RATE CONTEXT AND STRATEGY

(Chapters 1 to 4)

TABLE OF CONTENTS

1. CONTEXT OF THE APPLICATION

Hydro-Quebec Distribution's (hereafter the Distributor) rates are described in the document *Distributor's Rates and Conditions of Application Effective April 1, 2007*, as approved on March 15, 2007[1] by the Régie de l'énergie (hereafter, the Régie) in decision D-2007-22 (hereafter Distribution Tariff). That decision followed up on decision D-2007-12.[2]

The current application pertains to rates for 2008-2009, as well as the resulting modifications to the Distribution Tariff.

1.1 Follow-up of decision D-2007-12

1.1.1 Ratemaking Reform

In decision D-2006-34, the Régie found it *"appropriate to revise rate structures so that they better reflect the new long-term reality of marginal costs faced by the Distributor…[it] orders HQD to immediately begin its reflection on the process that will lead to the ratemaking reform. The Régie considers that this process will be spread out over several years…".*[3] The Distributor's rate strategy presented in application R-3610-2006, HQD-12, document 1, constituted the first progress report for this process.

In decision D-2007-12, the *"Régie nonetheless finds that the Distributor has not fulfilled all of the orders set out in its previous decision. It notes that the monitoring of adapted rate structures that are more reflective of long-term marginal costs is too summary, particularly for rates G, M and L. It finds that a more elaborate analysis is required given the new context for post-heritage supply.*

[1] Decision on the approval of the Distributor's rate grid applicable as of April 1, 2007.
[2] Application to set electricity rates for the year 2007-2008.
[3] Decision D-2006-34, pages 75 and 77.

The Régie reiterates the orders set out in decision D-2006-34. Furthermore, it orders the Distributor to present, in the following rate application, a domestic rate reform proposal which explores the options of seasonal and time-of-use rates.

…

In regards to general rates, the Régie orders the Distributor to explore progressive rate structure options, comparable to those of BC Hydro, and to quantify the costs and benefits associated with each.

These ratemaking reforms will have to take into account the importance of long-term marginal costs, the orientations set out in the present decision, and the implementation of the Government's energy strategy. These proposals must be presented in a working group in a timely fashion so that it is possible for the Distributor to submit the summary in its next rate application."[4]

The general framework for rate reform and the domestic and general rate options that were examined are detailed in exhibits HQD-12, documents 2, 3, 4 and 5. In compliance with Régie's order, the main components of this reform were presented to intervenors and Régie staff in a technical meeting held on June 6, 2007. The meeting summaries are presented in the appendix of exhibit HQD-12, document 2.

1.1.2 Advanced Metering

In decision D-2007-12, the Régie acknowledged the Distributor's report on advanced metering. It found that, in the next rate application, the Distributor's monitoring activities would have to fuel the Régie's reflection on revised rate structures that reflect long-term marginal costs, and they would have to be integrated in the Distributor's report.

Therefore, continued monitoring is integrated in the framework for ratemaking reform, presented in HQD-12 document 2.

[4] Decision D-2007-12, page 84.

1.1.3 Cross-Subsidization

In Decision D-2006-34, *"the Régie notes that it may, in the medium-term, be lead to pursue contradictory objectives: adjusting rate structures to set rates that send a better price signal; allocating costs in compliance with legal requirements (Article 52.2); setting the level of rates by taking all costs into account (Articles 52.2, 49 (6) and 52.1); and, finally, attempting to leave the historic level of cross-subsidization between customer classes unchanged."*[5]

In this context, the Régie asked participants to share their views "in the next rate application, on the different avenues that would make it possible, in particular, to reflect the cost of new supply in each of the rate classes and, on the interpretation of the Act's provisions in terms of cross-subsidization".[6]

The Distributor has proposed to interpret the Act in such a way as to recover increases in costs attributed to each customer class. By doing so, cross-subsidization is maintained with respect to projected and required revenues of previous years, while respecting cost causality for costs marginal to these same revenue requirements. This infers, for the most part, rate increases that are differentiated by customer class, which would be reflected in the cross-subsidization index.

In decision D-2007-12, the *"Régie reiterates its desire to ensure that rates reflect actual costs and equity between customer classes. In a context in which the costs to serve different customer classes would not evolve uniformly, nothing impedes the Régie from carrying out rate adjustments that are differentiated between customer classes. An alternative interpretation of the Act would deprive several of its provisions of their impact, and that would be detrimental in terms of equity, economic or environmental rigor, all of which the Régie must consider when exercising its power "within a sustainable development perspective".*

[5] Decision D-2006-34, page 77
[6] Ibid.

Consequently, every time it files an application to modify the rates of one customer class, the Distributor will have to demonstrate that the adjustment is in a causal relationship with the variations in supply costs for that class.

Beginning with the 2008 rate application, the Distributor can propose rate adjustments that are differentiated by customer class, each of them reflecting the evolution of costs attributable to that class."[7]

The Distributor's proposal in regards to cross-subsidization and, consequently, the rate adjustments by customer class is provided in section 2.2.

1.1.4 Medium Power Interruptible Electricity Option

In its follow-up to the interruptible electricity option for medium power customers, in May 2007, the Distributor met with the representatives of ski stations and of the FCEI/ASSQ.

This meeting allowed for the parameters and the terms for the application of the interruptible electricity option to be clarified with the representatives of ski stations in light of constraints faced by the customers and the Distributor during the winter period.

The Distributor reconfirmed that the level of credits for the interruptible electricity option reflects avoided costs but, following the consultation with the members' representatives, it remains open to an eventual adjustment of the terms so that it may be better adapted to the limitations faced by customers.

[7] Decision D-2007-12, pages 93-94.

1.2 Energy Strategy

As was the case in the last application, the Distributor has integrated certain elements of the government's energy strategy, [8] published in May 2006, that have a direct impact on rates.

1.2.1 *Dynamic Ratemaking*

According to Quebec's energy strategy 2006-2015,[9] *"the government wants Hydro-Quebec to progressively implement rates that vary according to the season and the hour of use in Quebec. The Government asks Hydro-Quebec to present an application to that effect to the Régie de l'énergie in 2007. The result of these proposals must not be to raise customers' overall bills."*

In response to this request, in 2007 the Distributor presents its proposal for rates that vary according to the season and hour of use in HQD-12, document 5.

