

**DISTRIBUTOR'S COST-OF-SERVICE ALLOCATION METHOD**

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## **1 BACKGROUND**

The Distributor hereby submits its 2007 cost-of-service allocation by customer class. The cost-of-service allocation was produced using the method approved by the Régie in its decision D-2006-34, which encompasses all the decisions relating to allocation methods from previous rate cases.

Two aspects are being discussed in the current rate case. First, there is the allocation method for the post-heritage pool supply cost. The Régie has asked the Distributor to provide the cost allocation for the post-heritage pool using two approaches: treatment with a load factor-based cost signal, and treatment with hourly cost.

Furthermore, the Régie mandated the technical committee to examine four specific issues relating to the hourly cost approach. This was done at two meetings in May and June 2006.

Second, the transmission cost allocation method is again at issue, further to the Régie's decision on the Transmission Company's cost allocation between point-to-point service and native load service (D-2006-66). In decision D-2003-93, the Régie asked the Distributor to address this subject again after the decision on the Transmission Company's cost allocation; in decision D-2006-34, the Régie asked that the subject first be discussed by the technical committee, which was also done briefly at the committee's first meeting in May 2006.

In addition to these two aspects, other minor changes to the allocation method with respect to the previous rate case are introduced. These changes concern Rate BT, the Energy Efficiency Plan (PGEÉ) for remote communities, the supply cost pass-through account, and the net costs related to expenditures for tangible and intangible assets. Note that these changes are essentially technical in nature; they flow from decisions and choices that entail adjustments to the allocation methods for purposes of consistency. These changes comply with decision D-2003-93 of the Régie, which was concerned about whether the methods would transparently reflect cost causation. It emphasized the importance of direct cost allocation insofar as possible and asked the Distributor to refine or modify, as applicable, certain proposed methods once the baseline data became available.

The treatments of post-heritage pool supply costs and of transmission costs are detailed in sections 2 and 3 of this document, respectively. The methodological changes and consequences of these changes for the cross-subsidization index benchmark are found in chapter 4.

The technical committee's report providing further explanation of the issues relating to the application of the hourly cost method to post-heritage pool supply is filed as Exhibit HQD-11, Document 2. The Government of Québec's forthcoming Order-in-Council

(*Décret*) will be filed as Exhibit HQD-11, Document 3. The detailed results of the cost-of-service allocation for 2007 are provided in Exhibit HQD-11, Document 4. The results of the post-heritage pool supply cost allocation using the hourly cost treatment are presented in Exhibit HQD-11, Document 4, Table 9B; finally, the results of the alternative transmission cost allocation based on the Transmission Company's Régie-approved allocation method are presented in Exhibit HQD-11, Document 4, Table 9C.

## **2 POST-HERITAGE POOL SUPPLY COST ALLOCATION**

### **2.1 Background**

When the heritage pool volume was exceeded in 2005, an allocation method had to be agreed upon for the post-heritage pool. The Distributor's proposal was and still is to allocate costs for the post-heritage pool in the same way as for the heritage pool, i.e., using a load factor-based cost signal. The Distributor's main arguments for this treatment are as follows:

- uses load factors and loss factors for purposes of allocation as prescribed by the Act;
- avoids the "first-come, first-served" concept, thus achieving consistency with industry practice for all cost components, the reference manuals, and the Government's intentions as indicated in its orders-in-council;
- yields a cost signal for power and energy that reflects cost causation;
- has served to date to establish the rate structures and the level of rate cross-subsidization, based on a context of increasing marginal costs;
- is founded on basic principles of allocation methods such as equity, stability, applicability, and simplicity.

In its last two decisions, the Régie accepted the Distributor's proposal but declined to rule definitively on the matter. It held that the Act does not specify whether the allocation of post-heritage pool supply costs should be treated identically to or differently from those for the heritage pool, and that it had to decide which method best corresponded to the spirit of the Act while conforming to the principles of causation, applicability, and simplicity.

The Régie deemed that the Distributor's load profile could differ significantly over time from the specific characteristics of the heritage product set out in Order-in-Council 1277-2001 and that in that context, the Distributor's proposed treatment might not adequately reflect cost causation. The method ultimately chosen had to capture as faithfully as possible the causal links between the supply costs and the customers for whom the costs were incurred.

Therefore, the Régie twice mandated a technical committee to perform additional work. The first mandate was to explore a different treatment for the post-heritage pool with specific requirements in terms of supply management and use of the load shape prescribed in Order-in-Council 1277-2001. This process led to a cost allocation method for the post-heritage pool based on the hourly costs of the supply contracts. The second mandate concerned four issues specifically related to this hourly cost method:

1. determination of post-heritage load profiles and trends;
2. determination of hourly costs based on characteristics of contracts arising from calls for tender;
3. degree to which causation is reflected;
4. treatment of constraints related to the confidentiality of data derived from contracts.

