

**MEASURES CONCERNING THE PURCHASE AND  
SALE OF RENEWABLE NATURAL GAS**

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## **INTRODUCTION**

Gaz Métro Limited Partnership (“Gaz Métro”) is filing an application with the Régie de l’énergie (the “Régie”) to approve various measures concerning the purchase and sale of renewable natural gas (RNG) so that it can be injected into the distributor’s network.

As explained in file R-3972-2016 concerning the Régie’s public consultation regarding the measures likely to improve rate practices in the electricity and natural gas sectors<sup>1</sup> (“public consultation regarding rate practices”), Gaz Métro believes that increasing the supply of renewable energies such as RNG is a major opportunity and even a necessity for the company and its customers. Integrating renewable energy options into the gas network will enable Gaz Métro’s distribution service to remain an attractive long-term alternative, even beyond the point when more polluting forms of energy have been replaced. More specifically:

- By developing the RNG sector, Gaz Métro will be able to help achieve the objectives of the Québec government’s 2030 Energy Policy (“Energy Policy”), especially as they relate to fostering a low-carbon economy, promoting responsible consumption and stimulating technological innovation. In addition, RNG will help achieve some of the Energy Policy’s targets, namely to increase total production of renewable energy by 25% and increase bioenergy production by 50%.
- Lastly, the *Act to implement the 2030 Energy Policy and to amend various legislative provisions*, which was passed by the National Assembly on December 10, 2016, amended section 72 of the *Act respecting the Régie de l’énergie*, which now reads as follows:

*“With the exception of private electric power systems, a holder of exclusive electric power or natural gas distribution rights shall prepare and submit to the Régie for approval, according to the form, tenor and intervals fixed by regulation of the Régie, a supply plan describing the characteristics of the contracts the holder intends to enter into in order to meet the needs of Québec markets following the implementation of the energy efficiency measures. The supply plan shall be prepared having regard to*

*(1) the risks inherent in the sources of supply chosen by the holder;*

*(2) as concerns any particular source of electric power, the energy block established by regulation of the Government under subparagraph 2.1 of the first paragraph of section 112; and*

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<sup>1</sup> R-3972-2016, C-GM-0003, Gaz Métro – 1, Document 1, section 5.2.

(3) as concerns natural gas supply,

(a) the excess transmission capacity the holder considers necessary to facilitate the development of industrial activities, which shall not be greater than 10% of the quantity of natural gas that the holder expects to deliver annually; and

(b) the quantity of renewable natural gas determined by regulation of the Government under subparagraph 4 of the first paragraph of section 112.

*When examining a supply plan for approval, the Régie shall consider such economic, social and environmental concerns as have been identified by order by the Government.”*

[our underlining]

The 2017–2020 Action Plan arising from the 2030 Energy Policy (“2017–2020 Action Plan”) and released by the Québec government on June 26, 2017 includes the following: “*In 2017, adopt a regulation establishing 5% as the minimum proportion of renewable natural gas that Québec natural gas distributors must inject in their distribution network for clients in Québec.*”<sup>2</sup> The action plan sets 2020 as the deadline (target) for reaching that 5% threshold.

- In addition, the development of RNG will benefit Gaz Métro’s customers. Recognizing RNG’s environmental value will help reduce customers’ greenhouse gas (GHG) emissions; this is especially important for markets that are sensitive to the government’s measures. This recognition will therefore ensure that the pool of existing customers is maintained over the long term by protecting volumes that would otherwise have been lost to other energy sources, thus keeping distribution rates competitive.
- The RNG produced in Québec will also enable Gaz Métro to diversify its supply sources. By purchasing RNG produced in Québec, Gaz Métro will stimulate the Québec economy and local consumption as well as reduce the transmission capacity needed to meet its customers’ needs.
- As a public utility, Gaz Métro is pleased to put its natural gas network to use in promising RNG projects that promote the circular economy and communities’ energy self-sufficiency.

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<sup>2</sup> Action 37, p. 3, [https://politiqueenergetique.gouv.qc.ca/wp-content/uploads/Tableau-PA-PE2030\\_ANG.pdf](https://politiqueenergetique.gouv.qc.ca/wp-content/uploads/Tableau-PA-PE2030_ANG.pdf)

For all these reasons, which will be described in more detail below, Gaz Métro needs to implement new measures concerning the purchase and sale of RNG in its natural gas network. From that perspective, the first step was to amend the *Conditions of Service and Tariff* (“CST”) so that a free market could more easily exist between RNG producers and the customers interested in using RNG.<sup>3</sup> In phase 1 of the 2018 rate case, Gaz Métro asked the Régie to allow the combination of supply and transmission services so that customers who want to purchase directly from RNG producers can use the distributor’s supply service as a complement to their total consumption. An application was also filed to ease the penalties concerning volume imbalances for customers who use in-franchise produced RNG. The Régie approved<sup>4</sup> those applications.

Gaz Métro is now looking to expand the supply of RNG in Québec and make it available to as many customers as possible. In doing so, the distributor has two objectives:

1. For customers: Facilitate voluntary RNG consumption for customers interested in developing that renewable energy option.
2. For producers: Send a price signal that encourages producers to boost RNG production.

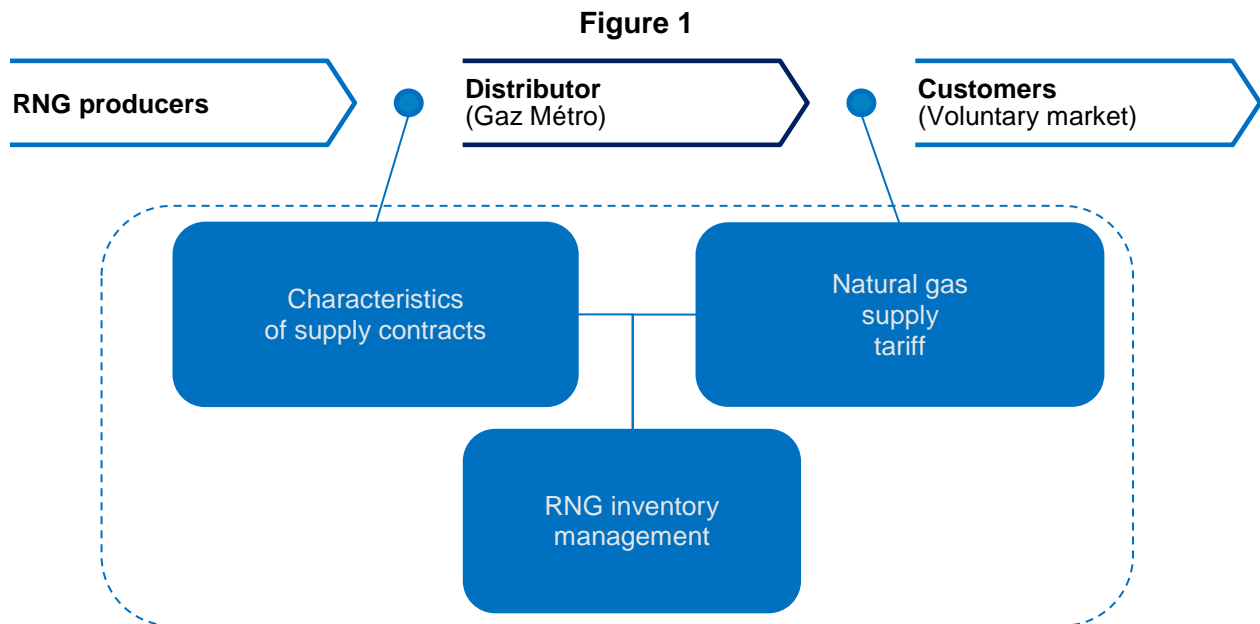
The measures proposed in order to reach those intrinsically linked objectives are divided into three main segments. In the first segment, which covers RNG purchases, Gaz Métro outlines the characteristics of the supply contracts that it intends to sign with RNG producers, subject to the Régie’s approval. For that purpose, Gaz Métro has hired *Aviso Conseil Inc.* (“Aviso”), a firm with the necessary expertise, to come up with a Québec RNG rate strategy that will help develop the sector in Québec.<sup>5</sup> The second segment addresses the implementation of an RNG tariff for voluntary purchases by customers. And the third segment focuses on managing the RNG inventory.

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<sup>3</sup> R-3987-2016, B-0069, Gaz Métro – 2, Document 1.

<sup>4</sup> D-2017-041, section 2.

<sup>5</sup> Report included in Appendix 1.



This document also describes the proposed functionalization to recover RNG purchase costs and the necessary CST amendments to reflect the distributor's applications. The various purchase mechanisms and RNG voluntary consumption models have also been benchmarked. Before discussing those elements, the document gives an overview of Québec's RNG sector, including the main factors holding back development.

## 1 QUÉBEC'S RNG SECTOR

### 1.1 PRODUCTION POTENTIAL

Sylvain Audette, who is the Régie's expert for the public consultation regarding rate practices, has noted that there is no status report or official inventory of proposed or completed RNG projects in Québec.<sup>6</sup> Based on the facts available to Gaz Métro, RNG production in Québec is currently limited to three sites totalling nearly 100 Mm<sup>3</sup> per year. Two landfills (EBI Énergie Inc. and Vision Enviro Progressive Montréal) produce the vast majority of those volumes. The other site is run by the City of Saint-Hyacinthe and should start injecting RNG into Gaz Métro's network in 2017.

<sup>6</sup> R-3872-2016, A-0012, Expert report, p. 95.

However, based on the analysis done by Gaz Métro, there is more potential for RNG production. RNG could be produced by various methods in Québec. First, organic waste from the brown bins used by individuals, businesses, institutions, industries or wastewater treatment plants could be processed by biomethanization in anaerobic digesters. In fact, municipal biomethanization projects are among the most likely sources of RNG injected into the natural gas network in the short term. In the Québec Policy on Residual Materials,<sup>7</sup> the Québec government has made a commitment to develop a strategy to prohibit the disposal of putrescible organic material.<sup>8</sup> One of the solutions is through biomethanization. Gaz Métro estimates that the potential RNG produced by cities could ultimately reach 72 Mm<sup>3</sup>, including brown bins, the industrial, commercial and institutional (ICI) sector and municipal sludge.

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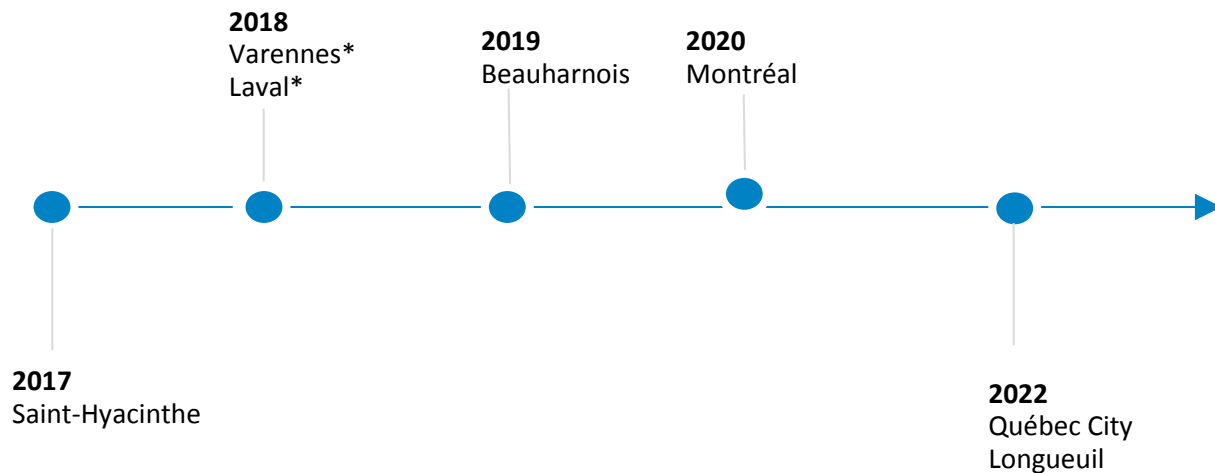
<sup>7</sup> [http://www.mddelcc.gouv.qc.ca/matieres/pgmr/index\\_en.htm](http://www.mddelcc.gouv.qc.ca/matieres/pgmr/index_en.htm).

<sup>8</sup> In the partnership agreement between the municipalities and the Québec government, the government agreed to extend the deadline for launching operations at treatment facilities subsidized by the *Programme de traitement des matières organiques par biométhanisation et compostage* [Program for processing organic matter by biomethanization and composting] from December 31, 2019 to December 31, 2022, subject to an equivalent postponement by the federal government for the deadline for recognizing eligible expenses incurred by applicants under the Green Infrastructure Fund.



