Transmission Provider Policy on Network Upgrades

Translation by John Detre Commissioned by Association québécoise des consommateurs industriels d'électricité (AQCIE) and Québec Forest Industry Council (QFIC)

TABLE OF CONTENTS

1	Intr	oduc	tion	5
	1.1	Foll	ow-up on the Régie's requests	5
	1.2	Higl	hlights of the Transmission Provider's application	6
2	Fra	mew	ork of the application	8
3	Tra	nsmi	ssion Provider's Proposals	10
	3.1	Арр 10	lication of the Transmission Provider's maximum allowance in the case of network u	upgrades
	3.1	.1	Network upgrades for point-to-point customers	11
	3.1	.2	Network upgrades for the Distributor	11
	3.2	Net	work upgrades to connect generating stations that serve native load	15
	3.3	Upg	rades involving native load growth projects upstream of satellite substations	16
	3.4 phase	Met d cor	hodology for establishment and payment of the Distributor's contribution for projects mmissioning	s with 17
	3.5	Spe	cific risks associated with certain projects	18
	3.6	Арр	licable credits when the customer has its own step-down substation	
	3.7	Арр	roach to network upgrade cost-sharing among transmission service customers	22
	3.8	Foll	ow-up on commitments	23
	3.9	Oth	er issues	26
	3.9	.1	Rate impact calculation methods	26
	3.9	.2	Special arrangements	28
	3.9	.3	Methodology for the refurbishing or replacement of existing generating station swit 28	chyards
4	Cor	nclus	ion	

List of tables

Table 1: Assessment of the Distributor's required contribution for load growth in 2013	12
Table 2: Proposed assessment of the Distributor's required contribution – sample aggregation	14
Table 3: Phased commissioning – example of application of the proposed methodology	18

Appendices

Appendix 1: Aggregation of load growth projects and resource projects and assessment of the	
Distributor's required contribution	31
Appendix 2: Follow-up on Commitments	41

1 Introduction

Hydro-Québec when carrying on electric power transmission activities ("the Transmission Provider") is asking the Régie de l'énergie (the "Régie") to approve its Transmission Network Upgrades Policy.

The Transmission Provider's Transmission Network Upgrades Policy (the "Upgrades Policy") has been part of the *Hydro-Québec Open Access Transmission Tariff* (the "*Transmission Tariff*") since Decision D-2002-95 on docket R-3401-98. While the guiding principles established at the time have been maintained ever since, some adjustments have been made and the Transmission Provider's capital spending framework has been more clearly defined.

In this application, the Transmission Provider is presenting, in Exhibit HQT-1, Document 1, its proposals for future application of the Upgrades Policy. The amendments to the *Transmission Tariff* that will be required in order to implement them will be filed at a later date.

The Transmission Provider has retained the services of The Brattle Group ("Brattle") to provide expert opinion. Judy W. Chang's testimony on the Transmission Network Upgrades Policy is produced in Exhibit HQT-2, Document 1.

1.1 Follow-up on the Régie's requests

Over the past several years, the Régie has expressed concern about, among other things, the matching of capital expenditures with related revenues.

In this application, the Transmission Provider addresses the following issues raised by the Régie in Decisions D-2011-039, D-2012-059, D-2012-140 and D-2012-152:

- Application of the Transmission Provider's maximum allowance in the case of network upgrades¹;
- Network upgrades to connect generating stations that serve native load¹;
- Codification in the *Transmission Tariff* of the treatment of network upgrades for native load growth projects upstream of satellite substations²;
- Methodology for establishment and payment of the contribution of Hydro-Québec when carrying on electric power distribution activities (the "Distributor") for projects with phased commissioning³;
- Specific risks associated with certain projects³;
- Applicable credits when the customer has its own step-down substation³;
- Codification in the Transmission Tariff of the approach to network upgrade cost-sharing

¹ Docket R-3738-2010, Decision D-2011-039, paragraph 462.

² Docket R-3813-2012, Decision D-2012-140, paragraph 32.

³ Docket R-3738-2010, Decision D-2011-039, paragraph 462.

among transmission service customers⁴;

- Follow-up on purchase commitments⁵;
- Other issues:
 - Agreement between the rate impact calculation method used in investment project cases and the one used in the rate case⁶;
 - Special arrangements for some projects, such as the integration of new renewable energy sources³;
 - Methodology for the refurbishing or replacement of existing generating station switchyards.