1.2.2 *Structure of Rate D*

"The Government asks Hydro-Quebec to submit a new rate structure to the Régie de l'énergie, without modifying the Crown corporation's overall revenue. This should include a price variance between both blocks greater than that presently found, while possibly simultaneously increasing the current level of 30 kWh/day or, eventually, instating a third block…Such a modification to the rate structure would then have the effect of reducing small consumers' electricity bills and of increasing the bills of large consumers who have not modified their consumption habits."[10]

The Distributor treats these subjects in depth in its reform of domestic rates found in exhibit HQD-12, document 3.

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[8] Government of Quebec, *Energy to Build the Quebec of Tommorrow-Quebec's Energy Strategy 2006-2015, page 57* (French only) http://www.mrnfp.gouv.qc.ca/publications/energie/strategie/strategie-energetique-2006-2015.pdf
[9] Ibid., page 57.
[10] Ibid.,page 56.

1.2.3 Impact of Rate Increases on Low-Income Customers

The Government expects the Régie de l'énergie to order energy distributors to conduct studies on the impact of rate adjustments on low-income households.[11]

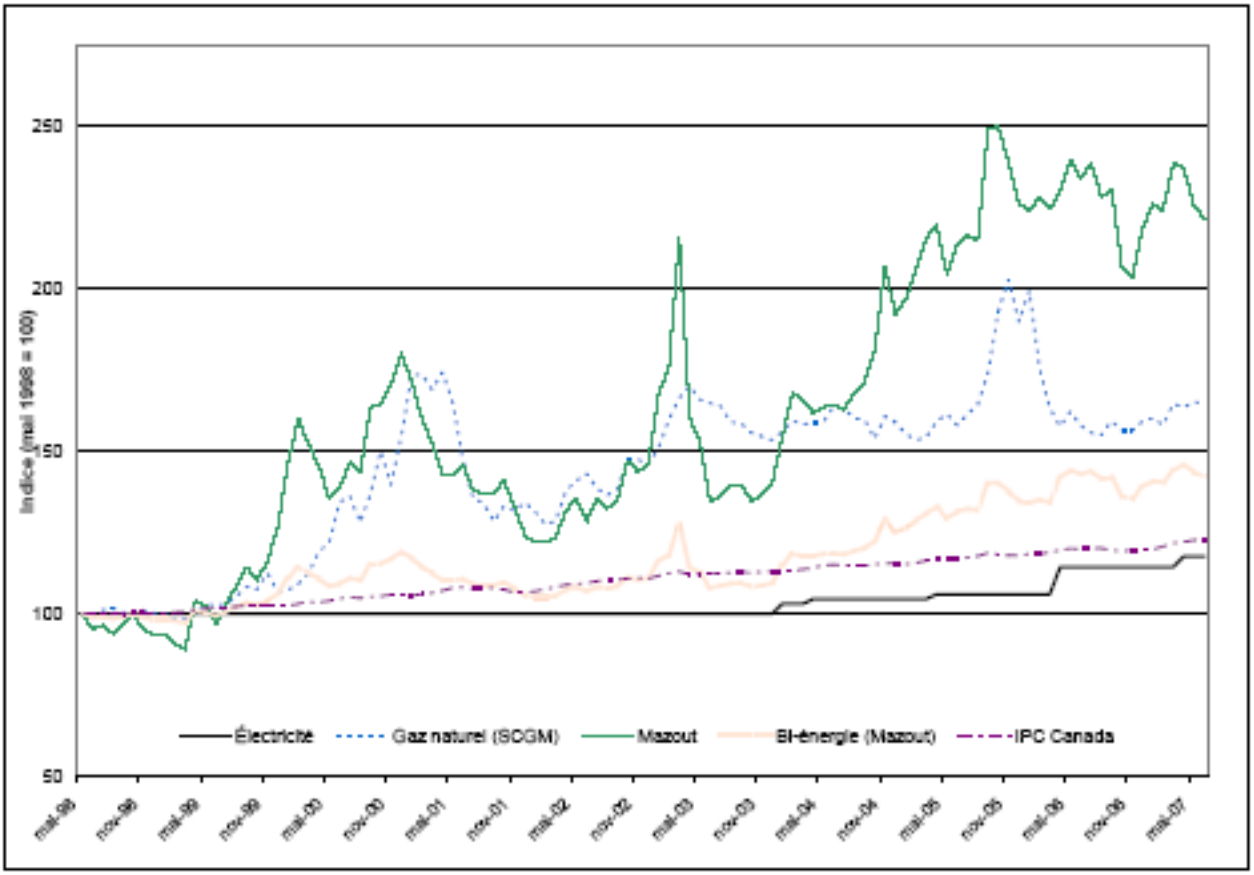
In response to this request, in section 4.2.1.5 the Distributor presents a study on the impact of the rate increase on low-income customers.

1.3 Evolution of Electricity Rates, of Inflation and of Fuel Prices

Following a rate freeze that exceeded five years, the Régie authorized the Distributor to increase its rates in 2004. Since the consumption price index progressed 22.0% between 1998 and 2007, and the Distributor's rates increased by only 13.5% over the same period, Quebecers pay, in constant dollars, less for their electricity today than they did nine years ago.

[11] Ibid.,page 97.

Figure 1
GROWTH OF ENERGY COSTS FOR SPACE HEATING
AVERAGE SINGLE-FAMILY HOME LOCATED IN MONTREAL(158m^3)
MAY 1998 TO JUNE 2007



Moreover, as shown in Figure 1, the Distributor's customers have benefited from the stability of electricity prices over a period in which the prices of fuel oil and natural gas were subject to a great deal of volatility and a significant increase. For instance, between May 1, 1998 and April 1, 2007 the energy bill for an average home heated with fuel oil increased by 137%, while the energy bill for a home heated with natural gas increased by 64%.

1.4 Reform Strategy

The Distributor presents its work progress concerning a rate reform that sends a better price signal. The implementation of this reform will be carried out in

compliance with the orientations that will be determined by the Régie and within the normal time-frame required to properly inform different customers of the changes to come and the impacts they will have on their energy choices. Furthermore, for the current year, the Distributor must also take into account the constraints associated with the deployment of its SIC system.

2. RATE INCREASE AND CROSS-SUBSIDIZATION FOR 2008-2009

2.1 Variances Between Revenue Requirements and Projected Revenues for 2008

Taking into account the current rates and the 2008 revenue requirement, the Distributor's projected shortfall for 2008 would be $269 million.

2.2 Proposed Rate Increase and Impact on Cross-Subsidization

The Distributor asks the Régie to approve an overall rate increase of 2.9% starting April 1, 2008, in accordance with the rates proposed in HQD-12, Document 8 of this application. This increase will allow for $185 million in additional revenue between April 1 and December 31, 2008 as well as a regulatory provision of $84 million (see HQD-1, Document 1).

