Régie de l'énergie

MERN – Opinion regarding the measures likely to improve rate practices in the fields of electricity and natural gas

R-3972-2016

Brief of the Industrial Gas Users Association (IGUA)

Prepared by
Esther Falardeau,
Analyst

January 18, 2017

Table of Contents

Executive summary 3
Background 5
The Industrial Gas Users Association (IGUA) 5
Some figures describing the industrial natural gas clientele 5
The industrial clientele's consumption profile 7
1.1 Diverse needs 7
1.2 Sensitivity to prices and service conditions 8
1.3 Stability of withdrawals 9
The regulatory framework 9
Pricing objectives prioritized by industrial customers 10
2.1 Cost recovery 11
2.2 Fairness between rate classes 11
2.3 Price stability and predictability 12
2.4 Flexibility of rate options 12
Comments regarding the distribution service rate structure 13
3.1 Importance of the rates' fixed component 13
3.2 Flexibility of the rate options and conditions 17
Transmission, load-balancing and supply services 19
Integration of new technologies 20
Consultation process guiding the contemplated changes to the allocation methods and rate structures 21
Conclusion 22

EXECUTIVE SUMMARY

Established in 1973, IGUA has close to 25 members among the largest corporate users of natural gas, with nearly half of them operating in Québec. IGUA is tasked with promoting the interests of large industry to regulatory institutions and public organizations in order to ensure that it has access to natural gas under optimal conditions for itself and the entire Québec economy. The province's industrial clientele together consume just over half of the total volume of natural gas distributed in Québec. Heavy industry alone consumes approximately 41% of the total volume distributed.

IGUA feels that the regulatory framework applied to natural gas trade should promote the development of competitive markets. Consequently, it submits that the exclusive rights granted to natural gas distributors should not be extended to goods or services for which the market is naturally competitive. Any support offered to natural gas distributors in their role of facilitating the transition to an economy with a smaller ecological footprint should be clearly defined in form and duration.

The distributors' rate structure should be guided by the principle of cost causation, although discretion should be exercised in establishing the rates to ensure that reasonable results are obtained. IGUA submits that there is reason to continue the efforts to minimize cross-subsidization between the different customer segments.

IGUA feels that the rate structure should be based on the distribution cost structure and, consequently, comprise a fixed component not tied to the volumes consumed. The current rate structure is quite variable for residential and business customers, whereas it is quite fixed for large-volume customers. IGUA wonders about this major difference since the distribution costs are mostly fixed for all segments of the clientele. It would be desirable to consider the importance that should be given to the fixed component of the rates for the different market segments.

With respect to the service conditions applied to large-volume rates, IGUA submits that there is reason to favour a flexible approach that makes it possible to take into account the specific needs of the various industrial customers when possible. In particular, regarding the fact that the fixed portion of the rates does not need to be tied to volumes, IGUA proposes eliminating the concept of subscribed distribution service volumes and eliminating the penalties applicable to excess volumes. It also proposes that the parameters of the distribution contracts applicable to large-volume industrial customers be renegotiable annually. IGUA would be open to a broader discussion to evaluate the various changes it proposes that would make it possible to ease the distribution service conditions applicable to large-volume customers.

IGUA believes that the service conditions and rates should be evaluated with a view to adapting them to facilitate the service configurations enabled by the new technologies that combine different forms of energy and different activities, some of which are regulated and some of which are not.

Where necessary, the regulatory framework should also be evaluated with the goal of relaxing it to enable regulated and unregulated activities to coexist optimally.

BACKGROUND

In June 2016, the Minister of Energy and Natural Resources asked the Régie de l'énergie (the "Régie") to provide an opinion on the measures likely to improve the current rate practices in the field of electricity and natural gas distribution. The opinion was to propose rate solutions based on the best practices of the U.S. states and other territories, with a view to simplifying customers' options.

In August 2016, IGUA responded to the Régie's invitation to participate in the consultation process and announced its intention to focus mainly on the question of rate structures and rate options in the natural gas sector, but also reserved the right to address the matter of integrating new technologies and their impact on cost sharing and rates.

IGUA hereby submits its comments regarding the rate structures and options applied in the natural gas distribution sector and concerning the reports submitted by the experts and distributors on the questions pertaining to natural gas.

THE INDUSTRIAL GAS USERS ASSOCIATION (IGUA)

- Established in 1973, IGUA has close to 25 members among the largest corporate users of natural gas, with nearly half of them operating in Québec. IGUA's members operate primarily in the cyclical industrial sectors, such as pulp and paper, metals, mining, chemicals and manufacturing. These companies contribute significantly to economic activity in Québec and its regions.