1.2 Highlights of the Transmission Provider's application

In this application, the Transmission Provider addresses issues raised by the Régie and makes the following proposals:

- Application of the Transmission Provider's maximum allowance in the case of network upgrades;
 - Include all of the Distributor's projects in the annual aggregation of projects used to calculate the "annual aggregation (loads and resources)" contribution, i.e. add resource projects to the aggregation currently used for native load growth projects in order to limit the total capital costs borne by the Transmission Provider to the maximum allowance based on forecasted 20-year growth in satellite substations and customers connected directly to the transmission system.
 - Carry forward positive balances from the annual aggregation (loads and resources) of the Distributor's projects to cover its contribution in subsequent years, if applicable.
- Network upgrades to connect generating stations that serve native load;
 - Firstly, limit the portion of the cost of connecting generating stations that serve native load that can be rolled into the Distributor's aggregated annual project costs to the amount calculated by applying the maximum allowance to the maximum capacity to be transmitted on the network. Secondly, add these costs to the aggregate cost of all of the Distributor's projects (loads and resources) to be covered by forecasted 20-year growth in satellite substations and customers connected directly to the transmission system.
- Network upgrades for native load growth projects upstream of satellite substations;
 - > Codify in the *Transmission Tariff* the treatment of transmission network upgrades

⁴ Docket R-3819-2012, Decision D-2012-152, paragraph 59.

⁵ Docket R-3738-2010, Decision D-2011-039- paragraph 463.

⁶ Docket R-3777-2011, Decision D-2012-059, paragraph 373.

for native load growth projects upstream of satellite substations.

- Methodology for establishment and payment of the Distributor's contribution for projects with phased commissioning;
 - Require transmission service customers to begin paying a contribution as of the commissioning at which the maximum allowance for the project is reached and subsequently upon each commissioning thereafter.
- Specific risks associated with certain projects;
 - Collect an indemnity from the Distributor in the event of discontinuation of operations by an industrial customer that matches the risk profile defined by the Régie, identified on the basis of a financial criterion and an isolation criterion.
- Applicable credits when the customer has its own step-down substation;
 - Maintain the full allowance for projects to connect the Distributor's industrial customers, with no reduction, in accordance with the current text of the *Transmission Tariff*.
- Approach to cost-sharing among transmission service customers;
 - Codify in the *Transmission Tariff* the approach to cost-sharing among customers for network upgrades that constitute a common, optimal technical solution.
- Follow-up on commitments;
 - Follow up on annual payment commitments for upgrades to serve point-to-point customers.
 - Perform an annual follow-up by comparing, for each customer, total commitments with the total revenues provided by that customer.
 - Perform an equivalent annual follow-up on obligations now in effect, subject to reasonable transitional measures insofar as such arrangements can be formalized by the Transmission Provider and the customer in question.
- Other issues:

o Rate impact calculation methods;

- Maintain the rate impact calculation methods now used for different purposes, i.e. the marginal impact on the reference rate for investment projects and a 10year simulation for rate applications.
- In rate applications, use the following wording for the rate simulation: "effect of projected commissionings on the unit transmission cost."

- Special arrangements for some projects, such as the integration of new renewable energy sources;
 - Maintain the existing methodology for projects of this type. The Transmission Provider is no longer contemplating a new approach.
- Methodology for the refurbishing or replacement of existing generating station switchyards;
 - At the end of their useful life, apply the treatment of generating station switchyards belonging to Hydro-Québec to generating station switchyards belonging to private generators, provided that the Transmission Provider has made a repayment in respect of these switchyards up to the maximum contribution, and taking into account the contractual framework at the time of their refurbishing.

2 Framework of the application

The Transmission Provider's proposals with respect to the Upgrades Policy are consistent with the regulatory framework set out in the *Act respecting the Régie de l'énergie* (the "Act"), the *Transmission Tariff* and the business context in which transmission services are provided to customers.

The Transmission Provider notes that the Upgrades Policy relates to upgrades required to meet its customers' needs, i.e. upgrades that involve projects in the "customer demand growth" category. Work done for purposes of network improvement, to ensure the network's durability and reliability, or to comply with requirements are not covered by the Upgrades Policy.