Figure 2

Evolution of Electricity Rates and of the Consumer Price Index

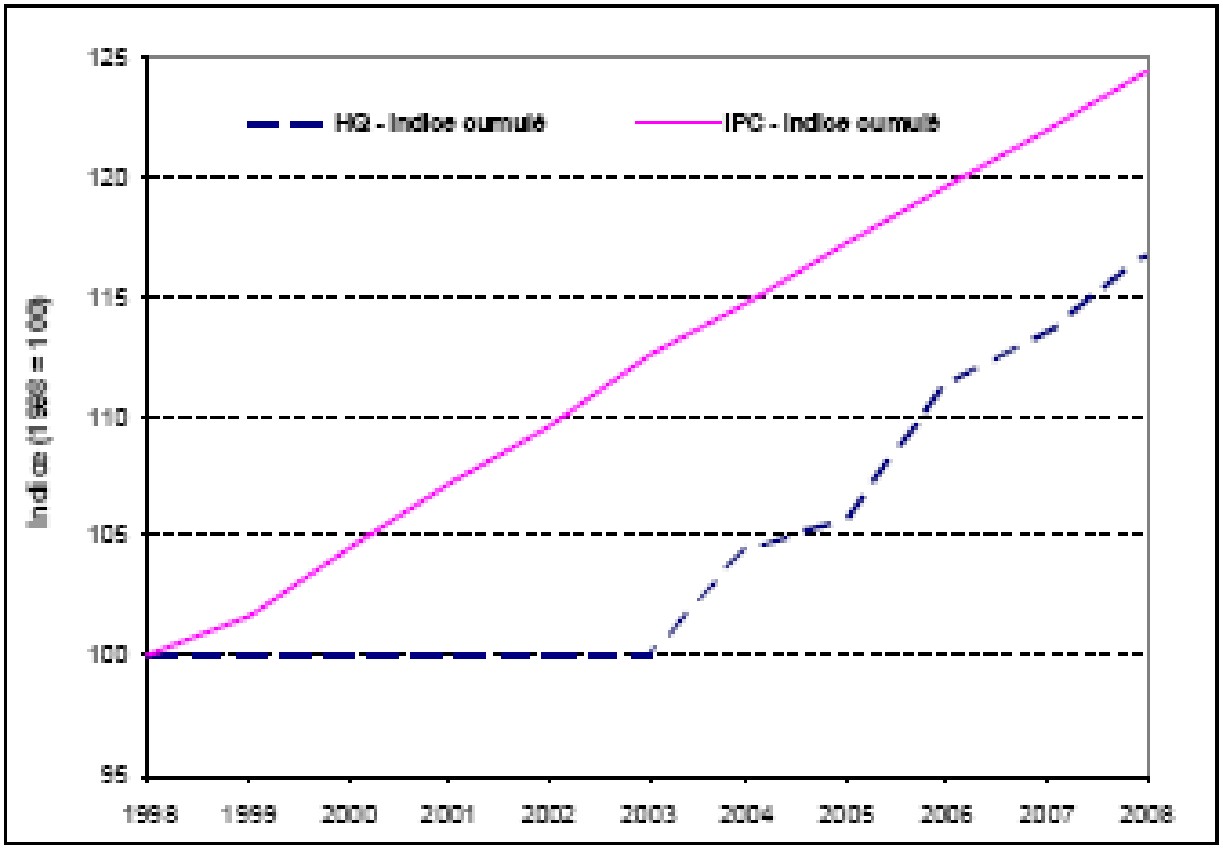


Figure 2 shows the evolution, between 1998 and 2008, of the Consumer Price Index and the Distributor's rates including the proposed increase. The projected annual inflation rate for 2007 and 2008 is 2.0%, which means that with the requested 2.9% increase, customers will be subject to an actual average increase of 0.9%. In counterpart, customers will continue to benefit from an actual gain.

The Régie decision in regards to cross subsidization makes it possible for the Distributor, as of the current application, to propose differentiated rate adjustments that consider the evolution of costs attributable to each customer class. However, this adjustment cannot be made without considering the important ratemaking issues at stake. Therefore, in compliance with decision D-

2007-12: *"when it sets the Distributor's rates, the Régie will determine the just and reasonable character of the requested rate increases by taking into account all applicable provisions of the Act, including cross-subsidization in favour of domestic customers."*[12] The Distributor believes that, in the present context, a reasonable approach is to propose a uniform rate increase and to let the Régie, after hearing comments from intervenors, arbitrate this issue by considering all the elements of the application.

Given the Distributor's proposal for a uniform rate increase by customer class, the cross-subsidization indexes for 2008 remain relatively stable before and after the rate increase, as the following table shows.

[12] Decision D-2007-12, page 94.

Table 1

IMPACT OF A UNIFORM INCREASE ON THE CROSS SUBSIDIZATION INDEX

	Revenue Requirement 2007 ($M)	2007 Projected Revenues Before Increase ($M)	Cross-Subsidization Index Before Increase (%)	Projected Revenues After Increase Jan. 1, 2007 ($M)	Cross-Subsidization Index Following Increase (%)
Domestic	5 133	4 165	82.6	4 286	82.6
Small Power	1 057	1 294	124.6	1 332	124.6
Medium Power	1 501	1 879	127.4	1 933	127.4
Large Power	1 741	1 929	112.8	1 985	112.8
Total – Regular Rates	**9 432**	**9 268**	**100.0**	**9 537**	**100.0**
Special Contracts	901	901	N.A	901	N.A
Consumption management and Back-Up energy Source Rates	52	1	N.A	1	N.A.
Total	**10 385**	**10 170**	**N.A**	**10 439**	**N.A**

Note: Results may not correspond due to rounded data.

In Table 2, the Distributor also shows the level of rate increases differentiated by customer class as would be found if variations in the costs of supply attributable to each class were considered;[13] the impact on cross-subsidization is also illustrated.

[13] See Appendix A for further details on calculations.

Table 2

DIFFERENTIATED RATE INCREASES

	2008 Rate increase	Cross-Subsidization 2008	
		Before increase	After increase
	(%)	(%)	(%)
Domestic	4.4	82.6	83.8
Small Power	0.9	124.6	122.2
Medium Power	2.6	127.4	127.0
Large Power	1.4	112.8	111.1
Total	2.9	100.0	100.0

3. MODIFICATIONS OF RATES FOR 2008-2009

3.1 Domestic Rates

3.1.1 Rates and Customer Description

3.1.1.1 Rates D and DM

Rates D and DM are rates that apply to contracts for which the use of electricity is domestic, that is, exclusively for living purposes, apart from the exceptions described in the Distribution Tariff. Electricity delivered to farms for the purposes of growing crop and animal farming is also subject to Rate D.