Figure 2

**Location of several municipal RNG sites  
based on estimated commissioning year**



Sources: Liste des projets municipaux à venir<sup>9</sup> et estimation de mise en service par Gaz Métro

[List of upcoming municipal projects and Gaz Métro commissioning estimates]

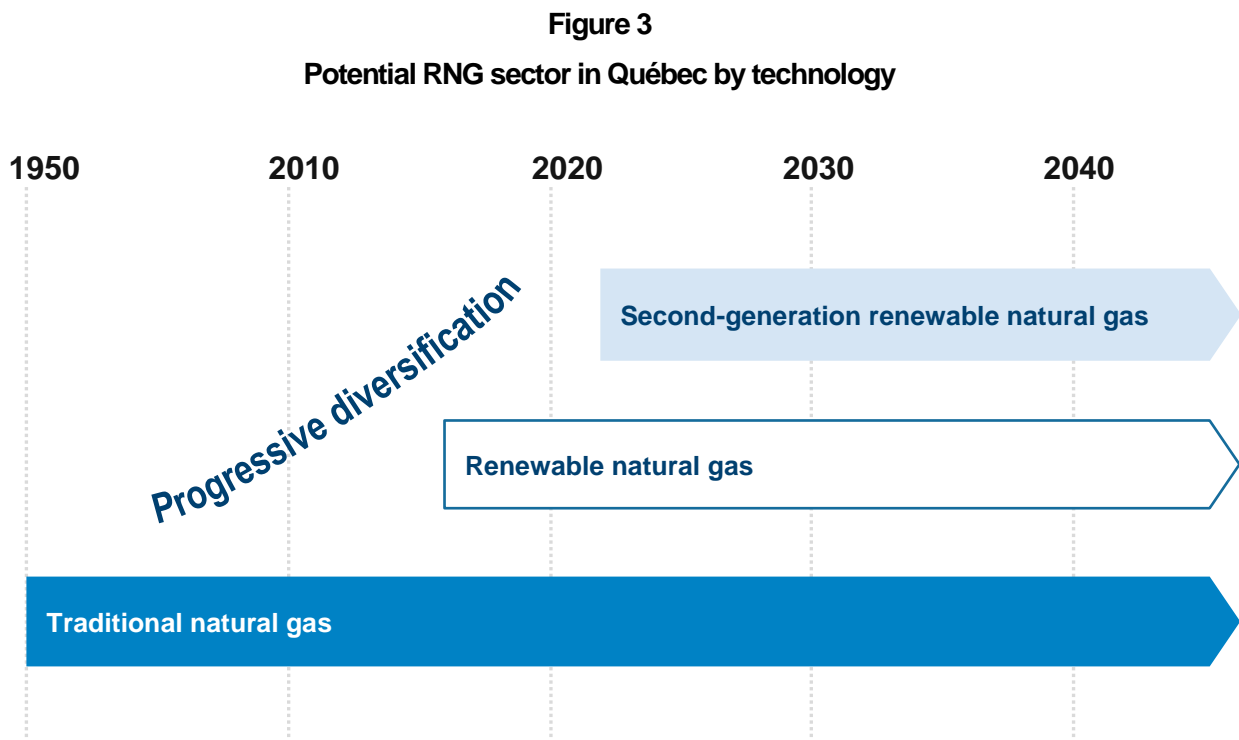
\* The Varennes and Laval projects, which currently intend to produce biogas, are included because they could potentially produce RNG.

Private biomethanization projects also have even more potential over the longer term. For example, landfills will continue to produce RNG for decades even if organic waste is eventually no longer added. Those landfills, whether they are currently active or closed, represent large potential RNG volumes of up to 255 Mm<sup>3</sup>. In light of those large volumes, the involvement of the landfills would significantly contribute to the development of the RNG sector and local RNG consumption.

On a smaller scale, but representing a larger number, manure and agricultural residue can also be processed by biomethanization. The agricultural sector also shows considerable potential, i.e. 453 Mm<sup>3</sup>.

<sup>9</sup><http://www.mddelcc.gouv.qc.ca/programmes/biomethanisation/liste-projets.htm#projets-a-venir>.

In addition, thermochemical technology is being developed over the medium term to convert residual forest biomass into second-generation RNG. That technology will have a major impact on the development of the RNG sector in Québec, producing up to 425 Mm<sup>3</sup> and offering theoretical potential of 4,900 Mm<sup>3</sup>.



According to Gaz Métro's evaluation looking toward a 2030 horizon, the overall potential for RNG production in Québec is more than 700 Mm<sup>3</sup>, representing 10% to 12% of the volumes delivered by Gaz Métro. However, this production potential is dependent on market conditions that favour the sector's development. In that regard, Aviseo has noted the following:

*[Translation] "The basis for the sector's success depends primarily on a suitable financial environment in line with producers' economic conditions. Since producers have very different realities, they must be able to operate in appropriate market conditions in order to help diversify Québec's energy portfolio."<sup>10</sup>*

<sup>10</sup> See Appendix 1, p. 19.

## **1.2 RESTRAINTS ON DEVELOPMENT**

### **1.2.1 Subsidized producers**

In D-2015-107, following an application filed by Gaz Métro, the Régie approved the purchase price that Gaz Métro could pay for RNG produced by the City of Saint-Hyacinthe (“approved purchase price”). This approved purchase price, which is based solely on the avoided cost in terms of purchasing traditional natural gas,<sup>11</sup> does not take into account the full value of RNG. Firstly, it is based on the price of traditional natural gas, which has been selling at low prices for a number of years now. This trend is expected to continue in the years ahead. Secondly, the price takes into account the value of GHG emission units during the last Québec auction rather than the cost of the measures that could be needed to reach the GHG reduction targets set for 2030. Since the market is still in the early development stages, the number of participants will likely increase significantly while available credits are expected to decline. Using the current prices for emission units means that the real value of RNG’s environmental benefits is definitely underestimated.

For subsidized producers such as municipal producers, the approved purchase price covers even less of the significantly higher costs associated with the small-scale production of renewable energies such as RNG. Even though cities that opt for RNG are eligible for subsidies under the *Programme de traitement des matières organiques par biométhanisation et compostage* [Program for processing organic matter by biomethanization and composting] (“PTMOBC”) for their infrastructures, Aviseo has noted the following:

*[Translation] “By targeting infrastructures in its efforts, the government is providing upstream support in the waste reclamation process. As a result, the projects’ operational profitability depends entirely on the municipalities.”<sup>12</sup>*

Given that one of the conditions for having access to subsidies is that the RNG produced by the city must be consumed in Québec, the approved purchase price is currently the only price signal for evaluating a project’s profitability. Moreover, project profitability can be compromised by the high costs associated with biogas pre-treatment,

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<sup>11</sup> Gaz Métro buys RNG at a price equivalent to the market supply price plus the cost of transmission to Québec and emission allowances associated with the carbon market.

<sup>12</sup> See Appendix 1, p. 19.

biomethanization and purification as well as the costs resulting from the receipt rate that applies to them when injecting RNG into Gaz Métro's network. Potential municipal producers have in fact indicated to Gaz Métro that their production project was not profitable based on the forecasts for the approved purchase price.

Aviso concurs by noting that the approved purchase price for Saint-Hyacinthe [translation] "is very likely to be unsuitable for the other projects with lower production capacity and higher unit production costs."<sup>13</sup> Under these conditions, municipal producers could avoid opting for RNG production, thereby limiting the development of the RNG sector in Québec.

In addition to subsidized municipal producers, private applicants could also benefit from PTMOBC subsidies, which are less generous than those granted to municipalities, however. In addition, it is possible to imagine that private projects (e.g. industrial, commercial, biomass) could receive other types of subsidies under various programs. Interest among those producers could be limited by the approved purchase price and, as a result, potential RNG production would be reduced. The market's price signal therefore needs to be corrected.

### **1.2.2 Unsubsidized producers**

Unsubsidized producers, on the other hand, operate in an open-market context. Since they do not receive government assistance, they can sell RNG outside Québec where market opportunities are much more attractive than the approved purchase price.

Table 1 shows RNG prices in certain European, U.S. and Canadian jurisdictions in 2016, allowing those prices to be compared to the approved purchase price, which averaged 20.45¢/m<sup>3</sup> at that time. As confirmed by the data, the approved purchase price was significantly lower.

In particular, RNG development has been strong in the U.S. because of the Renewable Fuel Standard introduced to promote the use of RNG as a fuel replacement. Targeted entities in the fossil fuel sector are required to buy credits called Renewable Identification

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<sup>13</sup> See Appendix 1, p. 19.

Numbers (“RINs”), which are created for every gallon of renewable gasoline produced. RINs are traded as financial products and are valid for the year of their creation and the following year. Similarly, in California, the Low Carbon Fuel Standard program promotes the use of fuel from renewable sources.

**Table 1**  
**Survey of RNG prices in 2016**

| Price                  | British Columbia | Ontario            | Germany           | France             | United Kingdom     | California  | Vermont     |
|------------------------|------------------|--------------------|-------------------|--------------------|--------------------|-------------|-------------|
| <b>\$/GJ</b>           | <b>14.4</b>      | <b>14.7 – 27.3</b> | <b>8.5 – 34.7</b> | <b>18.4 – 51.2</b> | <b>13.2 – 29.2</b> | <b>≈ 48</b> | <b>≈ 24</b> |
| <i>¢/m<sup>3</sup></i> | 54.6             | 55.7 – 103.4       | 32.3 – 131.5      | 32.3 – 131.5       | 50.1 – 110.8       | ≈ 181       | ≈ 91        |

Source: Aviseo (2017), p. 27

Although it is advantageous economically, this situation encourages RNG exports and ensures that the environmental attributes of that local energy production leave the province. Moreover, if Gaz Métro is not able to offer unsubsidized producers a price other than the one approved for Saint-Hyacinthe, RNG purchases will be difficult. The price that the distributor can pay for those producers must therefore be reviewed.

### **1.2.3 Voluntary customers**

The RNG sector has not yet expanded in Québec, translating into a general lack of knowledge by the various stakeholders and a lack of fluidity in the market. New RNG producers do not necessarily have the expertise required to sell energy directly to interested customers. Potential producers have told Gaz Métro that they are not comfortable developing contractual agreements or managing nominations for customers who would like to buy RNG from them. Consequently, customers interested in using RNG have difficulty finding producers with whom they can sign agreements.

In addition, even though it is possible for all customers to obtain their own supplies (“direct purchases”), this requires a certain level of expertise. Customers have to find a supplier or producer and sign an agreement for RNG supplies. At the same time, the supplier or producer must be willing to sell to customers who may need only very small volumes. Given that over 98% of customers consuming less than 50,000 m<sup>3</sup> per year opt for system gas, it is not likely that all customers would have smooth access to RNG if it is available only through direct purchases.

This lack of fluidity in the market could lead to lost volumes and higher rates. Customers have mentioned that they would consider no longer using natural gas if RNG is not available in the near future, sometimes as early as the end of 2017. Since Gaz Métro's costs are essentially fixed, any volume losses would put upward pressure on customers' distribution rates. Over the longer term, that could negatively impact the competitiveness of natural gas in Québec in certain markets as well as compromise the sustainability of the distributor's operations.

### **1.3 MAIN FINDINGS**

There is considerable technical potential for the RNG sector in Québec. However, the purchase price approved for the City of Saint-Hyacinthe does not make it possible to meet the needs and expectations of subsidized and unsubsidized RNG producers. Moreover, the RNG market is not yet fluid; customers interested in using RNG therefore have difficulty building relationships with producers.

Regarding the general conditions for propelling Québec's RNG sector, Sylvain Audette noted that it was necessary to develop upstream pricing and offer downstream pricing to capture the value perceived by voluntary customers.<sup>14</sup> As a result, measures must be taken quickly concerning the purchase and sale of RNG.

## **2 RNG PURCHASES**

As mentioned in section 1, the RNG purchase price currently approved by the Régie—which is based on the costs avoided for traditional natural gas—is not sufficient to meet the conditions allowing this sector to be developed. Gaz Métro has therefore analyzed the price that needs to be offered to producers.

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<sup>14</sup> R-3872-2016, A-0012, Expert report, p. 30.

## **2.1 BENCHMARKING OF RNG PURCHASE MECHANISMS**

The benchmarking process for purchase mechanisms has shown that feed-in tariffs (FITs)<sup>15</sup> are widely used in North America and Europe. Aviseo defines FITs as *[translation]* “price conditions known in advance and set out in a contract with a predetermined timeframe.”<sup>16</sup> Although this mechanism is very popular, many variants exist; they are outlined below. Other mechanisms for purchasing RNG are also described.