- While few in number, IGUA members consume over 140 PJ of natural gas annually. In Québec alone, IGUA members consume nearly 25% of the total volume of natural gas distributed by Gaz Métro and Gazifère.

- To be able to sustain the economy and remain present in Québec, the major industries must strive to maintain, and even improve, their competitive position internationally. To that end, a reliable, accessible, competitively priced supply of natural gas is crucial. IGUA is tasked with promoting the interests of large industry to regulatory institutions and public organizations in order to ensure that it has access to natural gas under optimal conditions for itself and the entire Québec economy.

SOME FIGURES DESCRIBING THE INDUSTRIAL NATURAL GAS CLIENTELE

- The industrial clientele in Québec together consume approximately half of the total volume of natural gas distributed in the province. Heavy industry, which comprises companies in the metallurgy, aluminum, pulp and paper, and petrochemical sectors, on its own consumes approximately 41% of the total volume distributed.

- The following table, taken from Gaz Métro's website, presents the share of distributed volumes attributable to industrial customers compared to customers in other market segments.

Table 1 – Industrial customers' consumption

Major industries	**Natural gas volume (BCF)**	**(%)**
Manufacturing	9.80	4.8%
Food and beverages	8.75	4.3%
Construction	3.71	1.8%
Metallurgy	27.42	13.5%
Chemicals/petrochemicals	20.20	10.0%
Pulp and paper	19.70	9.7%
Aluminum	16.26	8.0%
Heavy industry	83.58	41.3%
Institutional	7.62	3.8%
Major industries	**113.40**	**56.0%**
Residential and commercial	**89.1**	**44.0%**
Total consumption	**202.50**	**100.0%**

Source: https://www.gazmetro.com/en/bluebulletinapril2016/

- Depending on the type of process and the options available, the industrial clientele use natural gas as a raw material, to power their high-intensity industrial processes, as an alternate energy source or for heating.

    - For some industries, natural gas is a direct input in the industrial process and is therefore essential to their operations. This is especially true in the petrochemical and fertilizer industries, which use the process to transform the materials' molecules.

    - For other industries, natural gas is the main energy source since the intensity of the heat required cannot be obtained with electricity. Natural gas is also used to power the high-temperature industrial processes in the metallurgy, aluminum manufacturing and petrochemical sectors. In certain cases, the intensity of the heat required cannot be obtained with electricity.

- The industrial clientele also use natural gas to produce steam with boilers. The paper and food sector industries are among the biggest consumers using gas to produce steam.

- The low-temperature industrial processes, which involve drying operations, are used in the construction and food-production sectors.

- Some industrial customers have a consumption profile that shows little fluctuation (e.g. petrochemicals), while others have one that fluctuates seasonally or based on their production cycle (e.g. mining and metallurgy). Those that use natural gas as an alternate energy source have an irregular consumption profile marked by occasional strong peaks. For example, pulp and paper mills, which use biomass as a power source, will have strong peaks when there is a break in the biomass-based production process.

- According to a study produced by Université Laval's CREATE centre, industrial customers negotiate approximately 60% of their natural gas purchases themselves. For comparison, all of the gas distributed in the residential sector is purchased by Gaz Métro and Gazifère, whereas commercial customers negotiate around one-quarter of the natural gas they consume themselves.[1] This statistic demonstrates the importance for industrial customers of managing their supply themselves.

THE INDUSTRIAL CLIENTELE'S CONSUMPTION PROFILE

1.1 Diverse needs

- In contrast to the residential and commercial clienteles, industrial customers have very divergent consumption profiles depending on how natural gas is used. Some industrial processes require constant consumption throughout the year, whereas others may be partially or almost entirely interrupted for a period of time. Furthermore, certain consumption profiles vary seasonally while others are generally stable with few significant peaks in usage. Some industrial customers have a predictable consumption profile, whereas others cannot anticipate when or how large the peaks will be. There are several factors to consider in determining industrial customers' requirements, from the specific nature of the industrial processes used to the general economic climate.

[1] Analyse du marché nord-américain du gaz naturel (Analysis of the North American natural gas market), CREATE, Université Laval, September 2013, page 29

- So the industrial clientele differs from the residential and business clienteles in their more varied needs and their consumption profiles. The Québec natural gas distributors will attest that the vast majority of residential and business customers use natural gas mainly for their heating needs. In this respect, the consumption profile of those customers is more homogeneous with a pronounced seasonal variation.

- The diversity of needs is a first element that characterizes industrial customers' consumption.

1.2 Sensitivity to prices and service conditions

- Energy is a major, indispensable input for Québec's industrial production. The cost of the energy used represents a significant part of industrial customers' total production costs. For example, in cement manufacturing, total spending on energy consumption represents a little more than one-third of production costs.[2] Access to a reliable, affordable energy source affects plants' competitiveness globally and, consequently, is a key factor in their location decisions.