Rate D applies to dwellings for which electricity is metered separately. Therefore, for buildings with multiple housing units, Rate D is only applied when the consumption for each housing unit is metered separately.

The structure of Rate D, described in Table 3, consists of a fixed charge (40.64¢/day) and two increasing prices for the energy used. That is, a lower price

for the first 30 kWh per day (5.29¢/kWh), while consumption exceeding that volume is billed at a higher price (7.03¢/kWh). During the winter period, when the maximum power demand exceeds 50 kW, the excess portion is billed at the monthly price of $5.46/kW.

Table 3

Rate D on April 1, 2007

Fixed charge	40.64¢/day
The first 30 kWh/day Remaining consumption	5.29¢/kWh 7.03¢/kWh
Winter demand charge (exceeding 50 kW)	$5.46/kW

Rate DM is a rate that is similar to Rate D but adapted to bulk metering (see Table 4). It applies to a contract covering electricity delivered to an apartment building or community residence with dwellings for which bulk metering was selected.

The singularity of Rate DM resides in the multiplier applied to the number of dwellings, in the calculation of the fixed charge, and in the level of the first block.

The multiplier corresponds:

- For an apartment building and community residence with dwellings: to the number of dwellings;
- For a community residence with both dwellings and rooms: to the number of dwellings for the community residence, plus
    - 1 for the first 9 rooms or less, plus
    - 1 for each additional room.

The prices for the first and second blocks are 5.29¢/kWh and 7.03¢/kWh respectively. During the winter period, when the maximum power demand exceeds 50 kW, the excess is billed at the monthly price of $1.35/kW.

Table 4

Rate DM on April 1, 2007

Fixed charge	40.64¢/day X multiplier
The first 30 kWh/day X multiplier	5.29¢/kWh
Remaining consumption	7.03¢/kWh
Winter demand charge (exceeding 50 kW)	$1.35/kW

As shown in Table 5, a total of 2 645 083 Rate D and Rate DM contracts were included in the analysis covering the period between May 1, 2006 and April 30, 2007. The consumption and revenues associated with these contracts amount to 47.9 TWh and $3.4 billion, based on rates effective April 1, 2007. Among all contracts combined, only 5 660 had a winter capacity invoice.

Two thirds of residential customers had an all-electric heating (AEH) system, the other third used a different heating system (non-AEH),[14] such as natural gas, fuel oil, wood or mixed. Over 41 800 contracts corresponded to farms whose activities of animal raising and growing crops made them admissible to Rate D.

[14] Residential customers at the dual-energy rate DT are discussed in the following section.

Table 5

Description of Domestic Customers for Rates D and DM (2006-2007)

	Contracts	Annual Consumption (GWh)	Total Revenues M$
Residential customers			
All electric heating (AEH)	1 811 301	36 196	2 518
Without capacity invoice	1 807 508	34 541	2 400
With capacity invoice	3 793	1 655	118
Other types of heating	791 959	10 040	722
Without capacity invoice	791 166	9 651	694
With capacity invoice	793	389	28
Total residential customers	2 603 260	46 237	3 241
Farms			
Without capacity invoice	40 749	1 350	95
With capacity invoice	1 074	271	19
Total for farms	41 823	1 620	114
All domestic customers			
Without capacity invoice	2 639 423	45 541	3 190
With capacity invoice	5 660	2 315	165
Total domestic customers	2 645 083	47 857	3 355

Table 6 shows revenues by rate component, derived from the reference data of Rates D and DM.

Table 6

Rates D and DM: Revenues by Rate Component 2006-2007

Rate Components	Rates in effect April 1, 2007 Price	$M
Fixed charge (¢/day)	40.64	416
Energy		
1st block (¢/kWh)	5.29	1 306
2nd block (¢/kWh)	7.03	1 629
Demand charge		
D ($/kW)	5.46	2
DM ($/kW)	1.35	2
Total		**3 355**

Table 7 shows the monthly bills of Rate D customers for the period between May 1, 2006 and April 30, 2007. Over that period, the average annual consumption for Rate D was 17 407 kWh and the average monthly bill was $102. For a consumption of 26 484 kWh per year, the average single-family home with an electric heating system had a monthly bill of $152.

Table 7

Average Monthly Bills for Rate D Customers

	Average Annual Consumption[1] (kWh)	Average Annual Bill ($)
All Rate D customers	17 407	102
All electric heating	19 323	112
Not heated with electricity	13 121	79
Average single-family home heated with electricity (158 m^2)	26 484	152

3.1.1.2 Rate DT

Rate DT is an optional domestic rate that applies to all customers whose contract is eligible for Rates D or DM and who use a dual energy system, mainly for domestic purposes.

In addition to the fixed charge of 40.64¢/day, Rate DT is composed of two energy rates that vary according to exterior temperature: 4.08¢/kWh when the exterior temperature is above or equal to -12°C or -15°C, depending on the climatic zone, and 17.55¢/kWh when the exterior temperature is below -12°C or -15°C (see Table 8 for the price structure and Table 9 for the areas in which the transfer temperature is -15°C). During the winter period, when maximum power demand exceeds 50 kW, the excess is billed at the monthly rate of $1.35/kW when bulk metering is applicable and $5.46/ kW in all other cases.

Table 8

Rate DT on April 1, 2007

Fixed charge	40.64¢/day
Off-peak energy price	4.08¢/kWh
Peak energy price	17.55¢/kWh
Winter demand charge (exceeding 50 kW)	
Building with bulk metering	$1.35/kW
All other cases	$5.46/kW

The off-peak price is adjusted to ensure HQD's competitive advantage compared to fuel oil. Currently, it may be in the customers' interest to use electricity during off-peak periods as long as the price of fuel oil is above 33¢/litre.[15]

Table 9

Areas in which the DT Rate Transfer Temperature is -15°C

Noroît (Rouyn-Noranda, Val-d'Or, LG-2/Nemiscau)
North of the de Lanaudière Region
High-Laurentians
Haute-Mauricie
From St-Féréol-des-Neiges to the Saguenay River
Saguenay
Côte-Nord
Îles-de-la-Madeleine
Lower St-Laurent and Gaspésie[1]

Note 1) Except municipalities (direct access) bordering the River or the Baie des Chaleurs, between St-Fabien and Cascapédia river.