### **2.1.1 Canada**

In British Columbia, Fortis BC Energy Inc. (“Fortis BC”) offers an FIT determined on a case-by-case basis during bilateral negotiations with the RNG producer. The goal of the FIT is to establish a purchase price that generates a reasonable return for the producer. The FIT and the overall RNG project are then submitted to the distributor’s regulatory authority—the British Columbia Utilities Commission (“BCUC”)—for approval. The average purchase cost is slightly more than 49¢/m<sup>3</sup>.<sup>17</sup> The distributor is also actively involved in developing the RNG sector, even offering to build and operate certain infrastructures related to regulated activities for certain producers.<sup>18</sup> BCUC has authorized Fortis BC to enter into other RNG purchase agreements that will lead to new RNG production facilities in the coming years.<sup>19</sup>

In Ontario, renewable energy production mainly comprises electricity production, which is supported through an FIT. That tariff is adjusted according to various criteria so that specific tariffs can be offered to producers and small projects with low production levels can be encouraged.<sup>20</sup>

In 2012, Enbridge and Union Gas also asked the Ontario Energy Board (“OEB”) to approve a schedule for calculating an FIT for producers that inject RNG into their network. That application, which involved socializing the additional RNG purchase cost among the

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<sup>15</sup> Translated into French as *tarifs de rachat garanti*.

<sup>16</sup> See Appendix 1, p. 19.

<sup>17</sup> *Idem*, p. 47.

<sup>18</sup> R-3872-2016, A-0012, Expert report, p. 30.

<sup>19</sup> R-3872-2016, A-0012, Expert report, p. 30.

<sup>20</sup> See Appendix 1, p. 19.

entire clientele, was not approved by the regulator.<sup>21</sup> The distributors were invited to resubmit their application but have not done so since then.

In early 2017, the OEB launched an initiative to develop a Framework for the Assessment of Distributor Gas Supply. Its purpose is to update the regulated approach for the natural gas supply planning process. In particular, the initiative will determine the role of RNG in natural gas distributors' supply plans. The OEB has organized working groups with stakeholders and intends to complete the assessment by the end of 2017.<sup>22</sup>

### **2.1.2 United States**

In California, most of the RNG consumed comes from outside the state, and pricing is based on the principle of assigning value to environmental attributes on the market. As mentioned in section 1.2.2, the existing regulations strongly promote RNG use, meaning that RNG producers can earn as much as 181¢/m<sup>3</sup>.<sup>23</sup>

In Vermont, Vermont Gas Systems Inc. ("VGS") is planning to issue a request for proposals to buy RNG so that it can offer an RNG tariff to its customers. It has made a submission to the Vermont Public Service Board<sup>24</sup> but the regulator has not yet rendered a decision. According to VGS's request for proposals, the contract terms would be 1, 2, 3 or 5 years. The producer must be able to supply a minimum of 200 GJ/day (2 Mm<sup>3</sup>/year). Agreements for more than 7,500 GJ/day (approximately 72 Mm<sup>3</sup>/year) or more than 5 years may be approved by the regulator. RNG deliveries would be on a firm or interruptible basis. VGS would accept supply offers from within or outside the state, and the RNG purchased would then be injected into the distributor's network.

### **2.1.3 Europe**

Germany, France and the United Kingdom all have a form of FIT, as summarized in Table 2.

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<sup>21</sup> R-3872-2016, A-0012, Expert report, pp. 36–37.

<sup>22</sup> EB-2017-0129, Framework for the Assessment of Distributor Gas Supply Plans.

<sup>23</sup> See Appendix 1, pp. 24–25.

<sup>24</sup> Docket No. 8667, Petition of Vermont Gas Systems Inc. for a Renewable Gas Program and Option Tariff.



Table 2

## FITs offered to RNG producers in Germany, France and the United Kingdom

|   | Germany   | France   | United Kingdom  |
|---|---|--|---|
| <b>Price determination criteria</b>       | FIT based on production type and capacity, with premiums for purification and discounts for avoided costs | FIT determined so that a 0.5 capital appreciation rate is ensured on a 7-year investment | FIT generating a 12% IRR for a standard project with 1 MW production capacity |
| <b>Adjustment frequency</b>               | Market-based  | Annual   | Quarterly   |
| <b>Adjusted according to input source</b> | Yes, for heat production  | Yes, agricultural and urban waste premium  | No  |
| <b>Change in price over time</b>          | Declining 1.5% annually   | New project based on changes in work costs + inflation                                   | Declining to 5% or 10% based on total projected program costs                 |
| <b>Contract term</b>                      | 20 years  | 15 years   | 20 years  |

Source: Aviseo (2017), p. 27

In addition to FITs, investment subsidies and other mechanisms are available. For example, subsidies are offered in France through the *Agence de l'environnement et de la maîtrise de l'énergie* and European funds.<sup>25</sup> In Germany, various incentives mandate the use of renewal energies, especially for new construction projects and automobile fleets.<sup>26</sup>

## 2.2 PROPOSED FIT FOR SUBSIDIZED PRODUCERS

After analyzing the restraints on subsidized producers (section 1.2.1) and benchmarking the RNG purchase mechanisms (section 2.1), Gaz Métro believes that the characteristics of the RNG supply contracts with subsidized producers need to be reviewed.

Aviseo has come to the same conclusion:

*[Translation] "[...] to ensure that Québec's biomethanization sector can develop, a tariff adjustment is necessary. The prices currently offered in the market do not give municipalities a viable option*

<sup>25</sup> See Appendix 1, p. 19.

<sup>26</sup> Idem, p. 47.

*for converting their waste into renewable energy. If no additional steps are taken, they could turn to other alternatives.<sup>27</sup>*

Avisoé therefore recommends that an FIT be introduced for subsidized producers in order to meet the conditions that they consider necessary. According to Avisoé, the FIT would offer a price that reflects their operating costs. It would also reduce the producer's financial risk by ensuring predictability, thereby facilitating planning and budget management.<sup>28</sup> Lastly, putting Avisoé's recommendations into effect would *[translation]* "stimulate Québec's renewable natural gas sector but have a relatively small financial impact."<sup>29</sup>

It would also be advantageous to implement a process that enables Gaz Métro to sign RNG supply contracts based on an FIT because a price signal would be sent to the market whenever a potential producer considers producing RNG. A process of that nature would also be simple: Gaz Métro would not have to go back to the Régie to have it approve the characteristics of each supply contract with subsidized producers.

### **2.2.1 Avisoé's recommendations**

The FIT proposed by Avisoé takes three guiding principles into account:<sup>30</sup>

1. Respect the order of priority for the 4R's principle:<sup>31</sup> The RNG price must not make it advantageous to produce organic waste;
2. Apply a predetermined price structure: Tariffs must be set in advance to ensure that projects are optimally designed and that strategic choices negatively impacting the overall sector are not made;
3. Offer a tariff adjusted according to the operating cost structure: The tariff must decline as production capacity increases in order to reflect the projects' cost structure.

Avisoé explains the proposed FIT as follows:

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<sup>27</sup> See Appendix 1, p. 18

<sup>28</sup> Idem, p. 31

<sup>29</sup> Idem, p. 35

<sup>30</sup> Idem, p. 31

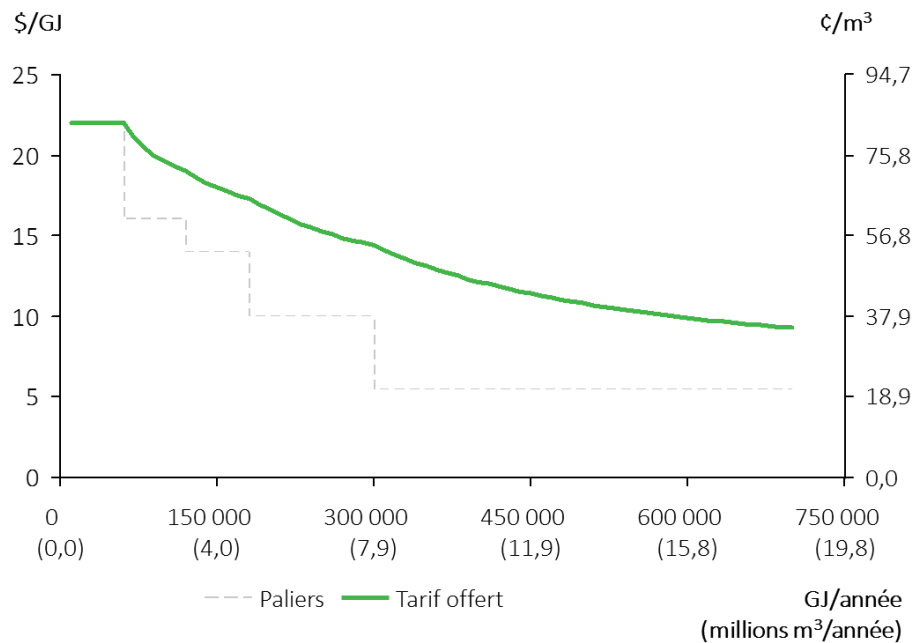
<sup>31</sup> The 4R's (reduce at the source, reuse, recycle and then reclaim) are a basic principle of sustainable development. The goal is to reduce environmental impacts before trying to offset them.

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[Translation] “The tiers are designed so that they follow the biomethanization operating cost structure. Aiseo referred to recent reference material and consulted project developers in Québec to create an operating curve. Based on the preferred approach, the first three tiers are narrower, reflecting the rapid decline in unit costs. Starting with the second-to-last tier, the tiers widen and the final tier is based on avoided costs [...]”<sup>32</sup>

The proposed FIT also takes into account the fact that projects subsidized under the PTMOBC can receive financial assistance representing up to 66% of capital expenditures.

**Figure 4**  
Proposed FIT curve for subsidized producers



Source: Aiseo (2017), p. 35.

In the proposed FIT, every producer is assigned a tariff based on its total production capacity, regardless of the actual quantity produced or sold. The schedule in Table 3 can be used to calculate a specific tariff for each producer. Based on that schedule, a producer with a small 1.5 Mm<sup>3</sup> volume, such as Beauharnois, would be paid 83¢/m<sup>3</sup> while a producer with a large 16.8 Mm<sup>3</sup> volume, such as Saint-Hyacinthe, would be paid about 37¢/m<sup>3</sup>. The average purchase cost for current projects under the PTMOBC would be

<sup>32</sup> See Appendix 1, p. 19.

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54¢/m<sup>3</sup> (see Table 4), which is a level that Aiseo considers consistent with the tariffs offered in the other systems.<sup>33</sup>

**Table 3**  
**Schedule for calculating producer's FIT based on production capacity**

| Production capacity<br>(m <sup>3</sup> /year) | Natural gas<br>(¢/m <sup>3</sup> ) | Rate offered<br>(¢/m <sup>3</sup> ) |
|---|------------------------------------|-------------------------------------|
| <b>[0–1,583,537]</b>                          | 83.4                               | 83.4                                |
| <b>[1,583,537–3,167,063]</b>                  | 60.6                               | 83.4–72.0]                          |
| <b>[3,167,063–4,750,594]</b>                  | 53.0                               | [72.0–65.6]                         |
| <b>[4,750,594–7,917,656]</b>                  | 37.9                               | [65.6–55.6]                         |
| <b>Over 7,917,656</b>                         | 20.5                               | [55.6–... ]                         |

Source: Aiseo (2017), p. 27

**Table 4**  
**FIT for certain producers subsidized under PTMOBC**

| PTMOBC project          | Production capacity<br>(m <sup>3</sup> /year) | Rate offered<br>(¢/m <sup>3</sup> ) |
|-------------------------|---|-------------------------------------|
| <b>Beauharnois</b>      | 1,499,989                                     | 83.4                                |
| <b>Varennes</b>         | 2,399,983                                     | 75.6                                |
| <b>Laval</b>            | 2,999,979                                     | 72.6                                |
| <b>Montréal (1)</b>     | 3,329,984                                     | 71.1                                |
| <b>Montréal (2)</b>     | 3,329,984                                     | 71.1                                |
| <b>Québec City</b>      | 7,599,946                                     | 55.2                                |
| <b>Saint-Hyacinthe</b>  | 16,799,880                                    | 36.6                                |
| <b>Weighted average</b> | <b>5,422,817</b>                              | <b>53.5</b>                         |

Source: Aiseo (2017), p. 27

Aiseo also recommended that long-term contracts with set terms be developed in order to lower producers' risks and facilitate their planning. In addition, the FIT specified in the producer's contract should be adjusted for inflation to reflect changes in operating costs over time. Lastly, Aiseo recommended that the schedule be reviewed annually to account for changes in the sector and market conditions.

<sup>33</sup> See Appendix 1, p. 19.

The FIT proposed by Aviseo is in line with a number of Sylvain Audette's findings and recommendations during the public consultation on rate practices.<sup>34</sup> Mr. Audette noted that technologies that are still under development need more assistance and should be supported by an FIT.<sup>35</sup> In particular, he mentioned projects with anaerobic digesters for biomethanization, which are currently targeted for subsidies under the PTMOBC, and eventually projects with gasification and pyrolysis.<sup>36</sup> He also indicated that FITs should be adjusted according to volumes and the cost of external factors such as the cap-and-trade (C&T) system.<sup>37</sup> Moreover, FITs must allow producers to be protected<sup>38</sup> while encouraging effective cost management.<sup>39</sup>

### **2.2.2 Clarifications about potential application**

For practical purposes, some of Aviseo's recommendations will need to be adapted to Gaz Métro's reality. A number of elements would first be taken into consideration when calculating total production capacity. Production capacity is one of the inputs used when determining the amount of a subsidy. Since project designs can evolve during development, Gaz Métro would also take into account the facilities and equipment set up at the injection station. In addition, if Gaz Métro notes that the production capacity was not accurately determined at the outset, adjustments could be made.