- Most Québec industries have access to more than one energy source, enabling them to switch between the types of energy based on their comparative costs.

- Given that reality, any increase in the price of energy or tightening of the service conditions can impact industrial companies' profitability and competitiveness. Variations in energy costs lead industries to re-evaluate their choices, namely by considering temporarily switching to an alternate energy source or by simply adjusting their production over time or even transferring production to other plants that, on an international scale, offer economically more viable conditions.

- Industrial companies' demand is thus more sensitive to price and service conditions than that of residential and business customers, for whom the cost of energy is relatively less important[3] and who more seldom have access to an alternate energy source.

[2] Data from the Ministère de l'Énergie et des Ressources naturelles du Québec, 2016. Taken from: https://mern.gouv.qc.ca/english/energy/strategy/index.jsp

[3] According to data from the Ministère de l'Énergie et des Ressources naturelles, Québec households spend 8% of their disposable income on energy consumption. Source: https://mern.gouv.qc.ca/english/energy/strategy/index.jsp

1.3 Stability of withdrawals

- Industrial customers' natural gas consumption also tends to be less sensitive to temperature variations and therefore more stable throughout the year compared to the residential and business clienteles' consumption. This clientele generally presents a higher utilization coefficient than customers in other market segments.

THE REGULATORY FRAMEWORK

- IGUA supports the principle that the regulation of natural gas distribution services is necessary to recreate the conditions that would prevail in a competitive market and thereby protect consumers from the abusive practices that could result from the dominant position of a natural monopoly. The economic theory is that if the monopolistic sectors were instead comprised of a large number of competitive companies, production would be higher and prices lower. So regulation aims to align the prices and production levels with what they would be in a competitive context and, in that sense, serves as a substitute for competition.

- Consequently, IGUA contends that the exclusive rights granted to natural gas distributors should not be extended to goods or services for which the market is naturally competitive. IGUA believes that, when the conditions of a market are competitive, it is economically more efficient to allow that market to operate freely. So, even though technological developments in the energy field may lead to service configurations that combine natural gas distributed by pipeline (regulated) with other products whose activity is unregulated, IGUA believes that it is wise to resist the temptation to extend the scope of the distributors' regulated activities by including in them activities whose market would otherwise be competitive. IGUA feels that the regulatory framework should continue to favour free competition in all sectors that do not have the characteristics of a natural monopoly.

- Furthermore, although IGUA favours establishing competitive markets, it recognizes the support role that the regulated natural gas distributors in Québec can play in developing the renewable natural gas or liquefied natural gas markets or even other energy-related technologies. In particular, Gaz Métro's expertise and infrastructures enable this distributor to play a key role in developing new supply options for large industry.

- IGUA feels that if the natural gas distributors are offered support in their role of facilitating the transition to an economy with a smaller environmental footprint (through the inclusion of rate-based assets, for example), it should be defined in form and duration. The distributors' expertise should serve as a means for facilitating the integration of new technologies while promoting the establishment of competitive markets where conditions are favourable.

- IGUA submits that the current regulatory framework warrants being evaluated to ensure it enables the easy coexistence of regulated activities (traditional natural gas distribution by pipeline) and unregulated activities (liquefied natural gas) with the aim of offering Québec industry all possible options to support its competitiveness and performance. The regulatory framework must be sufficiently flexible to protect natural gas consumers from the potential abuses of a monopolistic market while at the same time allowing the emergence of products and services in a competitive free market context.

PRICING OBJECTIVES PRIORITIZED BY INDUSTRIAL CUSTOMERS

- The main objective of pricing is to enable regulated distributors to recover all of their service costs along with the return authorized by the regulatory body.

- However, certain secondary objectives are also important. *Gas Rate Fundamentals* notes the following secondary objectives in particular:[4]

  [Translation]

  - Fairness
  - Economic efficiency
  - Administrative ease
  - Price stability
  - Environmental protection
  - Job creation

- As part of its recent work on rate structures, the Ontario Energy Board adopted the following three principles for establishing rates.[5]

  1- Full cost recovery
  2- Fairness
  3- Efficiency

[4] *Gas Rate Fundamentals*, American Gas Association, 1987, page 152
[5] EB-2007-0031, Ontario Energy Board, "Rate Design for Recovery of Electricity Distribution Costs – Staff Discussion Paper," page 15

- IGUA has the following comments regarding priorities for the industrial clientele.

