluntarily by customers:

> [Translation] "*[235] Énergir's proposed response to acquire the volume of RNG set out in the Regulations is therefore not the right one, because if it were to acquire more RNG than the demand expressed by its customers, that RNG would simply remain in inventory for*

[5] Title of Section 4.7 of Decision D-2020-057.

> *regulatory purposes*. *These unsold RNG units would not be accounted for under the Regulation and therefore Énergir would not meet its regulatory obligations.*"
>
> [Énergir highlights]

However, Énergir understands that Decision D-2020-057 must be interpreted from the specific perspective in Step B, regarding the characteristics of RNG supply contracts for purposes of meeting the 1% target set out in the Regulation. In Decision D-2020-166 handed down in the Gazifère case R-4122-2020, the Régie indicates that [Translation] "*the obligation provided for in the RNG Regulation* [was not] *established in Decision D-2020-057*" (D-2020-166, paragr. 95), considering, in particular, that [Translation] "*the issue of socializing the additional costs of RNG has not yet been addressed in file R-4008-2017*" (D-2020-166, paragr. 95).

Therefore, the scope of Decision D-2020-057 with respect to the definition of the obligations under the Regulation would only be determinative with respect to the issues specific to Stage B and the evidence submitted at that stage.

It also appears from paragraphs 238 to 249 of Decision D-2020-057 that the Régie's determinations regarding the application of the Regulation are directly related to the way Énergir defines the "needs of its customers" pursuant to section 72 of the Act:

> [Translation] *"[235] Énergir's proposed response to acquire the volume of RNG set out in the Regulations is therefore not the right one, because if it were to acquire more RNG than the demand expressed by its customers, that RNG would simply remain in inventory for regulatory purposes. These unsold RNG units would not be accounted for under the Regulation and therefore Énergir would not meet its regulatory obligations."*
>
> *(…)*
>
> *[238] To fully understand the obligations of the natural gas distributor under the Regulation, it is necessary to return to the purpose of section 72 of the Act respecting the Régie, which concerns the Regulation.*
>
> *(…)*
>
> *[242] This supply plan is prospective in nature in that it seeks to ensure alignment over a horizon of at least three years between the distributor's forecast market requirements and the characteristics of existing supply contracts as well as additional supplies required, if any, including those related to natural gas transmission and storage.*
>
> *(…)*

> *[244] With the addition of subparagraph 3(b) to the first paragraph of section 72 of the Act, the legislator is asking Énergir to also indicate how it intends to deliver an annual volume of RNG equivalent to a threshold of 1% in 2020-21, 2% in 2023 and up to 5% in 2025 to meet the needs of its customers.*
>
> *[245] Énergir currently defines customer needs as those of its voluntary RNG customers as well as those of its direct-purchase customers. Based on the evidence on file, the demand for RNG from voluntary customers would reach the threshold set out in the Regulations for fiscal year 2020-21. Énergir is confident that this customer demand will remain and be sufficient to meet its obligations if the average price of $15/GJ for RNG supply is maintained.*
>
> *[247] If Énergir maintains its current definition of RNG customer needs, in order to meet its delivery obligation, it will now be required, as ACEFQ states, to be proactive in order to interest customers in buying RNG and to identify direct-purchase customers who purchase RNG. This proactive approach could also be reflected in its capital plan, by providing for the connection of Québec RNG production sites to its distribution network.*
>
> [Énergir highlights]

Therefore, according to the Régie:

- Énergir's supply plan must ensure an alignment between its RNG supplies and its "customer needs" with respect to RNG;
- Énergir currently defines "customer needs" as those of its voluntary RNG customers as well as those of its direct-purchase customers;
- If Énergir maintains its definition of "customer needs" then it will need to be proactive in attracting customers to purchase RNG in order to meet its delivery obligation;
- In this context, Énergir cannot acquire the volume of RNG provided for in the Regulation if that volume is greater than its "customer needs," since the excess RNG would then remain in inventory and could not be accounted for under the Regulation.

The Régie's interpretation is reflected in the following exchange during the October 1, 2020 hearing:

"*Me DOMINIQUE NEUMAN*:

[Translation] *It would be a major cross-subsidization. This is a slightly smaller cross-subsidization with a relatively small impact. We are talking about an additional one point six cents (1.6¢) per cubic metre.*

So it's relatively low. It's not huge, but yes, it's cross-subsidization. It is not such a big difference that perhaps later, at stage C, D or E of this case, we might realize that there are no voluntary customers left. . . that all those who have stayed, well, they've reached their maximum and that's it.

Maybe the Régie will consider whether the purchase of RNG by Énergir should be halted? Because that is what the regulation says, and there is no longer any regulatory obligation, or is Énergir allowed to buy RNG in Saint-Hyacinthe, as it did a few years ago when there was no regulatory obligation.

Before. . . I don't know if they even knew L'Oréal was coming, but in any case, it's. . .

CHAIR:

In fact, I would tell you that decision D-2020-057 mirrors the Énergir strategy.

Me DOMINIQUE NEUMAN:

Yes.

CHAIR:

So the purchase of RNG is linked to customer satisfaction needs. If satisfying the needs. . . the satisfaction of customer needs was to be achieved other than by voluntary customers, it would be by means other than this, but that is the strategy that's been chosen and authorized for the time being by the Régie."[6]

[Énergir highlights]

Step C is now focusing on the strategy for the socialization of unsold RNG units. This perspective was not considered or discussed in Step B considering the volumetric threshold applicable under the Regulation (1%). Based on Decision D-2020-166[7], Énergir understands that socialized units remaining unsold may be accounted for in order to meet the obligations set out in the Regulation, as these units are part of Énergir's "customer needs" pursuant to section 72 of the Act.

[6] A-0155, transcript from the hearing on October 1, 2020, Vol. 17, p. 136 and following.

[7] Paras 110 and 111

Énergir considers it important to specify that, for the purposes of this document, the voluntary customer demand represents the demand of all customers who have subscribed to the RNG supply rate and for whom Énergir purchases RNG units. However, as stipulated in Section 1.2, other quantities must be accounted for pursuant to the Regulation, i.e. volumes consumed by direct-purchase customers and volumes delivered to the various interconnection points of the Énergir system.

To meet its regulatory obligations, Énergir proposes a multi-pronged strategy:

- Create a new RNG supply rate to sell RNG on a voluntary basis;
- Implement a marketing plan tailored to customer needs in order to maximize voluntary demand and avoid unsold RNG units as much as possible;
- Socialize the additional cost of certain units not sold to customers.

2 FUNCTIONALIZATION OF RNG PURCHASES

The first step in setting a rate is to functionalize the costs incurred. Énergir believes that the proposed methodology should be simple and consistent with its current processes. The methodology must also enable it to bill the total average cost of a unit of RNG to customers wishing to buy from Énergir.

Since customers have the option to meet only a portion of their natural gas requirement with RNG, it should be possible to make a clear distinction at the time of billing between conventional natural gas volumes and RNG volumes.

In the case of **supply service**, the distinction is made by asking customers to set the RNG percentage they want. This means that customers who want 20% of their consumption to be RNG would be billed monthly for 20% of their consumption at the current RNG supply price and 80% at the applicable system gas price, that is if they use Énergir's supply service for their conventional natural gas consumption.

The situation is different for **transportation service**. If all RNG volumes purchased by Énergir were produced within the franchise, the solution might be the same as for the supply service: each month, 20% of the customer's consumption would not be subject to the transportation price and 80% would be billed based on the current transportation price. However, not all volumes purchased are produced within the franchise. Énergir can also obtain RNG outside franchise, and these units must then be transported. At the time of billing, the exact source of RNG is not known. Determining what volumes of RNG should or should not be billed to the transportation service would be complicated for both the customer and distributor.

The situation is similar for conventional natural gas. Natural gas purchases are made at various points. In order to properly functionalize the costs of buying conventional natural gas and ensure fairness for all customers, the supply price is set at a single delivery point, which is the delivery point for direct purchase customers: Dawn.[8] Once all supply purchase contracts have been functionalized at Dawn, the same transportation price can then be applied to all volumes used by

[8] See Exhibit R-3879-2014, B-0421, Gaz Métro-16, Document 1, Section 4.

customers.[9] Énergir proposes to proceed in the same way in the case of RNG. To be able to fairly charge customers who purchase RNG on a voluntary basis and bill the same transportation price for all volumes consumed, it is important that RNG purchases be functionalized at a common reference point. The functionalization of purchases at Dawn is consistent with the methodology already used for system gas.

As proposed in section 5.2, direct purchase customers would have the option of subscribing to Énergir's RNG rate for a portion of their consumption. The Dawn benchmark is already used by these customers for their conventional natural gas consumption, so the functionalization of RNG at Dawn would provide a uniform delivery point for the consumption of these customers. Uniformity of the point of delivery would allow for adequate supply service billing and a single transportation rate for all customer consumption.

2.1 FUNCTIONALIZATION OF RNG PURCHASES IN QUÉBEC

2.1.1 In-franchise purchases

For in-franchise RNG purchases, a transportation value would be deducted from the RNG purchase price in order to functionalize purchases with Dawn as a benchmark. Énergir considered two different transportation prices in order to functionalize these purchases:

1) TransCanada Pipelines (TCPL) transportation rate between Dawn and the Énergir franchise (Dawn-GMIT EDA segment);

2) Énergir's transportation rate (Article 12.1.2.1.1 of the CST), net of the rate adjustment for excess capacity provided for in item (a) of subparagraph 3 of the first paragraph of section 72 of the Act (see Exhibit R-4076-2018, B-0133, Énergir-Q, Document 3, line 15).

[9] The functionalization of supply purchase costs as part of the 2020-21 Rate Case is presented in Exhibit R-4119-2020, B-0066, Énergir-N, Document 6, page 4.[10] Adjustment applied to all customers, whether or not they use the transportation service, as per Decision D-2017-094, paragr. 461.

As previously stated, Énergir's proposal must meet the objectives of not only simplicity but also consistency with its existing functionalization processes for conventional natural gas. In addition, Énergir would like to recover the full average RNG purchase cost from its customers using the distributor's RNG supply service. These objectives can only be met through the second option. To demonstrate this, an example comparing both functionalization methodologies (TCPL's transportation price and Énergir's transportation price) is presented below.

This example assumes that only RNG produced within the franchise is available at a cost of 50.000¢/m³. Since the gas does not have to be transported, the average cost charged to the consumer should be 50.000¢/m³, plus the cost of excess transportation capacity.[10] The table below details how purchases of in-franchise produced RNG at a price of 50.000¢/m³ would be functionalized, and shows the resulting billing to a customer, according to the two options studied by Énergir.

[10] Adjustment applied to all customers, whether or not they use the transportation service, as per Decision D-2017-094, paragr. 461.

Table 2

		Option 1 TCPL rate ¢/m³	Option 2 Adjusted Énergir transportation rate ¢/m³
	Functionalization of RNG purchases		
(1)	**Purchase price for in-franchise RNG producer**	50.000	50.000
(2)	Transportation portion		
(3)	TCPL transportation rate[1]	2.157	
(4)	Distributor transportation rate[2]		1.633
(5)	*(-) Adjustment for excess capacity*[3]		*+0.033*
(6)	Adjusted distributor transportation rate *(3)+(4)+(5)*		1.666
(7)	**Transportation portion** *-(3)-(4)-(5)*	-2.157	-1.666
(8)	**RNG purchase price at Dawn** *(1)+(7)*	47.843	48.334
	RNG billing		
(9)	Supply service		
(10)	**RNG price at Dawn** *(8)*	47.843	48.334
(11)	Transportation service		
(12)	**Transportation basis price** *(4)*	1.633	1.633
	Total bill S + T *(10)+(12)*	**49.476**	**49.967**

[1] TCPL Dawn – GMIT EDA rate as at January 1, 2019.

[2] Distributor's rate as at June 1, 2020 in Article 12.1.2.1 of the CST.

[3] Cost of excess capacity as at December 1, 2019: The excess capacity is zero, but an overpayment has been incorporated. The resulting rate is negative and therefore a positive adjustment is made to the transportation price.

The table above shows that Option 2 should be preferred since it allows Énergir to:

- recover the desired amount of 49.967¢/m³, i.e. an RNG purchase price of 50.000¢/m³, adjusted by the excess capacity of -0.033 ¢/m³ applicable to all customers; and

- charge an amount equivalent to the amount that would be paid by a direct-purchase customer buying RNG at a price of 50.000¢/m³ from an in-franchise producer.

Énergir therefore proposes that the transportation portion for in-franchise RNG purchases be functionalized using the distributor transportation rate net of the adjustment for excess capacity. The supply portion would be the difference between the RNG purchase cost and the functionalized transportation portion.

2.1.2 Purchases outside franchise

If RNG is delivered to Énergir outside franchise but still in Québec, the transportation cost of bringing the commodity from the delivery point to the Énergir franchise should be added to the RNG supply price. This would be the case if, for example, Énergir were to purchase RNG from a producer connected to a line belonging to Trans Québec & Maritimes Pipeline (TQM). The following table details how RNG purchases delivered outside franchise within Québec at a price of 50.000¢/m³ would be functionalized, and shows the resulting billing to a customer, according to the two options studied by Énergir. A hypothetical transportation rate of 1.000¢/m³ has been added to consider the additional purchase of transportation capacity to bring RNG to the Énergir franchise.

Table 3

		Option 1 TCPL rate ¢/m³	Option 2 Adjusted Énergir transportation rate ¢/m³
	Functionalization of RNG purchases		
(1)	**Purchase price for RNG producer**	50.000	50.000
(2)	(+) Transportation cost between the delivery point and the Énergir franchise	+1.000	+1.000
(3)	Transportation portion		
(4)	TCPL transportation rate[1]	2.157	
(5)	Distributor transportation rate[2]		1.633
(6)	*(-) Adjustment for excess capacity[3]*		*+0.033*
(7)	Adjusted distributor transportation rate *(4)+(5)+(6)*		1.666
(8)	**Transportation portion** *-(4)-(5)-(6)*	- 2.157	-1.666
(9)	**RNG purchase cost at Dawn** *(1)+(2)+(8)*	48.843	49.334
	RNG billing		
(10)	Supply service		
(11)	**RNG price at Dawn** *(9)*	48.843	49.334
(12)	Transportation service		
(13)	**Transportation basis price** ***(5)***	1.633	1.633
(14)	**Total bill S + T** *(11)+(13)*	**50.476**	**50.967**

[1] TCPL Dawn – GMIT EDA rate as at January 1, 2019.

[2] Distributor's rate as at June 1, 2020 in Article 12.1.2.1.1 of the CST.

[3] Cost of excess capacity as at December 1, 2019: The excess capacity is zero, but an overpayment has been incorporated. The resulting rate is negative and therefore a positive adjustment is made to the transportation price.

The table above shows that Option 2 should be preferred since it allows Énergir to:

- recover the desired amount of 50.967 ¢/m³, i.e. an RNG purchase price of 50.000¢/m³, adjusted by the excess capacity of -0.033 ¢/m³ applicable to all customers and by the rate of 1.000¢/m³ paid to the transporter for delivery to Énergir's franchise; and

- charge an amount equivalent to the amount that would be paid by a direct-purchase customer purchasing RNG outside franchise at a price of 50.000¢/m³ from a Québec producer who would have to acquire transportation to deliver this RNG in franchise.

Énergir therefore proposes that the transportation portion for RNG purchases outside franchise within Québec be functionalized using the distributor transportation rate net of the adjustment for excess capacity. The supply portion would be the RNG purchase cost, plus the cost of bringing the RNG to Énergir's franchise minus the functionalized transportation portion.

2.2 FUNCTIONALIZATION OF RNG PURCHASES OUTSIDE QUÉBEC

2.2.1 Purchases at Dawn

If RNG is purchased at Dawn, the entire supply purchase cost would be functionalized. Using the RNG purchase cost of 50.000¢/m³ from the previous two examples, but for delivery at Dawn, the average cost charged to consumers would have to be 50.000¢/m³ plus the transportation cost to bring the gas to the franchise:

Table 4

	Functionalization of RNG purchases (¢/m³)	
(1)	**Purchase price for RNG producer**	50.000
(2)	**Transportation portion**	0
(3)	**RNG purchase price at Dawn** *(1)+(2)*	50.000
	RNG billing (¢/m³)	
(4)	Supply service	
(5)	**RNG price at Dawn** *(3)*	50.000
(6)	Transportation service	
(7)	**Transportation basis price**[(1)]	1.633
	Total bill – S + T *(5)+(7)*	51.633

[(1)] Distributor's rate as at June 1, 2020 in Article 12.1.2.1.2 of the CST.

In this way, in addition to charging the right costs to customers who consume RNG, they are billed the same as direct-purchase customers who buy RNG from Dawn at a price of 50.000¢/m³.

Énergir therefore proposes that the functionalization of the transportation portion for RNG purchases at Dawn be kept at zero. The supply portion would be the cost of purchasing RNG.

2.2.2 Purchases at points other than Dawn

This scenario should not arise because Énergir is suggesting that its RNG purchases outside Québec be delivered to Dawn. In this case, the price negotiated with the producer therefore already includes the transportation portion to Dawn.

In the event that RNG purchases are still made outside of Québec at a delivery point other than Dawn, the cost of transportation to Dawn would have to be determined. The functionalized supply amount would then be the RNG purchase cost, plus the cost determined to get the RNG to Dawn.[11] No transportation costs would be functionalized.

In the example below, it is assumed that the cost to purchase a unit of RNG is still 50.000¢/m³ and that the transportation cost to move the RNG from the delivery point to Dawn is 4.000¢/m³. In this case, the average cost charged to the RNG consumer for supply and transportation would be 50.000¢/m³ plus the transportation cost to bring the gas to Dawn, plus the transportation cost to bring the gas from Dawn to the franchise.

[11] If Énergir does not purchase new capacity to transport RNG because it is using transportation capacities it already has, an adjustment to transportation costs should also be accounted for.

Table 5

	Functionalization of RNG purchases (¢/m³)	
(1)	**Purchase price for RNG producer**	50.000
(2)	(+) Transportation cost from the delivery point to Dawn	4.000
(3)	**Transportation portion**	0
(4)	**RNG purchase cost at Dawn** *(1)+(2)+(3)*	54.000
	RNG billing (¢/m³)	
(5)	Supply service	
(6)	**RNG price at Dawn** *(4)*	54.000
(7)	Transportation service	
(8)	**Transportation basis price**[1]	1.633
(9)	**Total bill – S + T** *(6)+(8)*	**55.633**

[1] Distributor's rate as at June 1, 2020 in Article 12.1.2.1.1 of the CST.

The table above shows Énergir recovering the desired amount of 55.633¢/m³, which is an RNG purchase price of 50.000¢/m³, plus 4.000¢/m³ to bring the RNG to Dawn and the transportation basis price of 1.633¢/m³. The supply service amount is equivalent to the amount that would be paid by a direct-purchase customer buying RNG outside franchise at a point other than Dawn at 50.000¢/m³.

Énergir therefore proposes that the transportation portion for RNG purchases outside franchise at a point other than Dawn be functionalized using the RNG purchase cost, plus the cost of transportation to bring the RNG to Dawn. No transportation costs would be functionalized.

2.3 FUNCTIONALIZATION OF BALANCING SERVICE COSTS

Énergir believes it is important to specify that the price paid to producers for RNG purchases would not vary as the market fluctuates during the year. Prices are therefore not seasonal. No load-balancing costs are therefore incurred because Énergir would buy RNG available for sale from producers based on contract volumes, without taking into account customers' day-to-day needs. As a result, Énergir would exclude RNG purchases from the supply transfer to balancing calculation.

Note that although RNG purchase prices are not seasonal, this does not mean that customers buying the RNG do not generate a balancing cost corresponding to their load profile. As with the consumption of conventional natural gas, the less stable a customer's RNG consumption, the higher his or her load-balancing rate. This aspect of the load profile is clearly captured in the load-balancing rate.

2.4 FUNCTIONALIZATION OF RNG PURCHASE COSTS AT THE TIME OF THE RATE CASE

Énergir proposes to use the distributor's transportation rate to functionalize in-franchise RNG purchases, as explained in Section 2.1.1 above. However, as this rate file was being prepared, that exact rate was not yet known as it relates to the functionalization exercise. Énergir must first establish all functionalized transportation service costs[12] before establishing the final transportation rate.[13] As this rate is used to properly functionalize RNG purchase costs, it must be projected high enough to offset the resulting circular reference effect. The estimate is based on the previous year's transportation rate adjusted for, among other things, amortization of the transportation overpayment or shortfall and amortization of the excess capacity.

This situation is not unique to the functionalization of in-franchise RNG purchases. In fact, the distributor's transportation rate is used to assess other cost elements.[14]

It is important to note that the sum of the costs related to the estimated elements is only a small portion of the distributor's transportation rate. This rate is primarily affected by the costs associated with the transportation capacity held with TCPL and on the secondary market. As a result, although the price used to evaluate certain cost elements is not the definitive rate, this approach does make it possible to assess the costs using a rate that is close to it and thus minimize variances. For example, if the final transportation rate approved by the Régie had been used when assessing transportation costs to establish the 2020-21 Rate Case, the costs would have been $13,000 lower.

[12] R-4119-2020, Exhibit B-0066, Énergir-N, Document 6 as part of the 2020-21 Rate Case.

[13] R-4119-2020, Exhibit B-0082, Énergir-Q, Document 3 as part of the 2020-21 Rate Case.

[14] For examples of such other cost factors, refer to File R-4119-2020, Exhibit B-0066, Énergir-N, Document 6, p. 1, lines 15, 21, 22, 30 and 31.[15]By way of illustration, refer to Appendix Q-3.2 filed under confidential cover of the answer to question 3.2 of the Régie's Request for Information No. 8, in Exhibit B-0307, Gaz Métro-2, Document 30 of the previous stage of the file.

Lastly, it is important to note that Énergir actually assesses costs using the distributor's transportation rate approved by the Régie, so there are no variances.

2.5 ALLOCATION FACTORS

Since no distinction can be made between the transportation costs of conventional natural gas and RNG, RNG costs functionalized to the transportation service would be allocated based on the existing factor FB01T. As for allocation of RNG costs functionalized to the supply service, Énergir would create the new factor FB01F-GNR, calculated on the basis of annual RNG sales volumes by rate level.

3 RNG SALES

There are several RNG consumption models among North American distributors. Énergir has carried out benchmarking in this respect which is available in Appendix 1. It is normal to observe differences from one model to another, given that the RNG market is developing. Some distributors, such as FortisBC Energy Inc. (FEI), have been active in the RNG market for some time and have even updated their RNG rate to reflect the commercial realities encountered over time.

Different approaches are being taken to make RNG available to customers. For the time being, Énergir is proposing to introduce an RNG rate for its supply service to meet the needs of customers who wish to use RNG on a voluntary basis. The costs entailed in supplying RNG would thus be recovered primarily from these customers. In the meantime, Énergir continues to monitor the approaches taken by other entities with respect to RNG pricing and may eventually propose changes to its rate if the context is appropriate.

A provisional RNG rate has been in place since the Régie rendered Decision D-2019-120. This rate is posted to the distributor's supply service. As mentioned prior to its implementation, the provisional rate means the following pricing principles and considerations can be observed:

- Fairness among customers and a reduction and limitation of the level of cross-subsidization;
- Our objectives of simplicity, understanding and administrative ease; and
- Revenue stability and some rate stability.

Énergir maintains that the proposed supply service rate is the fairest and most beneficial for customers who wish to purchase RNG, as well as for the rest of its customer base. The price-setting method is discussed in the next section.

3.1 SETTING THE RNG RATE

The RNG rate to which voluntary customers would be subject would be set each year as part of the rate case, in order to recover the cost of acquiring RNG. Énergir does not consider it necessary to review the RNG price on a monthly basis, as is done for system gas. The variance of the purchase cost will be limited by the predominance of a longer term in the agreements signed with producers[15] and by the adoption of a portfolio diversification approach to purchase contracts. It should be noted that an annual review of the RNG rate also leads to greater customer satisfaction since customers have greater cost certainty with respect to their RNG consumption.

Setting the RNG rate

The RNG rate would be calculated according to the following formula:

$$\text{RNG rate} = \text{Average cost of'purchase projected for the 12 months of the rate case} + \text{cumulative RNG price difference}$$

Setting the projected average purchase cost for the 12 months of the rate case

When filing the rate case, Énergir would project the average purchase cost for the 12 months from October to September, according to the following formula:

$$\text{Average cost of'purchase projected for the 12 months of the rate case } (¢/m^3) = \frac{\left(Price_{producer\ 1} \times Volumes_{producer\ 1} + (\ldots) + Price_{Producer\ n} \times Volumes_{Producer\ n}\right)}{Total\ volume\ of'RNG\ purchases}$$

As a reminder, the price associated with each producer in the weighted average would be functionalized at Dawn in the manner proposed in sections 2.1 and 2.2.

Setting the cumulative RNG price difference

The RNG rate will also have to incorporate the recovery/remittance of the acquisition cost differences from the second-last fiscal year. The balance of the deferred expense account that

[15]By way of illustration, refer to Appendix Q-3.2 filed under confidential cover of the answer to question 3.2 of the Régie's Request for Information No. 8, in Exhibit B-0307, Gaz Métro-2, Document 30 of the previous stage of the file.

records the RNG price differences (DEA – cumulative RNG price difference) would therefore be translated to a rate (¢/m³) as follows:

$$\text{Cumulative RNG price difference } (¢/m^3) = \frac{(DEA\ balance - cumulative\ RNG\ price\ difference_{t-2} + Capitalized\ interest_{t-1})}{Total\ expected\ RNG\ sales\ volumes\ for\ the\ rate\ case}$$

For example, the balance of the DEA net of the cumulative RNG price difference noted in the 2021 annual report, plus the value of capitalized interest, would be included in the fiscal 2022-23 RNG rate.

There is a cumulative cost difference[16] which is used to calculate the system gas price on a monthly basis:

> "*In fact, for a given month, the difference between the projected acquisition cost invoiced to customers (the 12-month futures price) and the actual acquisition cost (based on Enerdata's published indexes and spot purchases made), multiplied by the actual quantities purchased during the month, is used to determine the amount to be remitted to or recovered from customers. If the result is positive, i.e. the actual acquisition cost turns out to be higher than the projected cost, the amount must be recovered from customers. Conversely, if the account is negative, i.e. the actual acquisition cost turns out to be lower than the projected cost, the amount must be returned to customers. The difference for the month just ended is added to the cumulative cost difference account of the previous month in order to be remitted to or recovered from customers monthly via the calculation of the supply service price*[17]."

For example, the projected cumulative cost difference included in the calculation of the natural gas supply rate in effect on June 1, 2020,[18] determined a few days before the end of May 2020, was calculated as follows:

a) Cumulative cost difference as at April 30, 2020 (balance on the books)
   = ($22,631M)

b) Estimated cost difference for the current month, May 2020
   = Projected May volumes * (May rate – May acquisition cost)
   = 3,373,441 GJ * ($2.74/GJ – $2.25/GJ) = ($1,650M)

[16] The terms "cumulative cost difference" and "cumulative price difference" are equivalent and interchangeable since they refer to the difference between a purchase cost and a selling price.

[17] Page 18 of the document explaining the monthly calculations of the supply service price and the CTEAS system (http://www.regie-energie.qc.ca/consommateur/gaz_prix/energir/cout/ENERGIR_DocExplicatif_Janv2020.pdf).