## **2.2 Determination of Post-Heritage Load Profiles and Trends**

The load profiles of the customer classes have not changed since the heritage pool volume was exceeded. Neither will the growth of sales in the coming years affect this result for the foreseeable future.

In 2005, the post-heritage pool requirements had a very high load factor that essentially reflected the combined impact of the low level of this demand and the specific load shape defined by Order-in-Council 1277-2001, with higher power. As post-heritage demand grows in terms of volume, power requirements will reappear naturally in the medium term without any change in load profiles. The effect is purely mathematical.

Thus, post-heritage power requirements for 2007 are slightly higher than for the heritage pool, showing load factors of 59.1% with one coincident peak hour as compared to 59.7% for the heritage pool (66.4% for the post-heritage pool and 67.2% for the heritage pool with 300 coincident peak hours).

Moreover, Table 1 shows the change in heritage pool volumes for each customer class from 2005 to 2007. Essentially, the allocation, which had shifted slightly away from the Domestic class, returns to the 2005 level for the next year.

**Table 1  
Heritage consumption trends**

Customer class	2005	2006	2007
<b>Domestic</b>			
Rates D and DM	53 972	53 782	53 973
Rate DH	4	3	3
Rate DT	2 603	2 486	2 495
Total	56	56 271	56 472
<b>Small and medium power</b>			
Rate G and flat rate	12 449	12 312	12 323
Rate G9	1 079	1 061	1 065
Rate M	25 913	25 687	26 161
Public and Sentinel lighting	547	532	536
Total	39 989	39 592	40 086
<b>Large power</b>			
Rate L	51 591	45 021	43 707
Rate H	10	9	8
Special contracts	18 231	25 507	26 127
Total	69 832	70 537	69 842
<hr/>			
Total	166 400	166 400	166 400

Over a longer time horizon, the Distributor's demand forecast indicates balanced growth across customer classes. What is important for the purposes of cost allocation is the proportional share of consumption volume for each class, as shown in Figure 1.

**Figure 1  
Changes in consumption volume shares of customer classes (%)**

	2005	2007	2009	2011	2013
<b>LP</b>	42.0	42.0	42.4	42.6	42.6
<b>Dom.</b>	34.0	34.0	33.8	33.5	33.5
<b>MP</b>	15.6	15.6	15.6	15.7	15.9
<b>SP</b>	8.5	8.4	8.2	8.2	8.1

LP: Large Power, Dom: Domestic, MP: Medium Power, SP: Small Power

Therefore, the Distributor's profile should not be significantly different from what is observable today.

In addition, the Government will issue, for the third consecutive post-heritage year, an order-in-council setting 2007 costs and volumes (for guidance) of the heritage pool for each customer class. This order-in-council, forthcoming at time of filing of this evidence, is in keeping with Orders-in-Council 1070-2004 and 759-2005. As with the previous orders-in-council, this one reflects the use of a formula based on load factors and loss factors. The result is a heritage pool consumption volume for each customer class that is proportional to the Distributor's planned total volume; hence, the consumption characteristics are identical to those of the Distributor's total load profile.

Since the heritage volume was exceeded, consumption volumes for each class have not been set definitively but have continued to vary as a proportion of the Distributor's total volumes for each year. The fact that annual volumes are proportional to total volumes year after year implies that heritage pool characteristics are strictly identical to the Distributor's total characteristics for each year. This means that the characteristics of the post-heritage pool are also strictly identical to the heritage and total characteristics.

This year, in addition to the foregoing calculation, the Distributor included the load shape prescribed by Order-in-Council 1277-2001 so that hourly heritage pool profiles will be the same regardless of the method considered. This adjustment, which is essential for the hourly cost treatment, has no impact on the costs, volumes, and characteristics of the heritage pool for the purposes of the Order-in-Council. However, the hourly profiles of the heritage and post-heritage pools are no longer strictly identical on an hourly basis. Adjustments are made to each hour for which there is positive or negative variance between this shape and the one from the previous calculation. These adjustments are made for each customer class based on the amplitude and level of the load profiles for that class, attenuating insofar as possible any snags in terms of the customer classes that this may cause without thereby eliminating the particularities of the shape prescribed by 1277-2001.