2.1 Cost recovery

- IGUA believes that the rates should be set at a level to recover the distributors' service costs from the rate classes. In particular, rate setting should be guided by the results of the cost allocation exercise whereby the rate classes are attributed the costs they generate.

- This exercise is based on the cost causation principle and, therefore, allocating costs to the customers directly concerned is always preferred when possible.

- However, direct allocation is not always possible. A significant portion of the distributors' costs, particularly the common costs, must instead be assigned based on allocation rules. These rules, although developed to reflect as accurately as possible the cost drivers, give the allocation exercise an arbitrary aspect based on the application of best judgement instead of indisputable observation of responsibility. The approximations required to allocate the common costs result inevitably in a certain margin of error.

- So, even though the distributors' rate structure must reflect cost causation, discretion should be exercised in establishing the rates to ensure that reasonable results are obtained

2.2 Fairness between rate classes

- IGUA feels that any financial assistance aimed at a class of customers, an industrial sector or an economic sector should not be provided through the rates for the regulated distributors' services but rather by granting direct support in line with the government's objectives.

- Even though the rates do not necessarily need to be set so that the cost/revenue cross-subsidization ratio is exactly 1, there is still reason to maintain efforts to minimize the subsidization of one customer segment by the others. Cross-subsidization represents a form of financial assistance that should be provided through objective-specific programs.

- However, IGUA feels that the "postage-stamp" rate structure, which ensures that customers are not disadvantaged by their geographic location, should be maintained. Customers who are located in remote regions where it is more costly to offer service should not be disadvantaged by their geographic location. The Régie has accepted this principle of not discriminating against customers in remote regions in its previous decisions. IGUA supports maintaining this position.

- IGUA notes as well that inequities can result from the fact that certain customers' facilities do not allow for daily volume readings while others have more modern facilities that enable daily readings. The concept of "peak" that various rates and rate parameters are based on must be estimated by statistical inference in the case of customers whose facilities are limited to monthly readings whereas it is directly observed for customers with facilities that allow daily readings. This disparity can lead to estimation errors. The gradual replacement of monthly meters by daily meters, where technologically feasible, would allow for a more accurate evaluation of consumption profiles.

2.3 Price stability and predictability

- The stability of the rate parameters is important for industrial customers, who need to be able to project over time the billing amount for their natural-gas-related services with some accuracy. They value rate predictability and stability over time because it allows for better operational planning.

- Budget forecasts are established yearly and production plans are set accordingly. Changes in rate parameters that impact total billing for natural gas consumption impact the profitability of operations and require adjustments to production decisions.

2.4 Flexibility of rate options

- Industrial customers have diverse needs, using natural gas for different processes as well as for their heating requirements. The service rates offered to industrial customers should be structured in a way that provides flexibility to adjust to this clientele's diverse needs. For example, natural gas consumption used for industrial processes could be limited to minimum obligations or be temporarily interrupted, whereas heating needs could be met by a rate without any restrictions. The industrial clientele's diversity of needs should result in flexible pricing that enables these customers to exercise some control over their billing.

3.1 Importance of the rates' fixed component

- The current distribution rates are primarily structured around volumes consumed so that the higher the volume of natural gas consumed by a customer, the higher the total billing for distribution. It may seem fair, but that is not always the case. Over the short-term, the natural gas distributors' distribution costs are mostly fixed. The costs of the distribution pipes, connections and meters along with several administrative expenses are incurred by the customers whether consuming or not. This observation was confirmed by the natural gas distributors.[6] So there is no justification for linking the determination of the fixed part of the billing to the volumes consumed.

- IGUA believes that pricing should reflect the fact the distribution costs are mostly fixed and should comprise a fixed monthly charge for each of the rate classes that is not linked to the volumes consumed. It is important that the rate structure be based on the cost structure.

  > "*One criterion for determining the appropriate rate structures is the accuracy with which the structure tracks costs.*"[7]

- Furthermore, at present, basic fees or minimum monthly obligations, which comprise the fixed parts of the rates, are applied by Gaz Métro and Gazifère for all of the rates, including those to which the residential customers subscribe. However, the ratio of fixed rates to the total amount of billing varies significantly based on the different rates, as the following analysis shows.

The fixed component of the rates applicable to residential and business customers

- The fixed charges paid monthly cover a part of the fixed distribution costs. At present, the minimum monthly obligation applied to residential customers is $10.05 with Gazifère and $15.50 with Gaz Métro.

- The evidence filed by Gaz Métro in previous cases confirms that the fixed portion of the rates for which low-volume customers sign up covers only part of the total fixed distribution cost.

[6] R-3630-2007, Gaz Metro 2, Document 7, page 65 (French only).
[7] Missouri Public Service Commission, *Class Cost-of-Service and Rate Design: Staff Report*, Case No. GR-2014, 0152, page 4.