[18] Page 3 of the June 2020 monthly report on the detailed supply service cost (http://www.regie-energie.qc.ca/consommateur/gaz_prix/energir/cout/Énergir-Prix de fourniture 2020.06 - Régie.pdf).

c) Projected cumulative cost difference as at June 1, 2020
= a + b = ($24,281M) to be remitted to customers

When calculating the system gas price in effect on July 1, 2020, the acquisition cost for all May purchases is fully known since the last days of May have since passed. The cumulative cost difference as at May 30, 2020 thus exactly matches the balance on the books, and the same mechanism applies using a cumulative cost difference as at May 30, 2020 on an actual basis.

When setting the RNG rate, the same logic as that of the cumulative cost difference for the system gas price would therefore be applied, with the aim of remitting (or recovering) the difference between the costs billed to customers for a given period and the actual acquisition costs during that same period, although with three differences:

- The balance would be recovered or remitted annually (and not monthly, as is the case for system gas).
- The balance of the differences recorded in the annual report for year T would be included in the rates for year T + 2 (i.e. not updated from the volumes of the next twelve months, as is the case for system gas).
- No estimated price difference would have to be included in the RNG rate (unlike system gas, for which an estimate is required for the last days of each month and an adjustment for the actual amount is made the following month).

All told, the balance of the cumulative RNG price difference to be transferred into the RNG rate would include the difference accrued over the rate year between the actual purchase cost of the RNG paid by Énergir and the revenues generated by the RNG price charged to customers.

The terms and conditions for establishing the DEA net of the cumulative RNG price difference are presented in Section 6.1.

4 CTEAS APPLICABLE TO RNG

An amendment was passed to the *Regulation respecting mandatory reporting of certain emissions of contaminants into the atmosphere* (RMRCECA), in force since January 1, 2020. The following table was excerpted from that amendment:[19]

Table 6
Emission factors for different fuels under RMRCECA

Gas fuels	**Emission factor (metric tonnes of CO_2 equivalent per thousand cubic metres)**
Natural gas	1.889
Compressed natural gas	1.907
Biomethane	0.011
Stripping gas (refinery)	1.757
Solid fuels	**Emission factor (metric tonnes of CO_2 equivalent per thousand cubic metres)**
Coal coke	2.487
Petroleum coke	3.451
Coal	2.397

As a result of this amendment, new CTEAS costs related to the RNG volumes consumed are now to be incurred. As part of Rate Case 2020-21, Énergir proposed to temporarily include the new CTEAS costs related to distributed RNG volumes in the CTEAS service and to maintain the current rate.[20] As specified in paragraph 424 of Decision D-2020-145[21] of the same case, the Régie asked Énergir to file, under case R-4008-2017, a final proposal for the functionalization and pricing of the additional CTEAS costs resulting from the amendment to the RMRCECA. This section presents that final proposal.

4.1 COST CAUSATION

The main cause of increased CTEAS costs incurred by Énergir is easily identifiable: the consumption of RNG by Énergir customers subject to the distributor's CTEAS service. Customers

[19] GAZETTE OFFICIELLE DU QUÉBEC, December 26, 2019, 151styear, No. 52. *Regulation amending the Regulation respecting mandatory reporting of certain emissions of contaminants into the atmosphere* http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=13&file=1952-F.PDF [consulted December 17, 2020].

[20] R-4119-2020, B-0120, Énergir-Q- Document 1, section 1.1.

[21] R-4119-2020, D-2020-145, p.104.

who consume RNG and provide their own CTEAS service are also required to pay the cost resulting from the RMRCECA amendment, but in this case, Énergir's costs are not affected.

4.1.1 Functionalization

Given that there is a strong causal link between the costs of purchasing GHG emission allowances to cover the RNG emissions and the CTEAS service, functionalization for the CTEAS service is warranted.

4.1.2 Classification

Since the costs are specific to RNG, Énergir believes that they should be classified separately from the CTEAS costs for traditional natural gas. This classification would allow Énergir to more precisely allocate the CTEAS costs and revenues related to RNG volumes.

4.1.3 Allocation

The costs associated with the purchase of GHG emission allowances for RNG would be recovered through the CTEAS service billing for customers consuming RNG. As with the CTEAS billing for traditional natural gas, customers responsible for covering their own emissions through the acquisition of GHG emission allowances (commonly referred to as "large emitters") would be exempt from the RNG CTEAS billing. Under this principle, Énergir proposes to allocate the RNG-related CTEAS costs based on the annual RNG sales volumes by rate level for the CTEAS service, namely the new factor, FB01S-GNR. As for CTEAS revenues from RNG, Énergir proposes to create Factor FB07S-GNR, based on the annual RNG revenues per rate level for the CTEAS service. Examples of the calculation of factors FB01S-GNR and FB07S-GNR appear in Appendix 2.

4.2 CALCULATION OF THE RNG CTEAS RATE

Given that the emission factor for RNG is much lower than that of traditional natural gas, i.e. 0.011 compared to 1.889, Énergir proposes to charge a CTEAS rate specific to the volumes of RNG

consumed. Except for the difference in the emission factor used,[22] the proposed methodology for calculating the RNG CTEAS rate would be the same as the one currently used to calculate the CTEAS rate for traditional natural gas. As a result, the CTEAS rate charged to customers would be much lower for those who consume RNG. The following table compares the CTEAS price for traditional natural gas and the one for RNG using a fictitious price of $22/tonne GHG:

Table 7
CTEAS price comparison

		Traditional natural gas	RNG
(1)	Theoretical acquisition price for new allowances ($/tonne GHG)	22.00	22.00
(2)	Emission factors according to RMRCECA	1.889	0.011
(3)	Temperature correction factor	1.017	1.017
(4)	Corrected emission factors – *(2) x (3)*	1.922	0.011
(5)	Corrected theoretical acquisition price for new allowances (¢/m³) – *(1) x (4) / 10*	4.228	0.025

4.3 IMPLEMENTATION OF THE NEW RATE

Taking into account the projected RNG sales volumes in the 2020-21 rate case[23] and the previously calculated CTEAS price for RNG, the following table shows the total estimated CTEAS costs for 2020-21 through 2023-24:

[22] Énergir submits that the cumulative cost difference and the cost of maintaining the CTEAS would be fully attributed to the calculation of the CTEAS price for traditional natural gas. The portion of these costs attributable to RNG is insignificant (less than $1,000 in 2020-21).

[23] R-4119-2020, B-0009, Énergir-H- Document 4, p.1.

Table 8
Estimated total CTEAS costs over a four-year period

	Volumes of RNG sold (10^3 m^3)	RNG CTEAS price (¢/m^3)	RNG CTEAS costs ($)
2020-21	60,359	0.025	14,860
2021-22	74,496	0.025	18,341
2022-23	84,961	0.025	20,917
2023-24	131,020	0.025	32,257

Some IT development would be necessary to charge this new rate. Given the relative insignificance of the CTEAS costs associated with current RNG consumption, as shown in the above table, Énergir proposes to start billing CTEAS for RNG volumes consumed wherever the total expected cost of RNG CTEAS reaches $50,000.[24] Until then, the temporary treatment approved in Rate Case 2020-21, namely to charge the CTEAS costs for RNG volumes distributed in the current CTEAS service, would be maintained. The impact of such an approach is negligible for Énergir's customers subject to the CTEAS, as shown in the following example:

Table 9
Impact of current pricing

Minimum amount ($)	CTEAS volumes sold ($10^3 m^3$)[25]	Impact on the CTEAS rate (¢/m^3)
50,000	3,323,600	+0.002

If Énergir's proposal were accepted by the Régie, Énergir would use the calculation of the CTEAS cost in the rate case to determine when billing of the specific rate for RNG would begin, i.e. the

[24] Énergir anticipates that if voluntary RNG customers consume 5% of total distribution volumes, the RNG CTEAS costs would exceed $50,000.

[25] R-4119-2020, B-0064, Énergir-N- Document 5, p. 1, l. 13, c. 2.

point at which RNG CTEAS costs reach $50,000.

5 SERVICE COMBINATIONS WITH RNG

5.1 CURRENT COMBINATION

The combination of services for both supply and transportation, approved by the Régie in the 2017-18 Rate Case,[26] covers situations where customers:

- obtain RNG through direct purchase for a portion of their consumption; and
- have the Énergir system gas rate for the other portion of their consumption.

It should be noted that the combination of transportation services is permitted only if the RNG is produced within the franchise.

Before providing details on the additional combination of services that Énergir is proposing to permanently include at the supply level, it is worth reviewing certain elements related to the combination of "direct purchase RNG" and "Énergir system gas" services, which have been presented in the past as part of the aforementioned rate case. First of all, Énergir's objective was to "[translation] *find a simple solution that would make RNG consumption more flexible, while protecting customers."*[27] The necessary measures selected to allow for this first combination of services are as follows:

1. Uniform delivery: This condition ensures that the seasonal portion of consumption remains the same whether the customers supply all or part of the natural gas they consume.

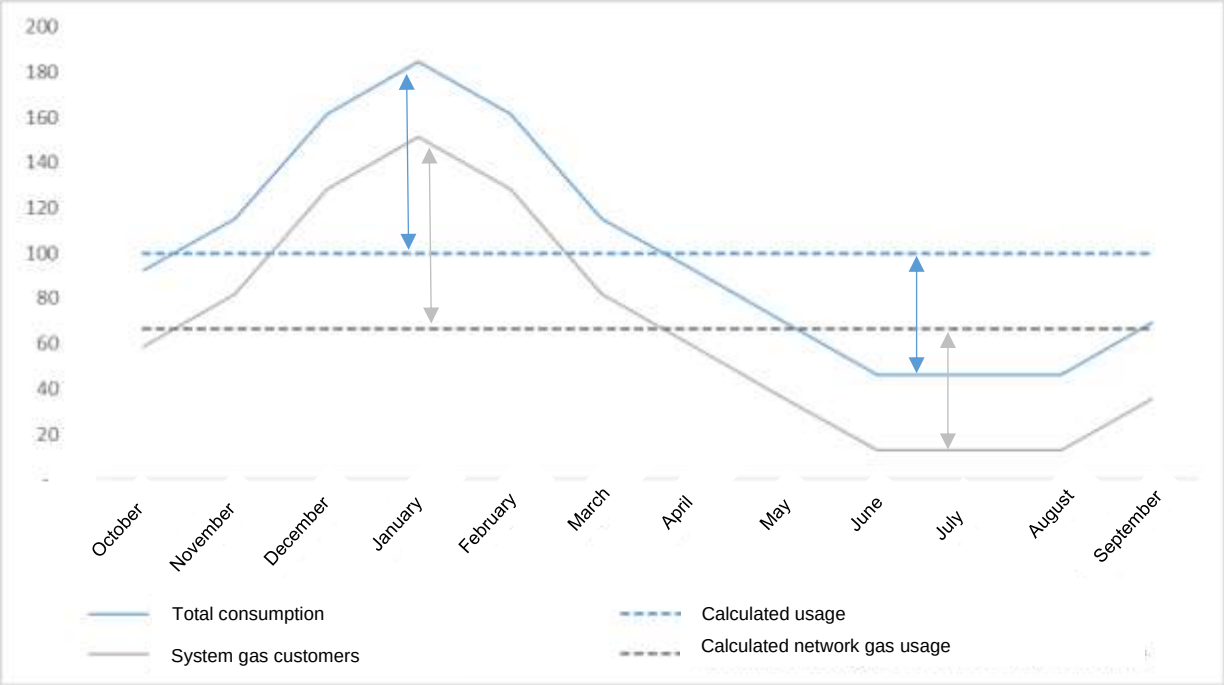
   The costs of Énergir's supply and transportation services are based on the principle of uniform delivery. Excess costs to uniform delivery are therefore functionalized to load balancing. Thus, as long as combined service customers deliver natural gas uniformly, the costs they generate will be the same as if the distributor had supplied all of it, even if the customers deliver less than their annual consumption.

[26] R-3987-2016, Phase 1, D-2017-041, Section 2.

[27] R-3987-2016, B-0069, Gaz Métro-2, Document 1, page 3.

By requiring that the portion of consumption supplied directly by the customer be delivered uniformly, Énergir ensures that the seasonal portion of consumption remains the same. There is accordingly no effect on the cost of system gas. To measure the costs of the seasonal portion, the difference between a customer's actual load profile and calculated usage must be noted. The following graph, taken from the evidence filed at the time,[28] illustrates that the gap due to variations in consumption remains the same if a uniform portion is removed from the consumption:

Graph 1



2. <u>Direct purchase with transfer of ownership:</u> The "direct purchase with transfer of ownership" service was chosen for simplicity. This service consists of Énergir purchasing the quantity of gas supplied by the customer at the moment it is received by Énergir at the agreed delivery point, based on the system gas price. The various applicable services are billed based on a single amount consumed, according to the system gas price for the supply service. So in using the mechanism "with transfer of ownership," there is no need to distinguish between the cubic metres in the "direct

[28] R-3987-2016, B-0069, Gaz Métro-2, Document 1, Graph 1. See also Table 1 in the same exhibit for a specific example.

purchase RNG" and "Énergir system gas" portions on the customer's final bill, since the type of gas distinction was previously addressed at the time of the ownership transfer.[29] This condition therefore allows for easy implementation backed by the existing billing system.

3. Initial fixed DCV in the direct purchase contract: Unique to this combination of services, this parameter is used to distinguish a customer's RNG consumption from his or her total consumption. RNG consumption determined in this way is used to calculate imbalances. This parameter is set at the beginning of the contract and ensures that customers do not consume more or less system gas over the contract year than they had planned. If the amount of RNG consumed is not set, customers might be motivated to purchase and supply more or less RNG at certain points in the contract year. This would bypass the principle of uniform delivery, resulting in costs that would have to be absorbed by other customers.

5.2 PROPOSED COMBINATION

The new RNG rate presented would allow Énergir to pursue its objective of making RNG consumption easier, while including its direct purchase customers who would like to purchase RNG from Énergir without having to fully return to system gas. To that effect, Énergir proposes to allow situations where customers:

- are assigned the Énergir RNG rate for part of their consumption; and
- procure natural gas through direct purchase for the other part of their consumption.

Note that this combination would be allowed for supply service only. Through its proposal, Énergir is seeking a simple solution that will facilitate RNG consumption, while allowing it to protect its customers.

[29] See Exhibit B-0060, Gaz Métro 2, Document 2, Section 2.1 and Appendix 1 in case R-3987-2016 for billing examples.

More specifically, the table below describes the possible scenarios with the RNG rate and identifies which ones are currently accepted.

Table 10

Example of combination of services including RNG rate for a portion of consumption

		Service providers		Compliance with conditions of service
		Supply	Transportation	
80% – RNG		Énergir	Énergir	
20% – Conventional natural gas	1	Customer	Customer	No
	2	Customer	Énergir	Proposed
	3	Énergir	Énergir	Yes
	4	Énergir	Customer	No

Scenario 3 is currently accepted because such a situation does not involve a combination of services. Scenarios 1 and 4 are rejected because Énergir only allows transportation services to be combined for customers who want to procure RNG directly from in-franchise producers.[30]

By allowing a second combination of supply services, as represented in Scenario 2, Énergir would further facilitate RNG consumption for direct purchase customers. This additional flexibility meets Énergir's objective of making RNG consumption easier for as many customers as possible. Furthermore, Énergir wants to ensure that its proposal does not have an impact on its system gas customers and is still easy to implement. To do so, three conditions would be required, two of which are identical to those required for the combination of services already approved and discussed above: uniform delivery would be required, customers would have to continue delivering their entire consumption volume, and they would of necessity be subject to supply service with transfer of ownership.

[30] R-3987-2016, B-0064, Gaz Métro-4, Document 10, page 4, Énergir's response to question 2.4.

5.2.1 Uniform delivery

The uniform delivery condition would be required, as for all direct purchase customers. As explained above, this principle allows the balancing service to correctly recover the costs related to the seasonal load profile. However, customers may change their agreed daily contract volume (DCV) during their contract according to the same rule applied to all direct purchase customers, i.e. when there is a significant change in consumption and subject to approval by the distributor. Conversely, Énergir may require customers to adjust their DCV if it anticipates an imbalance at the end of the contract period. These terms and conditions are set out in Article 11.2.3.2 of the CST.

5.2.2 Delivery of the entire consumption volume

The condition concerning delivery of the entire consumption volume is specific to the proposed combination of services. This condition would be necessary for several reasons.

Firstly, it would give customers with direct purchase contracts immediate access to RNG consumption without having to change their contracts with their suppliers.

Secondly, this approach would allow Énergir to ensure that its system gas customers stay protected. Revenues recovered for the seasonal portion of consumption from customers who opted for the proposed combination of services would in fact be the same as revenues from customers making direct purchases only, even if a change in DCV were granted. Such a change in DCV may need to be made if customers decide to change their target RNG consumption percentage.[31] Unlike the first combination of services discussed in Section 5.1, the RNG consumption portion of the proposed combination of services would not be set restrictively. This aspect must be taken into account when assessing the impacts of this combination of services on the rest of the customers, i.e. the "Énergir RNG" consumption portion might not be uniform. This would affect the "direct purchase gas" consumption portion, which in turn would affect the costs absorbed by system gas customers. Since customers of the proposed combination of services are more likely to opt out of uniform delivery, the condition requiring delivery of the entire consumption volume would be stipulated in order to offset the potential variability in RNG consumption

[31] Énergir notes the flexibility it is proposing with the 60-day period so that customers can join, withdraw or change their RNG supply service consumption (Section 7.5).

and the resulting costs. The balancing price would consequently remain the same for an identical seasonal load profile. The numerical examples in Appendix 3 show that having the same parameters (A, H and P) is all that is needed to obtain the same load-balancing price.

With delivery for total consumption (Example 2, Appendix 3), it is possible to keep the monitoring of daily and cumulative imbalances as is,[32] as well as shifting the total volumes[33] to load balancing.

Moreover, the implementation of this condition does not require any changes to the computer systems, for either gas supply or billing. Such changes would be significant if delivery for direct purchase customers were allowed instead.

5.2.3 Direct purchase with transfer of ownership

Direct purchase with transfer of ownership to Énergir would also be a requirement for the proposed combination of services, as it would permit easy billing of customers subject to the proposed new combination of services. As previously mentioned, this mechanism is already in place in the billing system, so no adjustments will be required to implement the proposed combination of services.

The following steps are taken for customers with direct purchase and transfer of ownership:

[32] Articles 11.2.3.3.1 and 11.2.3.3.2 of the CST.

[33] Article 13.1.4 of the CST.

1. The customer and Énergir sign a contract for direct purchase with transfer of ownership.
2. The customer can choose any supplier to procure the natural gas volumes covering the entire consumption.
3. The natural gas is purchased by Énergir at the agreed delivery point and at the prevailing system gas price.
4. The natural gas is transported and distributed by Énergir to the customer's facilities.
5. The natural gas supply, transportation, load-balancing, inventory-related adjustments, distribution and C&T system services are billed to the customer for every cubic metre of natural gas consumed by the customer.

For the proposed combination of services, the mechanism would remain the same except that the billing for supply and CTEAS services would be split based on the RNG percentage determined by the customer:

1. The customer and Énergir sign a contract for direct purchase with transfer of ownership specifying the targeted RNG purchase percentage.
2. The customer can choose any supplier to procure the natural gas volumes covering the entire consumption.
3. The natural gas is purchased by Énergir at the prevailing system gas price.
4. The natural gas is transported and distributed by Énergir to the customer's facilities.
5. The transportation, load-balancing, inventory-related adjustments and distribution services are billed to the customer for every cubic metre of natural gas consumed by the customer. Billing for the customer's supply is split between the system gas rate and the RNG rate based on the RNG percentage determined by the customer. Billing for the CTEAS service would also be split between the CTEAS rate for natural gas and the CTEAS rate for RNG[34] based

[34] Refer to Section 4.2.

on the percentage of RNG determined by the customer at the time the new CTEAS rate for RNG is implemented.

The business in the example below is a direct purchase customer and wants 20% of its consumption to be assigned the RNG rate. Over the period, Énergir purchases 1,000,000 m³ of supply delivered by the direct purchase customer at the system gas price and re-invoices them 800,000 m³ at the system gas price and 200,000 m³ at the RNG price.

Table 11
Example of direct-purchase customer
with 20% of consumption at RNG rate

	Price (¢/m³) (1)	Volume (m³) (2)	Cost ($) (3)
Delivery			
Direct purchase		1,000,000	
Natural gas repurchase			
Supply	10.000	1,000,000	(100,000)
Billing			
System gas supplied	10.000	800,000	80,000
RNG supplied	45.000	200,000	90,000
Transportation	3.000	1,000,000	30,000
Natural gas CTEAS	3.000	800,000	24,000
*CTEAS RNG**	0.025	200,000	50
Load balancing	1.00	1,000,000	10,000
Distribution	4.00	1,000,000	40,000

* For the purposes of the example, it is assumed that the CTEAS RNG rate was applied after the minimum $50,000 proposed in Section 4.3 was reached.

Given Énergir's objectives, namely to offer more RNG consumption flexibility to voluntary customers and to avoid adversely affecting the rest of the client base, Énergir maintains that the conditions listed above make it possible to provide an easily applied option.

6 INVENTORY MANAGEMENT

Since RNG has its own characteristics and needs to be monitored separately from conventional natural gas, it must be assigned a specific inventory management methodology. This section explains the methodology as well as the specifics of RNG inventory management.

6.1 INVENTORY MONITORING AND ACCOUNTING

Énergir proposes to develop the RNG inventory based on the current RNG rate and to charge acquisition cost variances to the cumulative RNG price difference deferred expense account (DEA). The RNG inventory monitoring methodology would be based on the following parameters:

- Acquisition cost differences between the price paid, net of the functionalized value of transportation for in-franchise purchases (as presented in section 2), and the current RNG rate are charged to the cumulative RNG price difference DEA.
- Equivalent sales and costs of RNG accounted for under the current RNG rate do not generate any excess.
- The RNG inventory is included in the rate base.
- The non-rate-base cumulative RNG price difference DEA, bearing interest at the prevailing weighted average cost of capital (WACC) is incorporated into the RNG rate for the second subsequent rate year.

As part of Decision D-2019-107 rendered by the Régie with regard to the provisional RNG rate, a temporary non-rate-base DEA bearing interest according to the prospective capital cost (PCC) was created on 2019-06-19. However, for the reasons contained in Section 5.2 of Exhibit Gaz Métro-5, Document 4 of this case, Énergir seeks to fund this temporary DEA at the weighted average cost of capital (WACC) instead of the prospective capital cost (PCC). Énergir believes that it is not material to apply a different treatment to this DEA than the one proposed for the DEA involving the permanent application rate since they both serve to account for an identical price difference, namely the difference between the actual purchase cost of RNG and the revenues generated by the RNG rate. Subject to the Régie's approval, the balance of the temporary DEA

would be recalculated based on the WACC before being integrated into the RNG rate at the end of this step of the case.

6.2 RETURN AND TAX ON RNG INVENTORY

Énergir proposes that the costs of the return and the income taxes generated by the RNG inventory be functionalized to the adjustment service related to existing system gas inventories. Both RNG and conventional natural gas consumers would be subject to this service. Since the inventory adjustment rate recovers costs based on the customer consumption profile, and since it is impossible to differentiate the customer profile by type of supply, it would be impossible to separately identify inventory maintenance costs between RNG and conventional natural gas. Furthermore, in the generic file on cost allocation and the rate structure,[35] Énergir proposed that the inventory-related adjustment service be abolished and that those costs be recovered in load balancing instead. The distributor considers functionalization more appropriate. It would therefore not be advisable to create a separate RNG inventory adjustment because it could be temporary.

6.3 MONITORING OF VOLUMES SOLD

Currently, a process and measures are in place to ensure that the total volumes billed at the RNG rate do not exceed the total RNG purchases made during the year. First, customer consumption scenarios are incorporated into the demand forecasting process in order to estimate the customer volumes at the RNG rate. A waiting list is maintained on a “first come, first on the list” basis and is monitored on a monthly basis. This list is also used as an input for the demand forecasting exercise, and the forecast volumes are then incorporated into the procurement plan. Subsequently, Énergir evaluates whether it is operationally feasible to supply customers with RNG. By *operationally feasible*, Énergir means that it will provide RNG supply to a customer provided that it has quantities in store available for that customer. Moreover, this expression is often used in the text of the CST to refer to the distributor’s ability to provide service to a customer or to accept a customer request. This assessment applies both to a new application for the RNG

[35] R-3867-2013, B-0579, Gaz Métro-5, Document 12, section 5.5, paragraph below Table 20.

rate and to customers who are already signed up for the RNG rate and who wish to change their consumption.

The actual consumption of customers may vary from the estimates in the demand forecasting scenarios. The same is true for RNG purchases, which could be different from those in the supply plan. For example, if Énergir were to find out after the fact that it had invoiced its customers for more RNG than they had purchased for a period from October 1st to September 30th, a financial settlement would need to be applied in accordance with Article 11.1.3.5 of the CST. The excess quantity would be calculated as follows:

$$Excess\ quantity\ = \max\ [0.; Volumes\ billed\ from\ Oct.1\ to\ Sept.30. - (RNG\ balance\ in\ inventory\ as\ of\ Oct.1. + Volumes\ purchased\ Oct.1\ to\ Sept.30)]$$

This financial settlement would consist of billing system gas, to replace overbilled RNG. As noted earlier in this section, measures are already in place to ensure that the total volumes billed at the RNG rate do not exceed the total RNG purchases made in a year, so this is unlikely to occur.

For example, if it were determined at year end that a volume of 1,150 m³ had been billed at the RNG rate during the preceding year but that the final total purchases were only 900 m³ (no RNG balance in inventory), then 250 m³ would be subject to an adjustment on the customer's invoice. To calculate the applicable financial settlement, Énergir would first remove customers who had designated 100% of their consumption at the RNG rate. The priority RNG service given to the latter is explained by the carbon neutrality commitments they may have. Such 100% RNG customers would accordingly have their volumes adjusted as a last resort, in a situation where the quantity of RNG injected would have been insufficient to cover their RNG consumption after the fact.

Assuming that only three customers were at the RNG rate and that they were billed 123 m³ (100% RNG customer A), 425 m³ (customer B) and 602 m³ (customer C) of RNG respectively, the adjustment of the excess quantity totalling 250 m³ would be prorated according to the RNG volumes billed, after excluding the volume billed to the 100% RNG customer from the calculation.

The volumes of customers subject to a financial settlement would therefore be calculated as follows:

$$Volumes\ to\ be\ adjusted\ for\ customer\ i\ = \frac{Quantity\ of\ RNG\ billed\ to\ customer\ i}{Total\ quantity\ of\ RNG\ billed\ to\ customers\ with\ RNG\ consumption\ of\ less\ than\ 100\%} \times\ excess\ quantity$$

The financial settlement on the subsequent invoice would be as shown in the following table.