The peak price also applies to all consumption. This price is set so as to achieve neutrality between Rate DT and Rate D based on the consumption of an average single-family home during a year in which the exterior temperature is normal, when customers use only electricity to meet heating requirements. It is sufficiently dissuasive to encourage the customer to use an alternative energy source for heating and to shift certain basic loads. In order for the customer to consider it beneficial to use on-peak electricity, the price of fuel oil would have to exceed $1.42/litre. For a year with normal exterior temperature, Rate DT can result in savings to the customer ranging between 5% and 15% compared to Rate D, depending on the degree of their consumption management efforts.

Rate DT includes approximately 121 000 contracts of which 99 482 were selected for the period between May 1, 2006 and April 30, 2007. These contracts generated sales of 2.2 TWh and revenues of $122 million while eliminating 790 MW on the system's peak.

[15] The average price of fuel oil was 69¢/litre during the 2006-2007 heating season (Reference: Régie de l'énergie).

3.1.2 Proposed Adjustments to the Rate Structure

For 2008-2009, the Distributor proposes to continue the rate strategy it had proposed in the 2005 rate application, and approved by the Régie in decisions D-2005-34, D-2006-34, and D-2007-12. That is:

- Freezing the fixed charge;
- Increasing the price of the second block to double the price of the first block;
- Increasing the demand charge by 75¢/kW for individually metered rates and by 18 ¢/kW for bulk metered rates.

The following table shows the proposed structure for Rates D and DM including a 2.9% increase.

Table 10

Rates D and DM proposed for 3008 including 2.9% increase

Rates D and DM	Rate Structure					
	Fixed charge (¢/day)	1st block ¢/kWh	2nd block ¢/kWh	Ratio 2nd/1st	D Demand Charge $/kW	DM Demand Charge $/kW
Current - April 1, 2007	40.64	5.29	7.03	1.33	5.46	1.35
Proposed rate - April 1, 2008	40.64 0.0%	5.40 2.1%	7.33 4.3%	1.36	6.21 13.7%	1.53 13.3%

The reform of domestic rates, explained in greater detail in HQD-12, document 3, harmonizes with the adjustments proposed for 2008. As explained in HQD-12, document 3, the Distributor also proposes for 2008 to close Rate DM for all new contracts. In addition, as described in HQD-12, document 5, the Distributor intends to offer, as a pilot project, two new time-of-use rate options. These are Rates DA and DB.

3.2 General Rates

3.2.1 Rates and Customer Description

3.2.1.1 Rate L

Rates L is a rate that applies to large power customers whose minimum billing demand is 5 000 kW or more. It is expressed in low voltage. Therefore, credits for supply at medium or high voltage are given to customers served at higher voltage levels so they do not assume costs generated by lower voltage networks.

Table 11

Rate L on April 1, 2007

Demand charge	$11.97/kW
Price of energy	2.81¢/kWh
Optimization charge (in winter) Daily Monthly limit	 $6.99/kW $20.97/kW

From May 1, 2006 to April 30, 2007, 239 contracts were used to analyse Rate L. Total annual consumption totalled 47.2 TWh, for annual revenues of $2.1 billion. Table 12 presents a summary description of customers subject to Rate L.

Table 12

Description of Rate L Customers- 2006-2007

	Contracts	Annual Consumption (GWh)	Total Revenues ($M)
Commercial	42	2 060	105
Industrial	155	39 519	1 723
Institutional	26	1 455	76
Municipal systems	16	4 119	200
Total	239	47 153	2 104

Table 13 shows the generated revenues by component, using the Rate L reference data.

Table 13

Rate L: Revenues by Rate Component - 2006-2007

	Rate L	
	Rate	$M
Energy (¢/kWh)	2.81	1 325
Power ($/kW)	11.97	775
Optimization:		
Daily charge ($/kW)	6.99	1
Monthly charge ($/kW)	20.97	3
Total Revenue		2 104

Note: Revenues shown take into account the application of credits for supply at medium or high voltage

3.2.1.2 Rate M

Rate M applies to medium power customers whose minimum billing demand is at least 100 kW but less than 5 000 kW. Like Rate L, it is expressed in low voltage. This implies that customers using a higher voltage are eligible for a credit for supply at medium or high voltage.

Table 14
Rate M on April 1, 2007

Demand charge	$13.23/kW
Price of energy For the first 210 000 kWh Remaining consumption	 4.31¢/kWh 2.81¢/kWh
Optimization charge (winter period)	$14.16/kW

For the period between May 1, 2006 and April 30, 2007, 12 554 contracts were used to analyse Rate M for a total consumption of 25.0 TWh and a total revenue of $1.7 billion. Rate M customers consume on average 2GWh per year however almost 75% of these customers never consume energy in the second block. Over half of Rate M customers are commercial customers (59%). However Rate M also includes a large proportion of industrial (22%) and institutional (18%) customers. There are very few residential customers and farms.[16]

Table 15 offers a view of the allocation of contracts, consumption and revenues for Rate M by activity sector for the period between May 1, 2006 and April 30, 2007.

[16] These are primarily apartment buildings and farms that are not eligible for Rate D.

Table 15

Description of Rate M Customers- 2006-2007

	Contracts	Annual Consumption (GWh)	Total Revenues ($M)
Farms	39	38	3
Commercial	7 369	12 440	867
Industrial	2 813	8 288	567
Institutional	2 298	4 119	293
Residential	35	73	5
Total	12 554	24 957	1 736

Table16 shows the generated revenues by component using the reference data for Rate M.

Table 16

Rate M: Revenues by Rate Component - 2006-2007

Component	Rate	$M
Energy (¢/kWh)		
First 210 000 kWh	4.31	686
Remaining consumption	2.81	254
Power ($/kW)	13.23	786
Optimization charge ($/kW)	14.16	10
Total Revenue		1 736

Note: Revenues shown take into account the application of credits for supply at medium or high voltage

3.2.1.3 Rate G

Rate G applies to small power customers whose minimum billing demand is below 100 kW. Like Rates L and M, it is expressed in low voltage. This implies that customers using a higher voltage are eligible for a credit for supply at medium or high voltage.

Table 17
Rate G on April 1, 2007

Fixed charge	$12.33/month
Demand charge applicable on excess portion of 50 kW	$15.18/kW
Price of energy For the first 210 000 kWh Remaining consumption	 8.47¢/kWh 4.31¢/kWh

Rate G includes almost 250 000 contracts but the data for 2006-2007 only includes 227 200 due to the relative instability of these contracts.[17] This type of contract generates a total revenue of $988 million and a consumption of 11.3 TWh. This rate is primarily geared toward commercial customers who account for 88% of contracts, but there are also institutional (8%) and industrial (3%) customers. Farms and residential customers are only represented in a marginal proportion. Average consumption for a customer subject to Rate G was approximately 50 000kWh over the analysed period.