[Translation] "*Thus if all fixed costs were supported by the basic fees, tariff D_1 would be nearly 100% fixed*."[8]

- According to the information taken from Gaz Métro's website,[9] a residential customer subscribing to tariff D_1 and withdrawing 256 m^3 in a month would be billed 51.78¢ per day in fixed basic fees, which equals $15.50 per month. The variable portion of the bill for this type of consumption would total $68.46.[10] In this example, the fixed portion of the part of the billing related to the distribution service is 18% while the variable portion is approximately 82%.

- According to the information contained in Gazifère's *Conditions of Natural Gas Service and Tariff* as at July 1, 2016,[11] the fixed portion of the rate equals approximately 13% of the billing related to the distribution services.

- For the business clientele, the fixed portion of the billing related to the distribution service can be as low as 5%. According to a billing example taken from Gaz Métro's website,[12] a business customer consuming 3,056 m^3 during a given month would be billed for the distribution services under Gaz Métro's tariff D_1 the amount of $31.58 in fixed charges and $628.84 in variable charges based on the volume consumed. So approximately 5% of the billing is fixed and 95% is variable.

- We thus note that, even if the vast majority of the distribution service costs are fixed, the fixed component of the rates for which residential and business customers sign up is still very low.

The fixed component of large-volume rates

- At the same time, Gazifère and Gaz Métro are applying a minimum payment obligation to customers signing up for tariffs 5 and D_4 respectively. This minimum obligation represents the fixed portion of these rates intended for large-volume customers.

- In the case of Gaz Métro, the minimum daily obligation (MDO) is comprised of nine levels of declining rates applicable to the daily volumes subscribed by the customers.[13] For example, a customer with a subscribed volume of 60,000 m^3/day would have to pay a

[8] R-3630-2007, Gaz Métro-2, Document 7, page 65 (French only).
[9] https://www.gazmetro.com/en/residential/customer-centre/billing-and-pricing/understanding-my-bill/
[10] This example is taken from a fictitious bill presented on Gaz Métro's website, https://www.gazmetro.com/en/residential/customer-centre/billing-and-pricing/understanding-my-bill/
[11] Gazifère, *Conditions of Natural Gas Service and Tariff, July 1, 2016*, page 47.
[12] https://www.gazmetro.com/en/business/customer-centre/billing-and-pricing/understanding-your-bill/
[13] The subscribed volume represents the volume of natural gas stipulated in the written contract that the distributor commits for delivery to the customer daily.

monthly amount corresponding to a unit rate multiplied by 1,800,000 m^3 (60,000 m^3 * 30 days). This amount must be paid monthly whether or not the volumes are consumed. It is the fixed component of the rates.

- Added to this fixed component is a variable component that is determined by the customer's consumption during a given month, multiplied by a unit rate for the volumes withdrawn.

- The current structure of the rates reserved for large-volume customers is such that the fixed portion of the billing represents a very large part of the billing attributable to the distribution service. The rate structure applicable to the rates for which industrial customers sign up is mostly fixed, unlike the rate structure applicable to lower-volume customers.

- For example, an industrial customer with a minimum contractual obligation of 60,000 m^3/day that sign up for Gaz Métro's tariff D_4 and withdraws a total of 79,133 m^3 during a given month, would end up with the following approximate billing for the distribution services.

Table 2 – Fixed/variable components of Gaz Métro's tariff D_4

	Gaz Metro – Estimated billing for the distribution service	
	Amounts ($)	(%)
Minimum obligation (Fixed component)	60,000 m^3*3.364¢/ m^3*30 days $60,520	99.5%
Unit rate for volume withdrawn (Variable component)	79,133 m^3*0.35¢/ m^3 276.97%	0.5%
Total	$60,796.97	100%

Source: IGUA has estimated these data based on Gaz Métro's rate schedule.

- The distributors' rate structure is mostly fixed for the rates reserved for large-volume customers and mostly variable for residential and business customers. Yet the cost structure is mainly fixed for everyone.

- IGUA wonders about the large difference in the fixed/variable costs ratio of the various rates and feels that such a difference is unfair and should not exist. If the distribution service costs are almost entirely fixed, IGUA submits that this cost structure should be reflected in all rates, including those for which residential and business customers sing up.

Ontario's experience

- In Ontario, a review is under way for the rate structure applied to the distribution of electricity and natural gas. In a recent decision, the Ontario Energy Board (OEB) established a new rate structure for electricity distribution to residential customers. Under this new rate structure, all distribution costs will be fully recovered through a fixed monthly charge, starting in 2019.