Table 12
Example of year-end financial settlement
(RNG invoiced > RNG injected)

	Components	Customer A	Customer B	Customer C
1	Adjusted volume	0	$\frac{425}{(425+602)}\ x\ 250\ =\ 103\ m^3$	$\frac{602}{(425+602)}\ x\ 250\ =\ 147\ m^3$
2	RNG supply rate (45¢/m³)	No financial settlement applicable	– 103 m³ * 45¢/m³ = –$46.35	– 147 m³ * 45¢/m³ = –$66.15
3	Average RNG CTEAS rate (0.025¢/m³)		– 103 m³ x 0.025¢/m³ = –$0.03	– 147 m³ x 0.025¢/m³ = –$0.04
4	Average system gas rate (15¢/m³)		103 m³ x 15¢/m³ = $15.45	147 m³ x 15¢/m³ = $22.05
5	Average system gas CTEAS rate (3¢/m³)		103 m³ x 3¢/m³ = $3.09	147 m³ x 3¢/m³ = $4.41
6	**Credit to be paid to customers**		**–$27.84**	**–$39.73**

* Where applicable (see proposal to this effect in section 4.3).

Assuming that the price of system gas plus the CTEAS price of system gas remains below the RNG price (supply + CTEAS), the financial settlement would have the effect of reducing supply revenues (reduction in RNG revenues greater than the increase in system gas revenues) and increasing CTEAS revenues (reduction in RNG revenues less than the increase in system gas revenues).

The financial settlement calculation would be carried out on an annual basis and coincide with the end of the rate year, since RNG inventory is managed annually, which is consistent with Énergir's proposal to update the RNG supply rate at the same frequency. This annual exercise

therefore makes it necessary to use average system gas and CTEAS prices over a 12-month period for the financial settlement.

6.4 INVENTORY, RATE AND DEA IMPACT SCENARIOS

This section discusses changes in the RNG rate, RNG inventory and the balance of the cumulative RNG price difference DEA, the return and the tax over a 5-year period, under various sales and purchase scenarios.

In order to illustrate the impact of variations in the different parameters, Énergir developed a baseline scenario and generated three other scenarios by changing the variables in the baseline scenario. The three scenarios show the impact of changes in volumes and prices of RNG sales and purchases on:

(i) the average value of the RNG inventory,

(ii) the balance of the cumulative RNG price difference DEA, and

(iii) the balance of the return and tax on the supply rate base generated by the RNG inventory.

For each of the scenarios, a summary table, the assumptions used and the analysis of results are presented in the sections below. For scenarios 1 to 3, the cells of the variables that have changed from the baseline scenario are coloured green. Monthly data for each of the scenarios and an explanatory glossary are presented in Appendix 4. Énergir stresses the importance of specifying that, based on the current situation, the baseline scenario is intended to be the most representative in terms of average inventory value, taxes and return balances and the cumulative RNG price difference DEA. The other scenarios were designed for the sole purpose of demonstrating the impact of significant variations in the different parameters. Since such variations are unlikely, the results of the ensuing scenarios are not representative of the situation that is likely to prevail.

6.4.1 Simulation: Baseline Scenario

Table 13

		Unit	2021	2022	2023	2024	2025
1	Actual purchase price	¢/m³	51.50	52.40	53.31	54.24	55.18
2	Average purchase cost projected in the rate case	¢/m³	51.00	52.00	53.00	53.75	55.50
3	Cumulative RNG price difference	¢/m³	-	-	0.21	0.16	0.05
4	RNG Rate (l. 2 + l. 3)	¢/m³	51.00	52.00	53.21	53.91	55.55
5	Sales	Mm³	50,000	68,000	132,000	132,000	312,000
6	Purchases	Mm³	50,000	78,000	129,000	138,000	300,000
7	Inventory (average 13 balances)	$000	3,295	4,912	6,979	7,828	7,149
8	Return and tax on inventory	$000	254	379	538	604	551
9	Cumulative RNG price difference DEA(1)	$000	258	477	372	722	(811)

(1) Value to be recovered (to be remitted) at September 30.

Assumptions

- The purchase price increases based on an inflation rate of 1.74%.[36]
- The projected average purchase cost follows the change in the purchase price.
- The balance of the cumulative RNG price difference DEA is incorporated into the RNG rate for the 2nd subsequent year and bears interest at the prospective cost of capital.
- The inventory balance at the beginning of each year, combined with the projected purchases for the year, fills out the RNG consumption during the year, so no negative inventory balance is projected during the year.
- Monthly sales are based on a heating profile.
- Monthly purchases are made according to a uniform purchasing profile.

[36] Inflation rate – Quebec CPI used in case R-4119-2020, Exhibit B-0171, Énergir-N, Document 9.

- If the uniform purchasing profile is factored in, inventories at the beginning of the year are sufficient to cover the winter period, and they reach their lowest level at the end of winter, in March.
- The return and inventory tax balances do not affect the cumulative RNG price difference DEA since they are recovered through the inventory adjustment rate, as proposed in Section 6.2.

Results

- Inventory value: The average value of inventory increases with the rise in sales. In this scenario, Énergir builds up an inventory at the beginning of each year to make sure it has enough RNG to meet customer needs.
- Return and tax: The return and the income tax both increase with the average value of inventories, but remain relatively low, considering that:
    - the total purchase volume is close to the annual volume sold, and
    - the consistent pattern of purchases relative to the seasonal pattern of RNG consumption results in a low inventory level at the end of winter.
- Cumulative RNG price difference DEA: The balance of the DEA must be recovered for the first four years because the actual purchase price is higher than the RNG rate. However, in 2025, a simulation with a purchase price lower than the RNG rate will generate a DEA to be remitted to customers.

6.4.2 Simulation: Scenario 1 – Decrease in volumes sold

Table 14

		Unit	2021	2022	2023	2024	2025
1	Actual purchase price	¢/m³	51.50	52.40	53.31	54.24	55.18
2	Average purchase cost projected in the rate case	¢/m³	51.00	52.00	53.00	53.75	55.50
3	Cumulative RNG price difference	¢/m³	0.00	0.00	0.42	(0.10)	(0.82)
4	RNG Rate (l. 2 + l. 3)	¢/m³	51.00	52.00	53.42	53.65	54.68
5	Sales	Mm³	25,000	34,000	66,000	66,000	156,000
6	Purchases	Mm³	50,000	78,000	0	72,000	150,000
7	Inventory (average 13 balances)	$000	10,632	27,352	23,663	6,270	5,620
8	Return and tax on inventory	$000	820	2,109	1,824	483	433
9	Cumulative RNG price difference DEA[(1)]	$000	258	212	(975)	(637)	(125)

[(1)] Value to be recovered (to be remitted) at September 30.

Assumptions

- Sales declined by 50% compared to the baseline scenario for the years 2021 to 2025.
- Purchases are kept at the baseline scenario level for the years 2021 and 2022. Simulation of a shutdown of RNG supply for the year 2023 to avoid the accumulation of unsold units since Énergir would have sufficient inventory volumes to meet the RNG demand requirements for the year 2023. Although Énergir is contractually obliged to purchase a certain amount of RNG in 2023, a complete cessation of purchases is simulated in 2023 to illustrate the effect of a significant decline in volumes sold and purchased. Starting in 2024, a resumption of RNG purchases is simulated in line with customer demand, i.e. 50% of the baseline scenario.

Results

- Inventory value: The average value of inventory is higher for the years 2021 to 2023, due to purchases being greater than sales. A review of purchases is being

considered for 2023 to reduce inventories as of 2024.

- Returns and taxes: The increase in returns and taxes is directly related to the increase in inventories. As a result, the return and the income tax balances for the years 2021 to 2023 are higher, before decreasing in 2024 and 2025 after the revision of purchases.

- Cumulative RNG price difference DEA: For the year 2023, only the October 1st inventory revaluation will affect the DEA, as no purchases are planned. For the years 2024 and 2025, although the balance remains to be returned to RNG customers, the increase in the DEA is explained by a higher purchase price than the RNG rate.

6.4.3 Simulation: Scenario 2 – Decrease in purchase volumes

Table 15

		Unit	2021	2022	2023	2024	2025
1	Actual purchase price	¢/m³	51.50	52.40	53.31	54.24	55.18
2	Average purchase cost projected in the rate case	¢/m³	51.00	52.00	53.00	53.75	55.50
3	Cumulative RNG price difference	¢/m³	0.00	0.00	0.33	0.17	0.09
4	RNG Rate (l. 2 + l. 3)	¢/m³	51.00	52.00	53.33	53.92	55.59
5	Sales	Mm³	50,000	68,000	42,000	99,000	156,000
6	Purchases	Mm³	25,000	39,000	44,500	117,000	150,000
7	Financial settlement	$000	(14,000)	(29,000)			
8	Inventory (average 13 balances)	$000	(2,334)	(8,700)	1,538	5,018	8,291
9	Return and tax on inventory	$000	(180)	(671)	119	387	639
10	Cumulative RNG price difference DEA[(1)]	$000	129	297	307	690	(272)

[(1)] Value to be recovered (to be remitted) at September 30th.

Assumptions

- Purchases decrease 50% for the years 2021 and 2022 and gradually resume as of 2023.
- Year-end financial settlement of 14,000 Mm^3 in 2021 and 29,000 Mm^3 in 2022 to correct for excess RNG sales. As a result of the financial settlement, the inventory at the end of the year is zero.
- Sales decrease from 2023 to 2025, reflecting purchases.

Results

- Inventory value: Sales are greater than purchases in the years 2021 and 2022, so they generate a negative average inventory value. A revision of sales is considered as early as 2023 to take into account the decrease in purchases compared to the baseline scenario. With this revision, the value of the inventories will reach that of the baseline scenario in 2024 and 2025.
- Return and income tax: The average value of inventories changes, leaving a balance of return and income tax to be remitted for the years 2021 and 2022. Despite the significant changes, the balance of return and tax remains relatively low between 2023 and 2025, considering that:
    - the total purchase volume is close to the annual volume sold, and
    - the consistent pattern of purchases relative to the seasonal pattern of RNG consumption results in a low inventory level at the end of winter.
- Cumulative RNG price difference DEA: Despite significant changes (lower purchase volume and financial settlements), the DEA balance remains similar to the baseline scenario. The DEA is influenced by the difference between the purchase price and the RNG rate. Therefore, since purchase prices do not change significantly in this scenario compared to the baseline scenario, the effect on the DEA is not significant.

6.4.4 Simulation: Scenario 3 – Purchase price increase

Table 16

		Unit	2021	2022	2023	2024	2025
1	Actual purchase price	¢/m³	51.50	67.84	53.31	54.24	55.18
2	Average purchase cost projected in the rate case	¢/m³	51.00	52.00	53.00	53.75	55.50
3	Cumulative RNG price difference	¢/m³	0.00	0.00	0.21	10.18	0.05
4	RNG Rate (l. 2 + l. 3)	¢/m³	51.00	52.00	53.21	63.93	55.55
5	Sales	Mm³	50,000	68,000	132,000	132,000	312,000
6	Purchases	Mm³	50,000	78,000	129,000	138,000	300,000
7	Inventory (average 13 balances)	$000	3,295	4,912	6,979	9,146	7,334
8	Return and income tax on inventory	$000	254	379	538	705	565
9	Cumulative RNG price difference DEA[(1)]	$000	258	12,894	13,596	(1,401)	(525)

[(1)] Value to be recovered (to be remitted) at September 30th.

Assumption

- The purchase price increases 25% in 2022 compared to the purchase price in the baseline scenario.

Results

- Inventory value: The increase in the RNG rate in 2024 increases the average inventory value for that year. The inventory value in other years is comparable to the inventory value in the baseline scenario.
- Return and tax: The return and the income tax for the year 2024 increase relative to the baseline scenario, considering the increase in average inventory value in that year. However, the return and the income tax remain relatively low, considering that:
    - the total purchase volume is close to the annual volume sold, and
    - the consistent pattern of purchases relative to the seasonal pattern of RNG consumption results in a low inventory level at the end of winter.

- Cumulative RNG price difference DEA: The DEA balance increases in 2022 and remains high in 2023 because the 2022 DEA recovery is built into the 2024 RNG rate.

6.5 USEFUL LIFE OF RNG

Énergir has done benchmarking related to the shelf life of RNG and of environmental credits in the broader sense.

No protocol has been defined in Canada for determining when an RNG unit can no longer be sold to a customer. However, it was concluded by the FEI regulator that FEI had to apply for an inventory transfer from the RNG DEA to the conventional natural gas DEA, to be evaluated by its regulator as part of its RNG sales business. Among other items, this application must include a comparison between the forecast demand for RNG and the forecast supply of RNG:

> "*The Panel directs FEI to address the potential loss of the value of environmental attributes in any application to transfer inventory from the BVA to the MCRA, including a discussion of the steps FEI has taken to realize the value of the environmental attributes by other means than through sales to voluntary customers.*
>
> […]
>
> *FEI is required to file a formal application with the Commission before unsold biomethane can be transferred from the BVA to the MCRA. The application must not be included as part of a quarterly gas cost review process. It will be left to FEI's discretion to determine when it is appropriate to make application for a transfer of biomethane from the BVA to the MCRA. The application must be copied to the intervenors in this proceeding and the Commission will consider whether a public hearing is required once the application has been filed."*[37]

The regulator specifies that the loss of the value of environmental attributes must be justified, and that means other methods than voluntary purchases must have been analyzed to avoid devaluing the RNG held.

As for what is observed outside of Canada, France allows a 24-month usage period before the RNG inventory in the national biomethane guarantee registry[38] is depleted, and the U.S. RIN

[37] *British Columbia Utilities Commission* Decision G-133-16, section 4.3.

[38] Source: Page 13 of the document titled "Cahier des charges – Procédure 2017 DGEG 05" under the "Mentions légales" section of the web pagehttps://gobiomethane.grdf.fr/Default.aspx.

market[39] applies the same delay before environmental credits expire.

Énergir submits that it is important to establish a process for assessing the useful life of RNG so that it does not end up with too large an RNG inventory. Énergir is of the opinion that the 24-month period of use criterion is adequate and should be part of the life-cycle assessment process. Exceeding this period would not mean that the RNG has expired, however, but would rather trigger a detailed assessment of the RNG inventory, as well as appropriate actions as warranted. It is also important to specify that despite the determination of a period of use, the renewable properties of RNG volumes do not have an expiry date. The application and specifics of these principles are explained later, in Section 8 of this document.

[39] *Renewable identification numbers (RINs) are credits used for compliance and are the "currency" of the RFS program*. (Source: https://www.epa.gov/renewable-fuel-standard-program/renewable-identification-numbers-rins-under-renewable-fuel-standard).

7 CUSTOMER DEMAND

IMPORTANT

In its exhibits filed with the Régie, Énergir always counts its customers by metering point. For consistency's sake, such is the case throughout this document. When a number of customers is indicated, one customer represents one metering point. Énergir notes that this count differs from the response to a request for information,[40] which is based on the definitions in the CST.

The purpose of this section is to cover the environmental and financial aspects of Énergir RNG customer demand. Advantages such as environmental benefits to the customer or market positioning relative to other energy sources will be discussed to demonstrate the increased customer interest in RNG use. The process for voluntary customers to use RNG will also be explained in detail. Strong customer demand means that Énergir needs to meet a growing need for RNG.

Énergir is aware that customers could also express interest in sourcing RNG directly from producers or brokers. Measures have already been put in place to facilitate this type of supply,[41] and Énergir intends to play a facilitating role in encouraging the consumption of RNG by all types of customers.

7.1 CUSTOMER OBJECTIVES AND ENVIRONMENTAL BENEFITS

Énergir's customers have several environmental objectives: waste reduction, energy savings, decarbonization, brand or product positioning, etc. Also, as mentioned in revised exhibit Gaz Métro-5, Document 1, Énergir entrusted survey company SOM with the task of conducting a price

[40] See the answer to question 2.7 of Énergir's response to Information Request B-0448, Gaz Métro-2, Document 38 of this case.

[41] First service combination (direct purchase RNG and system gas supplied by Énergir), approved by Decision D-2017-041 of Rate Case 2018, and proposed service combination (RNG supplied by Énergir and direct purchase gas), presented in sections 5.1 and 5.2, respectively, of this document.

elasticity study of its customers. In addition to measuring interest in RNG and attitudes towards environmental issues, the study had a number of findings:

Perception of energy sources

Seventy percent (70%) of respondents strongly or somewhat agreed that RNG is a clean form of energy, compared to 83% for electricity and 64% for natural gas.

Environmental regulations

Thirty percent (30%) of business respondents expected that within five years, standards and/or regulations would require them to meet a certain proportion of renewable energy in their energy mix.

Environmental crisis

Over 60% of respondents disagreed or somewhat disagreed that it was too late to save the planet. This supports the findings that 79% of respondents were making significant efforts to reduce environmental impact.

The "green premium"

Sixty percent of respondents said they strongly or somewhat agreed that they would pay more for a product that reduces environmental impact.

These various points support Énergir's efforts to offer an environmental solution that addresses customer concerns.

7.2 COMPETITIVE POSITION OF RNG

The table below shows the competitive position of different energy choices, including RNG, compared to conventional natural gas for different market segments. In the typical cases illustrated, the competitive position for each alternative energy is calculated as follows:

$$Competitive\ position_{energy\ i}\ (\%) = \frac{Total\ annual\ bill\ for\quad 'energy\ i}{Total\ annual\ bill\ for\ conventional\ natural\ gas}$$

The assumptions used to calculate the competitive position are:

- Variable prices for the supply, transmission, balancing, distribution and CATS components in effect between December 2019 and November 2020, with the exception of the price for RNG supply set at \$15/GJ (or 56.835¢/m³);
- Variable monthly price for No. 2 fuel oil in the residential/business markets and No. 6 fuel oil in the industrial market;
- Equipment efficiency:
  - Natural gas and RNG: 92% single-family / 85% business / 80% industrial;
  - Electricity: 97% single-family and business / 85% industrial;
  - Fuel oil: 85% single-family / 80% business / 75% industrial.

Table 17
Competitive position of different energy sources relative to conventional natural gas

	Conventional natural gas (%)	50% RNG* (%)	100% RNG* (%)	Electricity (%)	Fuel oil (%)
Single-family residence: 160 m²	100	136	173	150	179
Business market customer consuming 14,600 m³/year	100	148	195	189	203
Business market customer consuming 100,000 m³/year	100	158	216	214	239
Business market customer consuming 400,000 m³/year	100	165	231	241	261
Industrial market customer consuming 5.5 Mm³/year	100	199	298	251	208

As demonstrated, at a price of \$15/GJ (or 56.835¢/m³), RNG remains less expensive than electricity for all markets when it accounts for 50 percent of total natural gas consumed. When the proportion of RNG increases to 100%, the competitive position is reduced, but remains close to that of electricity.

In addition to its competitiveness in terms of customers' annual bills, RNG also means Énergir customers do not have to change their equipment to switch to renewable energy. Those costs, which can represent several thousand dollars for a residential customer, several tens or even hundreds of thousands of dollars for a commercial customer and several million dollars for a large industrial customer, are thus avoided by choosing RNG. Because RNG is interchangeable with conventional natural gas, no changes to customers' energy infrastructure are required.

The next table shows the billing impact of RNG price changes of ± 5%, 10% and 25% relative to the $15/GJ (or 56.835¢/m³) price, for different typical Énergir customers.

Table 18
Impact of RNG price changes* on customers' bills

Typical customer	Bill based on a $15/GJ RNG reference price	Price of RNG ↑↓ by 5%	Price of RNG ↑↓ of 10%	Price of RNG ↑↓ by 25%
Impact on a 50% RNG customer's bill in $ (in %)				
Single-family residence: 160 m²	$1,125	$20 (1.8%)	$40 (3.6%)	$101 (8.9%)
Business market customer consuming 100,000 m³/year	$57,426	$1,421 (2.5%)	$2,842 (4.9%)	$7,104 (12.4%)
Industrial market customer consuming 5.5 Mm³/year	$2,325,925	$78,148 (3.4%)	$156,296 (6.7%)	$390,741 (16.8%)
Impact on a 100% RNG customer's bill in $ (in %)				
Single-family residence of 160 m²	$1,424	$40 (2.8%)	$81 (5.7%)	$201 (14.1%)
Business market customer consuming 100,000 m³/year	$78,535	$2,842 (3.6%)	$5,684 (7.2%)	$14,209 (18.1%)
Industrial market customer consuming 5.5 Mm³/year	$3,484,279	$156,296 (4.5%)	$312,593 (9.0%)	$781,481 (22.4%)

* Compared to a reference price of $15/GJ (56.835¢/m³).

Énergir reiterates that it is proposing to modify its RNG rate annually to avoid incidental volatility in customers' bills, as more fully explained in Section 4.2 of the additional evidence, i.e. revised Gaz Métro Exhibit-5, Document 4.

7.3 IMPLICATIONS OF THE CUSTOMER SURVEY

The results of the survey show that customers still have limited knowledge of the product and its environmental qualities. True to its orientations, Énergir has made efforts to improve RNG awareness in order to enhance customer interest. To this end, Énergir has created a public awareness campaign, using traditional and digital media, which will have a positive impact on the results shown in the analysis models resulting from the customer survey.

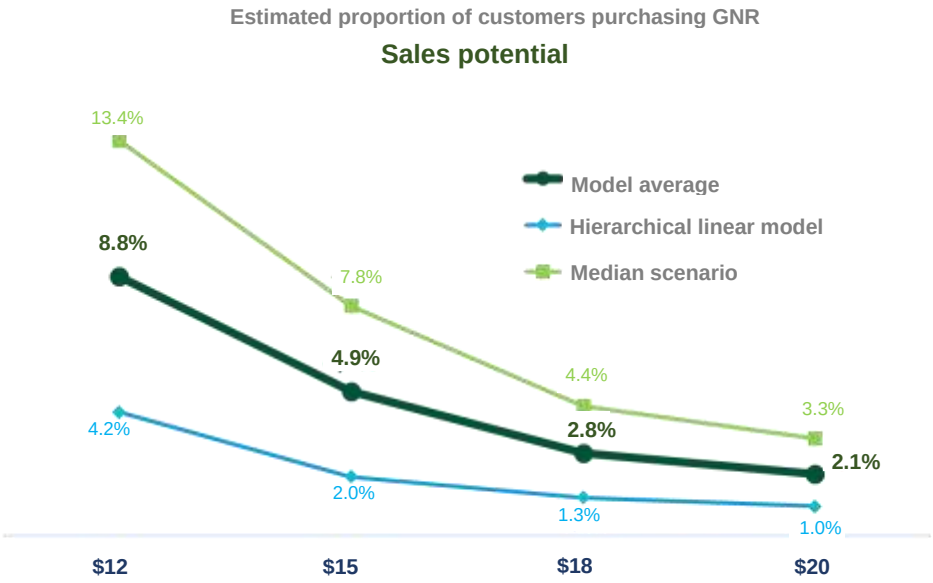
Based on the three models for analyzing sensitivity of demand to prices, SOM's survey noted a moderate development of RNG for now. This is due to the novelty of the product and to the usual preference for maintaining the *status quo*. The measures taken by Énergir will serve to demonstrate the value of RNG to customers and facilitate the integration of this energy source into their consumption.

Nevertheless, study results show an undeniable interest in RNG and in the benefits of using it. Several customers are in favour of integrating RNG into the Énergir system and are interested in buying it.

From an economic point of view, the triangulation[42] of measures confirms this interest and makes it possible to estimate the proportion of potential customers who would buy RNG depending if the price were right. Comparing the results and calculating the average value of the models selected by SOM led to a realistic estimate of the volume of customers who would buy RNG. The middle curve in the graph below[43] represents the sales potential of RNG under various price scenarios.

[42] Method triangulation involves the use of multiple data collection methods within a study to ensure greater reliability of results.
[43] Gaz Métro-5, Document 1, p.5.

Graph 2



This estimate allows Énergir to evaluate potential sales volumes of RNG. To do so, Énergir applied the percentage of customers interested in purchasing RNG to the total annual volumes of natural gas distributed to all customers by market and according to their consumption in 2018-19. It is assumed that there is no concentration of customers interested in a particular volume range. Interested customers can therefore be considered average consumers in the market and the percentage of interested customers can be applied to the total volumes in each market. Overall, Énergir expects that between 117.0 Mm^3 (4.1 bcf) and 537.2 Mm^3 (19.0 bcf) of RNG could be sold for between \$20/GJ (or 75.780 ¢/m^3) and \$12/GJ (or 45.468 ¢/m^3).

Table 19
Estimated volumes of RNG demanded by voluntary customers at various price levels

Interest in RNG based on price scenarios	$12/GJ (or 45.468¢/m³)		$15/GJ (or 56.835¢/m³)		$18/GJ (or 68.202¢/m³)		$20/GJ (or 75.780¢/m³)	
	Estimated buyers	Estimated vol. of RNG	Estimated buyers	Estimated vol. of RNG	Estimated buyers	Estimated vol. of RNG	Estimated buyers	Estimated vol. of RNG
	%	Mm³(bcf)	%	Mm³(bcf)	%	Mm³(bcf)	%	Mm³(bcf)
Total customers	**8.8**	**537.2 (19.0)**	**4.9**	**292.2 (10.3)**	**2.8**	**150.4 (5.3)**	**2.1**	**117.0 (4.1)**
Residential market	9.0	59.6 (2.1)	5.1	33.8 (1.2)	3.2	21.2 (0.7)	2.4	15.9 (0.6)
Business market (CII*)	8.5	477.6 (16.9)	4.6	258.5 (9.1)	2.3	129.2 (4.6)	1.8	101.1 (3.6)
Including Institutional	*5.2*	*32.5 (1.1)*	*4.2*	*26.3 (0.9)*	*1.5*	*9.4 (0.3)*	*1.4*	*8.8 (0.3)*

* Commercial, industrial and institutional

The assumptions and calculations underlying the results in the previous table are as follows:

- Actual 2018-19 non-standardized volumes of 6,280.7 Mm³ (221.7 bcf), segmented as follows:
  - Consumption of 661.9 Mm³ (23.4 bcf) for the residential market;
  - Consumption of 5,618.9 Mm³ (198.4 bcf) for the business market (including 625.1 Mm³ (22.1 bcf) for the institutional sector);
- Estimated volume of RNG = Actual volumes as described in the previous paragraph multiplied by the estimated percentage of buyers as defined by the price sensitivity analysis.

These forecasts argue in favour of total disposition of acquired RNG units at the pace set out in the Regulation, reaching 5% of the volumes distributed by 2025, while maintaining the target average price at $15/GJ.

In addition, by 2025, increased communication and marketing efforts will contribute to increased customer and potential customer interest, further confirming Énergir's confidence in its ability to sell all its RNG units. Section 7.6 provides an overview of Énergir's planned methods.

7.4 IMPACTS OF COVID-19

First of all, Énergir wishes to reassure the Régie and intervenors that the numbers of customers

and volumes on the waiting list are constantly growing and that new applications were received, even during the pandemic period. Between mid-March 2020 and January 31, 2021, 134 customers totalling an additional 8.9 Mm^3 were added to the RNG request list.

At the suggestion of an intervenor,[44] Énergir considered the relevance of launching a new survey to test customer interest in the current context. Énergir is of the opinion that a number of customer concerns (job losses, financial fragility of the company, occupational health and safety (OHS) measures to be implemented, home schooling, etc.) would lead to a one-time distortion of survey results, making the survey unrepresentative of exact customer interest in RNG. The COVID-19 context makes it difficult for customers to assess their interest under a more normal context. Énergir believes that the results of the survey already carried out, which also covered the average price approved by the Régie as part of Step B,[45] are still representative of the interest in RNG. Since the current request list demonstrates sustained interest in this product, Énergir does not consider it appropriate to incur significant expenditures of time and money to conduct a new survey that is non-representative in the current context.