The structure of Rate G makes it possible to divide customers into two groups with very different characteristics: customers who pay a demand charge (whose

[17] In fact, Rate G includes primarily small commercial spaces for which activity is more unstable and less predictable than businesses subject to Rates M or L or residential customers. It is common for this type of space to remain unoccupied over long periods of time after it closes. At times, these contracts become inactive in the billing system or show incomplete consumption profiles as a result of which they cannot be included for the purpose of analysis.

billable power exceeds 50 kW) and customers who do not. Table 18 shows, for the period between May 1, 2006 and April 30, 2007, the allocation of contracts, kWh consumed and revenues by customer type while highlighting customers that have a capacity invoice for at least one consumption period per year.

Table 18

Description of Rage G Customer – 2006-2007

	Contracts		Annual consumption (GWh)		Total Revenues ($M)	
	Total	With capacity invoice	Total	With capacity invoice	Total	With capacity invoice
Farms	382	45	20	9	2	1
Commercial	200 714	15 161	9 697	3 430	844	289
Industrial	6 739	1 086	452	233	40	21
Institutional	18 819	3 110	1 124	600	99	52
Residential	546	81	35	17	3	1
Total	227 200	19 483	11 328	4 289	988	364

Despite their small number, customers with a capacity invoice carry a significant relative share of the weight in terms of consumption and revenues. In fact, although they only represent 9% of contracts, they generate no less than 37% of revenues and represent an annual consumption of 4 289 GWh, which is almost 40% of total consumption. The average consumption of customers with a capacity invoice is 220 000 kWh over the period analysed. This is approximately 6 times higher than the average consumption of customers without a capacity invoice (which is 34 000 kWh).

Table 19 shows the generated revenues by component, using the reference data for Rate G.

Table 19

Rate G: Revenues by Rate Component – 2006-2007

Component	Rate	$M
Fixed charge[1] ($/month)	12.33	36
Energy (¢/kWh)		
First 15 090 kWh	8.47	826
Remaining consumption	4.31	68
Power[2] ($/kW)	15.18	58
Total Revenue		988

Notes:
1) Including customers billed at minimum demand
2) Revenues shown take into account the application of credits for supply at medium or high voltage.

3.2.2 Proposed Adjustments to the Rate Structure

The weighting of revenues between power and energy must take into account the price signal the distributor wants to send to customers. The energy component represents the more elastic part of customers' bills, which makes it possible for them to react to the price signal via energy savings or their equipment choices. At the same time, an increase in the rate for power shows customers that managing their power demand remains an important issue for the Distributor.

In the R-3541-2004 application, the Distributor had shown the small variance between basic structures and reference structures, based on the cost structure. However, the Distributor also noted that an increase in the portion of supply costs in the future, relative to transmission and distribution costs, would lead to a modification of the cost structure. The Table *Power Ratio in the Bills of Small,*

Medium and Large customers[18] included in application R-3541-2004, also showed that the proportion for energy in the Distributor's rates was among the lowest in North America.

In a context in which the rate structure must be more reflective of marginal costs, it is necessary to emphasize the price signal for energy without diminishing the importance of the price signal for power. The analysis of weighting rates according to the power/energy ratio is still necessary, but it is more a consequence of orientations in the longer-term than an objective in itself.

As the following table shows, there was a slight progression in the proportion of the energy component in general rates between 2004 and 2007. For Rate G, the proportion of the energy component went from 52% to over 53%, while for Rate L, the energy component has reached its current level of 63%, compared with 61% in 2004. For Rate M, the proportion went from 53% to 54%.

For the year 2008-2009, the Distributor proposes to pursue the same orientations that have been applied in the past two years. In other words, rate increases that focus more on energy than they do on the power component. The resulting rate structures are also shown in the following table.

The reform of general rates that is explained in greater detail in HQD-12, document 4 is in line with the adjustments proposed for 2008.

[18] See application R-3541-2004, HQD-1, document 3, page 22.

Table 20
General Rates Proposed for 2008
Including a 2.9% Increase
(Comparison of Structures 2004-2008)

	2004	**2007**	**Proposed Rates 2008**
Average increase (%)	*1.41*	*1.92*	*2.9*
Rate L			
Price of energy (¢/kWh)	2.53	2.81	2.91
Demand charge ($/kW)	11.40	11.97	12.18
Energy/Revenues (%)	*61.0*	*63.0*	*63.4*
Rate M			
Price of 1st block (¢/kWh)	3.89	4.31	4.48
Price of 2nd block (¢/kWh)	2.53	2.81	2.93
Demand charge ($/kW)	12.48	13.23	13.44
Energy/Revenues (%)	*53.1*	*54.2*	*54.8*
Rate G			
Monthly fixed charged ($)	12.18	12.33	12.33
Price of 1st block (¢/kWh)	7.74	8.47	8.72
Price of 2nd block (¢/kWh)	3.90	4.31	4.48
Demand Charge ($/kW)	14.19	15.18	15.54
Energy / Revenues (%)	*52.4*	*53.8*	*54.2*

4. IMPACTS OF THE RATE INCREASE

4.1 Projected Revenues by Rate class and Component

The proposed 2.9% increase allows for an overall increase of the Distributor's revenue of $269 million in 2008 of which $185 million is from April 1 to December 31, 2008. Table 28 shows the details of the $185 million by rate class.

Table 21

Revenues by Rate Class in 2008 ($M)[1]

	Without the increase on April 1, 2008	Including the increase on April 1, 2008	Difference
Domestic	4 165	4 243	77
Small Power	1 294	1 321	27
Medium Power	1 879	1 918	39
Large Power	1 929	1 971	41
Total – Regular Rates	**9 268**	**9 452**	**185**
Special Contracts	901	901	N/A
Consumption management and Back-Up energy Source Rates	1	1	0
Total	**10 170**	**10 355**[2]	**185**

Notes:
1) Results may not correspond due to rounded data
2) Excluding the $84 million regulatory provision coming from the months of January to March 2008.

4.2 Customer Bills

4.2.1 Domestic Rates

4.2.1.1 Distribution of Impacts

Table 22 shows a distribution of the impacts on domestic customers. Almost 63% of customers are subject to an impact that ranges between 1% and 3%. Moreover, the bill for 31% of customers, represented by small customers, will increase by less than 2%. Appendix B shows a more complete distribution of the impacts on domestic customers.