This distinction derives from the approach adopted by the Régie in Decision D-2002-95 and has been applied since:

Improvements to the transmission system include additions required in order to ensure the system's durability and reliability. Such improvements serve to maintain proper operation of the system and ensure safe, reliable flow for the benefit of all system users. The Régie accepts the Transmission Provider's proposal because it is equitable that all customers should contribute to paying for these upgrades. The cost of these facilities may be rolled into the rate base if they are found in a rate case to be a useful and prudent acquisition.⁷

Regulatory framework

The Upgrades Policy includes by reference several elements of the *Act*. Upgrades triggered by requests from transmission service customers and upgrades required to connect generating

⁷ Docket R-3401-98, Decision D-2002-95, page 297.

stations to the network are subject to authorization by the Régie.

In accordance with the *Act*,⁸ the Transmission Provider has filed numerous applications for network upgrade authorizations with the Régie with respect to projects to accommodate growth in transmission service customers' needs.

As stipulated by the regulatory framework, all the required information for network upgrades is included in the Transmission Provider's applications for authorization, including a description of the commitments and financial contributions made by the transmission service customer that triggered the transmission network upgrade involved in the project.

The commitments and financial contributions made by transmission service customers are recorded, as stipulated in the *Transmission Tariff*, in service agreements, connection agreements or capacity increase agreements in the case of generating station owners, and in administrative agreements with the Distributor in the case of calls for tenders or purchasing programs.

Transmission service customers that execute connection agreements or transmission service agreements with the Transmission Provider for network upgrade projects are subject to established contractual frameworks which determine their financial contributions to the projects in question.

Transmission Provider's Transmission Tariff

The provisions relating to the Transmission Provider's Upgrades Policy are set out in Attachment J to the *Transmission Tariff*. These provisions apply to projects triggered by requests from eligible transmission service customers, i.e. network upgrades to meet growing customer needs that involve the integration of generating stations, load growth or requests for transmission service over interconnections. Attachment J also includes provisions for determining the costs to be borne by the Transmission Provider and the costs to be recovered through transmission revenues and, if applicable, customer contributions.

The maximum allowance is described in Section E of Attachment J, which stipulates that the maximum amount to be borne by the Transmission Provider for network upgrades made to meet the requirements for Transmission Services offered under Parts II, III and IV of the *Transmission Tariff*, including the connections to generating stations referred to in paragraphs 12A.2(i) and 12A.2(ii), is equal to the product of the present value over 20 years of the point-to-point transmission rate for an annual delivery (less operating and maintenance expenses and applicable taxes) and the new maximum capacity to be transmitted over the network.

⁸ Section 73 of the Act and the *Regulation respecting the conditions and cases where authorization is required from the Régie de l'énergie.*

Business environment

To ensure non-discriminatory treatment of all transmission service customers, the Transmission Provider's business relations with its customers are governed by the *Transmission Tariff*. This treatment is described in Parts II, III and IV of the *Transmission Tariff* for Point-to-Point Transmission Service customers, Network Integration Transmission Service customers and Native Load Transmission Service customers respectively. The Transmission Provider has no Network Integration Transmission Service customers at this time.

Native-Load Transmission Service is a Transmission Service that allows the Distributor to integrate and economically dispatch multiple resources to serve its Network Load,⁹ which consists of multiple loads with no particular interrelationship. No service agreement between the Transmission Provider and the Distributor is required under the *Transmission Tariff* for native load transmission service. The Distributor uses this transmission service to serve its customers and to satisfy its annual revenue requirement in this respect.¹⁰ Therefore, the Distributor's customers, which have no business relationship with the Transmission Provider, are assigned no individual financial responsibility by the Transmission Provider for native load transmission service as a whole.

Relations between the Transmission Provider and point-to-point customers are governed by the *Transmission Tariff.* These customers must execute transmission service agreements of sufficient length and quantity to cover the cost of their network upgrades, if necessary. They are granted an allowance over a maximum period of 20 years or according to the term of their service agreement and they must pay, if applicable, a contribution if the cost of their network upgrades exceeds the allowance.

Where a generating station is being connected to the network, the owner of the generating station must make at least one of the following commitments pursuant to section 12A.2: (i) at least one service agreement for long-term firm transmission service must have been executed, (ii) a take-or-pay commitment to purchase point-to-point firm or non-firm transmission service, or (iii) a repayment that equals the present value of the costs incurred by the Transmission Provider.