Second, Énergir was able to assess the impact of the first wave of COVID-19 on the consumption of RNG customers. While some customers significantly reduced their activities, others increased their consumption in excess of the forecast. The table below shows the impact for the various customers consuming RNG for March to May 2020, the months when operations were most affected by government restrictions.

[44] ACEFQ-0058.

[45] The approved characteristic of the average cost of all targeted contracts less than or equal to \$15/GJ (56.84¢/m^3) to meet the first 1% of the total volumes distributed.

Table 20
Assessment of the impact of COVID-19 on the volumes of RNG consumed by existing customers from March to May 2020

RNG customers	Forecast (actual DD) *(m^3)*	Actual consumption *(m^3)*	Actual *vs.* forecast *(m^3)*	Variation *(%)*
1	58,039	62,345	4,306	7
2	224,668	195,373	(29,295)	-13
3	4,902	4,289	(613)	-12
4	557,190	629,664	72,474	13
5	254,267	246,083	(8,184)	-3
6	17,369	7,376	(9,993)	-58
7	23,382	16,871	(6,511)	-28
8	11,503	11,457	(46)	0
9	6,546	6,890	344	5
10	4,623	5,421	798	17
11	7,237	7,881	644	9
12	2,818	2,711	(107)	-4
13	5,159	2,410	(2,749)	-53
14	2,920	3,346	426	15
15	2,358	4,192	1,834	78
16	1,397	3,600	2,203	158
17	948	824	(124)	-13
18	8,632	10,028	1,396	16
19	12,090	13,554	1,464	12
Total	**1,206,049**	**1,234,315**	**28,266**	**2**

* Actual DD: Reflects consumption based on the actual temperature observed during the period

For these customers, Énergir does not anticipate any long-term effects related to COVID-19. Énergir has already seen a return to normal consumption levels following the first wave of COVID-19, and there has been no indication since for such customers to the effect that the desired amount of RNG will be reduced.

In short, there is no indication, either from what staff are hearing or from RNG customers' behaviour, that the survey results are no longer valid.

7.5 RNG ACCESSIBILITY PROCESS AND DEMAND MANAGEMENT

In accordance with Decision D-2019-120, an RNG accessibility process has been put in place at Énergir to allocate available RNG units to customers. A customer who wishes to purchase RNG starts by sending Énergir the "Request for consumption of renewable natural gas" form. The request form must include the address of the facility in question, the desired percentage of RNG and the start date of the desired RNG consumption.

Énergir does not wish to constrain customers to predetermined percentages, as noted during the benchmarking concerning voluntary RNG consumption models in North America.[46] For administrative reasons, 60 days' prior notice must be given before the rate comes into effect. For a customer wanting to start using RNG, the notice required is explained by the administrative steps to be taken prior to consuming RNG (evaluation of the demand, entry in the billing system, etc.) as well as by a delay that may occur based on each customer's specific billing cycle. Before accepting a new customer for that rate, Énergir ensures that it has sufficient RNG to supply to that customer. The same applies for any customers who want to increase their RNG percentage or whose total consumption increases after a load addition. For administrative reasons, 60 days' prior notice must also be given for withdrawal. Furthermore, 60 days' notice is a standard period of time required for many service-change requests. As part of case R-3867-2013, Énergir also asks that the advance notice required of a customer wanting to take advantage of the distributor's conventional natural gas supply service, or to withdraw from it, be set at 60 days.[47]

All documentation related to the RNG request process is exchanged electronically. Upon receipt of the request, Énergir sends the customer an acknowledgement of receipt and enters all of the customer's information on the waiting list. The date of receipt of the request is the data item used to assign the customer's rank on the waiting list.

[46] See Appendix 1 for more details.

[47] R-3867-2013, B-0561, Gaz Métro-5, Document 14, Section 1.1.

Depending on the amount of RNG available, Énergir uses this rank to determine whom to offer it to. The customer receives a notice of acceptance that indicates the planned consumption start-up date and the volume of RNG offered. The customer can withdraw, by written notice, within 30 days from the date of issue of the acceptance notice. If the customer wishes to withdraw, Énergir will contact the customer to find out why.

Currently, Énergir limits the first grant of RNG to 50,000 m³ of annual consumption per customer.[48] Again, in keeping with the current process, if Énergir has offered RNG to all customers on the waiting list and there are still quantities available, Énergir would offer RNG to those who have identified additional needs, according to the pre-established rankings on the waiting list. In this situation, customers who currently consume RNG and have requirements in excess of the initial 50,000 m³ would be considered for a second grant of 50,000 m³, and so on for subsequent grants.

After applying the conditions for managing the request list in a practical manner, and with a view to improvement, Énergir proposes to make changes to the process for granting RNG quantities among its voluntary customers.

As a first change, Énergir proposes to reserve a volume of 50,000 m³ for customers associated with a single-family home, duplex or triplex (SDT) in order to facilitate access to RNG for this portion of its clientele. Indeed, granting increments of up to 50,000 m³ results in small-volume customers being disadvantaged in the current context where quantities are limited, which is unfortunate in that the quantities they are requesting are minimal and would not monopolize the available quantities. This change would thus enable more of these customers in the residential market to access RNG and would meet the strategic objective of offering RNG to a maximum number of customers with a minimum volume commitment for each one.

In a situation where the entire reserved volume of 50,000 m³ was used by SDT customers, Énergir would file a new request with the Régie.

[48] For example, a customer with an annual consumption of 1 Mm³/year who asks to consume 10% RNG will only be awarded 5% for the first grant.

At the same time, Énergir proposes another change in the allocation of RNG quantities to better meet its customers' needs. This second change is aimed at larger-volume customers. Énergir has in fact noted that the maximum increment of 50,000 m³ is an impediment to the voluntary consumption of RNG by Sales Major Industries (SMI) customers. This is why Énergir proposes to maintain the maximum increment of 50,000 m³ for the first run-through of the waiting list. However, once all of the customers on the list have been allocated or offered a maximum quantity of 50,000 m³ of RNG, a second run-through would offer the remaining available quantities based on customers' needs. This method would have the effect of increasing the number of such customers registering for the request list, thereby maximizing the volumes of RNG distributed and facilitating the sale of the RNG quantities held.

To illustrate Énergir's proposal in comparison to the current granting process, here is an example based on an available RNG quantity of 500,000 m³:

Table 21
Comparison of the current and proposed granting processes

Client rank	Quantity related to % of consumption requested *(m³)*	Quantity granted current process *(m³)*		Quantity granted proposed process* *(m³)*	
		1st run	2nd run	1st run	2nd run
1	70,000	50,000	20,000	50,000	20,000
2	175,000	50,000	50,000	50,000	125,000
3	55,000	50,000	5,000	50,000	5,000
4	200,000	50,000	50,000	50,000	48,260
5	500	500		500	
6	100,000	50,000	50,000	50,000	
7	40	40		40	
8	200	200		200	
9	1,000	1,000		1,000	
10	75,000	50,000	23,260	50,000	

* It is assumed that the annual quantity of 50,000 m³ reserved for SDT customers has already been used up.

However, Énergir will question the relevance of the 50,000 m³ allocated in the first round when the context surrounding the request list has evolved, i.e. when it estimates that the waiting time

on the list is less than one year. Indeed, a timely re-evaluation of the process of allocation in increments will most likely lead Énergir to propose a new acceptable volume increment for the first run, or simply the removal of this volume barrier. When that time comes, Énergir will advise the Régie of its assessment of the waiting time on the list, the status of the list, the need for flexibility in demand management and its proposed change for allocating RNG units.

The following table illustrates the demand for RNG as at January 31, 2021 and the breakdown of volumes by major markets.

Table 22
Status of demand and breakdown by major markets

STATUS OF DEMAND			
	Number of customers	***Number of facilities***	***Annual volume*** Mm^3
RNG consumption	14	42	5.2
Unmet need for RNG	30	742	67.2
Total*	**37**	**777**	**72.4**
VOLUME BREAKDOWN BY MAJOR MARKETS			
Commercial	4.3%		
Industrial	39.3%		
Institutional	56.4%		
Residential	0.007%		
Total	**100%**		

* Only the volume column can be summed since a given customer or facility can both consume RNG and have unmet RNG needs.

All types of customers are represented, but the institutional sector is dominant, with 742 customers and 56.4% of the volumes requested, which can be explained by the exemplarity of the government[49] to which this sector is subject.

[49] As specified by the Government of Quebec in its Energy Transition Master Plan https://transitionenergetique.gouv.qc.ca/plan-directeur-en-transition-energetique/feuilles-de-route/detail/lexemplarite-de-letat.

In order to maintain the interest of customers on the waiting list, Énergir communicates informally with them from time to time to share news about RNG (government announcements supporting the sector's development in Québec, developments in the file with the Régie, etc.). In addition, at their request, Énergir can inform them of their rank on the waiting list.

In light of this demand information, even before having made significant efforts to commercialize the RNG, Énergir is confident that it will be able to sell the RNG when it becomes available.

7.6 PROPOSED MARKETING PLAN

In addition to the actions already undertaken by Énergir to promote awareness of RNG, certain strategies designed and deployed are aimed at making RNG better known to its customers and encouraging them to increase purchasing volumes. To do so, Énergir will deploy several marketing strategies, including the following:

- Equip Énergir staff (already under way);
- Maximize communication with customers; and
- Promote the product, and its benefits, to influencers.

Énergir must adjust its marketing efforts so as not to affect customer satisfaction. Too much commercial promotion of RNG, when it is available in very limited quantities, would adversely affect the credibility of its availability. The possibility of making direct purchases of RNG could be proposed in the messages chosen for customers with a greater likelihood of purchasing RNG on the market.

7.6.1 Equip Énergir staff

Customers wishing to discuss RNG mainly seek out the sales force and customer service. Documentation has been developed to better train the sales force (major industry sales representatives and advisors), including a PowerPoint presentation by market and a summary tool. These documents contain all the information about the product, its

attributes and Énergir's offer. FAQ documents have been developed to support customer service staff.

7.6.2 Maximize communication with customers

Énergir is planning a number of communication actions that directly target its customers and can be deployed through both traditional and digital media. In terms of traditional media, Énergir already communicates information to demystify RNG to its customers via newsletters. It will be able to reuse this channel in support of its commercial offer. In addition, Énergir could send out mailings to encourage the purchase of RNG to its customers. With regard to digital media, several actions can be carried out, such as increasing its visibility on the website, sending out email solicitations, purchasing keywords, creating and distributing RNG messages via banners, and disseminating more RNG-related messages on social networks or during webinars.

7.6.3 Promote the product to influencers

Various initiatives can enable Énergir to promote the product to influencers, including the distributor's active presence at events and engaging communications. The influencers referred to by Énergir are those in direct contact with customers, such as engineers, Certified Natural Gas Partners (CNGPs), professional associations, etc.

In summary, all of these strategies will enable Énergir to meet customer needs and bring the RNG commercialization offering to the forefront.

8 TREATMENT OF UNSOLD RNG

Énergir notes that under the Regulation, it has an obligation to deliver a certain quantity of RNG. Énergir strongly encourages voluntary consumption of RNG, but some RNG units could still remain unsold. The following section outlines how such units would be treated.

8.1 DETERMINING WHEN UNSOLD UNITS SHOULD BE SOCIALIZED

There are two cases where unsold RNG units could be socialized:

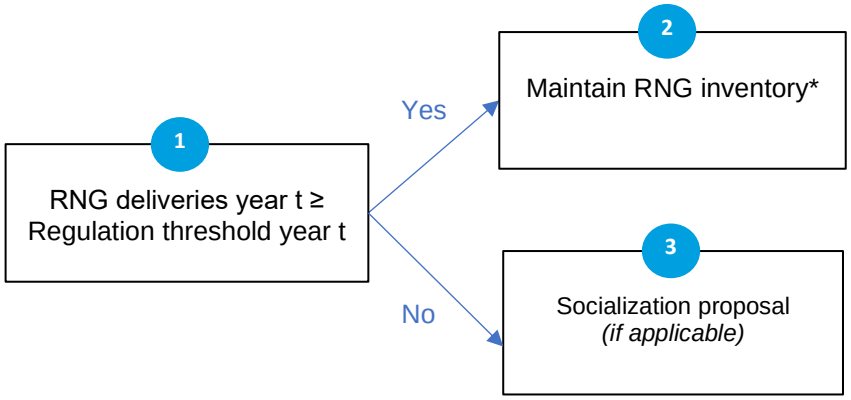
1. Delivery of RNG in quantities less than those specified in the Regulation;
2. Surplus RNG inventory.

This section explains each of these cases and details how Énergir would inform the Régie of the procedure to be followed for unsold RNG units to be socialized.

8.1.1 Delivery of RNG in quantities less than those specified in the Regulation

As indicated in Section 1.3, there is a possibility that the quantities of RNG delivered may not reach the thresholds set by the Regulation. In such circumstances, the units necessary to reach the threshold and held in inventory by Énergir would then be considered unsold. The surcharge for these unsold units below the threshold would be socialized to account for the disposition of the unsold RNG units. The concept of surcharge will be detailed in Section 8.2. Énergir proposes to periodically inform the Régie of the status of unsold RNG by producing a summary of the relevant RNG-related data in each annual report and to report the RNG units to be socialized as applicable. The figure below shows the process proposed by Énergir to determine the units to be socialized:

Figure 1



* *Even though the quantities of RNG in inventory are retained in Box 2, some of these units could be socialized if they meet the conditions outlined in Section 8.1.2.*

In the event that unsold units are socialized (Box 3), Énergir proposes to identify the purchase date of each of the RNG units in inventory and to apply the "first in, first out" principle to determine the volumes to be socialized. If ever the socialization of unsold units were to jeopardize Énergir's ability to supply the future demand of its voluntary customers, it could decide to keep certain units in inventory. In such a case, a justification would be reflected in the annual report summary of relevant RNG-related data.

The table below presents numerical examples of various RNG socialization scenarios where Énergir's ability to supply the future demand of voluntary customers is not compromised:

Table 23

Scenarios	*(1)* Regulation threshold *(10^3m^3)*	*(2)* Initial RNG Inventory *(10^3m^3)*	*(3)* RNG purchases *(10^3m^3)*	*(4)* RNG deliveries* *(10^3m^3)*	*(5)* RNG inventory as of September 30 (2)+(3)-(4) *(10^3m^3)*	*(6)* Deliveries of unsold units below the threshold (1)-(4) *(10^3m^3)*	*(7)* Final RNG inventory (5)-(6) *(10^3m^3)*
1	300,000	0	400,000	300,000	100,000	0	100,000
2	300,000	0	300,000	200,000	100,000	100,000	0
3	300,000	0	400,000	200,000	200,000	100,000	100,000

** In this example, Énergir considers that all RNG deliveries have been attributed to voluntary RNG customers.*

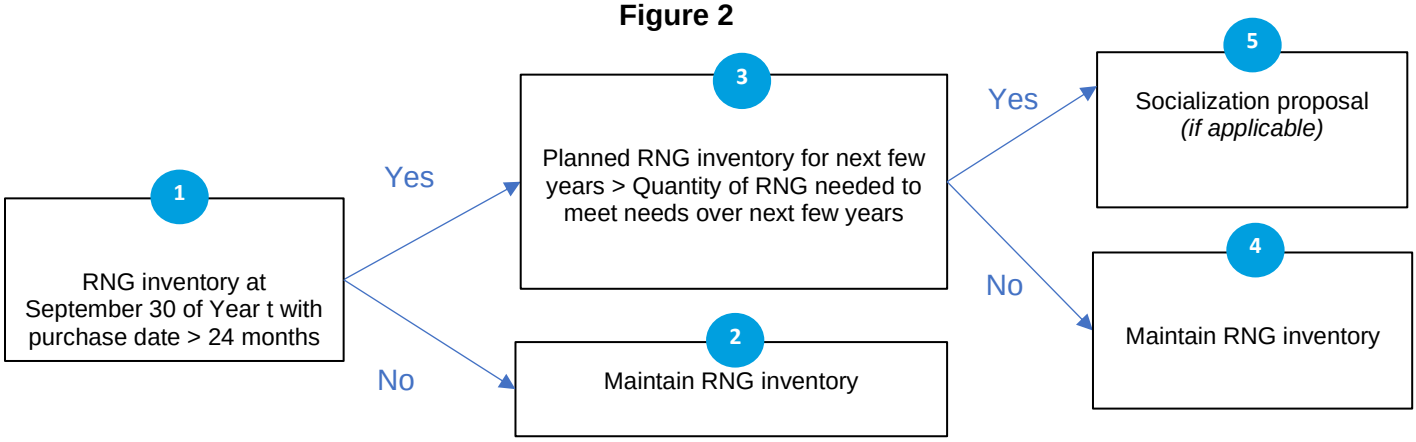
8.1.2 Too much RNG inventory

Since the activities of the Québec RNG sector are constantly evolving, it is important to establish flexible parameters to determine at which point Énergir should take action if its RNG inventory becomes too large. Énergir must be able to adjust to the needs of its customers and RNG producers. In a scenario of growing RNG demand over the coming years, Énergir submits that a decrease in its RNG inventory due to premature socialization of RNG units could affect its ability to meet future customer demand for RNG and the regulatory thresholds. As a result, rigid RNG inventory disposition criteria could have adverse effects on the sector.

Énergir believes that it is important not to dispose of its RNG volumes prematurely since legislative changes in Québec, or elsewhere in North America, that impose/encourage greater quantities of distributed RNG could lead to an increase in market demand for RNG and drive up the price. Premature disposition of RNG volumes could force Énergir to quickly purchase RNG volumes on the market at a high price, which would be detrimental to the competitiveness of RNG and be disadvantageous for RNG customers.

Consequently, Énergir would include its proposal for the socialization of unsold RNG related to excess RNG inventory, if applicable, in its summary of relevant RNG-related data reflected in the annual report. This proposal, which is intended to be flexible and would allow Énergir to adapt to the prevailing RNG context at the time of the annual report, would present the RNG volumes and costs to be socialized and the reasons for this decision. The 24-month RNG lifespan criterion would be used by Énergir to nurture its reflection on socialization related to excess RNG inventory. The following figure summarizes the process that would be used in the annual report to guide Énergir in its decision making:

Figure 2



- First, for the RNG in its inventory as at September 30th, Énergir would determine the period of time that has elapsed since the purchase of each of the units (Box 1). If this period is less than 24 months for all RNG volumes, no socialization strategy would be proposed (Box 2). It is important to specify that if units are socialized under the circumstances described in Section 8.1.1, they would be deducted from the RNG inventory assessed in Box 1.

- Assuming the first criterion (24 months) is met, Énergir would determine whether its planned RNG inventory for the next few years is sufficient to meet future needs (Box 3). These needs would correspond to the expected demand from voluntary RNG customers and, where applicable, the quantities of RNG required to meet the thresholds set by the Regulation.[50] If the planned inventory is greater than needed and Énergir deems it necessary, a socialization proposal would be prepared (Box 5). Otherwise, the RNG inventory would be maintained (Box 4). Énergir would use the annual report to outline the reasons for its decision as to whether to socialize RNG units with a purchase date exceeding 24 months.

Énergir is being deliberately imprecise regarding the number of projection years that would be considered in determining whether or not unsold units should be socialized. The number of years would be determined at the time of the annual report, based on the regulations then in place. The current regulations set delivery thresholds through to

[50] Quantities of RNG required to reach the regulatory threshold = Regulatory threshold – RNG deliveries.

2025-26. However, it is possible that new regulatory thresholds may have to be reached beyond that horizon, so Énergir believes that the socialization strategy must therefore be sufficiently flexible to adapt to this regulatory evolution.

8.2 CALCULATION OF THE SURCHARGE

If the cost associated with unsold RNG units had to be socialized (Figure 1, Box 4), Énergir would proceed as follows:

- A transfer of the units to be socialized from the RNG inventory to the system gas inventory would be processed to make the RNG available for sale. The transfer would be made at the system gas price to avoid negatively impacting system gas customers.
- As explained in Section 6.5 on the lifespan of RNG, the renewable nature of unsold RNG units would still be recognized. Énergir could therefore report these volumes of RNG as part of its "*Mandatory reporting of certain emissions of contaminants into the atmosphere.*"[51] As a result, the RNG volumes transferred to the system gas inventory would be deemed emissive based on the RNG emission factor.
- By transferring the RNG volumes to the system gas inventory, a cost difference would have to be recorded. This cost difference, representing a surcharge for unsold RNG, would be calculated as follows:

Unsold RNG volumes * (RNG rate – System gas rate – CTEAS rate + RNG CTEAS rate)

In the annual report, Énergir would determine whether it had to incur a surcharge related to unsold RNG and, where applicable, calculate and incorporate that surcharge into a new deferred expense account: "Unsold RNG surcharge DEA." The following table provides a fictitious numerical example of the proposed methodology for calculating the unsold RNG surcharge.

[51] http://www.environnement.gouv.qc.ca/air/declar_contaminants/index.htm.

Table 24
Calculation of the unsold RNG surcharge

(1)	RNG rate (¢/m³)	56.835
(2)	System gas rate (¢/m³)	10.155
(3)	CTEAS rate (¢/m³)	4.000
(4)	RNG CTEAS rate (¢/m³) *if applicable*	0.025
(5)	**Unsold RNG unit surcharge (¢/m³) (1)-(2)-(3)+(4)**	**42.705**
(6)	Unsold RNG volumes (m³)	6,947,196
(7)	**Unsold RNG surcharge ($) (5)*(6)**	**$2,966,800**

The Unsold RNG surcharge DEA, as reflected in the annual report, would be non-rate-base, bearing interest at the prevailing weighted average cost of capital (WACC) rate, and would be amortized in the second subsequent rate year. For example, if an amount attributable to the Unsold RNG surcharge DEA were recorded in the 2021 annual report, it would be amortized in the 2022-23 fiscal year.

Once the surcharges have been identified, it is important to determine the principles guiding their functionalization, classification and allocation. These principles, as well as the pricing methods, are discussed later in this document.

8.3 COST CAUSATION

The causation of the unsold RNG costs is related to Énergir's obligations under the Regulation.

This section presents the functionalization, classification and allocation of the costs resulting from the causation of the unsold RNG surcharge.

8.3.1 Functionalization

The objective of cost functionalization is establishing to which service (supply, transmission, load balancing, distribution or CTEAS – S/T/LB/D/C) the costs should be allocated. Since the RNG purchase costs will be functionalized to the supply service according to the methodology described in Section 2 and the surcharge for unsold RNG

is an integral part of those costs, Énergir proposes to functionalize the unsold RNG surcharge to the same service.

8.3.2 Classification

The RNG supply costs associated with units sold as voluntary purchases are generated by customers using the distributor's RNG supply service. In the case of the unsold unit surcharge, all of Énergir's customers are involved in meeting the required RNG consumption thresholds under the Regulation. In fact, the Regulation sets an applicable percentage for the consumption of all customers, whether they use the distributor's supply service or provide their own. This demonstrates that the surcharge for unsold RNG is clearly distinct from the other supply costs and must therefore be separate in the presentation of supply costs. So when the cost allocation study is presented, the surcharge for unsold units will be listed under the supply service on a separate line from the other RNG costs.

8.3.3 Allocation

As stated in the previous section, all of Énergir's customers, whether they use the distributor's supply service or provide their own, affect the surcharge for unsold RNG. The greater a customer's consumption, the greater the volumes of RNG consumption required to meet the threshold set by the Regulation since the threshold is expressed as a percentage of total deliveries. In order to allocate the surcharge for unsold RNG as accurately as possible, it should be done based on distribution volumes.

It is important to note, however, that customers who consume a proportion of RNG greater than or equal to the threshold required by the Regulation through voluntary purchases contribute sufficiently to achieving the objectives of the Regulation. For example, if the required threshold is 5%, individual customers would have to consume a proportion of RNG as a voluntary purchase equal to or greater than 5% of their total consumption in order to meet their obligations under the Regulation. So customers who voluntarily use 5% RNG do not contribute to the surcharge since they consume RNG at the threshold required by the Regulation and should be excluded from the calculation of the cost allocation factors.

In order to allocate the surcharge for unsold RNG as accurately as possible, allocation should be based on distribution volumes, excluding the volumes of customers consuming a proportion of RNG greater than or equal to the threshold required under the Regulation. A fictitious example of the calculation of a new factor, named FB01F-GNRINV, is shown in Appendix 2.

As for revenue allocation, factor FB07F-GNRINV would be created, based on the revenues per rate level of the unsold RNG surcharge. The principles and methodology chosen to establish the revenues for the unsold RNG surcharge are presented in the next section. A fictitious example of the calculation of factor FB07F-GNRINV is presented in Appendix 2.

8.4 PRICING

As previously specified, Énergir believes that a supply service billing applicable to all Énergir customers, excluding the volumes of customers who consume a proportion of RNG greater than or equal to the threshold required under the Regulation, is the most appropriate method for handling the Unsold RNG surcharge DEA.

In order to establish the pricing parameters for customers subject to the unsold RNG surcharge, a rate per m^3 distributed would be calculated in the rate case where the Unsold RNG surcharge DEA needs to be amortized, i.e. the second rate year following the assessment of the DEA. This rate would be obtained by dividing the amount of the DEA by the total estimated distribution volumes, from which would be deducted the estimated volumes of customers consuming a proportion of RNG greater than or equal to the threshold required by the Regulation. The following table provides a fictitious numerical example of the proposed methodology for calculating the unsold RNG billing rate.

Table 25

(1)	Unsold RNG surcharge DEA cost ($)	2,966,800
(2)	Total distribution volumes – Rate case (10^3m^3)	6,080,919
(3)	Customer volumes % RNG ≥ Regulation – Rate case (10^3m^3)	50,000
(4)	Unsold RNG surcharge volumes – Rate case (10^3m^3) *(2)-(3)*	6,030,919
(5)	**Billing rate – Unsold RNG (¢/m^3)*(1)/(4)***	**0.049**

Since the distribution volumes and the volumes of customers consuming a proportion of RNG greater than or equal to the threshold required under the Regulation used in the rate case to determine the billing rate for unsold RNG are based on estimates, they are likely to be different from the actual volumes. So there will always be a difference between the Unsold RNG surcharge DEA to be recovered and the amounts actually collected from customers. This difference would be added, where applicable, to the Unsold RNG surcharge DEA recorded for the surcharge of the RNG units that have exceeded their two-year lifespan.

8.4.1 Customers who do not have to pay the surcharge for unsold RNG units

As previously specified in this document, for customers to avoid paying the unsold RNG surcharge, their percentage of RNG consumption would have to be greater than or equal to the threshold required by the Regulation. Their RNG consumption percentage would be compared monthly to the regulatory RNG consumption percentage in effect. Customers billed the unsold RNG surcharge in a particular month could therefore be exempt from it later in the year if they decided to increase their RNG consumption to reach the threshold of the Regulation.