The determination of post-heritage profiles as the difference between total profiles and heritage profiles produces some unusual hourly profiles for all customer classes. It is important to note that this phenomenon is not related to changing consumption characteristics but rather to two other factors: the one-time impact for 2007 of new facilities coming on stream, and effects caused by the order-in-council load shape, giving rise to midsummer peaks which, in reality, are paired with heritage troughs and do not constitute peaks for the Distributor.

The point to remember is that since the profiles are not significantly different from those observed currently, they cannot justify a different treatment for the post-heritage pool. Furthermore, an hourly cost treatment implies profiles that do not correspond to the consumption characteristics of the customer classes because of the particularities of the Order-in-Council 1277-2001 load shape; it will take several years to absorb them along with the short-term supply management issues, such as the commissioning of generation units, during the year. These phenomena will undoubtedly lead to instability in the results, which is generally to be avoided.

### **2.3 Hourly Cost and Cost Causation**

The Régie de l'énergie is rightly concerned to have causation reflected in the choice of cost allocation method for the post-heritage pool. In particular, the technical committee determined that the hourly cost approach does not, for all practical purposes, include any cost signal for power. This causal link may be broken down into two parts, namely, the consumption volume covered in the preceding section and the cost signal corresponding to the second and third issues raised by the Régie.

The majority of the participants in the technical meetings stressed the importance of a cost signal for both power and energy. Generally speaking, all reference manuals suggest this approach, which is also in accordance with industry practice. The hourly cost method applied to the existing supply contracts essentially yields an energy cost (99%). The illustration on page 36 of the technical committee report explains the source of this result, which reflects the uniform pricing structure normally found in supply contracts, at least long-term contracts, while the market pricing structure could provide a better power signal.

The question is: given that the power and energy cost signal establishes a true causal link for the customer classes, what is the most appropriate cost signal for the post-heritage pool, since the hourly cost method does not provide this cost signal? The answer to this question will inevitably be incomplete because some of the data on the post-heritage pool is confidential, hence the fourth and final issue raised by the Régie. However, there are data available which may offer guidance and make it possible to assess the worth of the load-factor-based cost signal method.

The power cost in the non-confidential contracts is \$80/kW for the basic 350 MW Hydro Québec Production contract and the supplemental power contract for integration of wind power, and a power cost of \$110/kW for the 250 MW cyclable power contract with Hydro Québec Production as well. The only significant supply contract for which the data is confidential is TransCanada Energy.

Furthermore, during the working committee discussions, several participants proposed the use of the fixed cost of a gas turbine based on data taken from US DOE/EIA, *Assumptions to the Annual Energy Outlook 2006*. This document reports a value of \$80-100/kW depending on the calculation assumptions, which led them to conclude that the value of \$80/kW was reasonable in view of the need for a peak energy cost signal as well.

For reference, Table 2 shows the comparative effect of the power and energy cost signal scenarios on the cost of the different customer classes. The first scenario corresponds to the Distributor's proposal, i.e., a load-factor-based signal calculated from the highest-load hours. The second scenario is that of weighted hourly costs corresponding to the alternative method requested by the Régie. The third scenario is similar to the Distributor's proposal, except for the specific use of post-heritage load factors. This scenario was considered by certain participants during the technical

meetings. Finally, the fourth and fifth scenarios are calculated by applying costs of \$80/kW and \$110/kW, respectively for the post-heritage peak, coincident with that of the Distributor, and a peak and off-peak supply cost calculated with the power cost netted out.

**Table 2**  
**Post-heritage pool cost allocation scenarios (¢/kWh)**  
**with different cost signals for power and energy**

	Scenario 1 Peak LF	Scenario 2 Hourly costs	Scenario 3 Post-herit. peak LF	Scenario 4 Post-herit. peak 80 \$/kW	Scenario 5 Post-herit. peak 110 \$/kW
Domestic	10.03	8.96	10.13	9.85	10.18
Small power	9.04	9.01	9.02	9.00	9.05
Medium power	8.40	8.66	8.34	8.47	8.37
Large power	7.70	8.48	7.64	7.83	7.59
Total	8.71	8.71	8.71	8.71	8.71

The key points to note in this analysis are that the minimal cost differentials between the customer classes in scenario 2, hourly costs, are essentially due to the load factors. Scenario 3, based on post-heritage load factors, shows a wider range of costs, reflecting a marginally greater representation of power costs than in Scenario 1. Finally, Scenario 1, proposed by the Distributor, corresponds to results lying between Scenarios 4 and 5, meaning that the implicit power cost of the Distributor's proposal lies between \$80 and \$110/kW.

This analysis indicates that the Distributor's proposal provides a cost signal equivalent to the power costs found on the market. Load-factor-based treatment, as proposed by the Distributor, is therefore an approach which adequately reflects the anticipated cost causation in addition to being better suited to the Québec context.