Secondly, Gaz Métro would sign firm supply contracts in which the FIT defined according to the schedule in Table 3 would be used to determine the producers' purchase price. Contract terms would be 5 to 20 years. As proposed by Aviseo, the contracts would include indexation for purchase prices. If avoided costs were higher than the purchase price, the contract would also allow the producer to be compensated for avoided costs. Producers would not be allowed to terminate their contracts so that Gaz Métro would be guaranteed purchase cost stability and RNG availability. **It should be noted that any changes to facilities that impact production capacity could lead to the FIT being reviewed.**

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<sup>34</sup> R-3972-2016

<sup>35</sup> R-3872-2016, A-0012, Expert report, p. 95.

<sup>36</sup> R-3972-2016, A-0025, Transcript from February 14, 2016, Volume 2, p. 22.

<sup>37</sup> R-3872-2016, A-0012, Expert report, p. 95.

<sup>38</sup> R-3972-2016, A-0025, Transcript from February 14, 2016, p. 13.

<sup>39</sup> *Idem*, pp. 15–16.

**Gaz Métro is asking the Régie to approve the characteristics of the RNG supply contracts that it would like to sign with subsidized producers, namely a purchase price determined by applying the schedule appearing in Table 3, as well as contracts with terms of 5 to 20 years, indexation and a clause setting a maximum for the purchase price or avoided costs.**

### **2.3 RNG PURCHASED FROM UNSUBSIDIZED PRODUCERS**

The use of a schedule is not as effective for unsubsidized producers. They have the option of exporting outside Québec where market opportunities are very appealing. In addition, there are RNG producers outside Québec, for example in Ontario and the United States. Gaz Métro would therefore not necessarily be aware of their production capacities in order to set a suitable FIT.

Buying RNG from unsubsidized producers would provide many opportunities and large volumes without requiring investments in the network because those producers already inject RNG into other transmission and distribution networks for export. Gaz Métro could ultimately buy from them to obtain the RNG quantities that the distributor has to deliver under the 2030 Energy Policy and the resulting legislative and regulatory requirements.

Given the context in which these producers operate, Gaz Métro needs more flexibility to negotiate with them. Gaz Métro proposes that the characteristics of the supply contracts, including the purchase price for RNG from unsubsidized producers, be submitted to the Régie on a case-by-case basis for approval.

## **3 FUNCTIONALIZATION OF RNG PURCHASES**

To allow tariffs to be calculated while limiting transfers and adjustments, Gaz Métro proposes that the costs below be functionalized and allocated.

### **3.1 CALCULATION OF RNG PURCHASE PRICE AT DAWN**

The RNG purchase price would use the Dawn benchmark. There are three reasons why all RNG purchases must be functionalized at Dawn. Firstly, system gas is currently determined at Dawn and in-franchise purchases are always functionalized at Dawn. Functionalizing purchase costs at Dawn would ensure better consistency within Gaz Métro's supply service. Secondly, as explained

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in section 5.4 concerning the terms and conditions of the new RNG tariff, customers will have the option of choosing the RNG tariff for part of their consumption and completing it either with system gas or direct purchases. Functionalization would standardize the delivery point. Thirdly, the distributor could purchase RNG from producers who do not inject within the franchise. An RNG tariff based at Dawn would therefore make it easier to allocate costs for those producers.

For in-franchise RNG purchases, a transmission value would be deducted from the RNG purchase price. That transmission portion would correspond to the distributor's transmission price, less tariff adjustments for maintaining FTLH capacity (85 TJ/day) and for the excess transmission capacity referred to in subparagraph (a) of subparagraph 3 of the first paragraph of section 72 of the *Act respecting the Régie de l'énergie* ("Excess Capacity").

Explanation of change in transmission functionalization basis

As mentioned in section 1.2.1, the RNG purchase price is currently determined according to the method approved in decision D-2015-107. The price comes from the avoided cost for purchasing traditional natural gas: it is calculated by adding up the market supply price, the TCPL transmission price between Dawn and the franchise (Dawn-GMIT EDA segment) and the price of emission allowances associated with the carbon market. As a result, functionalization between services is also based on those prices.

Gaz Métro prefers to avoid using the TCPL tariff in effect for the Dawn-GMIT EDA segment to functionalize the transmission portion because it would create a bias for customers with the RNG tariff when all supply and transmission services are billed. To illustrate this situation and justify the necessary adjustments to the distributor's tariff, we have compared the two functionalization methodologies (TCPL transmission price vs Gaz Métro transmission price) for purchasing in-franchise produced RNG and their impact on billing for customers with the RNG tariff for supply and transmission services.

The table below shows how purchases of in-franchise produced RNG at a price of 38.000¢/m<sup>3</sup> would be functionalized using both methodologies.

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Figure 5A

|   | Option 1<br>TCPL tariff<br>¢/m <sup>3</sup> | Option 2<br>Gaz Métro adjusted<br>transmission tariff<br>¢/m <sup>3</sup> |
|---|---|---|
| <b>Purchase price for in-franchise RNG producer</b>                             | 38,000                                      | 38,000  |
| <b>Transmission portion</b>   |   |   |
| TCPL transmission tariff <sup>(1)</sup>   | -2,933                                      |   |
| Distributor transmission tariff <sup>(2)</sup>                                  |   | 3,439   |
| Less adjustment for   |   |   |
| - Maintaining FTLH capacities <sup>(3)</sup>                                    |   | -0,234  |
| - Excess transmission capacity <sup>(4)</sup>                                   |   | -0,019  |
| Adjusted distributor transmission tariff  |   | -3,186  |
| <b>RNG purchase cost at Dawn<br/>(purchase price less transmission portion)</b> | 35,067                                      | 34,814  |

<sup>(1)</sup> TCPL Dawn – GMIT EDA tariff on January 1, 2018

<sup>(2)</sup> Distributor tariff on February 1, 2018

<sup>(3)</sup> Capacity maintenance cost on February 1, 2018

<sup>(4)</sup> Excess transmission capacity cost on February 1, 2018

Customers under contract for RNG service would be billed the following prices according to the applicable option.



Figure 5B

|                                    | Option 1<br>TCPL tariff<br><br>¢/m <sup>3</sup> | Option 2<br>Adjusted Gaz Métro<br>transmission tariff<br><br>¢/m <sup>3</sup> |
|------------------------------------|---|---|
| <b>Supply service</b>              |   |   |
| RNG price at Dawn                  | 35,067  | 34,814  |
| <b>Transmission service</b>        |   |   |
| Transmission base price            | 3,439   | 3,439   |
| Rider                              | <u>-0,234</u>                                   | <u>-0,234</u>   |
| <b>Total bill - supply/transm.</b> | 38,272  | 38,019  |

In this example, the customer's total bill should correspond to 38.019¢/m<sup>3</sup>, which is the RNG purchase price (38.000¢) plus the excess transmission capacity adjustment (0.019¢/m<sup>3</sup>). That adjustment is necessary because decision D-2017-094 (para 461) requires it to be applied to all customers. This is the result for option 2, whereas option 1 creates a bias and generates a higher total price.

Gaz Métro proposes that the transmission portion for in-franchise RNG purchases be functionalized by using the distributor transmission tariff less tariff adjustments for FTLH capacity maintenance (85 TJ/day) and excess transmission capacity.

There are no load-balancing costs from RNG purchases. The price that Gaz Métro would pay to producers would not vary as the market fluctuated during the year; prices are therefore not seasonal. In addition, Gaz Métro's purchasing profile would not necessarily reflect its customers' consumption profile. Gaz Métro would buy RNG available for sale from producers based on contract volumes, without taking into account customers' day-to-day needs. Consequently, no costs would be functionalized to the load-balancing service. Since the purchase price does not include a load-balancing cost, Gaz Métro would exclude RNG purchases from the calculation for transferring from supply to load balancing.

### **3.2 CREATION OF RNG INVENTORY**

An inventory separate from the system gas inventory would be created so that it could incorporate the costs of RNG purchases functionalized at Dawn.

However, Gaz Métro proposes that the costs of the return and income taxes generated by the RNG inventory be functionalized to the adjustment service related to existing system gas inventories. As explained in section 5.4 Tariff terms and conditions concerning the terms and conditions for the new RNG tariff, system gas customers as well as direct purchase customers with transfer of ownership will be able to sign up for it. Both those customer groups are already subject to the adjustment related to system gas inventories. In addition, Gaz Métro would give customers the option of having only part of their consumption at the RNG tariff. Since the consumption profile of a customer using both traditional natural gas and RNG could not be differentiated, it would be impossible to identify the inventory costs actually generated by consuming traditional natural gas versus RNG. Lastly, in the generic file on cost allocation and the rate structure,<sup>40</sup> Gaz Métro proposed that the adjustment service related to inventories 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 adjustment related to RNG inventories because it could be temporary.

**Gaz Métro is asking the Régie to approve the functionalization of the RNG purchase cost at Dawn upon supply, based on a transmission portion equal to the distributor transmission tariff less tariff adjustments for FTLH capacity maintenance (85 TJ/day) and excess transmission capacity, without any transfer to load balancing.**

**Gaz Métro is asking the Régie to 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.**

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<sup>40</sup> R-3867-2013, B-0133, Gaz Métro – 5, Document 1, section 4.

## **4 VOLUNTARY RNG CONSUMPTION**

In the voluntary market for renewable energy, consumers buy renewable energy on a voluntary basis. The following section benchmarks RNG sales in North America and describes the interest shown by Gaz Métro customers for voluntary RNG consumption.

### **4.1 BENCHMARKING OF RNG SALES**

Property rights to environmental, social and other non-power attributes can be assigned value with the purchase of a market-based instrument. Examples include Renewable Energy Certificates<sup>41</sup> for electricity in the U.S. and Guarantees of Origin for electricity and natural gas in Europe.<sup>42</sup> Distributors also allow their customers to procure RNG voluntarily from their supply service.<sup>43</sup> 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 in more detail below.

#### **4.1.1 Fortis BC Energy Inc.**

Fortis BC gives interested customers the option of buying a quantity of RNG equivalent to 5, 10, 25, 50 or 100% of their total consumption. Initially, the RNG price was intended to compensate the RNG purchase cost. Since the fall of 2106, the RNG price has been converted into a premium paid in addition to traditional natural gas. The premium, which is less than the total RNG purchase costs, has been calculated to minimize the RNG inventory. The difference between the RNG purchase cost and the RNG selling price, together with the stranded costs for unsold RNG units, is covered by the clientele as a whole.<sup>44</sup> In January 2017, that premium, which is subject to an annual update, was 26.52¢/m<sup>3</sup>,<sup>45</sup> translating into 39.94¢/m<sup>3</sup> when the price of traditional natural gas is included. Customers with long-term contracts can benefit from a discount.

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<sup>41</sup> <https://www.epa.gov/greenpower/renewable-energy-certificates-recs>.

<sup>42</sup> <http://www.greengas.org.uk/>.

<sup>43</sup> It is not possible for distribution networks to ensure that the injected RNG is physically distributed to the customer who has bought it voluntarily.

<sup>44</sup> Order G-133-16, Fortis BC, December 1, 2016.

<sup>45</sup> <https://www.fortisbc.com/NaturalGas/RenewableNaturalGas/CalculateYourContribution/Pages/default.aspx>.

Small customers and commercial customers are also eligible for the RNG tariff. However, customers must not be registered with a broker. Nevertheless, certain commitments can be made with a broker for transmission contracts. Enrollment is effective on the first of the month and customers can cancel their enrollment at any time. Cancellation takes effect within a week. There are no fees for switching from one tariff to another.<sup>46</sup>

The vast majority of customers with the RNG tariff are residential customers who have chosen to cover a small percentage of their consumption.<sup>47</sup> Public-sector organizations can also sign up for the RNG tariff to meet their Climate Action Secretariat requirements.<sup>48</sup> The Secretariat is working to achieve British Columbia's GHG reduction targets by coordinating climate action activities throughout the provincial government and with stakeholders.

Fortis BC ensures that RNG sales do not exceed what has actually been injected into the distributor's network over a 12-month horizon. If the quantity of RNG sold exceeds what has been actually injected, Fortis can transfer the volumes into the traditional natural gas inventory and purchase carbon credits to offset them.<sup>49</sup>

#### **4.1.2 Vermont Gas Systems Inc.**

The tariff proposed by VGS would be in the form of a premium on the price of traditional natural gas. The premium would be calculated by deducting the average cost of traditional natural gas from the average cost of renewable natural gas. That premium would be updated every quarter to take into account the changes in traditional and renewable natural gas costs. Customers can opt for 10, 25, 50 or 100% of RNG in their total consumption.