8.4.2 Typical billing cases for unsold RNG

Four scenarios are shown below to illustrate the impact of unsold RNG billing on the total amounts billed for different types of customers. The first scenario represents a situation where there is no surcharge for unsold RNG to socialize. In the other scenarios, different amounts of unsold RNG are socialized. To establish the unsold RNG billing rate for each of the scenarios, a unit surcharge of 42.705¢/m³ was used. The following assumptions were used to calculate the unit surcharge:

Table 26
Calculation of the unsold RNG unit surcharge

		Price (¢/m³)
(1)	RNG price	56.835
(2)	System gas price	10.155
(3)	CTEAS price	4.000
(4)	RNG CTEAS price *(if applicable)*	0.025
(5)	**Unsold RNG unit surcharge (1)-(2)-(3)+(4)**	**42.705**

Table 27
Scenarios

		Total billing – S/T/LB/D/C			
Typical case	(1) Unsold RNG volumes (10^3m^3)	(2) Unsold RNG unit surcharge (¢/m³)	(3) Unsold RNG surcharge (1)*(2) ($)	(4) Unsold RNG surcharge volumes (10^3m^3)	(5) Unsold RNG billing rate (3)/(4) (¢/m³)
Scenario 1	0	42.705	0	6,030,919	0.000
Scenario 2	14,834	42.705	6,334,860	6,030,919	0.105
Scenario 3	29,668	42.705	12,669,719	6,030,919	0.210
Scenario 4	59,336	42.705	25,339,439	6,030,919	0.420

Table 28
Typical cases for unsold RNG surcharge

		Total billing – S/T/LB/D/C			
Typical case	**Annual volume** *(m^3)*	**Scenario 1** *($)*	**Scenario 2** *($)*	**Scenario 3** *($)*	**Scenario 4** *($)*
Single-family	1,417	825	827	828	831
Business	14,600	6,472	6,487	6,503	6,533
Business	100,000	36,318	36,423	36,528	36,738
Business	400,000	128,995	129,415	129,835	130,675
Industrial	5,500,000	1,167,572	1,173,349	1,179,127	1,190,681

Énergir notes that even in the scenario with the highest unsold RNG volumes (Scenario 4), amounts billed attributable to the unsold RNG surcharge do not represent a large percentage of customers' total bill. Indeed, for each of the typical cases in Scenario 4, the portion of the total bill attributable to the unsold RNG surcharge is less than 2%

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9 DECISION FOLLOW-UPS

9.1 RNG PROCUREMENT AUDIT PROCESS (FOLLOW-UP TO DECISION D-2020-057)

This subsection addresses the first two requests expressed by the Régie in paragraph 492 of its Decision D-2020-057:

> [Translation] "***The Régie accordingly orders Énergir to:***
>
> - ***continually monitor the contractual clauses in RNG supply contracts relating to the auditing of RNG supply;***
> - ***provide the Régie with the detailed operational and administrative procedures it has put in place to monitor its RNG supply agreements;***
> - […]"

In a context where customer demand exceeds the supply available on the Québec market, Énergir is considering the possibility of sourcing RNG outside its territory, namely in the United States and the rest of Canada. Accordingly, it must ensure the quality, integrity and renewability of the RNG it supplies to its customers for consumption.

On April 24, 2020, Énergir launched a call for tenders to select a partner responsible for certifying and validating the renewable nature of the RNG Énergir purchases from producers outside Québec. Several service providers with the required experience in certifying RNG for U.S. fuel standards (RFS, LCFS) were invited to participate in the RFP. EcoEngineers, a firm located in Des Moines, Iowa, was selected by means of this call for tenders due to its vast experience in the field, the cost of its services and the quality of its proposal, all of which met Énergir's expectations.

More specifically, EcoEngineers is supporting Énergir in the development of a certification protocol for RNG production in order to certify and validate the following key characteristics:

- the organic origin of RNG (manure, slurry, food residues, sewage sludge, industrial residues, etc.);
- the physical connection to the North American gas system;
- the verification of volumes produced, injected, delivered and invoiced; and
- the evidence that the environmental attributes are not being double-counted.

As generally defined in Énergir's RNG purchase contracts, environmental attributes include all the existing and future rights related to permits, credits, certificates or other titles or rights that may be created, obtained or recognized with regard to the following two criteria:

- reduced or avoided emissions of greenhouse gases or any other pollutant stemming from the real or deemed substitution of natural gas;
- attributes or characteristics of renewable energy production sources for the purpose of sale, trade, labelling, certification, advertising or other.

For clarification, certain other environmental attributes generated by RNG production operations are not transferred to Énergir, including those generated by the production of organic fertilizers or derived from the energy efficiency of equipment on site. The latter are specifically excluded from the definition of environmental attributes in standard Énergir RNG purchase contracts and may be valued by the producer at its sole discretion.

The protocol for certifying the RNG value chain will enable Énergir to ensure the integrity of its RNG supply produced outside Québec. This protocol will also allow Énergir to make sure that injected gas is actually produced from organic matter and is therefore defined as renewable. EcoEngineers will also use the first steps of the audit process to confirm that the RNG producer will inject its production into a pipeline that allows for delivery to Énergir through a natural gas distribution system and that is of a quality that meets Énergir's delivery criteria.

More specifically, the protocol will include periodic visits to the production site, the signing of affidavits by the producer, and the examination and validation of several supporting documents on a quarterly basis. As soon as the protocol is finalized and validated, EcoEngineers will be responsible for performing the audit services. For all producers, supply contract clauses allow Énergir to audit the characteristics of purchased RNG (origin, connection, volumes and environmental attributes as described above) and require the producer's cooperation when such audits are requested. If defaults are identified as a result of the audit of a producer, Énergir is entitled to demand compensation within a period of time specified in the contract and to impose compliance measures. If corrective action is not taken by the producer, Énergir reserves the right to terminate the contract and to claim damages.

Although the above characteristics must also be respected by producers in Québec, interconnection to the Énergir system clearly limits the exposure of RNG customers. The validation of gas quality, measurement of injection quantities and management of environmental attributes directly by Énergir provides an adequate level of comfort on the integrity of RNG volumes produced by a franchise at this step.

9.2 OBLIGATIONS OF CUSTOMERS PROVIDING THEIR OWN SUPPLY SERVICE (D-2020-123)

As part of the 2020-21 Rate Case,[52] Énergir proposed a change to CST Article 11.2.3.5. For several reasons indicated in Decision D-2020-123, the Régie postponed the examination of the amendment of that article to the current case. In paragraph 18 of its decision, [translation] *"in case R-4008-2017, the Régie invites Énergir to file Section 2.1 of Exhibit B-0153 as soon as possible."* Énergir's proposal, outlined in the following paragraphs, remains the same as that presented in the 2020-21 rate case.

[52] R-4119-2020.

As part of Step B of this case, Énergir indicated to the Régie that it planned to make changes to the obligations of its direct-purchase customers to be able to fully capture all of the RNG they consume.[53]

This traceability is necessary to keep Énergir in compliance with the RMRCECA, under which Énergir must now declare to the *Ministre de l'Environnement et de la Lutte contre les changements climatiques* the greenhouse gas emissions attributable to the RNG it has distributed (with the exception of the volumes distributed to establishments subject to the cap-and-trade emission allowances system). Furthermore, in the context of developing a new market based on certain characteristics of the natural gas commodity owing to its method of production, it is important that Énergir be able to have all relevant information about the supply sources of this gas.

At present, however, in order to determine which direct-purchase customers use RNG, Énergir relies on the sworn statements submitted to it under CST Article 16.1.1, presuming that all of its direct-purchase customers, with the exception of "large emitters," in fact provide it with this declaration. Nevertheless, Énergir is unable to track the quantities of RNG consumed by its large-emitter customers, who must cover their greenhouse gas emissions themselves under CST Article 16.2.1, unless it contacts them to obtain the information.

In light of the above, Énergir proposes to require its direct-purchase customers to differentiate between supplied volumes of RNG and supplied volumes of conventional natural gas.

In addition, these customers should meet all of the following criteria, which are largely based on the RNG supply audit requirements outlined in the previous section, i.e.:

- provide RNG as per the *Act respecting the Régie de l'énergie*;
- declare the origin of the RNG;
- provide supporting documents upon request validating every part of the RNG contractual chain, starting from the source (organic origin of the RNG, physical connection to the North

[53] B-0265, Gaz Métro-2, Document 25, answers to questions 1.2 to 1.4.

American gas network, volumes injected, evidence that the environmental attributes are not being double-counted, etc.).

These new requirements would enhance the monitoring Énergir provides with respect to RNG supply agreements by extending it to customers who contract their supply directly from suppliers.

To answer the questions raised by the Régie during the hearings held as part of the 2020-21 rate case, including:

> [Translation] "*The Régie would like to understand what is meant by the expression double-counting in subsection* [...] *as proposed in Article 11.2.3.5*? *Are we talking about RNG volumes that could be counted twice by Énergir, i.e. twice by Énergir and Gazifère, or are we talking about RNG volumes that Énergir mentioned under case R-4008?"*[54]

Énergir would like to clarify how certifying that there is no double-counting of environmental attributes does not contradict the full accounting of RNG quantities within the meaning of the Regulation. In fact, evidence that environmental attributes are not being double-counted enables Énergir to assert that there is no third party taking advantage of the renewable nature of this natural gas. For example, this would prevent a producer from selling RNG to an Énergir customer on a direct-purchase basis while at the same time using the environmental attributes of this gas under California's *Low Carbon Fuel Standard* (LCFS).*[55]* To conclude, the obligation concerning the absence of double counting that Énergir proposes to add is unrelated to the concept of double accounting between jurisdictions to which the Régie refers in its Decision D-2020-057.[56] It is clear to Énergir that it will comply with the opinion stated by the Régie in paragraph 177 of its decision:

> [Translation] "*The Régie is of the opinion that, for the reasons expressed hereinafter, the RNG volumes delivered to interconnections on the territory of the franchise granted to the holder of an exclusive distribution right must be accounted for under the Regulation.*"

[54] R-4119-2020, A-0036, transcript from the hearing on September 1, 2020, p. 163.
[55]Translated into French as the *Loi sur les carburants propres de la Californie*.
[56] Paragraphs 62 and 212.[57] Paragr. 175.

10 CHANGES TO CONDITIONS OF SERVICE AND RATES

In decisions D-2019-107,[57] D-2019-120[58] and D-2020-145,[59] the Régie provisionally approved the amendment of Articles 1.3, 10.2, 11.1.2, 11.1.3 and 16.1 of the CST. The changes can be summarized as follows:

- **Article 1.3**: Adjustment to the definition of fixed-price supply agreements and the definition of withdrawals exempt from the CTEAS;
- **Article 10.2**: Addition of a new combination of services for customers being supplied with RNG at Énergir's RNG rate for part of their consumption, and natural gas through direct purchase with transfer of ownership for the other part;
- **Article 11.1.2**: Creation of the RNG supply rate;
- **Article 11.1.3**: Requirement of 60 days' notice to join (or withdraw) from the RNG supply rate and indication of the consumption percentage targeted by the customer. The same article includes the principle of "first-come, first on the list basis" with the allocation of consumption tiers to the customer and operational constraints to be respected by the distributor, as well as possible financial settlement in the event that the percentage of consumption targeted by the customer is not met by the distributor.
- **Article 16.1:** Exclusion of RNG volumes from the CTEAS rate.

These new terms and conditions for the RNG rate are still required. Énergir proposes to improve some of them because of developments in the field since their implementation, or because of requests made by the Régie during the working session on November 4, 2020. New terms and

[57] Paragr. 175.

[58] Paragr. 47.

[59] Paragr. 521.[60] As a reminder, Decision D-2020-145 in case R-4119-2020 approved, for temporary application, the functionalization and pricing of the additional costs for the CTEAS resulting from the amendment to the RMRCECA to serve the CTEAS, while maintaining the exemption for RNG volumes. However, it asked Énergir to submit a final proposal to that effect in the context of this case.

conditions are also required to reflect what Énergir is proposing with respect to the CTEAS arising from RNG volumes[60] (Section 4) and the treatment of unsold units (Section 8).

IMPORTANT

To address the concern expressed by the Régie in decision D-2020-133 and facilitate the examination of Step C as a whole, these proposed changes to the CST regarding the RNG rate stemming from previous exhibits (B-0096, Gaz Métro-1, Document 1 and B-0180, Gaz Métro-1, Document 14) included in this section.

For the sake of simplification, the changes to the proposed modifications (underlined additions and strikethrough deletions) are not reported.

10.1 CONVENTIONAL NATURAL GAS VERSUS RENEWABLE NATURAL GAS

First of all, Énergir proposes to add definitions to the text of the CST to clearly designate the type of supply referred to in the articles:

"***1.3 – DEFINITIONS***

[…]

NATURAL GAS

Has the meaning attributed to it in the Act respecting the Régie de l'énergie *and includes renewable natural gas as defined in* the Act respecting the Régie de l'énergie.

CONVENTIONAL NATURAL GAS

Refers to natural gas, excluding renewable natural gas as defined in the Act respecting the Régie de l'énergie.

[…]"

As the vast majority of the provisions in the CST include RNG, "natural gas" broadly defined would include RNG. On the other hand, if this is not the case and a provision is specifically aimed at either conventional natural gas or RNG, a clear indication to that effect would be present. According to Énergir's RNG proposal, a distinction between conventional natural gas and RNG is essentially made in the supply service (covered by Article 11 in the CST), the

[60] As a reminder, Decision D-2020-145 in case R-4119-2020 approved, for temporary application, the functionalization and pricing of the additional costs for the CTEAS resulting from the amendment to the RMRCECA to serve the CTEAS, while maintaining the exemption for RNG volumes. However, it asked Énergir to submit a final proposal to that effect in the context of this case.

CTEAS service (covered by Article 16 in the CST) and the combination of services (covered by Article 10 in the CST).

10.2 RNG SUPPLY RATE

To reflect Énergir's proposal, and in accordance with the wording of the definition suggested above, the distributor's supply service would be composed of two rates: the price of conventional natural gas adjusted monthly and the price of RNG adjusted annually. An amendment would also be required to distinguish between advance notices and not charging migration fees to voluntary customers who would want to start (or stop) consuming distributor-provided RNG. Section 11.1 would therefore read as follows:

"***11.1.1 APPLICATION***

For any customer who wishes to purchase the natural gas from the distributor that the customer withdraws at its facilities.

[…]

11.1.2 NATURAL GAS SUPPLY RATE

11.1.2.1. Natural gas supply price

For each m³ of *conventional natural gas* *withdrawn, the ~~natural gas~~* supply price as of [effective date] *is* [approved rate] *¢/m³. The price may be adjusted monthly to reflect actual cost of acquisition.*

For each m³ of volume of renewable natural gas withdrawn, the supply price, as of [date fixed by the rate case decision], *is* [approved rate] *¢/m³.*

[…]

11.1.2.3 Migration fees for supply service

Any existing customer who wishes to use or withdraw from the distributor's conventional natural gas supply service without giving the prior notice of entry or withdrawal required under Articles 11.1.3.2, 11.1.3.3 or 11.2.3.4 shall be subject to migration fees for the distributor's supply service payable in a single payment on the migration date.

This charge shall be calculated by applying the migration fee to the distributor's conventional natural gas supply service in effect on the migration date to the customer's forecast normalized annual consumption.

For each m³ of conventional natural gas withdrawn, the migration fees for entry to the distributor's ~~natural gas~~ supply service, as of [effective date], *is* [approved rate] *¢/m³. This price is revised monthly.*

> *For each m³ of conventional natural gas withdrawn, the migration fees for withdrawal from the distributor's ~~natural gas~~ supply service, as of* [effective date], *is* [approved rate] *¢/m³. This price is revised monthly.*"

10.3 FIXED-PRICE SUPPLY AGREEMENTS

In paragraph 178 of its Decision D-2019-107, the Régie asks that the CST be interpreted [translation] "*so as to ensure that the same treatment is applied for fixed-price rates, whether the customer wants to use conventional gas or RNG, and that it be possible to have fixed-price RNG supply agreements.*" Considering the previously proposed definition of "natural gas," no article in the CST needs to be adjusted since "natural gas supply" would apply to both conventional natural gas and RNG.

10.4 NEW COMBINATION OF SERVICES

In order to add another combination of supply services to its service offering, namely that of direct purchase customers who consume "Énergir RNG" for a portion of their consumption, Énergir proposes to amend Section 10.2 of the CST as follows:

> "***10.2 Combination of customer's and distributor's services***
>
> […]
>
> *Exceptionally, however, customers who use firm service as well as interruptible service at a single metering point shall be entitled to use their own transportation service for the firm portion of their load while using the distributor's transportation service for the interruptible portion. In addition, customers using "Make-up gas service to avoid an interruption" may combine their own natural gas supply and transportation services with those of the distributor for this make-up portion of its load.*
>
> *Also, customers who provide, in part, renewable natural gas at a single metering point shall be entitled to~~:~~*
>
> *1° use the distributors' supply service as well as, in the case of renewable natural gas, their own supply service: if this renewable natural gas is produced within a franchise, customers shall be further entitled, at a single metering point, to use the distributor's transportation service as well as, for the renewable natural gas produced within a franchise, their own transportation service; ~~The natural gas then provided by a customer must be "with transfer of ownership."~~*
>
> *2° use the renewable natural gas supply tariff for the distributor's supply service as well as supply its own service. The volume supplied by the customers during each contract period must correspond to the total supply volume they intend to withdraw during that same period.*

The natural gas then provided by a customer must be "with transfer of ownership"."

10.5 TERMS AND CONDITIONS OF RNG SUPPLY RATE

In order to combine all of the previously discussed changes affecting management of RNG demand, Énergir proposes that Article 11.1.3 of the CST be worded as follows:

"***11.1.3 TERMS AND CONDITIONS***

[…]

11.1.3.2 Prior notice of entry

Customers who wish to avail themselves of the distributor's conventional natural gas supply service must so notify the distributor in writing at least 6 months in advance.

On shorter notice, customers may avail themselves of the distributor's conventional natural gas supply service, but only if it is operationally possible for the distributor to provide it. Moreover, customers will be required to pay the charge for migration to the distributor's conventional 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.~~5~~6, a customer who wishes to opt out of the distributor's conventional natural gas supply service must so notify the distributor in writing at least 6 months in advance.

On shorter notice, the customer will be required to pay the migration fees for the withdrawal from the distributor's conventional natural gas supply service set out in Article 11.1.2.3.

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

[…]

11.1.3.5 Renewable Natural Gas

Customers who wish to make a portion of their consumption subject to the renewable natural gas supply rate or modify such portion must submit a request in writing to the distributor at least 60 days in advance, indicating the targeted consumption percentage.

Notwithstanding the foregoing, any new authorization to make a percentage of consumption subject to the renewable natural gas rate or to increase such percentage will be given only if it is operationally possible for the distributor to supply the renewable natural gas to the customer. If it is not operationally possible to supply the renewable natural gas to a particular customer, that customer will be added to a request list according to the principle of first come, first entered on the list. Thereafter, the allocation of new available renewable natural gas units will be as follows:

- *For customers whose service address is associated with a single-family home, a duplex or a triplex, 50,000 m³ will be allocated according to their rank on the list;*

- *For other customers, the units will be allocated according to their rank on the list:*
    - *During the first run through the list, in maximum increments of 50,000 m³;*
    - *During the second run through, up to the consumption percentage targeted by the customer.*

In the event the distributor is unable to supply the percentage of renewable natural gas targeted by the customer, the distributor may transfer part of the customer's consumption to the distributor's conventional natural gas supply rate and settle the price difference through a financial settlement.

A customer who wishes to withdraw from the distributor's renewable natural gas supply rate must so notify the distributor in writing at least 60 days in advance.

11.1.3.~~5~~6 Contract Term

Any written conventional natural gas supply service contract must be for a minimum of 12 months.

11.1.3.~~6~~7 Gas Quality

The monthly average gross heating value of the natural gas delivered shall be at least 36.00 MJ/m³ unless the customer and the distributor agree on a lower value."

10.6 OBLIGATIONS OF CUSTOMERS PROVIDING THEIR OWN SUPPLY SERVICE

In order to be able to respond adequately to the Regulation and the RMRCECA, Énergir proposes an amendment and addition to the obligations of self-supply customers set out in the CST:

"11.2.3.5 Customer obligations

A customer must:

[…]

3° provide the distributor with all information concerning the volumes that it intends to withdraw from its facilities, distinguishing between renewable natural gas volumes and conventional natural gas volumes, so that the distributor can properly plan, manage and control all volumes transported on its distribution system;

[…]

9° if the customer is providing renewable natural gas to the distributor, the customer must ensure all of the following:

a) sell or deliver renewable natural gas to the distributor within the meaning of the Act respecting the Régie de l'énergie*, with the environmental attributes still associated with said gas;*

b) inform the distributor whether the renewable natural gas to be sold or delivered comes from Québec or outside of Québec;

c) provide, upon request, all supporting documents required by the distributor showing the contractual chain for the acquisition of the renewable natural gas from the producer to the customer which makes it possible to determine the organic origin of the RNG, the physical connection to the North American gas network, the volumes injected and evidence that the environmental attributes are not being double-counted."

10.7 RNG CTEAS RATE

The following are the changes to the CST that Énergir wishes to make to reflect its proposal for a new RNG CTEAS rate. This proposal addresses the Régie's request in paragraph 423 of decision D-2020-145. It should be noted that the proposed amendments to Chapter 16, specifically those to Article 16.1.2.1, follow the same logic as that of Article 11.1.2.1, where the price of the supply service is split in two: that of conventional natural gas and that of RNG.

However, the proposed changes would be applicable in two phases, as Énergir proposes to trigger an RNG-specific CTEAS rate only when costs reach a specified threshold.[61]

As a first step, the exclusion of RNG volumes from the CTEAS service would be maintained:

"***1.3 – DEFINITIONS***

[…]

Withdrawals exempt from the cap-and-trade emissions allowance system service

The natural gas volumes exempted from the greenhouse gas Cap-and-Trade Emission Allowances System (CTEAS) service are those set out in the Regulation respecting a cap-and-trade system for greenhouse gas emission allowances.

To be exempt from the CTEAS service, these volumes must have been declared by the issuer and the declarations must have been received by the distributor no later than the third business day following the end of the month covered by the billing and as confirmed, at the end of the calendar year in question, no later than January 31 of each year by a sworn statement from the issuer, or if the issuer is a legal person or partnership, of an authorized officer thereof.

[61] See Section 4.3.

Also exempt are volumes of natural gas withdrawn by an issuer and declared by the issuer in a sworn annual declaration submitted to the distributor no later than January 31 of each year, or, if the issuer is a legal person or a corporation, by an authorized officer thereof.

For the aforementioned volumes to be exempt from the CTEAS service, the various statements referred to above must be accepted by the distributor's greenhouse gas (GHG) emissions auditor and the Minister of Sustainable Development, Environment and the Fight against Climate Change (or his successor). It is understood that in the event that the auditor or the Minister (or his successor) were to deny these declarations, the customer would then be charged the applicable CTEAS rate at the time the natural gas volumes are withdrawn.

Notwithstanding the foregoing, the volumes of renewable natural gas withdrawn are also exempt from the CTEAS service.

[…]

16.1 – DISTRIBUTOR SERVICE

16.1.1 Application

For any customer who withdraws natural gas and who has not submitted the exemption declaration forms accepted by Énergir's GHG emissions auditor for the period in question.

16.1.2 Cap-and-trade emission allowances system (CTEAS) rate

16.1.2.1 CTEAS price

For each m³ of conventional natural gas withdrawn, the CTEAS price as of [effective date] *is* [approved rate] *¢/m³*. The price may be adjusted monthly to reflect actual cost of acquisition.

In a second phase, the CST would be amended when invoicing of the RNG-specific CTEAS rate is triggered:

"***1.3 – DEFINITIONS***

[…]

Withdrawals exempt from CTEAS service

The natural gas volumes exempted from the greenhouse gas Cap-and-Trade Emission Allowances System (CTEAS) service are those set out in the Regulation respecting a cap-and-trade system for greenhouse gas emission allowances.

To be exempt from the CTEAS service, these volumes must have been declared by the issuer and the declarations must have been received by the distributor no later than the third business day following the end of the month covered by the billing and as confirmed, at the end of the calendar year in question, no later than January 31 of each year by a sworn statement from the issuer, or if the issuer is a legal person or partnership, of an authorized officer thereof.

Also exempt are volumes of natural gas withdrawn by an issuer and declared by the issuer in a sworn annual declaration submitted to the distributor no later than January 31 of each year, or, if the issuer is a legal person or a corporation, by an authorized officer thereof.

For the aforementioned volumes to be exempt from the CTEAS service, the various statements referred to above must be accepted by the distributor's greenhouse gas (GHG) emissions auditor and the Minister of Sustainable Development, Environment and the Fight against Climate Change (or his successor). It is understood that in the event that the auditor or the Minister (or his successor) were to deny these declarations, the customer would then be charged the CTEAS rate applicable at the time of withdrawal of the natural gas volumes.

~~*Notwithstanding the foregoing, the volumes of renewable natural gas withdrawn are also exempt from the CTEAS service.*~~

[…]

16.1 – DISTRIBUTOR SERVICE

16.1.1 Application

For any customer who withdraws natural gas and who has not submitted the exemption declaration forms accepted by Énergir's GHG emissions auditor for the period in question.

16.1.2 CTEAS rate

16.1.2.1 CTEAS price

For each m³ of conventional natural gas withdrawn, the CTEAS price as of [effective date] *is* [approved rate] *¢/m³. The price may be adjusted monthly to reflect actual cost of acquisition.*

For each m³ of conventional natural gas withdrawn, the CTEAS price as of [effective date] *is* [approved rate] *¢/m³. The price may be adjusted monthly to reflect actual cost of acquisition.* »

10.8 ADDITIONAL COST OF UNSOLD RNG

The advent of the Regulation and the introduction of an additional cost for unsold RNG, as defined in Section 8.2, would result in some changes to the CST.

First, the following definition would be added to Article 1.3:

"***1.3 – DEFINITIONS***

[…]

PERCENTAGE OF RENEWABLE NATURAL GAS REQUIRED BY REGULATION

Percentage of renewable natural gas to be delivered by Énergir as defined in the Regulation respecting the quantity of renewable natural gas to be delivered by a distributor.”

Second, Article 11.4 would be added regarding the new rate to recover the additional cost of RNG, which would be called “contribution to the greening of the gas network”:

“***11.4 – CONTRIBUTION TO THE GREENING OF THE GAS NETWORK***

11.4 1 APPLICATION

For any customer whose percentage of consumption subject to the renewable natural gas rate is less than the percentage of renewable natural gas imposed by the Regulation. As of [date of commencement of the rate case]*, the rate is set at* [percentage set out in the Regulation]*%. Volumes withdrawn by pipeline used solely for the distribution of biogas are exempt from the contribution to the greening of the gas network.*

11.4.2 RATE FOR CONTRIBUTION TO THE GREENING OF THE GAS NETWORK

For each m³ of natural gas withdrawn, the price of the contribution to the greening of the gas network, as of [date set by the decision on the rate case]*, is* [approved rate] *¢/m³.””*

10.9 CUSTOMER-PROVIDED BALANCING SERVICE

Énergir is maintaining its application to amend the CST regarding the imbalance thresholds to which rate D_R customers are subject. This proposal, which is separate from the other topics discussed in this document, is available in the revised Gaz Métro-1, Document 2. The proposed amendment to Article 13.2.2.2 is as follows:

“***13.2.2.2 Differences between nominated volumes and volumes injected***

The charges for differences between nominated volumes and volumes injected are as follows:

Daily imbalances

No charges shall be required if the daily difference between the nominated volume and the volume injected is less than the greater of ~~75 GJ~~ 55,713 m³ or 2% of the total nominated volume at a receipt point or the greater of ~~75 GJ~~ 55,713 m³ or 2% of the total nominated volume in the consumption zone.