Table 22

Annual Impact of a 2.8 % Rate Increase: Rate D

Variation of the annual bill (%)	Customer allocation (%)
Less than 1 (min:0)	5.4
From 1 to 2	26.0
From 2 to 3	36.8
From 3 to 4	31.5
From 4 to 5	0.2
From 5 to 6	0.0
6 and over (max: 6.8)	0.0
Total	100.0

4.2.1.2 Impact on Monthly Bills

The following table shows the impact of the proposed rate increase on monthly bills for typical consumption levels. These bill increases ranged between 1.5% and 3.5%. Appendix C shows the impact by typical consumption level and by rate component.

Table 23
Monthly Impacts on Typical Consumption Levels – Rate D

Energy kWh	Bill at the current rate $	Bill at the proposed rate $	Variance $	Variance %
625	45.25	45.94	0.69	1.5
750	51.87	52.69	0.82	1.6
1 000	66.83	68.12	1.29	1.9
2 000	137.13	141.42	4.29	3.1
3 000	207.43	214.72	7.29	3.5

4.2.1.3 Impact on the Average Customer

Table 33 shows the impact of the proposed increase on the electricity bills of domestic customers. For the average domestic customer, the monthly electricity bill increases by $2.97.

Table 24
Effects of the Proposed Increase on the Average Monthly Bill
For Domestic Customers (Rate D)

Average Annual Consumption Based on 2006-2007	Monthly Bill ($)		Increase ($)	Increase (%)
	Current rate	Proposed rate incl. 2.9% increase		
Customer average (17 407 kWh)	101.65	104.62	2.97	2.9
Customer average for customers heating with electricity (19 323 kWh)	111.98	115.33	3.35	3.0
Customer average for customers not heating with electricity (13 121 kWh)	78.52	80.64	2.12	2.7
Customer living a single-family home heated with electricity (26 484 kWh)	151.69	156.59	4.89	3.2

4.2.1.4 Impact on Typical Home Types

As an example, Table 25 shows the impacts of the rate increase on certain typical homes.

The table shows that customers that live in an apartment will be subject to an increase of 2.1% while customers that live in imposing homes will be subject to an increase of 3.8%.

Table 25
Impact of the Proposed Increase on
Typical Cases of Domestic Homes

Rates D and DM	Average Rate D Customer 14 407 kWh	Apartment 11 590kWh	Small Home 20 494 kWh	Average Home -Heated with 26 484 kWh	Large Home electricity- 32 054 kWh	Very Large Home 42 818 kWh	Imposing Home **62 840 kWh**	Large Customer 100 kW 411 700 kWh	Customer 1st Block 10 950 kWh	Apartment Building 124 160 kWh
Current-April 1, 2007	$1220	$800	$1 406	$1 820	$ 2 211	$2 968	$4 375	$30 001	$728	$8 507
Proposed rate-	$36	$17	$42	$59	$75	$108	$168	$1 366	$12	$251
April 1, 2008	2.9%	2.1%	3.0%	3.2%	3.4%	3.6%	3.8%	4.6%	1.7%	3.0%

4.2.1.5 Impact on Low-Income Customers

As per the Government's request in its energy strategy, the Distributor shows the impact of the rate increase on low-income customers.[19]

The Distributor has little data on the income of its residential customers and the data from surveys that were carried out for other ends is often incomplete and not valid as far as the respondents' income is concerned. It is in fact a delicate question to which respondents are not always inclined to respond.

Moreover, a household's income is not the sole variable that determines whether or not a household is in need.

In order to evaluate the impact of the increase on low-income customers, the Distributor used the latest available data from Statistics Canada pertaining to household expenses (2005 data). This data provides the annual expense for several goods and services by income category.

The Distributor asked Statistics Canada to carry out a distribution of electricity expenses according to the decile of the household's income. Therefore, if all households are classified according to their income, from the lowest to the highest, the first decile includes the 10% of households that have the lowest income, the second decile includes the next 10% and so on. The following Table shows the deciles used in 2005 as well as average electricity expenses, including taxes, for the households that claimed to have electricity expenses.

[19] The situation of low-income households is treated in greater detail in HQD-14, Document 2.

Table 26
Description of the Deciles Used

	Annual Household Income $	Average Annual Electricity Expenses
first decile	15 600 or less	865
second decile	15 600 -22 472	973
third decile	22 472 –28 278	1 053
4th decile	28 278 - 36 050	1 203
5th decile	36 050 – 45 000	1 191
6th decile	45 000 - 54 554	1 425
7th decile	54 554 - 67 150	1 502
8th decile	67 150 - 83 400	1 581
9th decile	83 400 – 112 000	1 678
10th decile	112 000 and over	2 001

The Distributor also requested an index for the dispersion of electricity expenses for each of the deciles. This allows it to evaluate the maximum impact by block of income. This maximum level of expense shows the upper bound that includes 95% of all respondents by decile.

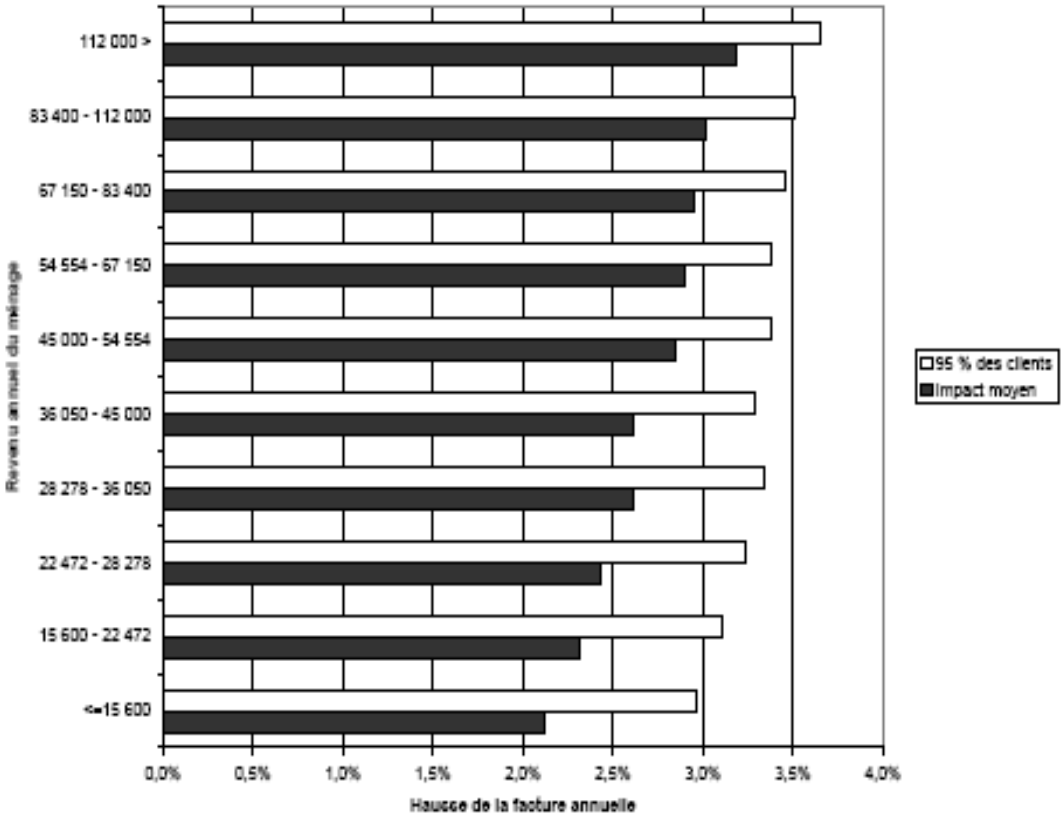
From this data, it is possible to draw a consumption profile (energy for the first and second blocks) on an annual basis, which will be used to establish the impact of the 2.9% increase by decile of income.