## **2.4 Other Considerations**

A new fact to be incorporated into the supply cost allocation this year and in the years to come is the pass-through deferral account for supply costs in which the difference between the projected and real supply costs, net of supply revenues, is recorded. For consistency, this pass-through account to be used in 2007 must be allocated by customer classes using the same allocation method initially chosen to determine the supply cost projections for each customer class. This matching of projected and real values is possible using the load factor method, despite the inherent complexity of a monthly calculation in terms of sales for each customer class.

Essentially, it is a matter of allocating the sum total of real heritage and post-heritage costs to the different customer classes as a function of their consumption levels, with

the differentials with respect to the projected values being recorded in the pass-through account. This approach allocates the differentials to the different customer classes on an annual basis and as a function of their usage. It avoids allocating to any one customer class the one-time costs linked to supply management whose main purpose is to achieve a balance between supply and demand.

Using an hourly cost treatment, it is first necessary to forecast who will consume what and at what cost, keeping the distinction here between heritage and post-heritage volumes. One must then determine the differentials on the same basis, which becomes an exercise that is not merely complex but practically impossible, not to mention completely arbitrary. A few examples of the questions raised by these rules were given in response to Option Consommateurs's question 2 during the technical committee discussions.

As for cost, in a marginal treatment there is clearly a link between marginal consumption (depending on the agreed-upon rules) of a customer class and the real marginal cost flowing from supply management that arises at the same time. But there is not necessarily any causal link between the two. The rules determining the marginal volume and cost at any given time are only assumptions with no rigorous justification. *A fortiori*, in an hourly cost treatment, these rules would have to be applied on an hourly basis, which would be totally unworkable.

Clearly, in this regard, the load-factor-based methodology is the only one allowing for a consistent treatment of the supply cost pass-through account.

## **2.5 Conclusion**

In view of the foregoing considerations, the Régie is in a position to understand that the Distributor's proposal is the only one meeting all the criteria of the decision.

The load-factor-based allocation method has several significant distinguishing features:

- it is a method that has proven its worth;
- it accords with industry principles and practices;
- it provides a better cost signal;
- it fully and logically reflects cost causation and does so in continuity with the other cost components;
- it allows for consistent treatment at all steps in the chain (from projections to follow-up of the pass-through account) and offers a more stable cost allocation;
- it injects an indispensable dose of simplicity into a subject that has become quite complex from case to case and meeting to meeting.

### **3 TRANSMISSION COST ALLOCATION**

#### **3.1 Background**

The Distributor's transmission cost allocation method was reviewed by the Régie in case R-3492-2002 - Phase 1. In its decision on that case, the Régie concluded "*[that it] will issue an in-depth ruling on the transmission cost allocation to be adopted by the Distributor further to the review of the Transmission Company's cost allocation study. Pending a decision on the Transmission Company's cost allocation, the Régie accepts the Distributor's proposal to allocate transmission costs based on power alone using the coincident peak (1-CP) method.*"<sup>1</sup>

In decision D-2006-34 the Régie recalled "*that the review of the transmission cost allocation study shall be performed in the rate case following the decision on the Transmission Company's cost allocation.*"<sup>2</sup> Furthermore, the Régie held that the transmission cost allocation method should first be presented to the technical committee, given the relatively technical nature of the subject. Several scenarios were presented and discussed with the intervenors and the Régie's technical staff at the meeting held on 4 May 2006. At the time of the meeting, the Distributor had not yet chosen the method that it wished to propose.

Thus, the Distributor hereby submits its transmission cost allocation proposal.

#### **3.2 Review of Transmission Company's Proposal**

In case R-3549-2004 - Phase 2, the Transmission Company submitted for approval its method for allocating costs to services (native load and point-to-point). The methodology for this allocation used the same three steps generally used in the industry: functional classification, classification by component, and allocation to each service.

In terms of functional classification, the allocation of rate base items and cost of service is done for four main functions: the Connection of Power Plants function, comprising the Step-up Substation and Connection Lines subfunctions; the Network function, comprising the Ultrahigh-Voltage Transmission (THT), 450 kV Transmission, and High-Voltage Transmission (HT) subfunctions; the Customer Connections function, comprising the Step-Down Substation and High-Voltage Customer Connection subfunctions, and the Interconnections function, comprising the Churchill Falls and Interconnections – Other subfunctions. Finally, the Support and System Control Centre/Telecontrol Centre (CCR/CT) functions were allocated to the main functions pro rata to their net tangible assets.

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<sup>1</sup> Decision D-2003-93, p. 150.