3 Transmission Provider's Proposals

3.1 Application of the Transmission Provider's maximum allowance in the case of network upgrades

The Régie has set a maximum amount that may be rolled into the rate base to serve point-topoint transmission service customers in order to "protect transmission service customers against excessive connection and integration costs."¹¹ The Régie has extended application of this cap to

⁹*Hydro-Québec Open Access Transmission Tariff*, March 20, 2014 version, section 36.1.

¹⁰ Hydro-Québec Open Access Transmission Tariff, section 42.1 and Attachment H.

¹¹ Docket R-3401-98, Decision D-2002-95, page 298.

native load upgrades in order to "treat all transmission customers in like manner."¹² The principle of rate neutrality for all of the Transmission Provider's customers has since been upheld through application of the maximum allowance described in Section E of Attachment J to the *Transmission Tariff*.

3.1.1 Network upgrades for point-to-point customers

When a point-to-point customer requests transmission service for which transmission network upgrades are necessary, the amount of the allowance granted by the Transmission Provider is based on the term of the transmission service agreement executed by the customer. Customers are granted an allowance over a maximum period of 20 years, or based on the term of their service agreement, and they must pay, if applicable, a contribution if the cost of their network upgrades exceeds the allowance.

Point-to-point customers may also cover the cost of network upgrades made to connect generating stations by making one of the commitments described in section 12A.2 of the *Transmission Tariff.*

In this application, the Transmission Provider is proposing annual follow-up on the commitments of point-to-point customers to demonstrate that the costs it incurs for network upgrades or to connect generating stations are covered by the revenues from the service agreements of point-to-point customers.

3.1.2 Network upgrades for the Distributor

The specific nature of transmission supplying native load and billing on the basis of forecasted total peak load, without any specific commitment to transmission service, calls for an adapted approach to covering network upgrade costs.

Native load consists of a multitude of loads served by a multitude of resources, without any particular interrelationship. For the Transmission Provider, native load, represented by the Distributor, constitutes a whole. The Distributor's financial responsibility to the Transmission Provider is not governed by a specific commitment to purchase transmission service in a given quantity and for a given term but by the provisions of Part IV of the *Transmission Tariff*.

3.1.2.1 Assessment of the Distributor's contribution

Under the current regulatory framework, the Distributor's contribution is calculated on the basis of annual commissionings by applying the maximum allowance to forecasted 20-year growth in satellite substations and customers connected directly to the transmission system. Thus, the Transmission Provider updates the Distributor's contribution to native load projects on an annual basis. The Distributor's resource-integration and generating-station-connection projects ("resource projects") are rolled into the Transmission Provider's rate base up to the maximum

¹² Docket R-3401-98, Decision D-2002-95, page 299.

allowance, based on the maximum capacity to be transmitted on the network.

In accordance with Section C of Attachment J to the *Transmission Tariff*, the Transmission Provider calculates the Distributor's contribution "taking into account for all investments associated with projects commissioned by the Transmission Provider during the year and all load growth that such projects are to serve over a twenty (20) year period."¹³ As a result, projects are aggregated on an annual basis. That aggregation is filed with the Régie in rate applications.

Table 1 below shows the assessment of the Distributor's contribution for 2013, as filed in the Transmission Provider's rate application for the years 2013 and 2014.¹⁴