  > "*Under the new policy, electricity distributors will structure residential rates so that all the costs for distribution service are collected through a fixed monthly charge*."[14]

- The OEB intends to extend its review to natural gas rates in the next few years.

- One argument against a mostly fixed rate structure is that the price signal of such a structure discourages consumers' energy conservation efforts. However, the reservations typically expressed to the effect that conservation efforts will be compromised by the application of a rate structure with a large fixed component would not appear to be entirely justified. In particular, Ontario's experience would seem to demonstrate that there is little correlation between the size of the fixed component and the natural gas distributors' performance in terms of energy conservation.

  > "*Many stakeholders have expressed concern that removing the usage charge will reduce the success of conservation efforts and will have an adverse impact on the achievement of conservation targets. These stakeholders believe that customers will be less likely to undertake conservation measures because it will take longer for them to recoup the cost through bill savings (also known as the payback period). As a result, there would either be less conservation undertaken, or more money would need to be spent on giving customers financial incentives for conservation measures.*
  >
  > *The OEB acknowledges that removing the usage part of the distribution charge technically lowers the incentive to conserve. However, our analysis supports the conclusion that this impact is more theoretical than real. Residential conservation programs are not based on sensitive payback calculations. We also looked at whether there is a mathematical relationship between the level of distribution costs recovered through the fixed charge and the achievement of conservation targets for 2011-2013. No evidence of a relationship was found. In other words, a lower*

[14] EB-2012-0410, Ontario Energy Board*, A New Distribution Rate Design for Residential Electricity Customers*, April 2, 2015, page 1.

usage charge did not seem to affect a distributor's ability to achieve its conservation target. We conclude that the variable distribution rate does not affect whether residential conservation programs are justified, and therefore moving to the fixed charge will not impact those decisions."[15] (our underlining)

- In past cases, Gaz Métro has confirmed that the price signal comes mainly through the supply price rather than through the distribution service price.[16]

Conclusion concerning the importance of the rates' fixed component

- The distribution costs are mainly determined by the size of the equipment installed on the customers' premises, the distribution pipes, connections and meters, and the administrative expenses. These costs are for the most part fixed, being incurred whether customers consume or not. The current rate structure, which is mostly variable for lower-volume clienteles, results in different amounts being recovered from customers receiving the same services and using the same equipment. The current structure for low-volume rates does not reflect the fixed nature of distribution costs.

- Furthermore, the rate structure of the very-large-volume clientele is mostly fixed. This mostly fixed rate structure, combined with certain other service conditions applicable to the rates reserved for large-volume customers, contributes to the perception that the service conditions could be more flexible to better serve industrial customers and help them maintain a competitive position in the markets.

- IGUA therefore submits that the rate structure should be largely based on the distribution cost structure and, consequently, comprise a fixed component not tied to volumes. It would also be desirable to consider the importance that should be given to the fixed component of the rates for the different market segments.

3.2 Flexibility of the rate options and conditions

- The flexibility provided by the rates and service conditions is a very important element for the industrial clientele. Rate flexibility refers to the ability to choose, or not, the distributor's various services. It also refers to the possibility of making changes to the sign-up conditions of the various services based on the circumstances and needs of very-large-volume customers, especially when they can function for the benefit of all customers.

[15] EB-2012-0410, Ontario Energy Board*, A New Distribution Rate Design for Residential Electricity Customers*, April 2, 2015, page 7.
[16] R-3630-2007, Gaz Métro 2, Document 7, page 69 (French only).

- Major industrial customers, which are subject to changing market conditions, must sometimes quickly adjust their energy consumption, either by stopping a unit's operations or by increasing their usage. To the extent possible, the conditions applied to these customers must allow adjustments with the lowest cost and fewest penalties possible so they can maintain their competitive situation.

- At present, certain conditions are applied to large-volume industrial customers that inhibit their ability to quickly adjust their consumption level or take advantage of market opportunities. The relatively restrictive service conditions for the industrial customers include the following:

    - The duration of the contracts: Industrial customers' circumstances can change substantially over a short period of time. The distributors' propensity to require contracts with terms of three to five years forces the industrial companies to commit to conditions that may become unsuitable before the contract ends. In fact, large industry in Québec often evolves in a competitive market context where adjustments need to be made quickly. For many of the large industrial customers, a contract period of three or more years is too long. IGUA believes it should be possible to renegotiate the parameters of the distribution service contracts annually.