VGS would be allowed a 12-month window to balance the RNG sold against the volume actually injected into the distributor's network. If VGS is faced with an inventory shortage or drastic cost increase, the distributor would have the right to proactively suspend the

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<sup>46</sup> <https://www.fortisbc.com/NaturalGas/RenewableNaturalGas/SignUpYourBusiness/Pages/default.aspx>.

<sup>47</sup> See Appendix 1, p. 19.

<sup>48</sup> <https://www.fortisbc.com/NaturalGas/RenewableNaturalGas/PublicSectorOrganizations/Pages/default.aspx>.

<sup>49</sup> Fortis BC, General Terms and Conditions, Section 28.3, p. 60.

program or purchase carbon credits to offset the excess RNG sales or could also remit the excess RNG revenues to customers retroactively.

#### **4.1.3 Green energy suppliers**

Instead of dealing directly with their distributor, customers interested in offsetting their traditional natural gas consumption can do business with “green energy suppliers”.<sup>50</sup> In most cases, customers retain their contract with their local natural gas distributor and pay a premium to the green energy supplier. That premium is used to fund renewable energy development projects that reduce GHG emissions. For example, Bullfrog Power uses the premiums paid by customers of its “green natural gas” service to fund renewable energy projects and cover the costs of buying and injecting RNG into the TCPL network.<sup>51</sup> The premium for green natural gas was about 15¢/m<sup>3</sup> in May 2017.<sup>52</sup>

## **4.2 CUSTOMER INTEREST IN VOLUNTARY CONSUMPTION**

### **4.2.1 Carbon neutrality**

A number of Gaz Métro customers have shown interest in quickly procuring RNG in order to be ecologically responsible or meet corporate guidelines for carbon neutrality.<sup>53</sup> For example, IKEA has made a commitment to become energy neutral by 2020. In other words, it wants to produce as much renewable energy as it consumes in its operations.<sup>54</sup> Other customers have also made commitments towards carbon neutrality by publicly announcing their targets: Université de Sherbrooke wants to be carbon neutral by 2030,<sup>55</sup> L'Oréal Canada intends to make its production plant in Saint-Laurent carbon neutral by

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<sup>50</sup> Translated into French as *fournisseurs d'énergie verte*.

<sup>51</sup> <https://www.bullfrogpower.com/green-energy/green-natural-gas/learn-more/>.

<sup>52</sup> <https://www.bullfrogpower.com/products-solutions/homes/condo-apartment/>.

<sup>53</sup> Carbon neutrality refers to taking ecologically responsible actions to reduce GHG emissions into the atmosphere and offset emissions that cannot be reduced.

<sup>54</sup> <http://inhabitat.com/ikea-announces-plans-to-become-100-energy-neutral-by-2020/>.

<sup>55</sup> <https://novae.ca/2017/02/luniversite-de-sherbrooke-carboneutre-2030/>.

2020,<sup>56</sup> Pratt & Whitney has set a goal for its commercial operations to be carbon neutral by its 100th anniversary (in 2028)<sup>57</sup> and Bombardier is targeting 2020.<sup>58</sup>

By using RNG, customers reduce their GHG emissions at the source and can therefore become carbon neutral without having to offset their GHG emissions or invest in new equipment. As a result, RNG is a valuable solution for organizations that want to follow the 4R's principle.

#### **4.2.2 Government's exemplarity**

The Quebec Government's 2013–2020 Climate Change Action Plan includes a series of specific measures to enhance energy performance and prioritize the use of renewable energies as the main heating method in Québec's institutional sector. Those measures apply to government departments, agencies and enterprises as well as the public and private healthcare, social services and education sectors.<sup>59</sup>

In the guide "*Efficacité énergétique des bâtiments en neuf étapes*" [Nine steps for energy efficiency in buildings], which was updated in October 2016,<sup>60</sup> new buildings are required to use renewable energy sources almost exclusively for their primary heating system. This includes geothermal, solar, hydroelectric and wind power sources. Certain major renovations to existing buildings are also covered by the same requirements as new buildings. Those measures have an impact on the role of natural gas in provincial buildings, a market segment representing over 358 Mm<sup>3</sup> for the distributor. Gaz Métro estimates that 5 to 8 Mm<sup>3</sup> per year are at risk starting immediately.

Without being named specifically, RNG is one of the eligible renewable energies. Once RNG is made available to customers, it will be added to the list of renewable energies

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<sup>56</sup> <http://loutardeliberee.com/loreal-canada-se-refait-beaute-ecologique-citoyenne/>.

<sup>57</sup> <http://www.pwc.ca/en/news-events/pratt-whitney-canada-breathing-life-into-helicopter-emergency-medical-services>.

<sup>58</sup> <http://www.bombardier.com/content/dam/Websites/bombardiercom/supporting-documents/Sustainability/Reports/BT/Bombardier-Transportation-Sustainability-Report-2010-en.pdf>.

<sup>59</sup> <http://www.transitionenergetique.gouv.qc.ca/clientele-affaires/secteur-institutionnel/#.WSRNGLI1qUI>.

<sup>60</sup> [http://www.efficaciteenergetique.gouv.qc.ca/fileadmin/medias/pdf/institutions/Mesures\\_exemplarite\\_Etat-PACC.pdf](http://www.efficaciteenergetique.gouv.qc.ca/fileadmin/medias/pdf/institutions/Mesures_exemplarite_Etat-PACC.pdf).

both for new buildings as well as existing buildings undergoing major renovations. This would prevent the loss of current volumes and would allow for new sales.

#### **4.2.3 Fuel**

The freight and passenger transportation sector accounts for the most GHG emissions in Québec.<sup>61</sup> In its Energy Policy, the Québec government has identified natural gas as one of the key components of Québec's energy transition for transportation.<sup>62</sup>

However, fuel accounts for a substantial share of the budgets of businesses in the transportation industry or companies operating a fleet of vehicles. The fact that RNG is more expensive than natural gas could slow consumption. Nevertheless, as is the case for customers in other market segments, businesses targeting sustainable development could be interested in RNG for their vehicle fleets. In addition, the benefit is two-fold for municipalities, which can be RNG producers as well as consumers for their fleets or through calls for waste collection tenders. This market segment could therefore be interested in using RNG on a voluntary basis.

## **5 RNG SALES**

### **5.1 RULES IN EFFECT FOR VOLUNTARY RNG CONSUMPTION**

Customers who want to use RNG have to procure their own supply by signing an agreement directly with an RNG supplier or producer. If customers do not want to use RNG to cover 100% of their consumption, they can make up the difference by using Gaz Métro system gas or signing one or more direct purchase contracts.

Customers supplying their own RNG may be exempted from the transmission service if the RNG purchased is injected directly into the Gaz Métro distribution system. In addition, customers using RNG may be exempted from the C&T system service. To do so, they have to give the distributor

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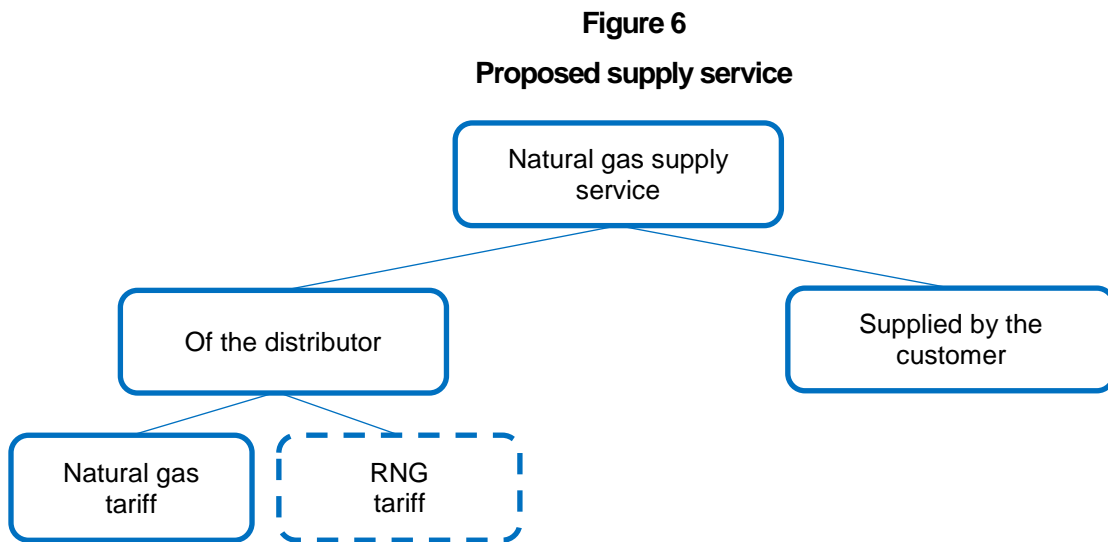
<sup>61</sup> <https://politiqueenergetique.gouv.qc.ca/wp-content/uploads/Energy-Policy-2030.pdf>.

<sup>62</sup> Idem.

an exemption declaration approved by the Gaz Métro GHG emissions auditor for the specified period.

**5.2 PROPOSED RNG SUPPLY TARIFF**

Gaz Métro is proposing to set up an RNG tariff in its supply service to meet the needs of customers who want to use RNG voluntarily but who have limited access to producers’ supplies because of a lack of fluidity in the market. The new RNG tariff would be in the distributor’s supply service, as shown by the dotted line in Figure 7.



Gaz Métro would like to propose a tariff that is as much in line as possible with the tariff principles and considerations, such as:

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

To do so, the following price, terms and conditions would be applied.



**5.3 RNG PRICE**

The RNG price would be set so that the RNG purchase cost could be recovered. The price would be determined at the same time as the other prices set as part of the rate case. Gaz Métro does not consider it necessary to review the RNG price on a monthly basis, as is done for system gas. The purchase cost should not vary significantly from month to month because Gaz Métro would enter into long-term agreements with subsidized producers and the purchase price per producer would be fixed if it was determined according to the purchase schedule shown in Table 3. In addition, data from internal studies show that customers strongly prefer billing that is as stable as possible. That factor also has an impact on customers’ satisfaction and buying intentions.

During the rate case, Gaz Métro would forecast the average purchase cost for the 12 months of the rate case. As explained in section 3.1, the purchase price for in-franchise producers would first be functionalized at Dawn. The average purchase price would then be estimated using each producer’s purchase price, functionalized at Dawn if an in-franchise purchase was made and multiplied by the volumes sold to Gaz Métro by that producer for the 12 months of the rate case.

More specifically, the projected average purchase cost for the next 12 months of the rate case would be calculated according to the following formula:

$$\begin{aligned} & \text{Projected average purchase cost for the 12 months of the rate case } (\$/m^3) \\ &= \frac{(Price_{Producer\ 1} \times Volumes_{Producer\ 1} + (...) + Price_{Producer\ n} \times Volumes_{Producer\ n})}{Total\ volume\ of\ RNG\ purchases} \end{aligned}$$

The RNG price would then be calculated according to the following formula:

$$\begin{aligned} \text{RNG price } \$/m^3 &= \\ & \text{Projected average purchase cost for the 12 months of the rate case} \\ & \quad + \text{cumulative price difference} \end{aligned}$$

The same principle as the cumulative price difference for the system gas price would be applied for the RNG price,<sup>63</sup> with the only difference being that the balance would be recovered annually. The price difference would therefore correspond to the difference between the actual RNG

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<sup>63</sup> R-3307-94, GMI-12, Document 2, p. 2.

purchase cost paid by Gaz Métro and the revenues generated by the RNG price billed to customers during the year. That difference, whether positive or negative, would be captured monthly by a non-rate-base deferred expense account (“DEA”) bearing interest according to the weighted average capital cost.

1 [...]

### **5.3.1 2017–2018 RNG price**

2 Gaz Métro has determined the average purchase cost that would be in effect if a  
3 favourable decision is announced before October 1, 2018. Since the cost is evaluated  
4 over a 12-month period, a projected average cost has been determined for the period  
5 from October 1, 2017 to September 30, 2018.

6 Two RNG producers were taken into consideration for the calculation.

- 7 - The first is a subsidized producer located in Québec: the biomethanization plant of the  
8 City of Saint-Hyacinthe. The FIT offered to that producer is 36.57¢/m<sup>3</sup> (see Table 4). In  
9 addition, as mentioned in section 3.1, the value of the **adjusted distributor transmission**  
10 **tariff (3.186¢/m<sup>3</sup> for the 2017–2018 year)** must be deducted from the purchase price for  
11 in-franchise RNG purchases. **The RNG price functionalized at Dawn is therefore**  
12 **33.384¢/m<sup>3</sup>.** The projected purchase volume for the first year is 6,500,000 m<sup>3</sup>.
  