<sup>2</sup> Decision D-2006-34, p. 58.

Classification by component reflected the fact that historically, reliability, design, and operation criteria were based on the power necessary to transmit the full capacity of the generation facilities and to meet peak customer requirements. The cost of the functions was therefore allocated to the power component, which constituted the cost driver for the equipment making up the transmission network.

Finally, once the costs were classified by function and component, the Transmission Company allocated its costs between the services offered, i.e., native load service and point-to-point services.

The Transmission Company was using coincident peak (1-CP) as the allocation factor for the different functions based on the argument that this criterion reflected the causal link between cost of service and the investments required to meet the network's annual peak.

### **3.3 New Method Adopted by the Régie**

The Régie de l'énergie has issued a decision (D-2006-66) on transmission service cost allocation. In it, it rules on the method proposed by the Transmission Company and makes significant changes.

Concerning functional classification, the Régie modifies the Transmission Company's groupings and introduces a new function, Generation-Related Transmission Equipment, which includes step-up transformer stations and connection lines, the THT network (less the 735 kV lines between Montreal and Québec City and the ring around Montreal), the 450 kV network, and the Churchill Falls interconnection. The Régie was not convinced by the Transmission Company's arguments, but held instead that this equipment serves to route generated electricity into the transmission network.

The Network Function comprises the remaining parts of the ultrahigh-voltage transmission network, i.e., the 735 kV ring between Montreal and Québec City, the ring around Montreal, and the high-voltage transmission network.

For classification by component, the Régie held that factors other than peak power must be considered in the allocation of Generation-Related Transmission Equipment costs. Since the Transmission Company must meet the reliability criteria, which necessitated major investments, the Régie held that it makes sense for this reliability to be found at every hour of the year, not only at peak times. Thus, the costs are explained by peak power, reliability expenses, and distance related to power plant location.

The Régie also held that it is accepted North American practice to allocate transmission costs by energy and power where the cost of generation equipment is allocated on this basis. A portion of the transmission costs – the energy portion – is incurred in order to reliably serve customers' average power demand throughout the year, while the remaining costs are incurred in order to meet peak power demand.

Since the Transmission Company’s generation-related equipment is important and must meet standards of reliability throughout the year, the Régie concluded that an energy component must be introduced into the allocation of this function. For allocation of the costs between power and energy (39% to power and 61% to energy), the Régie adopted the coincident peak load factor method.

For the interconnections, the Régie held that they play an essential role throughout the year, and the fact that the Distributor may import electricity to meet its supply needs may be considered as local generation. Since power and energy are the cost drivers for generation equipment, the Régie held that these two factors should also be used for the Interconnections function based on peak load factor.

Table 3 presents the impact of the Régie’s decision on the cost of service for native load and point-to-point service. An amount of \$79 M shifts between these two as compared with the Transmission Company’s proposed allocation method.

**Table 3**

**Difference between Transmission Company’s proposed method and Régie decision D-2006-66**

(1)	(2)	(3)	(4)
	Native load service	Point-to-point service	Total
1 Transmission Company’s proposal	\$2 485.2 M	\$105.8 M	\$2 591.0 M
2 Relative share (%)	96%	4%	100%
3 Decision D-2006-66	\$2 564.2 M	\$26.8 M	\$2 591.0 M
4 Relative share (%)	99%	1%	100%
5 Difference (M\$)	+\$79.0 M	-\$79.0 M	\$0.0 M
6 Difference (%)	3%	-3%	0%

**3.4 Concerns and Distributor’s Dilemma**

Despite this change in the costs allocated to the services, the Régie is not using this cost allocation method to establish the rates for either of the two services offered. “*For the purposes of this case, the Régie accepts that the Transmission Company’s rates be set on the basis of a billing criterion.*”<sup>3</sup> Therefore, the Régie maintained the Transmission Company’s formula, i.e., a rate calculated on the basis of total revenue requirements minus short-term revenues, divided by the total power of the two services. The Distributor bears its share of transmission costs based on its maximum peak at a

<sup>3</sup> Decision D-2006-66, p. 22.

cost of \$72.9/kW. In this way, the amount billed to native load differs by \$81 M from the amount calculated with the allocation method adopted by the Régie.

The Régie indicated in its decision that it accepted the testimony of the Transmission Company's expert that North American standard practice is to continue to use a power component in developing transmission rates. Consequently, the Régie held that the cost allocation exercise was useful in ensuring that rates were set at adequate levels and that the revenue requirements were recovered from the services on a fair basis, and that this did not dictate perfect equality between the products by means of the rates and the results of the allocation study. With this practice, the Régie noted an interrelationship between the choice of billing criterion and the basis of the method for allocating costs between the services; it held that the exercise provided for consistency with the cost allocation.