    - Elimination of the concept of subscribed volume for the distribution service: The customers subject to large-volume rates must specify in their contract a daily volume (subscribed volume), based on which a minimum payment obligation is determined. This obligation must be paid monthly whether or not the volume is consumed. The subscribed volume can be changed during the contract period, subject to certain terms and conditions. However, these terms and conditions are restrictive and the ability to decrease the minimum obligations is limited. It is difficult to adjust volumes downwards. IGUA submits that there is no justification for maintaining the concept of subscribed volume as the basis for calculating the minimum daily obligation. The fixed charges for the distribution service should be determined by the capacity of the equipment installed on the customers' premises and not by the size of the volumes forecasted by customers.

    - The penalties applicable to the excess volumes withdrawn: The distributors apply a sizeable penalty to volumes exceeding 150% of the subscribed volumes. This can have the effect of prompting industrial customers to set subscribed volumes higher than required by their operations in order to avoid penalties they consider too onerous that would apply during peak periods. These penalties are applied whether or not any damages resulted from the excess withdrawal. IGUA submits that there is no justification for maintaining this penalty since the excess consumption has little effect on the distribution costs, which are mainly fixed.

- The reduced flexibility that characterizes the rates reserved for large-volume customers explains why many industrial customers prefer the general rate over the rates for very-large-volume customers. For example, the data produced by Gaz Métro[17] indicate that 19 large-volume customers, who consume over 3,650,000 m³/year, sign up for the D_1 general rate.

- IGUA suggests that there is reason to favour a flexible approach for the large-volume industrial clientele, for whom the energy cost is so significant that it affects their competitiveness in the North American and international markets. As long as service to all customers remains unharmed, a more liberal approach should be used for very-large-volume customers in applying the rates and conditions. In particular, IGUA believes that an approach which is more sensitive to the industrial customers' specific needs could produce benefits for all customers in the form of possible rate decreases as a result.

- IGUA would be open to a broader discussion to evaluate the various changes it proposes that would make it possible to ease the distribution service conditions applicable to large-volume customers.

TRANSMISSION, LOAD-BALANCING AND SUPPLY SERVICES

- Natural gas distributors offer transmission, load-balancing and supply services even though they do not have an exclusive right for those services. Consequently, they do not earn a return for those activities and their pricing is aimed only at recovering costs. Since these services are "unbundled," customers have the option of contracting with suppliers other than Gaz Métro and Gazifère. Many industrial customers choose to directly contract their supply or transmission service and this option is very valuable for maintaining competitive markets.

- In recent years, there have been changes in supply management that have led Gaz Métro to propose substantial modifications to the pricing of load-balancing and transmission services. These modifications have the potential to materially impact the amounts that the industrial companies will spend for these services. Gaz Métro's proposals will be addressed in detail during phase 2 of file R-3867-2013 and IGUA will provide its in-depth analysis of those modifications at that time. However, it submits the following two general observations.

[17] R-3970-2016-B-0261, page 1 (French only).

- Those services comprise entry and exit conditions that can be unduly restrictive for the clientele and limit their access to competitive alternatives available on the primary and secondary transmission markets. IGUA feels that the conditions applied to the services other than distribution should be defined in such a way as to facilitate access to market alternatives and maintain competition in those unregulated markets.

- The parameters used to determine the balancing and transmission volumes, particularly the average annual and winter volumes, should be structured to replicate the terms and conditions that would apply in a market free of regulation.

INTEGRATION OF NEW TECHNOLOGIES

- Technological advances are enabling service configurations that could not have been foreseen only a short time ago. Notably, Gaz Métro refers in its brief to the new possibilities for pairing solar energy with other energy sources in order to optimize the management of peak periods.[18] As new possibilities are identified, involving untraditional service configurations that pair different forms of energy, the regulatory framework and the conditions for the regulated services must be sufficiently flexible to allow them to be offered in an optimal context for customers.

- As an example, the development of liquefied natural gas (LNG) now makes it possible to foresee service configurations involving the storage of LNG and its regasification and injection into a pipeline system. Take for instance the Hydro Québec project that were to use the TransCanada Energy Ltd (TCE) plant to produce electricity during peak periods using natural gas.[19] For this project, the LNG was to be transmitted in liquid form to the TCE site in Bécancour, stored in tanks, gasified and re-injected into the network to produce electricity during peak periods. Even though this project did not receive the necessary support to proceed, this type of service configuration involving both the withdrawal and injection of natural gas as well as regulated and unregulated activities remains a possibility for the future. One could imagine, for example, an industrial customer wanting to store LNG in order to balance its peak-period consumption. One could also imagine an industrial customer in a remote region purchasing LNG to gasify it and inject it into a private network. Arcelor Mittal's energy conversion pilot project in Port-Cartier would benefit from a similar service configuration.

[18] C-GM-0003, page 7 (French only).
[19] R-3925-2015 (French only).