In the case where the daily difference between the nominated volume and the volume injected is higher than the greater of ~~75 GJ~~ 55,713 m³ or 2% in the consumption zone and at a receipt point:

1. No charges shall be required if the daily difference between the nominated volume and the volume injected at that receipt point by a customer goes in a direction opposite to the daily difference between nominated volumes and volumes injected in the consumption zone;

2. Charges shall however be required if this difference goes in the same direction as the daily difference in the consumption zone.

In the latter case, the daily imbalance of the consumption zone shall be allocated among all customers having a billable daily imbalance. Allocations among such customers are prorated to their individual imbalance in excess of the greater of ~~75 GJ~~ 55,713 m³ or 2% of their nomination.

[…]

Cumulative difference account balance

The cumulative difference account balance shall be calculated by adding or deducting any daily difference to the previous cumulative difference account balance. This balance may be reduced in accordance with Article 15.5.8.

Charges shall be payable if the cumulative daily account balance is higher than the greater of ~~150 GJ~~ 111,401 m³ or 4% of the greater of the nominated volumes or the average nominated volumes for the past 30 days."

11 NEXT STEPS

In its August 7, 2019 letter (A-0051) setting out the treatment of case R-4008-2017, the Régie addressed the issue of Step D.

> [Translation]"*In a Step D, in accordance with section 72 of the Act, the Régie will subsequently conduct an in-depth examination of the characteristics of the RNG contracts that Énergir intends to enter into in order to meet the minimum quantity of RNG that must be delivered by natural gas distributors as of 2023.*"

This followed a proposal Énergir made at the hearing on July 16, 2019,[62] regarding phased planning for the examination of the various issues of the case, which incidentally did not include a Step D.

In preparing this evidence, Énergir explored the need to maintain a Step D. In retrospect, Énergir believes that it is not required, or even desirable from a regulatory efficiency perspective, for the Régie to review the characteristics of RNG contracts beyond the first threshold of 1% stipulated in the Regulation in a possible Step D for this case. Such a review of the characteristics of the RNG contracts was useful in the context of Step B, particularly given the looming deadline for reaching the first threshold under the Regulation (2020-21). Such a deadline would have made it more difficult to conduct a review of the characteristics of RNG contracts in another case (such as a rate case). However, this difficulty does not exist with respect to the next regulatory deadline (2022-23). This means that once the Régie has rendered its decision on the rate components discussed in this Step C, the review of the characteristics of RNG supply contracts can follow the same path as the one for conventional gas supply.

Énergir therefore proposes that the characteristics of any new RNG supply contracts be presented as part of the rate case, a process during which the Régie already reviews Énergir's supply plans. This would enable the same group to have an overview of both the gas supply plan and the characteristics of the RNG contracts Énergir intends to enter into which are likely to affect the plan. Since not all contracts are known at that time, the filing date would not necessarily

[62] B-0132, p. 4

correspond to that of the other documents in the rate case. The filing could instead be made at the appropriate time during the year.

Until such time as the Régie rules on this proposal, the characteristics of the new contracts would continue to be filed in the current case.

Énergir proposes withdrawing Step D from R-4008-2017 and filing the characteristics of future RNG purchase contracts as part of the rate case for the year in question.

C O N C L U S I O N

Énergir asks the Régie to:

- **approve the overall proposal for the functionalization of RNG purchases as described in Section 2;**
- **approve the methodology for setting the voluntary RNG customer supply service rate as described in Section 3;**
- **approve the overall proposal for the treatment of RNG CTEAS costs as described in Section 4;**
- **approve the addition of a combination of supply services and the related conditions, as per Section 5.2;**
- **authorize the creation of the "RNG cumulative price difference DEA" and the related parameters, as per Section 6.1;**
- **approve funding at the weighted average cost of capital (WACC) of the temporary DEA which reflects the cumulative price difference between the actual RNG purchase cost disbursed and the revenue generated by the RNG sales price billed to customers during a rate year, since June 19, 2019;**
- **give its approval so that the costs of the return and income taxes generated by the RNG inventory can be functionalized to the adjustment service related to existing system gas inventories;**
- **approve the application of a financial settlement in the event of quantities of RNG overbilled in the distributor's RNG supply service, as described in Section 6.3;**
- **acknowledge and be satisfied with the demonstration of customer interest in RNG;**
- **approve the terms and conditions entailed in RNG accessibility described in Section 7.5 and authorize, as part of the management of the RNG request list, the**

reservation of a volume of 50,000 m³ for SDT customers and the elimination of the 50,000-m³ maximum increment as of the second run through the list;

- **approve the overall proposal concerning the treatment of unsold RNG units, as described in Section 8;**
- **acknowledge and be satisfied with the follow-up for decision D-2020-057 (paragraph 492);**
- **acknowledge and be satisfied with the follow-up for decision D-2020-123 (paragraph 18);**
- **authorize the changes to the CST described in Section 10; and**
- **withdraw step D from this case, R-4008-2017, and authorize the approval of the characteristics of future RNG purchase contracts as part of the rate case.**

APPENDIX 1
BENCHMARKING FOR THE SALE OF RENEWABLE NATURAL GAS

This appendix discusses benchmarking for the sale of renewable natural gas (RNG). It is useful to understand what models have been implemented elsewhere, particularly in a context where the RNG market is constantly evolving. Énergir reiterates that it will continue to closely monitor the models of other gas distributors and will draw as warranted on their approach whereby they adapt to major regulatory, environmental or commercial issues or changes. Depending on how the supply of RNG and the demand from Énergir's customers evolve, particularly if there is upward pressure on the RNG purchase price, Énergir may suggest a change to the proposed pricing methodology in the future.

A. CERTIFICATION OF RENEWABLE ENERGY

Property rights to environmental, social and other non-energy attributes can be assigned value with the purchase of a market-based instrument. Examples include Renewable Energy Certificates (RECs) for electricity in the U.S.[1] and Guarantees of Origin (GOs) for renewable energies in Europe.[2] Distributors also allow their customers to procure RNG voluntarily from their supply service.[3] In that case, distributors make sure that they buy a sufficient quantity of RNG to match what they sell to customers. Voluntary consumption models in North America are described below.

B. FORTISBC ENERGY INC.

The RNG Program[4] (the Program) of FortisBC Energy Inc. (FEI) offers interested customers the opportunity to consume an amount of RNG equivalent to 5%, 10%, 25%, 50% or 100% of their total consumption. Initially, the approach to pricing RNG was to recover the acquisition costs from voluntary customers with a rate specific to RNG supply amounting to $14.414/GJ (54.615¢/m³) as of January 1, 2015. However, the pricing for voluntary customers was lowered in 2016[5] so as

[1] https://www.epa.gov/greenpower/renewable-energy-certificates-recs.

[2] https://www.aib-net.org/certification/certificates-supported/renewable-energy-guarantees-origin, http://www.greengas.org.uk/.

[3] It is not possible for distribution networks to ensure that the injected RNG is physically distributed to the customer who has bought it voluntarily.

[4] From the English-language *RNG Program*.[5] Order G-133-16 issued by the British Columbia Utilities Commission.

[5] Order G-133-16 issued by the British Columbia Utilities Commission.

not to discourage membership in the Program, and to maximize associated revenues and mitigate the risk of unsold RNG and stranded costs that would potentially be absorbed by non-voluntary customers. Voluntary customers are now subject to a $6/GJ or $7/GJ (22.734 or 26.523¢/m³) premium, based on the customer's contractual commitment in terms of duration and volume, in addition to the conventional natural gas rate and a few other rate components.[6] All told, this puts the price for voluntary consumption at around $10/GJ (37.89¢/m³)[7] for customers with short-term contracts and $9/GJ (34.101¢/m³) for customers with long-term contracts.

Small customers, such as commercial clients, are eligible for FEI's voluntary consumption by joining the RNG service.[8] However, customers must not be registered with a broker. No notice is required to apply, but registration is effective on the 1st of the month only. Customers may cancel their membership at any time. Cancellation is effective within one week. There are no fees for switching from one rate to another. If more RNG has been sold than will actually be distributed over a 12-month period, FEI can purchase and bill for the missing carbon credits to offset.[9] In fact, the last annual report on the RNG variance account[10] reported the use of this approach, since FEI had ended 2019 with a negative inventory due to growing sales of RNG that had exceeded the quantities held.

C. VERMONT GAS SYSTEMS, INC.

The voluntary consumption program of Vermont Gas Systems, Inc. (VGS) offers domestic customers the option of choosing 10%, 25%, 50% or 100% RNG on their total consumption. The VGS rate takes the form of a premium obtained by subtracting the average cost of conventional natural gas supply from the average cost of RNG supply, in proportion to the percentage selected by the customer. VGS uses a 12-month window to balance the RNG sold with the RNG actually purchased from suppliers and distributed to voluntary customers. If VGS were to face an inventory shortfall over the 12-month period, i.e. in cases where the amounts paid by voluntary customers exceeded the available RNG, the distributor would purchase carbon credits to offset the excess

[6] *General Terms and Conditions* of FortisBC Energy, Section 28.4 (https://www.cdn.fortisbc.com/libraries/docs/default-source/about-us-documents/regulatory-affairs-documents/gas-utility/fortisbc_generaltermsandconditions.pdf?sfvrsn=202bc0bf_20).

[7] Prior to the application of the carbon tax.

[8] From the English-language *Biomethane Service*.

[9] *General Terms and Conditions* of FortisBC Energy, sections 28.5-28.6 (https://www.cdn.fortisbc.com/libraries/docs/default-source/about-us-documents/regulatory-affairs-documents/gas-utility/fortisbc_generaltermsandconditions.pdf?sfvrsn=202bc0bf_20).

[10] From the English-language *Biomethane Variance Account (BVA)*: https://www.cdn.fortisbc.com/libraries/docs/default-source/about-us-documents/regulatory-affairs-documents/gas-utility/200430-fei-2019-bva-status-report-ff.pdf?sfvrsn=cde5cf25_2[11] Section 2.2 and Exhibit 3.1: http://www.vermontgas.com/wp-content/uploads/2019/09/2019-RNG-Manual-for-electronic-1.pdf.

RNG sales. Conversely, if VGS saw its RNG costs exceed customer demand, it would have to consider selling the excess quantities on the market or, as a last resort, turn to its regulator to determine an alternative cost recovery method.[11]

D. ENBRIDGE GAS INC.

As for Enbridge Gas Inc. (Enbridge), it has a voluntary RNG program[12] that is slated to begin in January 2021 as a pilot project. The program will allow a portion of Enbridge customers, namely residential and small business customers of its general system gas service, to pay a fixed amount of $2 per month. This contribution from voluntary customers will be used to fund purchases of RNG and the additional cost of purchasing RNG to replace natural gas for Enbridge's distribution system, and will help stimulate voluntary demand in the RNG market. Notably for reasons of administrative simplicity, the cost savings from CTEAS will be socialized to all clients.

[11] Section 2.2 and Exhibit 3.1: http://www.vermontgas.com/wp-content/uploads/2019/09/2019-RNG-Manual-for-electronic-1.pdf.

[12] *Voluntary Renewable Natural Gas Program* approved by Order EB-2020-0066 issued by the Ontario Energy Board (OEB).

APPENDIX 2
FACTOR CALCULATIONS

FB01S-GNR

Rate	Level	Volume – FB01F-RNG (10^3m^3) [1]	RNG volumes consumed – large emitters (10^3m^3)	Volume – FB01S-GNR (10^3m^3)	FB01S-RNG
D1	[0 - 365]			-	0,00%
D1	[365 - 1,095]			-	0,00%
D1	[1,095 - 3,650]	1 000	-	1 000	100,00%
D1	[3,650 - 10,950]			-	0,00%
D1	[10,950 - 36,500]			-	0,00%
D1	[36,500 - 109,500]			-	0,00%
D1	[109,500 - 365,000]			-	0,00%
D1	[365,000 - 1,095,000]			-	0,00%
D1	[1,095,000 - 3,650,000]			-	0,00%
D1	[3,650,000 - 10,950,000]			-	0,00%
D1	[10,950,000 - 36,500,000]			-	0,00%
D1	[36,500,000+]			-	0,00%
D303				-	0,00%
D304				-	0,00%
D305				-	0,00%
D406				-	0,00%
D407		20 000	20 000	-	0,00%
D408				-	0,00%
D409		20 000	20 000	-	0,00%
D410				-	0,00%
D505				-	0,00%
D506				-	0,00%
D507		19 000	19 000	-	0,00%
D508				-	0,00%
D509				-	0,00%
D535				-	0,00%
D536				-	0,00%
D537				-	0,00%
D538				-	0,00%
D539				-	0,00%
DR			-	-	0,00%
Total		**60 000**	**59 000**	**1 000**	**100,00%**

[1] Énergir is seeking approval of Factor FB01F-RNG in this document.

FB07S-GNR

Rate	Level	Revenues – CTEAS RNG ($)	FB07S-RNG
D1	[0 - 365]	- $	0,00%
D1	[365 - 1,095]	- $	0,00%
D1	[1,095 - 3,650]	250 $	100,00%
D1	[3,650 - 10,950]	- $	0,00%
D1	[10,950 - 36,500]	- $	0,00%
D1	[36,500 - 109,500]	- $	0,00%
D1	[109,500 - 365,000]	- $	0,00%
D1	[365,000 - 1,095,000]	- $	0,00%
D1	[1,095,000 - 3,650,000]	- $	0,00%
D1	[3,650,000 - 10,950,000]	- $	0,00%
D1	[10,950,000 - 36,500,000]	- $	0,00%
D1	[36,500,000+]	- $	0,00%
D303		- $	0,00%
D304		- $	0,00%
D305		- $	0,00%
D406		- $	0,00%
D407		- $	0,00%
D408		- $	0,00%
D409		- $	0,00%
D410		- $	0,00%
D505		- $	0,00%
D506		- $	0,00%
D507		- $	0,00%
D508		- $	0,00%
D509		- $	0,00%
D535		- $	0,00%
D536		- $	0,00%
D537		- $	0,00%
D538		- $	0,00%
D539		- $	0,00%
DR		- $	0,00%
Total		**250,00 $**	**100,00%**

FB01F-GNRINV

Rate	Level	Volume – FB01D (10^3m^3)	RNG Volume ≥ Regulation threshold (10^3m^3)	Volume – unsold RNG surcharge (10^3m^3)	FB01F-RNGINV
D1	[0 - 365]	4 377		4 377	0,07%
D1	[365 - 1,095]	23 133		23 133	0,39%
D1	[1,095 - 3,650]	171 105	1 000	170 105	2,87%
D1	[3,650 - 10,950]	197 479		197 479	3,34%
D1	[10,950 - 36,500]	402 792		402 792	6,80%
D1	[36,500 - 109,500]	523 097		523 097	8,84%
D1	[109,500 - 365,000]	529 905		529 905	8,95%
D1	[365,000 - 1,095,000]	387 244		387 244	6,54%
D1	[1,095,000 - 3,650,000]	319 101		319 101	5,39%
D1	[3,650,000 - 10,950,000]	93 631		93 631	1,58%
D1	[10,950,000 - 36,500,000]	37 878		37 878	0,64%
D1	[36,500,000+]	-		-	0,00%
D303		16 337		16 337	0,28%
D304		80 676		80 676	1,36%
D305		171 888		171 888	2,90%
D406		280 830		280 830	4,74%
D407		692 243	20 000	672 243	11,36%
D408		710 582		710 582	12,00%
D409		479 720	20 000	459 720	7,77%
D410		574 146		574 146	9,70%
D505		25 061		25 061	0,42%
D506		17 720		17 720	0,30%
D507		32 872	19 000	13 872	0,23%
D508		19 835		19 835	0,34%
D509		74 250		74 250	1,25%
D535		56 481		56 481	0,95%
D536		47 005		47 005	0,79%
D537		8 939		8 939	0,15%
D538		1 531		1 531	0,03%
D539		-		-	0,00%
DR		-	-	-	0,00%
Total		**5 979 860**	**60 000**	**5 919 860**	**100,00%**

FB07F-GNRINV

Rate	Level	Revenues – Unsold RNG surcharge ($)	FB07F-RNGINV
D1	[0 - 365]	832 $	0,07%
D1	[365 - 1,095]	4 395 $	0,39%
D1	[1,095 - 3,650]	32 320 $	2,87%
D1	[3,650 - 10,950]	37 521 $	3,34%
D1	[10,950 - 36,500]	76 530 $	6,80%
D1	[36,500 - 109,500]	99 388 $	8,84%
D1	[109,500 - 365,000]	100 682 $	8,95%
D1	[365,000 - 1,095,000]	73 576 $	6,54%
D1	[1,095,000 - 3,650,000]	60 629 $	5,39%
D1	[3,650,000 - 10,950,000]	17 790 $	1,58%
D1	[10,950,000 - 36,500,000]	7 197 $	0,64%
D1	[36,500,000+]	- $	0,00%
D303		3 104 $	0,28%
D304		15 328 $	1,36%
D305		32 659 $	2,90%
D406		53 358 $	4,74%
D407		127 726 $	11,36%
D408		135 011 $	12,00%
D409		87 347 $	7,77%
D410		109 088 $	9,70%
D505		4 762 $	0,42%
D506		3 367 $	0,30%
D507		2 636 $	0,23%
D508		3 769 $	0,34%
D509		14 108 $	1,25%
D535		10 731 $	0,95%
D536		8 931 $	0,79%
D537		1 698 $	0,15%
D538		291 $	0,03%
D539		- $	0,00%
DR		- $	0,00%
Total		**1 124 773 $**	**100,00%**

APPENDIX 3
EXAMPLES OF SERVICE COMBINATIONS

In the examples below, month 10 is October, and so on until month 9, which is September. In calculating the parameters, a 365-day year with equal months of 365/12 days is used.

Example 1 – 100% direct-purchase customer (existing situation allowed)

This first example transposes the total volumes consumed by the customer for the purpose of calculating the parameters used in the customer's load-balancing rate.

Month (1)	Actual consump. (2)	DCV (3)	TUD (4)	Consumption used in calculating load-balancing rate (5) = (2) – (3) + (4)
10	20,000	30,400	36,667	26,267
11	40,000	30,400	36,667	46,267
12	75,000	30,400	36,667	81,267
1	95,000	30,400	36,667	101,267
2	100,000	30,400	36,667	106,267
3	45,000	41,143	36,667	40,524
4	35,000	41,143	36,667	30,524
5	10,000	41,143	36,667	5,524
6	5,000	41,143	36,667	524
7	5,000	41,143	36,667	524
8	5,000	41,143	36,667	524
9	5,000	41,143	36,667	524
Total	**440,000**	**440,000**	**440,000**	**440,000**
A = 1,205 **W = 2,470** **S = 6,011**				

Example 2 – Customer with service combination of 10% RNG and 100% delivery of consumption (proposed situation)

This second example also transposes all volumes consumed by the customer. The same calculation parameters (A, W and S – autumn, winter, spring) making up the load-balancing rate are obtained.

Month (1)	Total actual consump. (2)	RNG portion of consump. (3) = 10% * (2)	Direct-purch. consump. portion (4) = (2) – (3)	DCV based on total (5)	TUD based on total (6)	Consump. used to calculate load-balancing rate (7) = (2) – (5) + (6)
10	20,000	2,000	18,000	30,400	36,667	26,267
11	40,000	4,000	36,000	30,400	36,667	46,267
12	75,000	7,500	67,500	30,400	36,667	81,267
1	95,000	9,500	85,500	30,400	36,667	101,267
2	100,000	10,000	90,000	30,400	36,667	106,267
3	45,000	4,500	40,500	41,143	36,667	40,524
4	35,000	3,500	31,500	41,143	36,667	30,524
5	10,000	1,000	9,000	41,143	36,667	5,524
6	5,000	500	4,500	41,143	36,667	524
7	5,000	500	4,500	41,143	36,667	524
8	5,000	500	4,500	41,143	36,667	524
9	5,000	500	4,500	41,143	36,667	524
Total	**440,000**	**44,000**	**396,000**	**440,000**	**440,000**	**440,000**
A = 1,205 **W = 2,470** **S = 6,011**						

Example 3 – Customer with service combination of 10% RNG and delivery equivalent to direct-purchase consumption portion (unfair situation)

Month (1)	Total actual consump. (2)	RNG portion of consump. (3) = 10 % * (2)	Direct-purch. consump. portion (4) = (2) – (3)	DCV direct-purch. portion (5)	TUD direct-purch. portion (6)	Consump. used to calculate load-balancing rate (7) = (3) + (4) – (5) + (6)
10	20,000	2,000	18,000	27,360	33,000	25,640
11	40,000	4,000	36,000	27,360	33,000	45,640
12	75,000	7,500	67,500	27,360	33,000	80,640
1	95,000	9,500	85,500	27,360	33,000	100,640
2	100,000	10,000	90,000	27,360	33,000	105,640
3	45,000	4,500	40,500	37,029	33,000	40,971
4	35,000	3,500	31,500	37,029	33,000	30,971
5	10,000	1,000	9,000	37,029	33,000	5,971
6	5,000	500	4,500	37,029	33,000	971
7	5,000	500	4,500	37,029	33,000	971
8	5,000	500	4,500	37,029	33,000	971
9	5,000	500	4,500	37,029	33,000	971
Total	**440,000**	**44,000**	**396,000**	**396,000**	**396,000**	**440,000**
A = 1,205 **W = 2,456** **S = 5,967**						

Example 4 – Customer with service combination of 10% RNG from October to May and 0% RNG from June to September and delivery equivalent to direct-purchase consumption portion (unfair situation)

Month (1)	Total actual consump. (2)	RNG portion of consump. (3) = X% * (2)	Direct-purch. consump. portion (4) = (2) – (3)	DCV direct-purch. portion (5)	TUD direct-purch. portion (6)	Consump. used to calculate load-balancing rate (7) = (3) + (4) – (5) + (6)
10	20,000	2,000	18,000	27,360	33,167	25,807
11	40,000	4,000	36,000	27,360	33,167	45,807
12	75,000	7,500	67,500	27,360	33,167	80,807
1	95,000	9,500	85,500	27,360	33,167	100,807
2	100,000	10,000	90,000	27,360	33,167	105,807
3	45,000	4,500	40,500	37,029	33,167	41,138
4	35,000	3,500	31,500	37,029	33,167	31,138
5	10,000	1,000	9,000	37,029	33,167	6,138
6	5,000	0	5,000	37,529	33,167	638
7	5,000	0	5,000	37,529	33,167	638
8	5,000	0	5,000	37,529	33,167	638
9	5,000	0	5,000	37,529	33,167	638
Total	**440,000**	**42,000**	**398,000**	**398,000**	**398,000**	**440,000**
A = 1,205 **W = 2,462** **S = 5,979**						

APPENDIX 4
MONTHLY BREAKDOWN OF INVENTORY, RATE AND DEA IMPACT SCENARIOS

LEXIQUE

Columns	Volume in inventory
1	Volume in inventory at the beginning of the period
2	Purchase volume for the period
3	Sales volume for the period
4	Volume in inventory at the end of the period
	Inventory value
5	Volume in inventory at the beginning of the period estimated at the current RNG rate
6	Revaluation of the volume in inventory at the beginning of the period based on the following formula: difference between the current RNG rate and the RNG rate from the previous period, multiplied by the volume in inventory at the beginning of the period
7	Purchase volume estimated at the current RNG rate
8	Sales volume estimated at the current RNG rate
9	Volume in inventory at the end of the period estimated at the current RNG rate
	Monitoring of RNG price difference DEA
10	Cumulative price difference at the beginning of the period
11	Acquisition cost for the purchase volume in column 2 based on the purchase price, net of the value of transportation for in-franchise purchases
12	Cost of the purchase volume estimated at the current RNG rate
13	Difference between the cost of column 11 and the cost of column 12
14	Consideration for the inventory revaluation in column 6
15	Interest capitalized on the balance of the previous period's deferred expense account (column 16) at the prospective capital cost
16	Cumulative price difference at the end of the period

Simulation: Basic scenario
Inventory and deferred expense account monitoring – Accumulated RNG price difference