The upshot is that the Régie did not, for the time being, require the Transmission Company to use the cost allocation in setting its rates. Moreover, it expects this cost allocation exercise to be useful to the Distributor: "*The cost-of-service allocation exercise which the Régie has just completed for the Transmission Company is of particular importance with regard to the Distributor's transmission cost allocation...*"<sup>4</sup> However, in another decision, it held that "*the Régie is not bound by the Transmission Company's cost allocation method as regards the choice to be made for the Distributor's transmission cost allocation method.*"<sup>5</sup>

In the current case, the Distributor therefore faces a dilemma: either apply the allocation method that the Régie adopted for the Transmission Company or reflect the billing method also adopted by the Régie, which ultimately conditions the Distributor's cost causation.

Besides the fact that the Distributor objects to the automatic transposition of the Régie's decision concerning the Transmission Company's cost allocation, since the latter did not take part in the discussions, several factors militate in favour of the maintenance of the current transmission cost allocation method for the Distributor. Briefly:

- the basic rule governing allocation methods is to allocate costs in the same way that they are billed, and this is especially true where the billing basis properly reflects cost causation;
- the Transmission Company's allocation method could change once the implications of this method for the customers are analyzed. In particular, the Distributor cannot endorse a method that charges it \$81 M more in transmission costs than it bills, a method which could ultimately entail profound modifications to its rate structure and to the cross-subsidization scheme;

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<sup>4</sup> Decision D-2006-66, p. 20.

<sup>5</sup> Decision D-2003-93, p. 150.

- the Distributor knows of no case in which a regulatory body accepted an allocation method at one level (i.e., transmission) in order to establish the allocation method at a different level (i.e., distribution), especially in the absence of the principal stakeholder.

### **3.5 Distributor's Proposal**

Nevertheless, the Distributor is providing the two possible transmission cost allocation scenarios. The first scenario consists of treatment of the transmission cost in its entirety, allocating it to the customer classes on the basis of their respective contribution to the Distributor's peak as included in the transmission cost calculation for native load. This scenario corresponds to the current allocation method. The details of this calculation are provided in Exhibit HQD-11, Document 4.

The second scenario is one of those presented at the technical committee meetings. It consists of using the method adopted by the Régie, which sets the native load costs at \$2,564 M and, for consistency with native load billing, which is \$2,483 M using the annual rate, allocates the \$81 M difference based on the costs allocated to each of the functions.

The Generation-Related Equipment and Interconnections functions are allocated by power and energy. The HT Network function is allocated by power. Finally, the Customer Connections function is allocated by non-coincident peak. The detailed calculation of this scenario is provided in Exhibit HQD-11, Document 4, Table 9C.

The impact between the two scenarios essentially entails a cost shift from the Domestic class to the other customer classes, more particularly the Large Power class. In terms of cross-subsidization, an improvement in the indices for all customer classes is noted. Table 4 shows these results.

**Table 4  
Transmission cost allocation scenarios  
Projected test year 2007**

(1) Customer class	(2) Allocation by coincident peak	(3) Allocation adopted by the Régie	(4) Difference
<b>Cost of service (M\$)</b>			
Domestic	1 262.9	1 149.0	(113.9)
Small power	228.4	231.5	3.1
Medium power	336.7	364.1	27.4
Large power	654.9	738.4	83.5
Total	2 483.0	2 483.0	-
<b>Cross-subsidization indices (%)</b>			
Domestic	81.1	82.7	1.6
Small power	123.1	122.3	(0.8)
Medium power	131.4	128.4	(3.0)
Large power	115.6	112.0	(3.6)
Total	100.0	100.0	-

In view of the foregoing discussion and the maintenance of the Transmission Company's current rates, the Distributor believes that the current allocation method should be maintained, i.e., transmission cost allocation to the customer classes on the basis of coincident power.

#### **4 METHODOLOGICAL CHANGES**

##### **4.1 Rate BT**

In decision D-2006-34, the Régie asked the Distributor to modify the allocation method for the deferral account and the amortization of Rate BT by maintaining a separate line for Rate BT and indicating the amounts relating to the deferral account and the depreciation of Rate BT. The allocation method reflects this change.

##### **4.2 PGEE for Remote Communities**

Specific energy efficiency programs are offered to customers in remote communities. In case R-3579-2005, no amount was allocated to PGEE for remote communities. The Distributor proposes to allocate a share of the deferral and amortization amounts for the PGEE to the customer classes of the remote communities based on remote community generation costs. For 2007, the estimated amount would be \$406,000.