- The existing service conditions and rates were designed to apply to traditional service configurations involving natural gas delivery by pipeline only. With these traditional configurations, the gas volume is measured only once, by the installed meter, when it is consumed by the end user and a distribution rate is applied based on that measurement. Service configurations that would involve more than one natural gas withdrawal and injection are onerous and, consequently, cannot be easily implemented. On the one hand, the joint application of distribution and receipt rates leads to inconsistencies whereby certain distribution-related costs are recovered twice. On the other hand, the coexistence of regulated activities (natural gas distributed by pipeline) and unregulated activities (LNG) can create some cumbersomeness that affects the costs and renders the service configuration complicated and non-optimal.

- IGUA believes that the conditions and rates for the receipt and distribution services should be evaluated with the aim of adapting them to facilitate the new service configurations made possible by the new technologies and that combine different forms of energy and different activities, some of which are regulated and others not. Where necessary, the regulatory framework should also be evaluated with a view to facilitating the coexistence of regulated and unregulated activities in an optimal manner.

- With respect to the development of renewable natural gas, IGUA submits that the regulatory framework and service conditions should be sufficiently flexible to allow industrial customers to produce their own. Furthermore, direct purchases from renewable natural gas producers must be made available to customers in a non-restrictive manner. The changes proposed by Gaz Métro aimed at allowing the combination of services (2018 rate case) are a step in that direction.

CONSULTATION PROCESS GUIDING THE CONTEMPLATED CHANGES TO THE ALLOCATION METHODS AND RATE STRUCTURES

- Changes made to the rate structures and the methods for allocating distribution costs can have a major impact on the final bill of industrial customers, whose monthly energy consumption charges are generally substantial. Consequently, IGUA respectfully submits that the changes to the cost allocation methods and rate structures, which have the potential to greatly impact the energy-related costs of a specific class of customers, warrant being determined as part of a consultation process.

- IGUA cites as an example of a work process the one currently under way in Ontario that has resulted in a new rate structure for residential electricity customers. The policy

produced by the OEB[20] in April 2015 is the result of a long consultation process involving all parties. A review of the rate structure applicable to commercial and industrial customers, which will lead to a policy affecting that class of customers, is currently under way. This exercise will be extended to natural gas rates in the next few years.

- IGUA submits that the consultation process used for the rate structure review in Ontario could be considered for Québec. In that respect, IGUA supports the requests of Gaz Métro and Gazifère to address the contemplated changes first through work sessions with the stakeholders.

CONCLUSION

The industrial clientele differs from the residential and business clienteles in their more varied needs, their diverse consumption profiles and the much greater impact energy-related costs have on their competitiveness in the North American and international markets.

IGUA believes it is in Québec's economic interest that the regulatory context and service conditions and rates for natural gas be conducive to industrial investment. The addition of industrial customers benefits the whole community, including residential and business customers whose distribution charges are lowered by the arrival of major players.

In that regard, IGUA feels that the regulatory framework should continue to promote free competition. The exclusive rights granted to natural gas distributors should not be extended to goods or services for which the market is naturally competitive. IGUA nevertheless recognizes the key role Québec's regulated natural gas distributors can play in developing new forms of supply involving, for example, renewable natural gas (RNG) or liquefied natural gas (LNG). Still it suggests that any support offered to natural gas distributors in their role of facilitating the transition to an economy with a smaller ecological footprint should be clearly defined in form and duration. The natural gas distributors' expertise should serve as a means for facilitating the development and integration of new technologies while promoting the establishment of competitive markets where conditions are favourable. The regulatory framework must also permit the effective co-existence of regulated and unregulated activities in the service chain and the appropriate changes to achieve that should be planned.

With regard to the rate structure, IGUA feels it should be aligned with the cost structure, although some discretion should be exercised in establishing the rates to ensure that reasonable results are

[20] EB-2012-0410*, Board Policy: A New Distribution Rate Design for Residential Electricity Customers*, April 2015

obtained. The rate structure should nevertheless be based primarily on the distribution cost structure and, consequently, comprise a fixed component not tied to volumes. There is no justification for recovering the fixed costs through a rate that varies based on volume. IGUA also submits that it would be desirable to consider the relative importance of the fixed component of the rates for the different market segments.

IGUA also proposes modifications to the distribution service conditions to make them more likely to meet the needs of the industrial clientele. In particular, IGUA feels that the conditions regarding the duration of contracts and the application of penalties should be eased and the concept of subscribed volume for the distribution service should be eliminated.

Demand for goods produced by large industry is expected to continue and Québec is a welcoming, attractive province with reliable, competitively priced sources of energy. The service conditions and regulation applied to natural gas should be favourable to the industry, enabling it to benefit from the levers presented by the new technologies.