Line	Year	Inventory volume (10^3m^3) Start (1)	Purchase (2)	Sale (3)	End (1)+(2)+(3) (4)	Inventory value ($000) Valuation: RNG annual rate Start (5)	Inv. reval. (6)	Purchase (7)	Sale (8)	End Σ(5)...(8) (9)	Accumulated RNG price difference deferred expense account monitoring ($000) Start (10)	Purchase at paid price (11)	Purchase at RNG rate (12)	Price difference (11)-(12) (13)	Inv. var. -(6) (14)	Interest (15)	End (10)+(13)+(14)+(15) (16)
1	2021																
2	October	11 000	4 000	(3 000)	12 000	5 610 $	- $	2 040 $	(1 530) $	6 120 $	- $	2 060 $	2 040 $	20 $	- $	- $	20 $
3	November	12 000	4 000	(4 000)	12 000	6 120 $		2 040 $	(2 040) $	6 120 $	20 $	2 060 $	2 040 $	20 $	- $	0 $	40 $
4	December	12 000	4 000	(6 000)	10 000	6 120 $		2 040 $	(3 060) $	5 100 $	40 $	2 060 $	2 040 $	20 $	- $	0 $	61 $
5	January	10 000	4 000	(8 000)	6 000	5 100 $		2 040 $	(4 080) $	3 060 $	61 $	2 060 $	2 040 $	20 $	- $	0 $	81 $
6	February	6 000	4 000	(7 000)	3 000	3 060 $		2 040 $	(3 570) $	1 530 $	81 $	2 060 $	2 040 $	20 $	- $	0 $	101 $
7	Mar.	3 000	4 000	(6 000)	1 000	1 530 $		2 040 $	(3 060) $	510 $	101 $	2 060 $	2 040 $	20 $	- $	1 $	122 $
8	April	1 000	4 000	(4 000)	1 000	510 $		2 040 $	(2 040) $	510 $	122 $	2 060 $	2 040 $	20 $	- $	1 $	143 $
9	May	1 000	4 000	(4 000)	1 000	510 $		2 040 $	(2 040) $	510 $	143 $	2 060 $	2 040 $	20 $	- $	1 $	164 $
10	June	1 000	4 000	(2 000)	3 000	510 $		2 040 $	(1 020) $	1 530 $	164 $	2 060 $	2 040 $	20 $	- $	1 $	185 $
11	July	3 000	4 000	(2 000)	5 000	1 530 $		2 040 $	(1 020) $	2 550 $	185 $	2 060 $	2 040 $	20 $	- $	1 $	206 $
12	Aug.	5 000	5 000	(2 000)	8 000	2 550 $		2 550 $	(1 020) $	4 080 $	206 $	2 575 $	2 550 $	25 $	- $	1 $	232 $
13	September	8 000	5 000	(2 000)	11 000	4 080 $		2 550 $	(1 020) $	5 610 $	232 $	2 575 $	2 550 $	25 $	- $	1 $	258 $
14	**Total**	**11 000**	**50 000**	**(50 000)**	**11 000**	**5 610 $**	**- $**	**25 500 $**	**(25 500) $**	**5 610 $**	**- $**	**25 750 $**	**25 500 $**	**250 $**	**- $**	**8 $**	**258 $**
15	*rate ¢/m³*					*51,00*		*51,00*	*51,00*	51,00		*51,50*	*51,00*				
16	**2022**																
17	October	11 000	5 000	(4 000)	12 000	5 610 $	110 $	2 600 $	(2 080) $	6 240 $	258 $	2 620 $	2 600 $	20 $	(110) $	1 $	170 $
18	November	12 000	5 000	(5 000)	12 000	6 240 $		2 600 $	(2 600) $	6 240 $	170 $	2 620 $	2 600 $	20 $	- $	1 $	190 $
19	December	12 000	5 000	(7 000)	10 000	6 240 $		2 600 $	(3 640) $	5 200 $	190 $	2 620 $	2 600 $	20 $	- $	1 $	211 $
20	January	10 000	5 000	(9 000)	6 000	5 200 $		2 600 $	(4 680) $	3 120 $	211 $	2 620 $	2 600 $	20 $	- $	1 $	232 $
21	February	6 000	5 000	(8 000)	3 000	3 120 $		2 600 $	(4 160) $	1 560 $	232 $	2 620 $	2 600 $	20 $	- $	1 $	254 $
22	Mar.	3 000	5 000	(7 000)	1 000	1 560 $		2 600 $	(3 640) $	520 $	254 $	2 620 $	2 600 $	20 $	- $	1 $	275 $
23	April	1 000	8 000	(6 000)	3 000	520 $		4 160 $	(3 120) $	1 560 $	275 $	4 192 $	4 160 $	32 $	- $	2 $	308 $
24	May	3 000	8 000	(6 000)	5 000	1 560 $		4 160 $	(3 120) $	2 600 $	308 $	4 192 $	4 160 $	32 $	- $	2 $	342 $
25	June	5 000	8 000	(4 000)	9 000	2 600 $		4 160 $	(2 080) $	4 680 $	342 $	4 192 $	4 160 $	32 $	- $	2 $	375 $
26	July	9 000	8 000	(4 000)	13 000	4 680 $		4 160 $	(2 080) $	6 760 $	375 $	4 192 $	4 160 $	32 $	- $	2 $	409 $
27	Aug.	13 000	8 000	(4 000)	17 000	6 760 $		4 160 $	(2 080) $	8 840 $	409 $	4 192 $	4 160 $	32 $	- $	2 $	443 $
28	September	17 000	8 000	(4 000)	21 000	8 840 $		4 160 $	(2 080) $	10 920 $	443 $	4 192 $	4 160 $	32 $	- $	2 $	477 $
29	**Total**	**11 000**	**78 000**	**(68 000)**	**21 000**	**5 610 $**	**110 $**	**40 560 $**	**(35 360) $**	**10 920 $**	**258 $**	**40 869 $**	**40 560 $**	**309 $**	**(110) $**	**20 $**	**477 $**
30	*rate ¢/m³*					*51,00*		*52,00*	*52,00*	52,00		*52,40*	*52,00*				
31	2023																
32	October	21 000	8 000	(8 000)	21 000	10 920 $	254 $	4 257 $	(4 257) $	11 174 $	477 $	4 265 $	4 257 $	8 $	(254) $	3 $	234 $
33	November	21 000	11 000	(10 000)	22 000	11 174 $		5 853 $	(5 321) $	11 706 $	234 $	5 864 $	5 853 $	11 $	- $	1 $	246 $
34	December	22 000	11 000	(14 000)	19 000	11 706 $		5 853 $	(7 449) $	10 110 $	246 $	5 864 $	5 853 $	11 $	- $	1 $	259 $
35	January	19 000	11 000	(18 000)	12 000	10 110 $		5 853 $	(9 578) $	6 385 $	259 $	5 864 $	5 853 $	11 $	- $	1 $	271 $
36	February	12 000	11 000	(16 000)	7 000	6 385 $		5 853 $	(8 513) $	3 725 $	271 $	5 864 $	5 853 $	11 $	- $	1 $	283 $
37	Mar.	7 000	11 000	(14 000)	4 000	3 725 $		5 853 $	(7 449) $	2 128 $	283 $	5 864 $	5 853 $	11 $	- $	2 $	296 $
38	April	4 000	11 000	(10 000)	5 000	2 128 $		5 853 $	(5 321) $	2 660 $	296 $	5 864 $	5 853 $	11 $	- $	2 $	308 $
39	May	5 000	11 000	(10 000)	6 000	2 660 $		5 853 $	(5 321) $	3 193 $	308 $	5 864 $	5 853 $	11 $	- $	2 $	321 $
40	June	6 000	11 000	(8 000)	9 000	3 193 $		5 853 $	(4 257) $	4 789 $	321 $	5 864 $	5 853 $	11 $	- $	2 $	334 $
41	July	9 000	11 000	(8 000)	12 000	4 789 $		5 853 $	(4 257) $	6 385 $	334 $	5 864 $	5 853 $	11 $	- $	2 $	346 $
42	Aug.	12 000	11 000	(8 000)	15 000	6 385 $		5 853 $	(4 257) $	7 981 $	346 $	5 864 $	5 853 $	11 $	- $	2 $	359 $
43	September	15 000	11 000	(8 000)	18 000	7 981 $		5 853 $	(4 257) $	9 578 $	359 $	5 864 $	5 853 $	11 $	- $	2 $	372 $
44	**Total**	**21 000**	**129 000**	**(132 000)**	**18 000**	**10 920 $**	**254 $**	**68 639 $**	**(70 235) $**	**9 578 $**	**477 $**	**68 767 $**	**68 639 $**	**128 $**	**(254) $**	**20 $**	**372 $**
45	*rate ¢/m³*					*52,00*		*53,21*	*53,21*	53,21		*53,31*	*53,21*				
46	2024																
47	October	18 000	11 000	(8 000)	21 000	9 578 $	127 $	5 930 $	(4 313) $	11 322 $	372 $	5 966 $	5 930 $	35 $	(127) $	2 $	283 $
48	November	21 000	11 000	(10 000)	22 000	11 322 $		5 930 $	(5 391) $	11 861 $	283 $	5 966 $	5 930 $	35 $	- $	2 $	320 $
49	December	22 000	11 000	(14 000)	19 000	11 861 $		5 930 $	(7 548) $	10 243 $	320 $	5 966 $	5 930 $	35 $	- $	2 $	357 $
50	January	19 000	11 000	(18 000)	12 000	10 243 $		5 930 $	(9 704) $	6 470 $	357 $	5 966 $	5 930 $	35 $	- $	2 $	395 $
51	February	12 000	11 000	(16 000)	7 000	6 470 $		5 930 $	(8 626) $	3 774 $	395 $	5 966 $	5 930 $	35 $	- $	2 $	432 $
52	Mar.	7 000	11 000	(14 000)	4 000	3 774 $		5 930 $	(7 548) $	2 157 $	432 $	5 966 $	5 930 $	35 $	- $	3 $	470 $
53	April	4 000	12 000	(10 000)	6 000	2 157 $		6 470 $	(5 391) $	3 235 $	470 $	6 508 $	6 470 $	39 $	- $	3 $	512 $
54	May	6 000	12 000	(10 000)	8 000	3 235 $		6 470 $	(5 391) $	4 313 $	512 $	6 508 $	6 470 $	39 $	- $	3 $	553 $
55	June	8 000	12 000	(8 000)	12 000	4 313 $		6 470 $	(4 313) $	6 470 $	553 $	6 508 $	6 470 $	39 $	- $	3 $	595 $
56	July	12 000	12 000	(8 000)	16 000	6 470 $		6 470 $	(4 313) $	8 626 $	595 $	6 508 $	6 470 $	39 $	- $	3 $	637 $
57	Aug.	16 000	12 000	(8 000)	20 000	8 626 $		6 470 $	(4 313) $	10 783 $	637 $	6 508 $	6 470 $	39 $	- $	4 $	679 $
58	September	20 000	12 000	(8 000)	24 000	10 783 $		6 470 $	(4 313) $	12 939 $	679 $	6 508 $	6 470 $	39 $	- $	4 $	722 $
59	**Total**	**18 000**	**138 000**	**(132 000)**	**24 000**	**9 578 $**	**127 $**	**74 400 $**	**(71 165) $**	**12 939 $**	**372 $**	**74 845 $**	**74 400 $**	**445 $**	**(127) $**	**32 $**	**722 $**
60	*rate ¢/m³*					*53,21*		*53,91*	*53,91*	53,91		*54,24*	*53,91*				
61	2025																
62	October	24 000	25 000	(23 000)	26 000	12 939 $	394 $	13 888 $	(12 777) $	14 444 $	722 $	13 795 $	13 888 $	(94) $	(394) $	4 $	238 $
63	November	26 000	25 000	(25 000)	26 000	14 444 $		13 888 $	(13 888) $	14 444 $	238 $	13 795 $	13 888 $	(94) $	- $	1 $	146 $
64	December	26 000	25 000	(29 000)	22 000	14 444 $		13 888 $	(16 110) $	12 222 $	146 $	13 795 $	13 888 $	(94) $	- $	0 $	52 $
65	January	22 000	25 000	(33 000)	14 000	12 222 $		13 888 $	(18 333) $	7 777 $	52 $	13 795 $	13 888 $	(94) $	- $	(0) $	(42) $
66	February	14 000	25 000	(31 000)	8 000	7 777 $		13 888 $	(17 222) $	4 444 $	(42) $	13 795 $	13 888 $	(94) $	- $	(1) $	(136) $
67	Mar.	8 000	25 000	(29 000)	4 000	4 444 $		13 888 $	(16 110) $	2 222 $	(136) $	13 795 $	13 888 $	(94) $	- $	(1) $	(231) $
68	April	4 000	25 000	(25 000)	4 000	2 222 $		13 888 $	(13 888) $	2 222 $	(231) $	13 795 $	13 888 $	(94) $	- $	(2) $	(326) $
69	May	4 000	25 000	(25 000)	4 000	2 222 $		13 888 $	(13 888) $	2 222 $	(326) $	13 795 $	13 888 $	(94) $	- $	(2) $	(422) $
70	June	4 000	25 000	(23 000)	6 000	2 222 $		13 888 $	(12 777) $	3 333 $	(422) $	13 795 $	13 888 $	(94) $	- $	(3) $	(518) $
71	July	6 000	25 000	(23 000)	8 000	3 333 $		13 888 $	(12 777) $	4 444 $	(518) $	13 795 $	13 888 $	(94) $	- $	(3) $	(615) $
72	Aug.	8 000	25 000	(23 000)	10 000	4 444 $		13 888 $	(12 777) $	5 555 $	(615) $	13 795 $	13 888 $	(94) $	- $	(4) $	(713) $
73	September	10 000	25 000	(23 000)	12 000	5 555 $		13 888 $	(12 777) $	6 666 $	(713) $	13 795 $	13 888 $	(94) $	- $	(4) $	(811) $
74	**Total**	**24 000**	**300 000**	**(312 000)**	**12 000**	**12 939 $**	**394 $**	**166 660 $**	**(173 327) $**	**6 666 $**	**722 $**	**165 537 $**	**166 660 $**	**(1 123) $**	**(394) $**	**(16) $**	**(811) $**
75	*rate ¢/m³*					*53,91*		*55,55*	*55,55*	55,55		*55,18*	*55,55*				

Simulation: Scenario 1 – Decrease in volumes sold
Inventory and deferred expense account monitoring – Accumulated RNG price difference

Line		Inventory volume ($10^3 m^3$)				Inventory value ($000) Valuation: RNG annual rate					Accumulated RNG price difference deferred expense account monitoring ($000)						
	Year	Start	Purchase	Sale	End (1)+(2)+(3)	Start	Inv. reval.	Purchase	Sale	End Σ(5)…(8)	Start	Purchase at paid price	Purchase at RNG rate	Price differential	Inv. var. -(6)	Interest	End (10)+(13)+(14)+(15)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1	2021																
2	October	11 000	4 000	(1 500)	13 500	5 610 $	- $	2 040 $	(765) $	6 885 $	- $	2 060 $	2 040 $	20 $	- $	- $	20 $
3	November	13 500	4 000	(2 000)	15 500	6 885 $		2 040 $	(1 020) $	7 905 $	20 $	2 060 $	2 040 $	20 $	- $	0 $	40 $
4	December	15 500	4 000	(3 000)	16 500	7 905 $		2 040 $	(1 530) $	8 415 $	40 $	2 060 $	2 040 $	20 $	- $	0 $	61 $
5	January	16 500	4 000	(4 000)	16 500	8 415 $		2 040 $	(2 040) $	8 415 $	61 $	2 060 $	2 040 $	20 $	- $	0 $	81 $
6	February	16 500	4 000	(3 500)	17 000	8 415 $		2 040 $	(1 785) $	8 670 $	81 $	2 060 $	2 040 $	20 $	- $	0 $	101 $
7	Mar.	17 000	4 000	(3 000)	18 000	8 670 $		2 040 $	(1 530) $	9 180 $	101 $	2 060 $	2 040 $	20 $	- $	1 $	122 $
8	April	18 000	4 000	(2 000)	20 000	9 180 $		2 040 $	(1 020) $	10 200 $	122 $	2 060 $	2 040 $	20 $	- $	1 $	143 $
9	May	20 000	4 000	(2 000)	22 000	10 200 $		2 040 $	(1 020) $	11 220 $	143 $	2 060 $	2 040 $	20 $	- $	1 $	164 $
10	June	22 000	4 000	(1 000)	25 000	11 220 $		2 040 $	(510) $	12 750 $	164 $	2 060 $	2 040 $	20 $	- $	1 $	185 $
11	July	25 000	4 000	(1 000)	28 000	12 750 $		2 040 $	(510) $	14 280 $	185 $	2 060 $	2 040 $	20 $	- $	1 $	206 $
12	Aug.	28 000	5 000	(1 000)	32 000	14 280 $		2 550 $	(510) $	16 320 $	206 $	2 575 $	2 550 $	25 $	- $	1 $	232 $
13	September	32 000	5 000	(1 000)	36 000	16 320 $		2 550 $	(510) $	18 360 $	232 $	2 575 $	2 550 $	25 $	- $	1 $	258 $
14	**Total**	**11 000**	**50 000**	**(25 000)**	**36 000**	**5 610 $**	**- $**	**25 500 $**	**(12 750) $**	**18 360 $**	**- $**	**25 750 $**	**25 500 $**	**250 $**	**- $**	**8 $**	**258 $**
15	*rate ¢/m³*					*51,00*		*51,00*	*51,00*	51,00		*51,50*	*51,00*				
16	**2022**																
17	October	36 000	5 000	(2 000)	39 000	18 360 $	360 $	2 600 $	(1 040) $	20 280 $	258 $	2 620 $	2 600 $	20 $	(360) $	1 $	(80) $
18	November	39 000	5 000	(2 500)	41 500	20 280 $		2 600 $	(1 300) $	21 580 $	(80) $	2 620 $	2 600 $	20 $	- $	(0) $	(61) $
19	December	41 500	5 000	(3 500)	43 000	21 580 $		2 600 $	(1 820) $	22 360 $	(61) $	2 620 $	2 600 $	20 $	- $	(0) $	(41) $
20	January	43 000	5 000	(4 500)	43 500	22 360 $		2 600 $	(2 340) $	22 620 $	(41) $	2 620 $	2 600 $	20 $	- $	(0) $	(22) $
21	February	43 500	5 000	(4 000)	44 500	22 620 $		2 600 $	(2 080) $	23 140 $	(22) $	2 620 $	2 600 $	20 $	- $	(0) $	(2) $
22	Mar.	44 500	5 000	(3 500)	46 000	23 140 $		2 600 $	(1 820) $	23 920 $	(2) $	2 620 $	2 600 $	20 $	- $	0 $	18 $
23	April	46 000	8 000	(3 000)	51 000	23 920 $		4 160 $	(1 560) $	26 520 $	18 $	4 192 $	4 160 $	32 $	- $	0 $	50 $
24	May	51 000	8 000	(3 000)	56 000	26 520 $		4 160 $	(1 560) $	29 120 $	50 $	4 192 $	4 160 $	32 $	- $	0 $	82 $
25	June	56 000	8 000	(2 000)	62 000	29 120 $		4 160 $	(1 040) $	32 240 $	82 $	4 192 $	4 160 $	32 $	- $	1 $	114 $
26	July	62 000	8 000	(2 000)	68 000	32 240 $		4 160 $	(1 040) $	35 360 $	114 $	4 192 $	4 160 $	32 $	- $	1 $	147 $
27	Aug.	68 000	8 000	(2 000)	74 000	35 360 $		4 160 $	(1 040) $	38 480 $	147 $	4 192 $	4 160 $	32 $	- $	1 $	180 $
28	September	74 000	8 000	(2 000)	80 000	38 480 $		4 160 $	(1 040) $	41 600 $	180 $	4 192 $	4 160 $	32 $	- $	1 $	212 $
29	**Total**	**36 000**	**78 000**	**(34 000)**	**80 000**	**18 360 $**	**360 $**	**40 560 $**	**(17 680) $**	**41 600 $**	**258 $**	**40 869 $**	**40 560 $**	**309 $**	**(360) $**	**5 $**	**212 $**
30	*rate ¢/m³*					*51,00*		*52,00*	*52,00*	52,00		*52,40*	*52,00*				
31	2023																
32	October	80 000		(4 000)	76 000	41 600 $	1 134 $	- $	(2 137) $	40 597 $	212 $	- $	- $	- $	(1 134) $	1 $	(920) $
33	November	76 000		(5 000)	71 000	40 597 $		- $	(2 671) $	37 926 $	(920) $	- $	- $	- $	- $	(5) $	(925) $
34	December	71 000		(7 000)	64 000	37 926 $		- $	(3 739) $	34 187 $	(925) $	- $	- $	- $	- $	(5) $	(930) $
35	January	64 000		(9 000)	55 000	34 187 $		- $	(4 808) $	29 379 $	(930) $	- $	- $	- $	- $	(5) $	(935) $
36	February	55 000		(8 000)	47 000	29 379 $		- $	(4 273) $	25 106 $	(935) $	- $	- $	- $	- $	(5) $	(940) $
37	Mar.	47 000		(7 000)	40 000	25 106 $		- $	(3 739) $	21 367 $	(940) $	- $	- $	- $	- $	(5) $	(945) $
38	April	40 000		(5 000)	35 000	21 367 $		- $	(2 671) $	18 696 $	(945) $	- $	- $	- $	- $	(5) $	(950) $
39	May	35 000		(5 000)	30 000	18 696 $		- $	(2 671) $	16 025 $	(950) $	- $	- $	- $	- $	(5) $	(955) $
40	June	30 000		(4 000)	26 000	16 025 $		- $	(2 137) $	13 888 $	(955) $	- $	- $	- $	- $	(5) $	(960) $
41	July	26 000		(4 000)	22 000	13 888 $		- $	(2 137) $	11 752 $	(960) $	- $	- $	- $	- $	(5) $	(965) $
42	Aug.	22 000		(4 000)	18 000	11 752 $		- $	(2 137) $	9 615 $	(965) $	- $	- $	- $	- $	(5) $	(970) $
43	September	18 000		(4 000)	14 000	9 615 $		- $	(2 137) $	7 478 $	(970) $	- $	- $	- $	- $	(5) $	(975) $
44	**Total**	**80 000**	**-**	**(66 000)**	**14 000**	**41 600 $**	**1 134 $**	**- $**	**(35 255) $**	**7 478 $**	**212 $**	**- $**	**- $**	**- $**	**(1 134) $**	**(54) $**	**(975) $**
45	*rate ¢/m³*					*52,00*			*53,42*	53,42							
46	2024																
47	October	14 000	5 000	(4 000)	15 000	7 478 $	32 $	2 682 $	(2 146) $	8 047 $	(975) $	2 712 $	2 682 $	29 $	(32) $	(5) $	(983) $
48	November	15 000	5 000	(5 000)	15 000	8 047 $		2 682 $	(2 682) $	8 047 $	(983) $	2 712 $	2 682 $	29 $	- $	(5) $	(959) $
49	December	15 000	5 000	(7 000)	13 000	8 047 $		2 682 $	(3 755) $	6 974 $	(959) $	2 712 $	2 682 $	29 $	- $	(5) $	(935) $
50	January	13 000	5 000	(9 000)	9 000	6 974 $		2 682 $	(4 828) $	4 828 $	(935) $	2 712 $	2 682 $	29 $	- $	(5) $	(910) $
51	February	9 000	5 000	(8 000)	6 000	4 828 $		2 682 $	(4 292) $	3 219 $	(910) $	2 712 $	2 682 $	29 $	- $	(4) $	(885) $
52	Mar.	6 000	5 000	(7 000)	4 000	3 219 $		2 682 $	(3 755) $	2 146 $	(885) $	2 712 $	2 682 $	29 $	- $	(5) $	(861) $
53	April	4 000	7 000	(5 000)	6 000	2 146 $		3 755 $	(2 682) $	3 219 $	(861) $	3 796 $	3 755 $	41 $	- $	(4) $	(824) $
54	May	6 000	7 000	(5 000)	8 000	3 219 $		3 755 $	(2 682) $	4 292 $	(824) $	3 796 $	3 755 $	41 $	- $	(4) $	(787) $
55	June	8 000	7 000	(4 000)	11 000	4 292 $		3 755 $	(2 146) $	5 901 $	(787) $	3 796 $	3 755 $	41 $	- $	(4) $	(749) $
56	July	11 000	7 000	(4 000)	14 000	5 901 $		3 755 $	(2 146) $	7 511 $	(749) $	3 796 $	3 755 $	41 $	- $	(4) $	(712) $
57	Aug.	14 000	7 000	(4 000)	17 000	7 511 $		3 755 $	(2 146) $	9 120 $	(712) $	3 796 $	3 755 $	41 $	- $	(3) $	(674) $
58	September	17 000	7 000	(4 000)	20 000	9 120 $		3 755 $	(2 146) $	10 730 $	(674) $	3 796 $	3 755 $	41 $	- $	(3) $	(637) $
59	**Total**	**14 000**	**72 000**	**(66 000)**	**20 000**	**7 478 $**	**32 $**	**38 627 $**	**(35 408) $**	**10 730 $**	**(975) $**	**39 049 $**	**38 627 $**	**422 $**	**(32) $**	**(52) $**	**(637) $**
60	*rate ¢/m³*					*53,42*		*53,65*	*53,65*	53,65		*54,24*	*53,65*				
61	2025																
62	October	20 000	11 000	(11 500)	19 500	10 730 $	206 $	6 015 $	(6 288) $	10 663 $	(637) $	6 070 $	6 015 $	55 $	(206) $	(4) $	(792) $
63	November	19 500	11 000	(12 500)	18 000	10 663 $		6 015 $	(6 835) $	9 843 $	(792) $	6 070 $	6 015 $	55 $	- $	(4) $	(741) $
64	December	18 000	11 000	(14 500)	14 500	9 843 $		6 015 $	(7 929) $	7 929 $	(741) $	6 070 $	6 015 $	55 $	- $	(4) $	(690) $
65	January	14 500	11 000	(16 500)	9 000	7 929 $		6 015 $	(9 022) $	4 921 $	(690) $	6 070 $	6 015 $	55 $	- $	(3) $	(638) $
66	February	9 000	11 000	(15 500)	4 500	4 921 $		6 015 $	(8 476) $	2 461 $	(638) $	6 070 $	6 015 $	55 $	- $	(3) $	(586) $
67	Mar.	4 500	11 000	(14 500)	1 000	2 461 $		6 015 $	(7 929) $	547 $	(586) $	6 070 $	6 015 $	55 $	- $	(3) $	(534) $
68	April	1 000	14 000	(12 500)	2 500	547 $		7 655 $	(6 835) $	1 367 $	(534) $	7 725 $	7 655 $	70 $	- $	(2) $	(467) $
69	May	2 500	14 000	(12 500)	4 000	1 367 $		7 655 $	(6 835) $	2 187 $	(467) $	7 725 $	7 655 $	70 $	- $	(2) $	(399) $
70	June	4 000	14 000	(11 500)	6 500	2 187 $		7 655 $	(6 288) $	3 554 $	(399) $	7 725 $	7 655 $	70 $	- $	(2) $	(331) $
71	July	6 500	14 000	(11 500)	9 000	3 554 $		7 655 $	(6 288) $	4 921 $	(331) $	7 725 $	7 655 $	70 $	- $	(1) $	(263) $
72	Aug.	9 000	14 000	(11 500)	11 500	4 921 $		7 655 $	(6 288) $	6 288 $	(263) $	7 725 $	7 655 $	70 $	- $	(1) $	(194) $
73	September	11 500	14 000	(11 500)	14 000	6 288 $		7 655 $	(6 288) $	7 655 $	(194) $	7 725 $	7 655 $	70 $	- $	(1) $	(125) $
74	**Total**	**20 000**	**150 000**	**(156 000)**	**14 000**	**10 730 $**	**206 $**	**82 021 $**	**(85 302) $**	**7 655 $**	**(637) $**	**82 769 $**	**82 021 $**	**747 $**	**(206) $**	**(29) $**	**(125) $**
75	*rate ¢/m³*					*53,65*		*54,68*	*54,68*	54,68		*55,18*	*54,68*				

Simulation: Scenario 2 – Decrease in volumes purchased
Inventory and deferred expense account monitoring – Accumulated RNG price difference