- 13 - The second is an unsubsidized producer located in Ontario: the biomethanization plant of  
14 the City of Hamilton. Gaz Métro has to procure part of its RNG supplies outside Québec  
15 because the projected volume for the first year from the Saint-Hyacinthe biomethanization  
16 plant is not sufficient to meet the needs of the first customers who have indicated their  
17 interest in using RNG.<sup>64</sup> The price for that RNG is set according to a mutual agreement  
18 reached between Gaz Métro and the natural gas supplier. In addition, since the gas is  
19 delivered at Dawn, transmission must not be deducted from that price. That producer's  
20 price is 56.835¢/m<sup>3</sup> and the projected purchase volume for the first year is 1,583,531 m<sup>3</sup>  
21 (60,000 GJ).

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<sup>64</sup> Details about the contract are provided in Appendix 3.

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1 The average purchase cost (i.e. the RNG price) for the 2017–2018 fiscal year would be  
 2 **37.978¢/m<sup>3</sup>**, based on the following calculation:

$$\frac{33.384 \times 6,500,000 + 56.835 \times 1,583,531}{6,500,000 + 1,583,531} = 37.978\text{¢/m}^3$$

**5.3.2 Special case**

3 As explained in section 4.2.1, certain Gaz Métro customers have indicated that they need  
 4 to procure RNG quickly in order to meet corporate carbon neutrality requirements. This  
 5 situation applies to L'Oréal Canada Inc. ("L'Oréal") and its Saint-Laurent production plant.  
 6 The company has decided to become carbon neutral by 2020. Moreover, L'Oréal has  
 7 informed Gaz Métro that the initial deadline has been brought forward and the carbon  
 8 neutrality target is now December 2017.

9 Despite the recent contract to buy RNG produced by the City of Hamilton, as discussed  
 10 in the previous section, Gaz Métro does not have the necessary RNG inventory to meet  
 11 that customer's needs in the short term. Gaz Métro and EBI Énergie have therefore  
 12 entered into **RNG purchase contracts totalling 12,031 GJ**. All the RNG purchased by  
 13 Gaz Métro under that contract will be resold to L'Oréal at the acquisition price. Unlike the  
 14 purchases from Saint-Hyacinthe and Hamilton, the purchases from EBI Énergie to meet  
 15 L'Oréal's needs will not be taken into account when calculating the RNG price eventually  
 16 paid by all customers, as described in section 5.3 of this document. As a result, L'Oréal  
 17 will be the sole consumer of that RNG and it is expected to use all the units purchased for  
 18 the company from EBI Énergie before consuming natural gas at another price.

19 Since the agreed price from EBI Énergie is higher than the **37.978¢/m<sup>3</sup>** price in the RNG  
 20 tariff for the 2017–2018 year, that method ensures that customers who sign up for Gaz  
 21 Métro's RNG tariff will not be affected when RNG becomes available while at the same  
 22 time meeting L'Oréal's needs.

23 Once the quantity of RNG purchased from Saint-Hyacinthe and from the supplier that sells  
 24 Gaz Métro the RNG produced by Hamilton is sufficient to cover 100% of L'Oréal's needs  
 25 and after L'Oréal has consumed all the units purchased from EBI Énergie, L'Oréal will be  
 26 able to procure RNG from Gaz Métro at a price of **37.978¢/m<sup>3</sup>**. It should be noted that a

1 financial settlement will apply if the RNG purchase price approved by the Régie for the  
2 2017–2018 year is different from the proposed price.

3 **Gaz Métro is asking the Régie to approve the method for calculating the RNG price for the**  
4 **purpose of applying the RNG tariff.**

5 **Gaz Métro is asking the Régie to authorize the creation of a deferred expense account to**  
6 **accrue the differences between the actual purchase costs and the RNG selling price billed**  
7 **to customers. It would be a non-rate-base account bearing interest according to the**  
8 **weighted average capital cost.**

9 **Gaz Métro is asking the Régie to approve the 2017–2018 RNG price of 37.978¢/m<sup>3</sup>.**

#### **5.4 TARIFF TERMS AND CONDITIONS**

##### **5.4.1 Enrollment**

10 Customers who want to sign up for the RNG tariff will have to notify Gaz Métro and  
11 determine the percentage of RNG that they will be billed as a share of their total  
12 consumption. Gaz Métro does not want to lock customers into predetermined  
13 percentages, as outlined in the benchmarking section. To help explain and demonstrate  
14 the impact of RNG on the customer’s total bill, scenarios with predetermined percentages  
15 could be used. A minimum threshold of 5% would be required in order to sign up for the  
16 tariff.

17 For administrative reasons, 60 days’ prior notice would have to be given before the tariff  
18 comes into effect. Before accepting a new customer for that tariff, Gaz Métro would have  
19 to ensure that it has sufficient RNG to supply to that customer. The same would apply for  
20 customers who want to increase their RNG percentage or whose total consumption has  
21 increased after a load addition. For administrative reasons, 60 days’ prior notice would  
22 have to be given for withdrawal.

**5.4.2 Other modalities**

1 Customers with the RNG tariff would be billed for distributor transmission, load balancing  
2 and distribution. They would also be subject to the adjustment for system gas inventories,  
3 as described in section 3.2. However, customers subject to the C&T system service would  
4 be exempted for the equivalent of their units at the RNG tariff because Gaz Métro would  
5 not have to buy GHG emission allowances for that portion.

6 **Gaz Métro is asking for approval for the implementation of an RNG tariff for its supply**  
7 **service, together with the related terms and conditions.**

**5.5 COMBINATION OF SERVICES**

8 The combination of supply and transmission services approved by the Régie<sup>65</sup> covers the  
9 situation where a customer:

- 10 - has the Gaz Métro system gas tariff for part of the consumption; and
- 11 - procures RNG through direct purchase for the other part.

12 In light of the new RNG tariff under discussion, Gaz Métro is also proposing that the situation be  
13 allowed where a customer:

- 14 - has the Gaz Métro RNG tariff for part of the consumption; and
- 15 - procures natural gas through direct purchase for the other part.

16 More specifically, Figure 7 describes the various possible scenarios with the RNG tariff and  
17 identifies which ones would be accepted.

---

<sup>65</sup> D-2017-041, section 2.

**Figure 7**

**Example of combination of services with RNG tariff**

|                                      | Service provider |              | Compliance with conditions of service |
|--------------------------------------|------------------|--------------|---------------------------------------|
|                                      | Supply           | Transmission |                                       |
| <b>80% – RNG</b>                     | Gaz Métro        | Gaz Métro    |                                       |
| <b>20% – Traditional natural gas</b> | 1 Customer       | Customer     | No                                    |
|                                      | 2 Customer       | Gaz Métro    | Proposed                              |
|                                      | 3 Gaz Métro      | Gaz Métro    | Yes                                   |
|                                      | 4 Gaz Métro      | Customer     | No                                    |

1 To allow the combination of services represented by scenario 2, the changes outlined in  
 2 section 7.3 would have to be made to the CST. Scenario 3 would be accepted because that  
 3 situation does not involve a combination of services. Scenarios 1 and 4 would be rejected  
 4 because Gaz Métro only allows transmission service to be combined for customers who want to  
 5 procure RNG directly from in-franchise producers.<sup>66</sup>

6 To allow the combination of services represented by scenario 2, the same two conditions required  
 7 in file R-3987-2016<sup>67</sup> would be necessary, i.e.:

8 - **Uniform delivery:** Customers who want to combine their own supply service with the  
 9 distributor’s RNG tariff should continue to deliver their entire consumption volume in a  
 10 uniform way. Delivery of their entire consumption volume is required for two reasons.  
 11 Firstly, customers with direct purchase contracts would not have to amend them in order  
 12 to be able to use RNG. Secondly, this method would limit volume transfers between the  
 13 distributor’s supply service and direct purchases.

14 - **Direct purchase with transfer of ownership:** To ensure that billing could be done easily  
 15 for customers with the proposed new combination of services, direct purchase by the  
 16 customer with transfer of ownership to Gaz Métro would be required. This method is

<sup>66</sup> R-3987-2016, B-0064, Gaz Métro – 4, Document 10, page 4.

<sup>67</sup> R-3987-2016, B-0005, Gaz Métro – 1, Document 1, section 4.

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1 already in place and would not have to be adjusted for this combination of services. The  
2 following steps are taken for customers with direct purchase and transfer of ownership:

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

13 For the proposed combination of services, the mechanism would remain the same except  
14 that supply service billing would be split between the system gas tariff and the RNG tariff  
15 based on the customer's targeted percentage:

- 16 1. The customer and Gaz Métro sign a direct purchase contract with transfer of ownership  
17 specifying the targeted RNG purchase percentage;
- 18 2. The customer can choose any supplier to procure the natural gas volumes covering the  
19 entire consumption;
- 20 3. The natural gas is purchased by Gaz Métro at the prevailing system gas price;
- 21 4. The natural gas is transmitted and distributed by Gaz Métro to the customer's facilities;  
22 and
- 23 5. The transmission, load-balancing, inventory-related adjustments and distribution services  
24 are billed to the customer for every cubic metre of natural gas consumed by the customer.  
25 Supply service billing for the customer would be split between the system gas tariff  
26 and the RNG tariff based on the targeted RNG percentage. The C&T system is applied  
27 only to system gas units.

28 The new combination proposed by Gaz Métro would not entail significant costs for customers and  
29 would be easy to apply. Customers who opt for the proposed combination of services would be  
30 subject to the same rules (uniform delivery for the entire consumption volume, management of



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1 daily volume imbalances and contractual period) as those in effect for direct purchase. In addition,  
 2 customers would be subject to volume transposition in compliance with CST Article 13.1.4. The  
 3 customer’s consumption profile, which is used to evaluate the load-balancing price, would  
 4 therefore take the delivery profile into account. Since the customer would continue to deliver its  
 5 entire consumption volume, the seasonal portion of the transposed consumption would remain  
 6 unchanged. As a result, the customer’s load-balancing service price would allow the same  
 7 revenues to be recovered as if the customer was making direct purchases only.

8 Moreover, there would be no impact on the use of supply tools because the total volumes at  
 9 Dawn would remain the same. The quantity of additional gas that Gaz Métro would take  
 10 possession of would be a supply source purchased at the system gas price.

11 In the example below, a direct purchase customer wants to convert 20% of consumption to the  
 12 distributor’s RNG tariff. Over the period, Gaz Métro would purchase the direct purchase  
 13 customer’s delivery of 1,000,000 m<sup>3</sup> at the system gas price and would rebill the customer  
 14 800,000 m<sup>3</sup> at the system gas price and 200,000 m<sup>3</sup> at the RNG price.

**Figure 8**

**Example of direct purchase customer with 20% of consumption at RNG tariff**

|                               | <b>Price</b>        | <b>Volume</b>     | <b>Costs</b> |
|-------------------------------|---------------------|-------------------|--------------|
|                               | (¢/m <sup>3</sup> ) | (m <sup>3</sup> ) | (\$)         |
|                               | (1)                 | (2)               | (3)          |
| <b>Delivery</b>               |                     |                   |              |
| Direct purchase               |                     | 1 000 000         |              |
| <b>Natural gas repurchase</b> |                     |                   |              |
| <i>Supply</i>                 | 10,00               | 1 000 000         | (100,000)    |
| <b>Billing</b>                |                     |                   |              |
| <i>System gas supplied</i>    | 10,00               | 800,000           | 80,000       |
| <i>RNG supplied</i>           | 35,00               | 200,000           | 70,000       |
| <i>Transmission</i>           | 4,00                | 1 000 000         | 40,000       |
| <i>C&amp;T system</i>         | 3,00                | 800,000           | 24,000       |
| <i>Load balancing</i>         | 1,00                | 1 000 000         | 10,000       |
| <i>Distribution</i>           | 4,00                | 1 000 000         | 40,000       |

1 **Gaz Métro is asking the Régie to approve the combination of services for customers**  
2 **paying the RNG tariff for part of their consumption and procuring natural gas through**  
3 **direct purchase with transfer of ownership for the other part.**

## **5.6 CUSTOMER INFORMATION PROCEDURE**

4 In D-2001-214 concerning the introduction of a fixed-price supply tariff for a specific period,<sup>68</sup> the  
5 Régie indicated that:

6 *[Translation] “In the Régie’s opinion, for the proposal to have been acceptable, it should have*  
7 *included a procedure and guidelines for avoiding any situation that could lead to discriminatory*  
8 *treatment of customers by the distributor’s representatives. In the Régie’s opinion, the same*  
9 *information about the availability of a fixed-price block should be available to all customers at the*  
10 *same time in order to avoid favouring one customer or group of customers over others.<sup>69</sup>”*

11 With a view to addressing any similar concerns that the Régie could have about the new RNG  
12 tariff, Gaz Métro would like to confirm that it has a wide range of communication tools that enable  
13 it to reach out to customers effectively. For example, inserts are regularly included with  
14 customers’ bills or Cyberaccounts to announce amendments to the CST. Gaz Métro would take  
15 the necessary steps to communicate any relevant information to all customers about the  
16 availability of the new RNG tariff. To avoid any situations that could lead to discriminatory  
17 treatment of customers, an appropriate customer information procedure would be planned to  
18 announce the availability of the RNG tariff.