The following table very precisely shows the impact of the 2.9% rate increase by decile of income. The average impact on bills in the first four deciles ranges between 2.1% and 2.6%. Nevertheless, within each decile we note a variation in the impacts that reflects the variation in expenses. For example, for certain households within the first deciles for which the energy bill is significant, the impact can exceed the average increase for all customers.

The Distributor's proposal to increase the second block twice as much as the first energy block means that households that have a significant electricity bill –and therefore consume several kWh in the second block- will be subject to an increase that exceeds 2.9%. These are primarily households that have higher incomes. For their part, households that have lower electricity bills – and

therefore consume fewer kWh in the second block – will be subject to a rate increase that is below 2.9%. It consists mainly of low-income households. On average, the Distributor's proposal therefore attenuates the impact of the rate increase on low- income households.

Table 27
Dispersion of Impacts According to the Income Decile



4.2.2 General Rates

4.2.2.1 Distribution of Impacts

It must be reiterated that rate increases are more significant for the energy component, which represents the most elastic part of the bill, thereby making it possible for customers to minimize the impact of rate increases. Opting for more significant increases on the energy component also makes it possible to reduce the constraints resulting from the fixed portion of the bill.

Rate L

The impacts of the rate increase on Rate L customers are shown in Table 28. Rate increases range between 2.4% and 3.0%. 50% of customers are subject to rate increases ranging between 2.8% and 3.0%. In Appendix B a graphic showing the distribution of impacts is provided.

Table 28
Annual Impacts of the Proposed Increase – Rate L

Variation of the annual bill (%)	Customer allocation (%)
Less than 2.6 (minimum 2.4)	5.4
From 2.6 to 2.8	43.5
From 2.8 to 3.0	50.2
3.0 and over (maximum 3.0)	0.8
Total	100.0

Rate M

Table 29 shows the impacts of the rate increase on Rate M customers. Rate increases range between 1.6% and 3.4% and 45% of customers are subject to rate increases ranging between 2.8% and 3.0%. In Appendix B a graphic showing the distribution of impacts is provided.

Table 29

Annual Impacts of the Proposed Increase – Rate M

Variation of the annual bill (%)	Customer allocation (%)
Less than 2.6 (minimum 1.6)	7.9
From 2.6 to 2.8	27.0
From 2.8 to 3.0	45.1
3.0 and over (maximum 3.4)	20.0
Total	100.0

Rate G

Table 30 shows the impacts of the rate increase on Rate G customers. Rate impacts range between 0% (for 3% of customers who only pay the minimum monthly charge which is subject to the same freeze as the fixed charge) and 3.8%, while 36% of customers are subject to rate increases ranging between 2.8% and 3.0%. In Appendix B a graphic showing the distribution of impacts is provided.

Table 30

Annual Impacts of the Proposed Increase – Rate G

Variation of the annual bill (%)	Customer allocation (%)
From 0 to 1.6 (minimum 0)	11.0
From 1.6 to 2.6	22.9
From 2.6 to 2.8	25.9
From 2.8 to 3.0	36.4
3.0 and over (maximum 3.8)	3.7
Total	100.0

4.2.2.2 Impact on Monthly Bills

Rate L

Table 31 shows the bill variations resulting from the application of the proposed increase for typical consumptions subject to Rate L. The bill increases for this rate were found to range between 2.7% and 3.0%. The impacts by typical consumption and by rate component, for all general rates combined, are shown in annex C.

Table 31

Monthly Impacts on Typical Consumptions – Rate L

Power *kW*	*Energy* *kWh*	*Bill using current rates* *$*	*Bill using proposed rates* *$*	*Variance* *$*	*Variance* *%*
5 000	2 340 000	120 450	123 758	3 308	2.7
5 000	3 060 000	140 682	144 710	4 028	2.9
10 000	5 760 000	255 978	263 403	7 425	2.9
30 000	17 520 000	774 678	797 193	22 515	2.9
50 000	23 400 000	1 128 150	1 159 875	31 725	2.8
50 000	30 600 000	1 330 470	1 369 395	38 925	2.9
50 000	32 750 000	1 390 885	1 431 960	41 075	3.0

Rate M

Table 32 shows monthly bill variations for typical consumptions subject to Rate M when the proposed rate increase is applied. According to the consumption hypotheses examined, variations range between 2.6% and 3.0%.

Table 32

Monthly Impacts on Typical Consumptions – Rate M

Power	*Energy*	*Bill using current rates*	*Bill using proposed rates*	*Variance*	*Variance*
kW	*kWh*	*$*	*$*	*$*	*%*
100	25 000	2 401	2 464	64	2.6
500	200 000	15 235	15 680	445	2.9
1 000	400 000	27 620	28 415	795	2.9
2 500	1 170 000	66 525	68 518	1 993	3.0

Rate G

Table 33 shows the monthly bill variations resulting from the application of the proposed increase for typical consumptions subject to Rate G. According to the consumption hypotheses examined, variations range between 2.5% and 3.2%.

Table 33

Monthly Impacts on Typical Consumptions – Rate G

Power	*Energy*	*Bill using current rates*	*Bill using proposed rates*	*Variance*	*Variance*
kW	*kWh*	*$*	*$*	*$*	*%*
6	750	76	78	2	2.5
14	2 000	182	187	5	2.8
40	10 000	859	884	25	2.9
80	40 000	2 819	2 910	91	3.2