		Inventory volume (10^3m^3)				Inventory value ($000) Valuation: RNG annual rate					Accumulated RNG price difference deferred expense account monitoring ($000)						
Line	Year	Start	Purchase	Sale	End (1)+(2)+(3)	Start	Inv. reval.	Purchase	Sale	End Σ(5)...(8)	Start	Purchase at paid price	Purchase at RNG rate	Price differential	Inv. var. -(6)	Interest	End (10)+(13)+(14)+(15)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1	2021																
2	October	11 000	2 000	(3 000)	10 000	5 610 $	- $	1 020 $	(1 530) $	5 100 $	- $	1 030 $	1 020 $	10 $	- $	- $	10 $
3	November	10 000	2 000	(4 000)	8 000	5 100 $		1 020 $	(2 040) $	4 080 $	10 $	1 030 $	1 020 $	10 $	- $	0 $	20 $
4	December	8 000	2 000	(6 000)	4 000	4 080 $		1 020 $	(3 060) $	2 040 $	20 $	1 030 $	1 020 $	10 $	- $	0 $	30 $
5	January	4 000	2 000	(8 000)	(2 000)	2 040 $		1 020 $	(4 080) $	(1 020) $	30 $	1 030 $	1 020 $	10 $	- $	0 $	40 $
6	February	(2 000)	2 000	(7 000)	(7 000)	(1 020) $		1 020 $	(3 570) $	(3 570) $	40 $	1 030 $	1 020 $	10 $	- $	0 $	51 $
7	Mar.	(7 000)	2 000	(6 000)	(11 000)	(3 570) $		1 020 $	(3 060) $	(5 610) $	51 $	1 030 $	1 020 $	10 $	- $	0 $	61 $
8	April	(11 000)	2 000	(4 000)	(13 000)	(5 610) $		1 020 $	(2 040) $	(6 630) $	61 $	1 030 $	1 020 $	10 $	- $	0 $	71 $
9	May	(13 000)	2 000	(4 000)	(15 000)	(6 630) $		1 020 $	(2 040) $	(7 650) $	71 $	1 030 $	1 020 $	10 $	- $	0 $	82 $
10	June	(15 000)	2 000	(2 000)	(15 000)	(7 650) $		1 020 $	(1 020) $	(7 650) $	82 $	1 030 $	1 020 $	10 $	- $	0 $	92 $
11	July	(15 000)	2 000	(2 000)	(15 000)	(7 650) $		1 020 $	(1 020) $	(7 650) $	92 $	1 030 $	1 020 $	10 $	- $	1 $	103 $
12	Aug.	(15 000)	2 500	(2 000)	(14 500)	(7 650) $		1 275 $	(1 020) $	(7 395) $	103 $	1 288 $	1 275 $	13 $	- $	1 $	116 $
13	September	(14 500)	2 500	(2 000)	(14 000)	(7 395) $		1 275 $	(1 020) $	(7 140) $	116 $	1 288 $	1 275 $	13 $	- $	1 $	129 $
14	RF Sept			14 000	-				7 140 $	- $							
15	**Total**	**11 000**	**25 000**	**(36 000)**	**-**	**5 610 $**	**- $**	**12 750 $**	**(18 360) $**	**- $**	**- $**	**12 875 $**	**12 750 $**	**125 $**	**- $**	**4 $**	**129 $**
16	*rate ¢/m³*					*51,00*		*51,00*	*51,00*	51,00		*51,50*	*51,00*				
17	**2022**																
18	October	-	2 500	(4 000)	(1 500)	- $	- $	1 300 $	(2 080) $	(780) $	129 $	1 310 $	1 300 $	10 $	- $	1 $	140 $
19	November	(1 500)	2 500	(5 000)	(4 000)	(780) $		1 300 $	(2 600) $	(2 080) $	140 $	1 310 $	1 300 $	10 $	- $	1 $	151 $
20	December	(4 000)	2 500	(7 000)	(8 500)	(2 080) $		1 300 $	(3 640) $	(4 420) $	151 $	1 310 $	1 300 $	10 $	- $	1 $	161 $
21	January	(8 500)	2 500	(9 000)	(15 000)	(4 420) $		1 300 $	(4 680) $	(7 800) $	161 $	1 310 $	1 300 $	10 $	- $	1 $	172 $
22	February	(15 000)	2 500	(8 000)	(20 500)	(7 800) $		1 300 $	(4 160) $	(10 660) $	172 $	1 310 $	1 300 $	10 $	- $	1 $	183 $
23	Mar.	(20 500)	2 500	(7 000)	(25 000)	(10 660) $		1 300 $	(3 640) $	(13 000) $	183 $	1 310 $	1 300 $	10 $	- $	1 $	194 $
24	April	(25 000)	4 000	(6 000)	(27 000)	(13 000) $		2 080 $	(3 120) $	(14 040) $	194 $	2 096 $	2 080 $	16 $	- $	1 $	211 $
25	May	(27 000)	4 000	(6 000)	(29 000)	(14 040) $		2 080 $	(3 120) $	(15 080) $	211 $	2 096 $	2 080 $	16 $	- $	1 $	228 $
26	June	(29 000)	4 000	(4 000)	(29 000)	(15 080) $		2 080 $	(2 080) $	(15 080) $	228 $	2 096 $	2 080 $	16 $	- $	1 $	245 $
27	July	(29 000)	4 000	(4 000)	(29 000)	(15 080) $		2 080 $	(2 080) $	(15 080) $	245 $	2 096 $	2 080 $	16 $	- $	1 $	262 $
28	Aug.	(29 000)	4 000	(4 000)	(29 000)	(15 080) $		2 080 $	(2 080) $	(15 080) $	262 $	2 096 $	2 080 $	16 $	- $	1 $	280 $
29	September	(29 000)	4 000	(4 000)	(29 000)	(15 080) $		2 080 $	(2 080) $	(15 080) $	280 $	2 096 $	2 080 $	16 $	- $	2 $	297 $
30	RF Sept			29 000	-				15 080 $	- $							
31	**Total**	**-**	**39 000**	**(39 000)**	**-**	**- $**	**- $**	**20 280 $**	**(20 280) $**	**- $**	**129 $**	**20 434 $**	**20 280 $**	**154 $**	**- $**	**13 $**	**297 $**
32	*rate ¢/m³*							*52,00*	*52,00*	52,00		*52,40*	*52,00*				
33	2023																
34	October	-	3 000	(1 000)	2 000	- $	- $	1 600 $	(533) $	1 067 $	297 $	1 599 $	1 600 $	(1) $	- $	2 $	298 $
35	November	2 000	3 500	(2 000)	3 500	1 067 $		1 866 $	(1 067) $	1 866 $	298 $	1 866 $	1 866 $	(1) $	- $	2 $	299 $
36	December	3 500	3 500	(3 000)	4 000	1 866 $		1 866 $	(1 600) $	2 133 $	299 $	1 866 $	1 866 $	(1) $	- $	2 $	300 $
37	January	4 000	3 500	(4 000)	3 500	2 133 $		1 866 $	(2 133) $	1 866 $	300 $	1 866 $	1 866 $	(1) $	- $	2 $	301 $
38	February	3 500	3 500	(3 000)	4 000	1 866 $		1 866 $	(1 600) $	2 133 $	301 $	1 866 $	1 866 $	(1) $	- $	1 $	301 $
39	Mar.	4 000	3 500	(3 000)	4 500	2 133 $		1 866 $	(1 600) $	2 400 $	301 $	1 866 $	1 866 $	(1) $	- $	2 $	302 $
40	April	4 500	4 000	(5 000)	3 500	2 400 $		2 133 $	(2 666) $	1 866 $	302 $	2 132 $	2 133 $	(1) $	- $	2 $	303 $
41	May	3 500	4 000	(5 000)	2 500	1 866 $		2 133 $	(2 666) $	1 333 $	303 $	2 132 $	2 133 $	(1) $	- $	2 $	304 $
42	June	2 500	4 000	(4 000)	2 500	1 333 $		2 133 $	(2 133) $	1 333 $	304 $	2 132 $	2 133 $	(1) $	- $	2 $	305 $
43	July	2 500	4 000	(4 000)	2 500	1 333 $		2 133 $	(2 133) $	1 333 $	305 $	2 132 $	2 133 $	(1) $	- $	2 $	306 $
44	Aug.	2 500	4 000	(4 000)	2 500	1 333 $		2 133 $	(2 133) $	1 333 $	306 $	2 132 $	2 133 $	(1) $	- $	2 $	306 $
45	September	2 500	4 000	(4 000)	2 500	1 333 $		2 133 $	(2 133) $	1 333 $	306 $	2 132 $	2 133 $	(1) $	- $	2 $	307 $
46	**Total**	**-**	**44 500**	**(42 000)**	**2 500**	**- $**	**- $**	**23 731 $**	**(22 398) $**	**1 333 $**	**297 $**	**23 722 $**	**23 731 $**	**(9) $**	**- $**	**19 $**	**307 $**
47	*rate ¢/m³*							*53,33*	*53,33*	53,33		*53,31*	*53,33*				
48	2024																
49	October	2 500	7 000	(4 000)	5 500	1 333 $	15 $	3 774 $	(2 157) $	2 966 $	307 $	3 796 $	3 774 $	22 $	(15) $	2 $	316 $
50	November	5 500	7 000	(5 000)	7 500	2 966 $		3 774 $	(2 696) $	4 044 $	316 $	3 796 $	3 774 $	22 $	- $	2 $	340 $
51	December	7 500	7 000	(7 000)	7 500	4 044 $		3 774 $	(3 774) $	4 044 $	340 $	3 796 $	3 774 $	22 $	- $	2 $	364 $
52	January	7 500	7 000	(9 000)	5 500	4 044 $		3 774 $	(4 853) $	2 966 $	364 $	3 796 $	3 774 $	22 $	- $	2 $	388 $
53	February	5 500	7 000	(8 000)	4 500	2 966 $		3 774 $	(4 314) $	2 426 $	388 $	3 796 $	3 774 $	22 $	- $	2 $	412 $
54	Mar.	4 500	7 000	(8 000)	3 500	2 426 $		3 774 $	(4 314) $	1 887 $	412 $	3 796 $	3 774 $	22 $	- $	2 $	436 $
55	April	3 500	12 500	(9 000)	7 000	1 887 $		6 740 $	(4 853) $	3 774 $	436 $	6 779 $	6 740 $	39 $	- $	2 $	478 $
56	May	7 000	12 500	(9 000)	10 500	3 774 $		6 740 $	(4 853) $	5 662 $	478 $	6 779 $	6 740 $	39 $	- $	3 $	520 $
57	June	10 500	12 500	(10 000)	13 000	5 662 $		6 740 $	(5 392) $	7 010 $	520 $	6 779 $	6 740 $	39 $	- $	3 $	562 $
58	July	13 000	12 500	(10 000)	15 500	7 010 $		6 740 $	(5 392) $	8 358 $	562 $	6 779 $	6 740 $	39 $	- $	3 $	604 $
59	Aug.	15 500	12 500	(10 000)	18 000	8 358 $		6 740 $	(5 392) $	9 706 $	604 $	6 779 $	6 740 $	39 $	- $	3 $	647 $
60	September	18 000	12 500	(10 000)	20 500	9 706 $		6 740 $	(5 392) $	11 054 $	647 $	6 779 $	6 740 $	39 $	- $	4 $	690 $
61	**Total**	**2 500**	**117 000**	**(99 000)**	**20 500**	**1 333 $**	**15 $**	**63 088 $**	**(53 382) $**	**11 054 $**	**307 $**	**63 455 $**	**63 088 $**	**367 $**	**(15) $**	**30 $**	**690 $**
62	*rate ¢/m³*		138 000	(132 000)		*53,33*		*53,92*	*53,92*	53,92		*54,24*	*53,92*				
63	2025																
64	October	20 500	12 500	(11 500)	21 500	11 054 $	343 $	6 949 $	(6 393) $	11 953 $	690 $	6 897 $	6 949 $	(52) $	(343) $	4 $	299 $
65	November	21 500	12 500	(12 500)	21 500	11 953 $		6 949 $	(6 949) $	11 953 $	299 $	6 897 $	6 949 $	(52) $	- $	1 $	248 $
66	December	21 500	12 500	(14 500)	19 500	11 953 $		6 949 $	(8 061) $	10 841 $	248 $	6 897 $	6 949 $	(52) $	- $	1 $	198 $
67	January	19 500	12 500	(16 500)	15 500	10 841 $		6 949 $	(9 173) $	8 617 $	198 $	6 897 $	6 949 $	(52) $	- $	1 $	147 $
68	February	15 500	12 500	(15 500)	12 500	8 617 $		6 949 $	(8 617) $	6 949 $	147 $	6 897 $	6 949 $	(52) $	- $	0 $	95 $
69	Mar.	12 500	12 500	(14 500)	10 500	6 949 $		6 949 $	(8 061) $	5 837 $	95 $	6 897 $	6 949 $	(52) $	- $	0 $	43 $
70	April	10 500	12 500	(12 500)	10 500	5 837 $		6 949 $	(6 949) $	5 837 $	43 $	6 897 $	6 949 $	(52) $	- $	(0) $	(8) $
71	May	10 500	12 500	(12 500)	10 500	5 837 $		6 949 $	(6 949) $	5 837 $	(8) $	6 897 $	6 949 $	(52) $	- $	(0) $	(61) $
72	June	10 500	12 500	(11 500)	11 500	5 837 $		6 949 $	(6 393) $	6 393 $	(61) $	6 897 $	6 949 $	(52) $	- $	(1) $	(113) $
73	July	11 500	12 500	(11 500)	12 500	6 393 $		6 949 $	(6 393) $	6 949 $	(113) $	6 897 $	6 949 $	(52) $	- $	(1) $	(166) $
74	Aug.	12 500	12 500	(11 500)	13 500	6 949 $		6 949 $	(6 393) $	7 505 $	(166) $	6 897 $	6 949 $	(52) $	- $	(1) $	(219) $
75	September	13 500	12 500	(11 500)	14 500	7 505 $		6 949 $	(6 393) $	8 061 $	(219) $	6 897 $	6 949 $	(52) $	- $	(1) $	(272) $
76	**Total**	**20 500**	**150 000**	**(156 000)**	**14 500**	**11 054 $**	**343 $**	**83 391 $**	**(86 726) $**	**8 061 $**	**690 $**	**82 769 $**	**83 391 $**	**(622) $**	**(343) $**	**3 $**	**(272) $**
77	*rate ¢/m³*					*53,92*		*55,59*	*55,59*	55,59		*55,18*	*55,59*				

Simulation: Scenario 3 – Purchase price increase
Inventory and deferred expense account monitoring – Accumulated RNG price difference

		Inventory volume (10^3m^3)				Inventory value ($000) Valuation: RNG annual rate					Accumulated RNG price difference deferred expense account monitoring ($000)						
Line	Year	Start	Purchase	Sale	End (1)+(2)+(3)	Start	Inv. reval.	Purchase	Sale	End Σ(5)…(8)	Start	Purchase at paid price	Purchase at RNG rate	Price differential	Inv. var. -(6)	Interest	End (10)+(13)+(14)+(15)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1	2021																
2	October	11 000	4 000	(3 000)	12 000	5 610 $	- $	2 040 $	(1 530) $	6 120 $	- $	2 060 $	2 040 $	20 $	- $	- $	20 $
3	November	12 000	4 000	(4 000)	12 000	6 120 $		2 040 $	(2 040) $	6 120 $	20 $	2 060 $	2 040 $	20 $	- $	0 $	40 $
4	December	12 000	4 000	(6 000)	10 000	6 120 $		2 040 $	(3 060) $	5 100 $	40 $	2 060 $	2 040 $	20 $	- $	0 $	61 $
5	January	10 000	4 000	(8 000)	6 000	5 100 $		2 040 $	(4 080) $	3 060 $	61 $	2 060 $	2 040 $	20 $	- $	0 $	81 $
6	February	6 000	4 000	(7 000)	3 000	3 060 $		2 040 $	(3 570) $	1 530 $	81 $	2 060 $	2 040 $	20 $	- $	0 $	101 $
7	Mar.	3 000	4 000	(6 000)	1 000	1 530 $		2 040 $	(3 060) $	510 $	101 $	2 060 $	2 040 $	20 $	- $	1 $	122 $
8	April	1 000	4 000	(4 000)	1 000	510 $		2 040 $	(2 040) $	510 $	122 $	2 060 $	2 040 $	20 $	- $	1 $	143 $
9	May	1 000	4 000	(4 000)	1 000	510 $		2 040 $	(2 040) $	510 $	143 $	2 060 $	2 040 $	20 $	- $	1 $	164 $
10	June	1 000	4 000	(2 000)	3 000	510 $		2 040 $	(1 020) $	1 530 $	164 $	2 060 $	2 040 $	20 $	- $	1 $	185 $
11	July	3 000	4 000	(2 000)	5 000	1 530 $		2 040 $	(1 020) $	2 550 $	185 $	2 060 $	2 040 $	20 $	- $	1 $	206 $
12	Aug.	5 000	5 000	(2 000)	8 000	2 550 $		2 550 $	(1 020) $	4 080 $	206 $	2 575 $	2 550 $	25 $	- $	1 $	232 $
13	September	8 000	5 000	(2 000)	11 000	4 080 $		2 550 $	(1 020) $	5 610 $	232 $	2 575 $	2 550 $	25 $	- $	1 $	258 $
14	**Total**	**11 000**	**50 000**	**(50 000)**	**11 000**	**5 610 $**	**- $**	**25 500 $**	**(25 500) $**	**5 610 $**	**- $**	**25 750 $**	**25 500 $**	**250 $**	**- $**	**8 $**	**258 $**
15	*rate ¢/m³*					*51,00*		*51,00*	*51,00*	51,00		*51,50*	*51,00*				
16	**2022**																
17	October	11 000	5 000	(4 000)	12 000	5 610 $	110 $	2 600 $	(2 080) $	6 240 $	258 $	3 392 $	2 600 $	792 $	(110) $	1 $	942 $
18	November	12 000	5 000	(5 000)	12 000	6 240 $		2 600 $	(2 600) $	6 240 $	942 $	3 392 $	2 600 $	792 $	- $	9 $	1 743 $
19	December	12 000	5 000	(7 000)	10 000	6 240 $		2 600 $	(3 640) $	5 200 $	1 743 $	3 392 $	2 600 $	792 $	- $	14 $	2 548 $
20	January	10 000	5 000	(9 000)	6 000	5 200 $		2 600 $	(4 680) $	3 120 $	2 548 $	3 392 $	2 600 $	792 $	- $	18 $	3 358 $
21	February	6 000	5 000	(8 000)	3 000	3 120 $		2 600 $	(4 160) $	1 560 $	3 358 $	3 392 $	2 600 $	792 $	- $	20 $	4 171 $
22	Mar.	3 000	5 000	(7 000)	1 000	1 560 $		2 600 $	(3 640) $	520 $	4 171 $	3 392 $	2 600 $	792 $	- $	27 $	4 989 $
23	April	1 000	8 000	(6 000)	3 000	520 $		4 160 $	(3 120) $	1 560 $	4 989 $	5 427 $	4 160 $	1 267 $	- $	33 $	6 289 $
24	May	3 000	8 000	(6 000)	5 000	1 560 $		4 160 $	(3 120) $	2 600 $	6 289 $	5 427 $	4 160 $	1 267 $	- $	41 $	7 597 $
25	June	5 000	8 000	(4 000)	9 000	2 600 $		4 160 $	(2 080) $	4 680 $	7 597 $	5 427 $	4 160 $	1 267 $	- $	46 $	8 910 $
26	July	9 000	8 000	(4 000)	13 000	4 680 $		4 160 $	(2 080) $	6 760 $	8 910 $	5 427 $	4 160 $	1 267 $	- $	55 $	10 232 $
27	Aug.	13 000	8 000	(4 000)	17 000	6 760 $		4 160 $	(2 080) $	8 840 $	10 232 $	5 427 $	4 160 $	1 267 $	- $	62 $	11 561 $
28	September	17 000	8 000	(4 000)	21 000	8 840 $		4 160 $	(2 080) $	10 920 $	11 561 $	5 427 $	4 160 $	1 267 $	- $	67 $	12 894 $
29	**Total**	**11 000**	**78 000**	**(68 000)**	**21 000**	**5 610 $**	**110 $**	**40 560 $**	**(35 360) $**	**10 920 $**	**258 $**	**52 911 $**	**40 560 $**	**12 351 $**	**(110) $**	**395 $**	**12 894 $**
30	*rate ¢/m³*					*51,00*		*52,00*	*52,00*	52,00		*67,84*	*52,00*				
31	2023																
32	October	21 000	8 000	(8 000)	21 000	10 920 $	254 $	4 257 $	(4 257) $	11 174 $	12 894 $	4 265 $	4 257 $	8 $	(254) $	71 $	12 720 $
33	November	21 000	11 000	(10 000)	22 000	11 174 $		5 853 $	(5 321) $	11 706 $	12 720 $	5 864 $	5 853 $	11 $	- $	68 $	12 798 $
34	December	22 000	11 000	(14 000)	19 000	11 706 $		5 853 $	(7 449) $	10 110 $	12 798 $	5 864 $	5 853 $	11 $	- $	70 $	12 879 $
35	January	19 000	11 000	(18 000)	12 000	10 110 $		5 853 $	(9 578) $	6 385 $	12 879 $	5 864 $	5 853 $	11 $	- $	70 $	12 960 $
36	February	12 000	11 000	(16 000)	7 000	6 385 $		5 853 $	(8 513) $	3 725 $	12 960 $	5 864 $	5 853 $	11 $	- $	63 $	13 034 $
37	Mar.	7 000	11 000	(14 000)	4 000	3 725 $		5 853 $	(7 449) $	2 128 $	13 034 $	5 864 $	5 853 $	11 $	- $	70 $	13 115 $
38	April	4 000	11 000	(10 000)	5 000	2 128 $		5 853 $	(5 321) $	2 660 $	13 115 $	5 864 $	5 853 $	11 $	- $	68 $	13 194 $
39	May	5 000	11 000	(10 000)	6 000	2 660 $		5 853 $	(5 321) $	3 193 $	13 194 $	5 864 $	5 853 $	11 $	- $	70 $	13 275 $
40	June	6 000	11 000	(8 000)	9 000	3 193 $		5 853 $	(4 257) $	4 789 $	13 275 $	5 864 $	5 853 $	11 $	- $	68 $	13 354 $
41	July	9 000	11 000	(8 000)	12 000	4 789 $		5 853 $	(4 257) $	6 385 $	13 354 $	5 864 $	5 853 $	11 $	- $	70 $	13 436 $
42	Aug.	12 000	11 000	(8 000)	15 000	6 385 $		5 853 $	(4 257) $	7 981 $	13 436 $	5 864 $	5 853 $	11 $	- $	70 $	13 517 $
43	September	15 000	11 000	(8 000)	18 000	7 981 $		5 853 $	(4 257) $	9 578 $	13 517 $	5 864 $	5 853 $	11 $	- $	68 $	13 596 $
44	**Total**	**21 000**	**129 000**	**(132 000)**	**18 000**	**10 920 $**	**254 $**	**68 639 $**	**(70 235) $**	**9 578 $**	**12 894 $**	**68 767 $**	**68 639 $**	**128 $**	**(254) $**	**827 $**	**13 596 $**
45	*rate ¢/m³*					*52,00*		*53,21*	*53,21*	53,21		*53,31*	*53,21*				
46	2024																
47	October	18 000	11 000	(8 000)	21 000	9 578 $	1 930 $	7 032 $	(5 115) $	13 426 $	13 596 $	5 966 $	7 032 $	(1 067) $	(1 930) $	75 $	10 675 $
48	November	21 000	11 000	(10 000)	22 000	13 426 $		7 032 $	(6 393) $	14 065 $	10 675 $	5 966 $	7 032 $	(1 067) $	- $	51 $	9 659 $
49	December	22 000	11 000	(14 000)	19 000	14 065 $		7 032 $	(8 950) $	12 147 $	9 659 $	5 966 $	7 032 $	(1 067) $	- $	47 $	8 639 $
50	January	19 000	11 000	(18 000)	12 000	12 147 $		7 032 $	(11 508) $	7 672 $	8 639 $	5 966 $	7 032 $	(1 067) $	- $	41 $	7 613 $
51	February	12 000	11 000	(16 000)	7 000	7 672 $		7 032 $	(10 229) $	4 475 $	7 613 $	5 966 $	7 032 $	(1 067) $	- $	32 $	6 578 $
52	Mar.	7 000	11 000	(14 000)	4 000	4 475 $		7 032 $	(8 950) $	2 557 $	6 578 $	5 966 $	7 032 $	(1 067) $	- $	29 $	5 541 $
53	April	4 000	12 000	(10 000)	6 000	2 557 $		7 672 $	(6 393) $	3 836 $	5 541 $	6 508 $	7 672 $	(1 164) $	- $	22 $	4 399 $
54	May	6 000	12 000	(10 000)	8 000	3 836 $		7 672 $	(6 393) $	5 115 $	4 399 $	6 508 $	7 672 $	(1 164) $	- $	16 $	3 252 $
55	June	8 000	12 000	(8 000)	12 000	5 115 $		7 672 $	(5 115) $	7 672 $	3 252 $	6 508 $	7 672 $	(1 164) $	- $	9 $	2 098 $
56	July	12 000	12 000	(8 000)	16 000	7 672 $		7 672 $	(5 115) $	10 229 $	2 098 $	6 508 $	7 672 $	(1 164) $	- $	3 $	938 $
57	Aug.	16 000	12 000	(8 000)	20 000	10 229 $		7 672 $	(5 115) $	12 786 $	938 $	6 508 $	7 672 $	(1 164) $	- $	(3) $	(229) $
58	September	20 000	12 000	(8 000)	24 000	12 786 $		7 672 $	(5 115) $	15 344 $	(229) $	6 508 $	7 672 $	(1 164) $	- $	(9) $	(1 401) $
59	**Total**	**18 000**	**138 000**	**(132 000)**	**24 000**	**9 578 $**	**1 930 $**	**88 225 $**	**(84 389) $**	**15 344 $**	**13 596 $**	**74 845 $**	**88 225 $**	**(13 381) $**	**(1 930) $**	**313 $**	**(1 401) $**
60	*rate ¢/m³*					*53,21*		*63,93*	*63,93*	63,93		*54,24*	*63,93*				
61	2025																
62	October	24 000	25 000	(23 000)	26 000	15 344 $	(2 011) $	13 888 $	(12 777) $	14 444 $	(1 401) $	13 795 $	13 888 $	(94) $	2 011 $	(8) $	508 $
63	November	26 000	25 000	(25 000)	26 000	14 444 $		13 888 $	(13 888) $	14 444 $	508 $	13 795 $	13 888 $	(94) $	- $	2 $	417 $
64	December	26 000	25 000	(29 000)	22 000	14 444 $		13 888 $	(16 111) $	12 222 $	417 $	13 795 $	13 888 $	(94) $	- $	2 $	325 $
65	January	22 000	25 000	(33 000)	14 000	12 222 $		13 888 $	(18 333) $	7 777 $	325 $	13 795 $	13 888 $	(94) $	- $	1 $	232 $
66	February	14 000	25 000	(31 000)	8 000	7 777 $		13 888 $	(17 222) $	4 444 $	232 $	13 795 $	13 888 $	(94) $	- $	1 $	139 $
67	Mar.	8 000	25 000	(29 000)	4 000	4 444 $		13 888 $	(16 111) $	2 222 $	139 $	13 795 $	13 888 $	(94) $	- $	0 $	46 $
68	April	4 000	25 000	(25 000)	4 000	2 222 $		13 888 $	(13 888) $	2 222 $	46 $	13 795 $	13 888 $	(94) $	- $	(0) $	(48) $
69	May	4 000	25 000	(25 000)	4 000	2 222 $		13 888 $	(13 888) $	2 222 $	(48) $	13 795 $	13 888 $	(94) $	- $	(1) $	(142) $
70	June	4 000	25 000	(23 000)	6 000	2 222 $		13 888 $	(12 777) $	3 333 $	(142) $	13 795 $	13 888 $	(94) $	- $	(1) $	(237) $
71	July	6 000	25 000	(23 000)	8 000	3 333 $		13 888 $	(12 777) $	4 444 $	(237) $	13 795 $	13 888 $	(94) $	- $	(2) $	(332) $
72	Aug.	8 000	25 000	(23 000)	10 000	4 444 $		13 888 $	(12 777) $	5 555 $	(332) $	13 795 $	13 888 $	(94) $	- $	(2) $	(428) $
73	September	10 000	25 000	(23 000)	12 000	5 555 $		13 888 $	(12 777) $	6 666 $	(428) $	13 795 $	13 888 $	(94) $	- $	(3) $	(525) $
74	**Total**	**24 000**	**300 000**	**(312 000)**	**12 000**	**15 344 $**	**(2 011) $**	**166 660 $**	**(173 327) $**	**6 666 $**	**(1 401) $**	**165 537 $**	**166 660 $**	**(1 123) $**	**2 011 $**	**(11) $**	**(525) $**
75	*rate ¢/m³*					*63,93*		*55,55*	*55,55*	55,55		*55,18*	*55,55*				