## **5.7 BROKER RELATIONS**

19 One of the general conditions identified by Sylvain Audette for developing the RNG sector in  
20 Québec was to leave room for suppliers and brokers.<sup>70</sup> In fact, that is why Gaz Métro first asked  
21 the Régie to allow the distributor’s supply service to be used as a complement to customers’ total  
22 consumption for the customers that wanted to procure directly from RNG producers. The goal of

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<sup>68</sup> R-3463-2001.

<sup>69</sup> Reference needed

<sup>70</sup> R-3872-2016, A-0012, Expert report, p. 30.

1 that proposal was to facilitate RNG use for customers wanting to take charge of their own RNG  
2 purchases directly from cities or through brokers.<sup>71</sup>

3 By adding an FIT and RNG tariff, the distributor would diversify the ways for customers to  
4 voluntarily use RNG. In particular, this expands access to RNG for small system gas customers  
5 who generally do not opt for direct purchase. Customers who have difficulty procuring RNG  
6 through direct purchase could also opt for Gaz Métro's RNG tariff.

7 As noted by Sylvain Audette, there are models whereby distributors and suppliers co-exist in  
8 terms of buying and selling RNG. He gives the example of Gaz Réseau Distribution France,  
9 where RNG producers are told to contact a supplier, broker or distributor to sell their RNG.<sup>72</sup>

10 Gaz Métro has also taken note of the comments made by the Régie in decision D-2001-214  
11 concerning the introduction of a fixed tariff for a specified period:<sup>73</sup>

12 *[Translation] "(...) although the proposal targets only system gas customers, it would substantially*  
13 *modify the balance of power between the distributor and the other suppliers in the deregulated*  
14 *merchandise market. Since the distributor is proposing to offer the fixed tariff to all customers, the*  
15 *transfer of direct purchase customers to system gas, which is already underway, can be expected*  
16 *to become significantly more pronounced if the distributor offers fixed-price options under*  
17 *conditions that are more advantageous than those available from brokers and other suppliers in*  
18 *the market."*

19 This file's proposal for a new combination between the distributor's supply service and direct  
20 purchase would mean that only the targeted RNG portion rather than the entire consumption  
21 volume would transfer to the distributor's supply service, as was the case for the fixed price. In  
22 addition, customers would continue to procure their entire consumption volume from their current  
23 supplier, which would not affect the contracts between customers and suppliers.

## **5.8 IMPACT ON TOTAL BILLING**

24 Based on the schedule proposed by Aviseo, the average RNG purchase cost would be about  
25 53¢/m<sup>3</sup> for the currently known subsidized producers (see Table 4). Given that the RNG price for  
26 the purpose of applying the RNG tariff would be equal to the average purchase costs, various

---

<sup>71</sup> R-3987-2016, B-0069, Gaz Métro – 2, Document 1.

<sup>72</sup> R-3872-2016, A-0012, Expert report, p. 30.

<sup>73</sup> R-3463-2001.

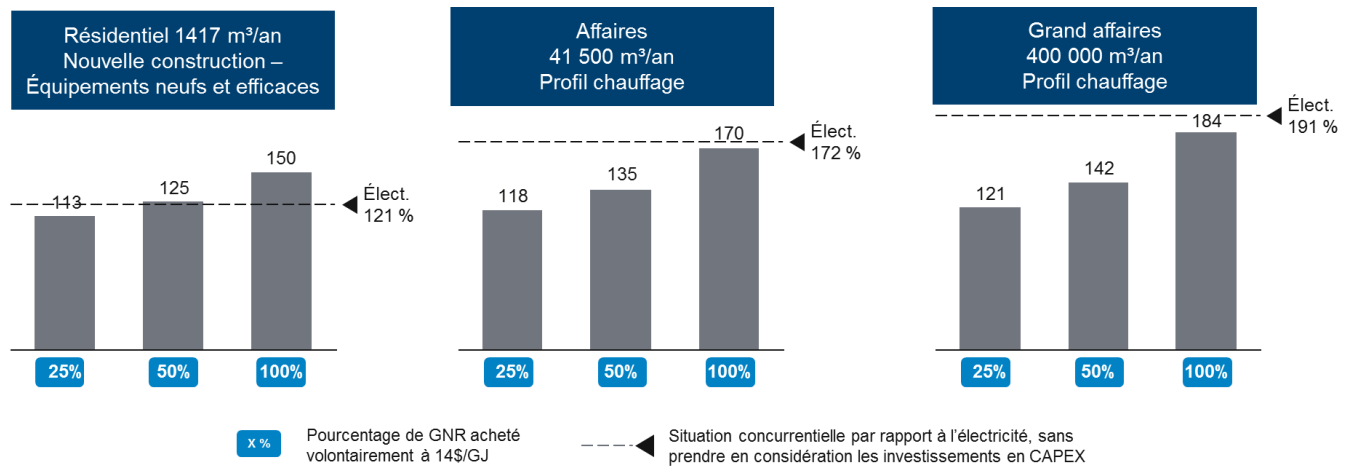
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1 simulations have been done for customers' total billing. They show that with an RNG price of  
 2 approximately 53¢/m<sup>3</sup>, natural gas remains competitive versus electricity in most of Gaz Métro's  
 3 markets, even for customers who opt for 100% RNG. However, this competitive position  
 4 deteriorates for residential customers who use more than 50% RNG.

**Figure 9**

**Competitive position for customer billing by segment based on RNG tariff %**

[Current situation = 100%]



**6 RNG INVENTORY MANAGEMENT**

**6.1 RNG SALES MONITORING**

5 Measures would be introduced to ensure that the total volumes billed at the RNG tariff do not  
 6 exceed the RNG purchases made during the year. Customer consumption scenarios would first  
 7 be integrated into the demand forecasting process in order to estimate the customer volumes at  
 8 the RNG tariff. The results would then be integrated into the supply plan to ensure that demand  
 9 does not exceed the projected RNG injection scenarios. Secondly, any new requests to sign up  
 10 for the RNG tariff would be analyzed and evaluated, whether for new customers or customers  
 11 that are already at the RNG tariff and want to increase their RNG consumption. Enrollment would  
 12 be allowed only if it is operationally feasible for the distributor to supply the RNG to the customer.

13 Nevertheless, customers' actual consumption could be different from the estimates in the demand  
 14 forecasting scenarios. The same applies to the actual RNG volume injected by producers, which

1 could be different from the supply plan because of exceptional circumstances. For example, one  
2 of those exceptional circumstances for a producer could be an equipment breakdown. If, after  
3 comparing the volumes purchased against those billed at the RNG tariff for the period from  
4 October 1 to September 30, Gaz Métro observed that more RNG was billed to customers than  
5 the volume actually injected, a financial settlement would be applied. To calculate the financial  
6 settlement, Gaz Métro would first remove customers who had designated 100% of their  
7 consumption at the RNG tariff. Since those customers could have carbon neutrality commitments,  
8 their volumes should be adjusted only as a last resort. For the other customers, the volume  
9 overage billed would be calculated on an annual basis according to the following formula:

10 
$$\text{Volume overage billed to customer } i = \frac{\text{RNG consumption of customer } i}{\text{RNG consumption of customer}} \times \text{Overage}$$

11 The volume overage billed would first be credited to the customer at the RNG tariff. Then, for that  
12 same RNG volume overage billed, the customer would be billed the average price for system gas  
13 and C&T system service observed during the period covered by the financial settlement. The  
14 financial settlement would appear on the invoice following the period covered by the financial  
15 settlement.

16 For example, if it was determined on September 30 that a volume of 1,000 m<sup>3</sup> had been billed at  
17 the RNG tariff during the preceding year but that the final total purchases had been only 900 m<sup>3</sup>,  
18 100 m<sup>3</sup> would be subject to an adjustment on customers' invoices. If only two customers were at  
19 the RNG tariff and their targeted RNG consumption percentages were 40% and 60% of their  
20 respective total consumption, the financial settlement on the next invoice would be as follows:

Figure 10

Example of financial settlement for RNG overbilling

|   | Financial settlement                           |  |
|---|--|--|
|   | Customer A<br>RNG / Total consumption =<br>40% | Customer B<br>RNG / Total consumption =<br>60% |
| <b>RNG tariff<br/>(45¢/m<sup>3</sup>)</b>                   | (40 m <sup>3</sup> * 45¢/m <sup>3</sup> )      | (40 m <sup>3</sup> * 45¢/m <sup>3</sup> )      |
| <b>Average system gas tariff<br/>(15¢/m<sup>3</sup>)</b>    | 40 m <sup>3</sup> * 15¢/m <sup>3</sup>         | 40 m <sup>3</sup> * 15¢/m <sup>3</sup>         |
| <b>Average C&amp;T system tariff<br/>(3¢/m<sup>3</sup>)</b> | 40 m <sup>3</sup> * 3¢/m <sup>3</sup>          | 40 m <sup>3</sup> * 3¢/m <sup>3</sup>          |

**6.2 USEFUL LIFE OF RNG**

1 The RNG inventory would be managed on a first-in, first-out basis. The first RNG units purchased  
 2 by Gaz Métro would therefore be the first ones sold. No protocol has been defined in Canada for  
 3 determining when an RNG unit can no longer be sold to a customer. Fortis BC is allowed  
 4 18 months to deplete its RNG inventory through voluntary purchases.<sup>74</sup> In the U.S., RINs usually  
 5 expire after two years. Gaz Métro believes it is prudent to follow the practices generally accepted  
 6 in the market. To allow an appropriate timeframe for recovering RNG purchases, Gaz Métro  
 7 would consider that any RNG purchase has expired if it has not been voluntarily sold to a  
 8 customer after two years.

**6.3 RECORDING AND RECOVERY OF STRANDED COSTS**

9 Any RNG units that expired would be transferred from the RNG supply inventory into the system  
 10 gas inventory. However, stranded costs would be generated because the RNG supply value  
 11 would be higher than the system gas supply value. The difference between the actual acquisition  
 12 cost of the unsold RNG and the system gas supply price in effect at the time of the transfer would  
 13 then be charged to a non-rate-base DEA bearing interest according to the average capital cost.

<sup>74</sup> <http://www.ordersdecisions.bcuc.com/bcuc/decisions/en/item/169164/index.do>.

1 An application concerning the recovery of that DEA will be submitted to the Régie at a later date.  
2 This approach has been chosen because Gaz Métro is confident that its entire RNG inventory  
3 can be sold in the short term.

4 Nevertheless, as mentioned earlier, the Québec government indicated in its 2017–2020 Action  
5 Plan that a regulation to be adopted in 2017 would set 5% as the minimum proportion of RNG  
6 that Québec natural gas distributors would have to inject into their distribution networks for  
7 Québec customers by 2020.<sup>75</sup> With this new regulatory requirement, Gaz Métro may ultimately  
8 have to deliver a quantity of RNG that exceeds voluntary purchases. In that case, certain costs  
9 related to RNG purchases may have to be allocated to Gaz Métro customers, including those that  
10 have not opted for voluntary purchases, in order to comply with that new regulatory requirement.  
11 Gaz Métro would also like to draw attention to the point of view of Sylvain Audette, the Régie's  
12 expert in file R-3972-2016, who noted that the development of the RNG sector would necessitate  
13 a range of elements,<sup>76</sup> such as the application of an FIT for producers, the voluntary use of RNG  
14 by certain customers and a form of socialization across the entire clientele. However, Gaz Métro  
15 believes that it is too early at this stage to formulate a proposal for allocating the possible costs  
16 from any obligation to meet a 5% RNG threshold by 2020, as announced in the 2017–2020 Action  
17 Plan.

18 Given that there is a low risk of significant stranded costs in the short term, Gaz Métro believes  
19 that a decision about the DEA treatment does not have to be made in the short term. However,  
20 to promote growth in RNG supplies, it is essential to quickly inform producers about an eventual  
21 FIT. In addition, there is a real risk of losing customers if voluntary purchases are not allowed. If  
22 an RNG tariff is not approved soon and those customers are lost, the entire clientele would be  
23 penalized. Gaz Métro is therefore proposing to make a submission to the Régie at a later date to  
24 explain how those DEA costs would be recovered.

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<sup>75</sup> Action 37, p. 3, [http://politiqueenergetique.gouv.qc.ca/wp-content/uploads/Tableau-PA-PE2030\\_ANG.pdf](http://politiqueenergetique.gouv.qc.ca/wp-content/uploads/Tableau-PA-PE2030_ANG.pdf)

<sup>76</sup> R-3972-2016, A-0025, Transcript from February 14, 2016, p. 32.