		Update of	Transmission	Update of	Difference
Régie decision	Broject	additional MWs	Provider's	costs, April	between maximum
number	i loject	over 20 years	maximum	2013	allowance and
			allowance		costs
		MW	\$ million	\$ million	\$ million
D-2009-140	Chomedey source substation - 315-120 kV lines	0.0	-	7.1	(7.1)
D-2010-161	New St-Bruno-de-Montarville satellite substation	91.0	52.0	52.7	(0.8)
D-2011-022	New Lachenaie satellite substation, 315-25 kV	90.0	51.4	41.8	9.6
D-2011-084	New Charlesbourg satellite substation	82.5	47.1	55.4	(8.3)
-\$25 million	Lavaltrie satellite substation	64.0	36.5	12.2	24.3
-\$25 million	Chéneville satellite substation	7.7	4.4	6.2	(1.8)
D-2011-120	Bécancour improvement	0.0	-	20.0	(20.0)
-\$25 million	Lévis satellite substation	40.5	23.1	10.9	12.2
-\$25 million	Dubuc satellite substation	9.6	5.5	6.4	(0.9)
D-2012-018	Chaudière-St-Agapit 120 kV double-circuit line	0.0	-	24.6	(24.6)
-\$25 million	Landry satellite substation	18.2	10.4	18.0	(7.6)
Rec. Sept. 2010	Mont-Royal satellite substation	60.3	34.4	29.1	5.3
D-2012-061	Improvement of Abitibi 315 kV network - phase 1 -	0.0	-	7.7	(7.7)
	Figuery substation				
-\$25 million	Other projects < \$5 million	87.6	22.3	3.7	18.6
	Subtotal	551.4	287.2	295.8	(8.6)
Plus 15% for oper	rating and maintenance expenses	-	-	-	(1.3)
The Distributo	r's required contribution (estimate)				9.9

Table 1Assessment of the Distributor's required contribution for load growth in 2013

The Transmission Provider therefore aggregates all the projects commissioned in 2013, without assigning growth MWs to projects upstream of satellite substations except those that serve new load for customers of the Distributor that are connected directly to the transmission system. This project aggregation, which reflects overall capital expenditures, has the effect of limiting application of the maximum allowance to forecasted growth in satellite substations and in the loads of customers of the Distributor connected directly to the transmission system. This mechanism has been applied and filed with the Régie in rate applications since 2006. In response to the Régie's request, the Transmission Provider is proposing to codify in the *Transmission Tariff* practices relating to the treatment of capital expenditures upstream of

¹³ *Hydro-Québec Open Access Transmission Tariff*, Attachment J, section C.

¹⁴ Docket R-3823-2012, Exhibit HQT-12, Document 2.

satellite substations.

3.1.2.2 Proposed methods for assessing the Distributor's contribution

The Transmission Provider proposes that the Distributor's resource projects arising from calls for tenders, exempt purchases and other purchase programs be included in the project aggregation used for the annual calculation of the Distributor's contribution. This approach will ensure that the maximum annual cost of all native load upgrades, including resource integration projects, that can be rolled into the Transmission Provider's rate base remains limited to the Transmission Provider's maximum allowance applied to forecasted growth in satellite substations and customers connected directly to the transmission system.

This proposal is consistent with the Régie's instructions concerning application of the maximum allowance¹⁵ and, in response to the Régie's wishes, allows for an overall conceptual linkage between the Distributor's resources and loads, taking into account the nature of the native load service offered.

The Transmission Provider specifies that the portion of the cost of the Distributor's resource projects that could potentially be covered by the amount of the allowances for satellite substations will be limited, in the first instance, to the amount calculated by applying the maximum allowance to the maximum capacity to be transmitted on the network. An initial contribution by the Distributor will therefore be calculated for these projects, if applicable. For this type of project, therefore, only the capital expenditure net of this initial contribution will be included in the aggregation used to calculate the Distributor's total annual contribution, without counting any growth MWs. The Transmission Provider believes that this approach makes it possible to treat all generators in the same way, whether they have a contract with the Distributor or are transmission service customers.

The Transmission Provider considers this to be a conservative proposal. The maximum allowance is established over a 20-year period, so the cost of upgrades made at a customer's request is recovered within a maximum of 20 years. This allowance is less than what it would be if it were based on the average useful life of transmission facilities, which is 40 years. The Transmission Provider is therefore guaranteed a contribution greater than what would be required if it were calculated over average useful life instead of a limited 20-year period, as is currently the case. In this regard, it should also be noted that native load, which grows gradually over the timeframe factored into the maximum allowance, in fact persists well beyond the 20-year period used to establish this allowance.

In Table 2 below, the Transmission Provider presents a simplified example of the proposed methodology.

¹⁵ Docket R-3738-2010, Decision D-2011-039, paragraph 432.