##### **4.3 Pass-Through Account for Supply**

As presented in Table 9A of Exhibit HQD-11, Document 4, the supply cost includes the amounts related to the pass-through account. The pass-through account contains the

excess real supply costs over the projected costs for 2005 and 2006. The costs are established by customer class using the Distributor's load factor method, which is now applied to the heritage and post-heritage supply costs. The details of the pass-through account calculation, with account balance of -\$146 M, are presented in Exhibit HQD-4, Document 2.

#### **4.4 Net Costs Related to Expenditures for Tangible and Intangible Assets**

In terms of the rate base, the net costs of tangible and intangible assets are now removed from the heading of Assets Auxiliary to Tangible Assets and placed under a separate heading where these assets are taken out of service following dismantlement, destruction, theft, loss, sale, or any other asset corroboration activity.

For the Customer Service function, the treatment in this case is identical to that of case R-3579-2005, with amounts allocated between the functions by payroll, use of services, or direct assignment. Regarding the Distribution and Remote Communities functions, the change concerns the amounts that were allocated in case R-3579-2005 by net tangible assets excluding auxiliary assets and intangible assets, while it is proposed in this case that they be allocated by net tangible assets and intangible assets.

In terms of the cost of service, the proposed change also concerns the amortization of these assets for the Distribution function by applying the same proposed rule as for the rate base.

### **5 FOLLOW-UP TO METHODOLOGICAL CHANGES ON CROSS-SUBSIDIZATION INDICES**

#### **5.1 Impacts of Methodological Changes**

Table 5 presents the impacts of the changes to the Distributor's cost-of-service allocation method for test year 2007. The changes having an impact concern Rate BT, the PGEÉ for remote communities, the supply cost pass-through account, and the net costs related to expenditures for tangible assets and intangible assets. For each item, the service cost for each customer class is calculated with and without the changes, the difference representing the impact of the measure.

As well, Table 5 illustrates the potential impact of the alternative scenarios for post-heritage pool supply cost based on hourly costs and for transmission cost based on the Transmission Company's allocation method as adopted by the Régie.

**Table 5**  
**Sensitivity analysis for changes to allocation method**  
**Projected test year 2007**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Customer class	Cost of service before adjustments	Methodological changes				Distributor Cost of service	Supply Hourly cost	Transmission method adopted by the Régie
		Rate BT deferral account	PGEE allocation for remote communities	Pass-through account	Net costs related to expenditures for tangible assets			
<b>1 Domestic</b>								
2 Rates D and DM	4 934.9	(21.8)	0.0	(62.5)	(0.0)	4 850.6	(29.0)	(121.5)
3 Rate DH	0.3	(0.0)	(0.0)	(0.0)	(0.0)	0.3	(0.0)	(0.0)
4 Rate DT	178.4	(0.8)	(0.0)	(2.7)	(0.0)	175.0	0.7	7.6
5 Total	5 113.6	(22.6)	0.0	(65.1)	(0.0)	5 025.9	(28.3)	(113.9)
<b>6 Small and medium power</b>								
7 Rate G and flat rate	955.5	(6.2)	0.0	(12.9)	0.0	936.4	(0.5)	(1.1)
8 Rate G9	72.9	(0.7)	0.0	(1.1)	0.0	71.1	0.0	2.2
9 Rate M	1 436.5	(10.2)	(0.0)	(25.6)	0.0	1 400.7	3.1	27.4
10 Public lighting and Sent. rates	3 5.3	(0.3)	0.0	(0.5)	(0.0)	34.5	0.2	2.0
11 Rate BT	-	55.4	-	-	-	55.4	-	-
12 Total	2 500.1	38.1	0.0	(40.1)	0.0	2 498.1	3.0	30.5
<b>13 Large power</b>								
14 Rate L	1 766.5	(11.0)	(0.0)	(40.8)	0.0	1 714.7	14.8	48.6
15 Rate H	0.7	(0.0)	(0.0)	(0.0)	0.0	0.6	0.0	0.0
16 Rates LD and LP	2.5	(0.0)	0.0	0.0	0.0	2.5	0.0	(0.0)
17 Special contracts	819.8	-	-	-	-	819.8	-	-
18 Total	2 589.5	(11.0)	(0.0)	(40.8)	0.0	2 537.7	14.8	48.6
<b>19 Total</b>	<b>10 203.2</b>	<b>4.5</b>	<b>0.0</b>	<b>(146.0)</b>	<b>0.0</b>	<b>10 061.7</b>	<b>(10.5)</b>	<b>(34.9)</b>
<b>20 Reference:</b>		<b>Section 4.1</b>	<b>Section 4.2</b>	<b>Section 4.3</b>	<b>Section 4.4</b>	<b>HQD-11, Document 4</b>	<b>HQD-11, Document 4</b>	<b>HQD-11, Document 4</b>

The first four changes are included in the follow-up to the impact of the methodological changes on the cross-subsidization benchmark for 2002.