1 **Gaz Métro is asking for authorization to create a deferred expense account in which any**  
2 **stranded costs from the expired RNG inventory would be recorded. It would be a non-rate-**  
3 **base account bearing interest according to the weighted average capital cost.**

4 **Gaz Métro is asking the Régie to take note that it will submit an application at a later date**  
5 **to establish the rules for allocating any amounts recorded in the deferred expense**  
6 **account.**

## 7 **AMENDMENTS TO THE *CONDITIONS OF SERVICE AND TARIFF***

### 7.1 **CREATION OF RNG SUPPLY TARIFF**

7 The creation of the new RNG tariff would require certain amendments to the CST. Adjustments  
8 would have to be made to Article 11.1 concerning the distributor's supply service because the  
9 service would consist of two tariffs, namely the natural gas tariff and the RNG tariff (see Figure  
10 6). To standardize and simplify the text, the CST would refer to the *distributor's natural gas supply*  
11 *service* but would differentiate the rate and price for natural gas versus RNG. Articles 11.1.2 and  
12 11.1.3 would therefore read as follows:

#### 13 **~~11.1.2 NATURAL GAS SUPPLY RATE~~**

##### 14 **~~11.1.2.1. Natural Gas Supply Price~~**

15 *For each m<sup>3</sup> of volume withdrawn, the natural gas supply price, as of XXX XX, XXXX, is XX.XXX¢/m<sup>3</sup>.*  
16 *The price may be adjusted monthly to reflect actual cost of acquisition.*

17 *For each m<sup>3</sup> of volume withdrawn, the renewable natural gas supply price, as of XXX XX, XXXX, is*  
18 *XX.XXX¢/m<sup>3</sup>.*

19 *When a customer enters into a fixed-price supply agreement with the distributor, in writing, within the*  
20 *allowed time frame, the specific gas supply price shall be the cost of acquisition of the natural gas*  
21 *from the specific supplier in accordance with the customer's commitment under the agreement. The*  
22 *distributor does not guarantee the fixed gas supply price agreed upon with the specific supplier. The*  
23 *customer is billed this specific price commencing on the day deliveries from the specific supplier begin*  
24 *and for as long as these deliveries continue. Should the specific supplier no longer be able to meet its*  
25 *commitments to the distributor, the customer will be transferred to the distributor's variable-price*  
26 *natural gas supply service once the natural gas already delivered by the specific supplier for the*  
27 *customer in question has been fully used.*

##### 28 **11.1.2.2 Inventory-Related Adjustment**

29 *The ~~natural gas~~ supply price is accompanied by an adjustment to take into account variations in the*  
30 *value of inventories resulting from a change in the ~~natural gas~~ supply price, as well as costs associated*



1 with maintaining the inventories. This adjustment is described in the “Inventory-related Adjustments”  
2 chapter.

3 (...)

#### 4 **11.1.3 TERMS AND CONDITIONS**

5 (...)

##### 6 **11.1.3.3 Prior Notice of Withdrawal**

7 Subject to Article 11.1.3.56, a customer who wishes to opt out of the distributor’s natural gas supply  
8 service must so notify the distributor in writing at least 6 months in advance.

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

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

13 (...)

##### 14 **11.1.3.5 Renewable Natural Gas**

15 A customer who wishes to make a portion of its consumption subject to the renewable natural gas  
16 supply rate or modify such portion must submit a request in writing to the distributor at least 60 days  
17 in advance, indicating the targeted consumption percentage. Said percentage must be more than 5%.

18 Notwithstanding the foregoing, authorization to make a percentage of consumption subject to the  
19 renewable natural gas rate or increase such percentage will be given only if it is operationally possible  
20 for the distributor to supply the renewable natural gas to the customer.

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

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

##### 26 **11.1.3.56 Contract Term**

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

##### 28 **11.1.3.67 Gas Quality**

29 The monthly average gross heating value of the natural gas delivered shall be at least 36.00 MJ/m<sup>3</sup>  
30 unless the customer and the distributor agree on a lower value.”

## 7.2 EXEMPTION FROM C&T SYSTEM SERVICE

31 Since Gaz Métro itself would buy the actual natural gas sold at the RNG supply tariff, customers  
32 with the RNG tariff would not have to complete a C&T system exemption declaration, which is

1 required for customers using RNG through direct purchase. In addition, the definition of  
2 “withdrawals exempt from the cap-and-trade emission allowances system” and chapter 16  
3 concerning the C&T system would not have to be amended to reflect the fact that the RNG used  
4 at the RNG tariff would be exempt from the C&T system service. The *Regulation respecting a*  
5 *cap-and-trade system for greenhouse gas emission allowances* already covers the concept of  
6 “fuel”, which excludes the biofuel portion of that fuel. Consequently, RNG is not a fuel as defined  
7 by that regulation, and no GHG emissions related to its use have to be reported to the Minister of  
8 Sustainable Development, the Environment and the Fight against Climate Change.

### **7.3 ADDING A COMBINATION OF SERVICES**

9 The new combination of services proposed in section 6.5 should be reflected in Article 10 of the  
10 CST as follows:

#### **11 “10.2 Combination of Customer’s and Distributor’s Services**

12 (...)

13 *Exceptionally, however, a customer who uses firm service as well as interruptible service at a single*  
14 *metering point shall be entitled to use its own transportation service for the firm portion of its load while*  
15 *using the distributor’s transportation service for the interruptible portion. In addition, a customer using*  
16 *“Make-up Gas Service to Avoid an Interruption” may combine its own natural gas supply and*  
17 *transportation services with those of the distributor for this make-up portion of its load.*

18 *Also, a customer who provides, in part, renewable natural gas at a single metering point shall be entitled*  
19 *to:*

20 1. use the distributors’ supply service as well as, for renewable natural gas, its own  
21 supply service: when this renewable natural gas is produced within the franchise, a  
22 customer shall be entitled, furthermore, at a single metering point, to use the distributor’s  
23 transportation service as well as, for the renewable natural gas produced within the  
24 franchise, its own transportation service; ~~*The natural gas then provided by a customer must*~~  
25 ~~*be “with transfer of ownership”.*~~

26 2. use the renewable natural gas supply tariff for the distributor’s supply service as well as supply  
27 its own service.

28 *The natural gas then provided by a customer must be “with transfer of ownership”.*

29 **Gaz Métro is asking the Régie to approve the proposed amendments to Articles 10.2,**  
30 **11.1.2 and 11.1.3 of the *Conditions of Service and Tariff*.**

## **8 CONCLUSIONS**

1 Gaz Métro is asking the Régie to:

- 2 - approve the characteristics of the RNG supply contracts that it would like to sign with  
3 subsidized producers, namely a purchase price determined by applying the schedule  
4 appearing in Table 3, as well as terms of 5 to 20 years;
- 5 - approve the functionalization of the RNG purchase cost at Dawn upon supply, based on  
6 a transmission portion equal to the distributor transmission tariff less tariff adjustments for  
7 FTLH capacity maintenance (85 TJ/day) and excess transmission capacity, without any  
8 transfer to load balancing;
- 9 - give its approval so that the costs of the return and income taxes generated by the RNG  
10 inventory can be functionalized to the adjustment service related to existing system gas  
11 inventories;
- 12 - approve the method for calculating the RNG price for the purpose of applying the RNG  
13 tariff;
- 14 - authorize the creation of a deferred expense account to accrue the differences between  
15 the actual purchase costs and the RNG selling price billed to customers. It would be a  
16 non-rate-base account bearing interest according to the weighted average capital cost;
- 17 - approve the implementation of an RNG tariff for its supply service, together with the  
18 related terms and conditions;
- 19 - approve the combination of services for customers paying the RNG tariff for part of their  
20 consumption and procuring natural gas through direct purchase with transfer of ownership  
21 for the other part;
- 22 - authorize the creation of a deferred expense account in which any stranded costs from  
23 the expired RNG inventory would be recorded. It would be a non-rate-base account  
24 bearing interest according to the weighted average capital cost;
- 25 - approve the 2017–2018 RNG price of 37.978¢/m<sup>3</sup>;
- 26 - approve the agreement in principle (Term Sheet) reached with Tidal Energy Marketing  
27 Inc. concerning RNG purchases;

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- 1        - take note that it will submit an application at a later date to establish the rules for allocating  
2            any amounts recorded in the deferred expense account;
- 3        - approve the proposed amendments to Articles 10.2, 11.1.2 and 11.1.3 of the CST.
- 4        Gaz Métro believes that the proposals for RNG purchases and sales outlined in this document  
5        will help implement the Energy Policy, ensure that suitable terms and conditions are offered to  
6        producers and thereby favour an increase in the RNG supply while giving customers easier  
7        access to this increasingly popular renewable energy source.

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## 1 APPENDIX 3

2 As explained in section 5.3.1, Gaz Métro had to turn to a producer other than the City of Saint-  
3 Hyacinthe for 2017–2018 because the volume of RNG that the city expected to produce during  
4 the coming year was not sufficient to meet the needs of the first customers who have expressed  
5 interest in using RNG.

6 Gaz Métro therefore contacted three different suppliers in order to obtain the best possible price.

7 The following table shows the results of this process.

| <b>Price of RNG supplied by Tidal Energy Marketing Inc.: 56.84¢/m<sup>3</sup></b> |                  |                                       |
|---|------------------|---------------------------------------|
|   | Unit             | Note                                  |
| 15.00   | \$/GJ            | Price in \$/GJ                        |
| 56.84   | ¢/m <sup>3</sup> | Price converted into ¢/m <sup>3</sup> |

| <b>Price of RNG supplied by Cargill Limited: 68.77¢/m<sup>3</sup></b> |                  |                                       |
|---|------------------|---------------------------------------|
|   | Unit             | Note                                  |
| 18.15   | \$/GJ            | Price in \$/GJ                        |
| 68.77   | ¢/m <sup>3</sup> | Price converted into ¢/m <sup>3</sup> |

| <b>Price of natural gas with green attributes supplied by BP Canada Energy Group ULC: 167.21¢/m<sup>3</sup></b> |                  |                                       |
|---|------------------|---------------------------------------|
|   | Unit             | Note                                  |
| 44.13   | \$/GJ            | Price in \$/GJ                        |
| 167.21  | ¢/m <sup>3</sup> | Price converted into ¢/m <sup>3</sup> |

8 Gaz Métro selected the offer from Tidal Energy Marketing Inc. (“Tidal”), consisting of RNG  
9 produced by the City of Hamilton at a price of 56.84¢/m<sup>3</sup>. The agreement in principle (Term Sheet)  
10 reached between the parties is provided in Appendix 4. The terms and conditions of that  
11 agreement in principle will be confirmed by a Transaction Confirmation during the coming weeks.  
12 It should be noted that Tidal is a subsidiary of Enbridge Inc., which itself appears in Gaz Métro’s  
13 corporate organization chart. Tidal is therefore “a supplier having a direct or indirect interest in  
14 the enterprise of [Gaz Métro]” under section 81 of the *Act respecting the Régie de l’énergie* (the  
15 “Act”). According to Gaz Métro’s understanding of paragraph 90 of decision D-2017-041  
16 concerning the rules governing supply transactions with affiliated companies, the contract signed  
17 with Tidal should normally be submitted to the Régie for specific approval as part of Gaz Métro’s  
18 annual report. However, since the price agreed upon with Tidal has an impact on the RNG price  
19 for 2017–2018, which the Régie is being asked to approve as part of this file, Gaz Métro is asking

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1 the Régie to immediately approve the agreement reached with Tidal. For that purpose, Gaz Métro  
2 is providing the following information required under paragraph 90 of decision D-2017-041:

3       • **List of suppliers contacted and offers received**

4           Tidal Energy Marketing Inc.

5           Cargill Limited

6           BP Canada Energy Group ULC

7           The offers received are outlined above.

8       • **Supplier's name, transaction date and effective period**

9           Name: Tidal Energy Marketing Inc.

10          Agreement signature date: September 25, 2017

11          Effective period: Three (3) years from the first RNG delivery date, with renewal at the end  
12          of the term

13       • **Analysis showing that the selected transaction is the most advantageous for  
14       customers**

15          The table on the previous page shows that the Tidal offer is more advantageous for  
16          customers than the alternatives offered by Cargill Limited and BP Canada Energy Group  
17          ULC.

18       • **Certification that the Distributor's transactions with its affiliated entities comply  
19       with the Code of Conduct**

20          Certification is provided in Appendix 5.

21       Gaz Métro would like to point out that the Transaction Confirmation setting out the terms and  
22       conditions of the agreement in principle will be prepared under a master contract that was  
23       originally signed in April 2016. In that regard, a master contract:

24           *[Translation] "(...) is a GasEDI or NAESB contract that governs the contractual relationship*  
25           *between two counterparties. Every natural gas purchase or transmission transaction is governed*  
26           *by that master contract and is confirmed by a document called a "Transaction Confirmation". That*

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- 1 *document contains the essential components of the transaction, namely the price, quantity and*  
2 *duration.”<sup>77</sup>*

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<sup>77</sup> D-2017-041, p. 18, note 27