Table 2
Proposed assessment of the Distributor's required contribution – sample aggregation

Project	20-year growth	Transmission Provider's maximum allowance (\$598/kW)	Cost of network upgrades	Difference between maximum allowance and costs	
	MW	\$ million	\$ million	\$ million	
Satellite substation A	100	59.8	39.8	20.0	
Source substation B	-	-	50.0	-50.0	
Resource project 1	-	-	100.0 ¹	-100.0	
Total	100	59.8	189.8	-130.0	
Operating and maintenance expenses (15%)	-19.5				
Distributor's contribution	-149.5				

1. In this example, costs are net of the initial contribution, which is the difference between the actual project cost and the maximum allowance, based on capacity to be transmitted for the project. For example, if the project cost is \$150 million and the maximum allowance is \$100 million, the net cost of the contribution is \$100 million and is payable by the Distributor.

In this example, the Distributor would have a total \$130 million contribution to make, plus 15% for operating and maintenance expenses. The \$100 million amount for *Resource Project 1* is net of the initial contribution, if applicable. In this example, *Resource Project 1* is also paid for in part through the Distributor's contribution, since the forecasted growth in satellite substations offsets only \$20 million of all the other native load projects for the year.

For illustrative purposes, the Transmission Provider presents in Appendix 1 the results of application of its proposal to the Distributor's projects. As the table reflects, the Transmission Provider is proposing that resource projects commissioned since 2006 be factored into the calculation of the Distributor's contribution. The Transmission Provider's proposal would apply from the year in which the aggregation was introduced into the *Transmission Tariff*, i.e. 2006. The Transmission Provider is applying this measure to the aggregations that have already been filed with the Régie, since the Régie has reserved decision on estimating the Distributor's contributions for these projects. The table shows the annual aggregations that were used to assess the Distributor's required contribution and were filed in the rate applications,¹⁶ plus the resource projects that were commissioned. Under this proposal, the Distributor would have had to make an additional contribution estimated at \$521.6 million,¹⁷ plus operating and maintenance expenses. This contribution will be included in a future rate application, following the Régie's decision.

Some flexibility in application of the Transmission Provider's proposal is desirable, given the specific nature of native load transmission service. The Régie has also indicated that it "understands that, over a very long period, growth-related transmission needs may necessitate very costly capital expenditures per rate level that will have significant impacts on the size of the

¹⁶ Follow-up on Decision D-2010-032 in Exhibit HQT-12, Document 2.

¹⁷ Difference between the \$810.2 million amount specified in Appendix 1 and the projected amounts for 2013 and 2014 in docket R-3823-2012, Exhibit HQT-12, Document 2, page 13, Tables 8 and 9.

Distributor's contribution. Accordingly, some flexibility in the application of the methodology for determining the Distributor's contributions could be contemplated. The Transmission Provider may submit a proposal to this effect."¹⁸ The Transmission Provider therefore proposes that the positive balances produced when the maximum allowance exceeds costs be carried forward and used to cover contributions in subsequent years. The Transmission Provider proposes, however, that the contributions be payable in all years in which the cumulative balance is negative.

The Transmission Provider's proposal is based on a conservative approach, uses a mechanism known to and accepted by the Régie, and is suited to the nature of the business relationship with the Distributor.

Transmission Provider's Proposals

- Include all of the Distributor's projects in the annual aggregation of projects used to calculate the "annual aggregation (loads and resources)" contribution, i.e. add resource projects to the aggregation currently used for native load growth projects in order to limit the total capital costs borne by the Transmission Provider to the maximum allowance based on forecasted 20-year growth in satellite substations and customers connected directly to the transmission system.
- Carry forward positive balances from the annual aggregation of the Distributor's projects to cover its contribution in subsequent years, if applicable.

3.2 Network upgrades to connect generating stations that serve native load

In docket R-3631-2007, the Transmission Provider asked the Régie to authorize acquisition and construction of the assets required to integrate wind energy plants into the Matapédia regional transmission network (the "Matapédia project"), following call for tenders A/O 2003-02. For the purpose of establishing the Distributor's required financial contribution, the Transmission Provider used a maximum capacity to be transmitted of 990 MW in order to calculate the maximum allowance, in accordance with the *Transmission Tariff*. In Decision D-2007-141, the Régie asked that any proposal or approach that could ensure the project's rate neutrality within the regulatory framework, either through a higher customer contribution or otherwise, be examined. The Régie also raised the same point in the cases relating to calls for tenders A/O 2005-03¹⁹ and A/O 2009-02.²⁰

As proposed by the Transmission Provider in Section 3.1, the capital costs related to the Distributor's projects, including resource projects, that can be borne by the Transmission Provider will be limited by application of the maximum allowance to the forecasted growth in

¹⁸ Docket R-3738-2010, D-2011-039, paragraph 431.