## 5.2 Follow-up to the Cross-Subsidization Index Benchmark

In the last rate case, the Distributor proposed setting a benchmark in the form of a revenue/cost ratio based on cross-subsidization indices for the reference year (2002) while removing the weather effects from the data, incorporating the Régie's past decisions, and considering the effect of the methodological changes only over the years.

The Régie approved the Distributor's proposal. It held that this proposal made follow-up of the indices more dynamic and simpler with updating each year, thus avoiding the need for many simulations. The format and availability of 2002 and comparison year data would not be the same, which would have created an increasing disparity over time.

Notwithstanding the ongoing discussions on the choice of supply and transmission cost allocation methods and on the correct interpretation of the provisions of Act concerning cross-subsidization in this new context, the Distributor submits the follow-up to the cross-subsidization benchmark in continuity with the methods approved by the Régie.

From this year on, a new feature is added to this follow-up in the form of a for supply cost pass-through account covering the observed differentials in 2005 and 2006. These expenses deferred to 2007, compiled by customer class on the basis of what occurred

in 2005 and 2006, alter the cross-subsidization indices transitorily and should therefore be treated as a methodological change in order to maintain a benchmark for cross-subsidization indices on a provisional basis. In contrast to the other methodological changes, this adjustment should be done each year, since there should be a credit or debit balance each year.

Finally, the Régie asked the Distributor to calculate the cross-subsidization indices based on the revenue generated by the application of the rates over the 12 months of the test year rather than to use the revenue generated by the rates during the financial year.

Table 6 presents the changes in the cross-subsidization indices by customer class for 2005-2007.

**Table 6**  
**Changes in the cross-subsidization indices (%)**

(1) Years compared	(2) Domestic	(3) Small power	(4) Medium power	(5) Large power
1 2005 approved projections	81.1	120.5	128.8	115.9
2 Methods effect	0.2	0.3	0.3	0.8
3 Prices/costs/volumes effect	0.3	2.3	1.0	(2.3)
4 2006 approved projections	81.6	123.2	130.1	114.4
5 Methods effect	(0.2)	(0.1)	0.4	0.8
6 Prices/costs/volumes effect	(0.3)	0.1	0.9	0.4
7 2007 proposed projections	81.1	123.1	131.4	115.6

The cross-subsidization index benchmark is determined by considering the effect of the methodological changes to the cost allocation method, including the effect of the pass-through account, as well as the change in terms of revenue. The 2002 cross-subsidization indices evolve to become the adjusted 2002 benchmark. These adjusted benchmarks are presented in Table 7.

Furthermore, in the event of the adoption of the hourly cost scenario for post-heritage pool supply cost allocation, the Régie indicated in its decision that it held the view that this change was not a methodological change and should not affect the benchmark, since the post-heritage costs were not applicable in 2002.<sup>6</sup>

However, in the event of the adoption of the transmission cost allocation scenario adopted by the Régie, this would be a methodological change and would affect the cross-subsidization index benchmark by the differentials presented in Table 4.

<sup>6</sup> Decision D-2006-34, p. 70.

**Table 7**  
**Determination of cross-subsidization index benchmark**

	Domestic	Small power	Medium power	Large power
<b>2002 benchmark</b>	<b>80.2</b>	<b>123.1</b>	<b>130.6</b>	<b>116.8</b>
2002 method	0.5	(0.5)	(0.5)	(0.5)
2003 method	-	-	-	-
2004 method	-	-	-	-
2005 method	0.1	(0.2)	(0.3)	(0.0)
2006 method	0.2	0.3	0.3	0.8
2007 method	(0.2)	(0.1)	0.4	0.8
<b>Adjusted 2002 benchmark</b>	<b>80.8</b>	<b>122.5</b>	<b>130.3</b>	<b>117.9</b>
2002 method	Weather effects			
2005 method	Subscription component, corporate expenses, working capital cash, auction management, connection fees			
2006 method	Special contracts, amortization of distribution, low/medium power division, number of subscriptions and connections, organizational changes			
2007 method	Cost allocation for Rate BT, PGEÉ for remote communities, supply cost pass-through account, net costs related to expenditures for tangible and intangible assets, revenues generated by the application of the rates over the 12 months of the test year			