¹⁹ Docket R-3742-2010.

²⁰ Docket R-3836-2013.

satellite substations and customers connected directly to the transmission system. A maximum allowance is applied to the Distributor's resource projects strictly for the purpose of calculating the initial contribution and the cost to be included in the annual aggregation (loads and resources). The amounts for upgrades involving the Distributor's resource projects will be paid through contributions, except in years when the allowance exceeds the forecasted project costs for satellite substations and customers connected directly to the transmission network included in the aggregation.

The Transmission Provider therefore believes that its proposal to include all of the Distributor's projects (loads and resources) for the purpose of the annual contribution calculation already used for native load projects, in order to limit the total capital costs borne by the Transmission Provider to the maximum allowance based on forecasted 20-year growth in satellite substations and customers connected directly to the transmission system, addresses the Régie's concerns.

Transmission Provider's Proposal

Firstly, limit the portion of the cost of connecting generating stations that serve native load that can be rolled into the Distributor's aggregated annual project costs (loads and resources) to the amount calculated by applying the maximum allowance to the maximum capacity to be transmitted on the network. Secondly, add these costs to the aggregate cost of all of the Distributor's projects (loads and resources) to be covered by forecasted 20-year growth in satellite substations and customers connected directly to the transmission system.

3.3 Upgrades involving native load growth projects upstream of satellite substations

With respect to the project described in the application to strengthen the 120 kV transmission system in the Palmarolle and Rouyn areas, the Transmission Provider indicates that for this project it is not factoring transmission requirements into the calculation of the allowance, in view of the nature of the work to strengthen the 120 kV network upstream of the satellite substations. In its Decision,²¹ the Régie noted that "this approach is not codified in the *Transmission Tariff*" and asked the Transmission Provider to propose wording to be included in Attachment J to the *Transmission Tariff*.

As noted above, the Transmission Provider aggregates all the projects commissioned during the year for the purpose of calculating the Distributor's annual contribution but does not assign any growth MWs to projects upstream of the satellite substations in the annual aggregation, except for load growth for customers of the Distributor that are connected directly to the transmission

²¹ Docket R-3813-2012, Decision D-2012-140, paragraph 31.

system. The maximum allowance is therefore limited to forecasted growth in satellite substations and customers connected directly to the transmission system.

In response to the Régie's request, the Transmission Provider is proposing an amendment to the *Transmission Tariff* to clarify this practice. Accordingly, as indicated in this application, the Transmission Provider includes, in the annual aggregation (loads and resources) of projects used to calculate the Distributor's contributions, native-load-related generation integration.

Transmission Provider's Proposal

Codify in the *Transmission Tariff* the treatment of transmission network upgrades for native load growth projects upstream of satellite substations.

3.4 Methodology for establishment and payment of the Distributor's contribution for projects with phased commissioning

La Régie has asked the Transmission Provider to submit a proposed methodology for the establishment and payment of the Distributor's contribution for projects with phased commissioning.²²

This methodology should make it possible to match costs and contributions for projects of this type so that the Transmission Provider can include these upgrades in its rate base for rate-setting purposes.

The Transmission Provider recalls that the applicable maximum allowance and the methodology for establishing contributions are established when a connection agreement is signed with a customer. In the case of the Distributor's calls for tenders and exempt purchases, the Transmission Provider executes an administrative agreement with the Distributor. The allowance is set when the administrative agreement with the Distributor is signed.

The Transmission Provider's practice is to require payment of the contribution when the actual amount incurred by the Transmission Provider for the upgrades is known, i.e. upon final commissioning of the project. This practice was developed for projects without phased commissioning, which is the majority of cases. In the case of projects that do have phased commissioning, special treatment may be appropriate.

Therefore, for projects with phased commissioning, the Transmission Provider proposes henceforth to require that the Distributor begin paying its contribution upon commissioning or when the amount of the maximum allowance for the project has been reached, and subsequently at each commissioning up to the final commissioning. The following example illustrates this proposal.

²² Dockets R-3631-2007 and R-3742-2010.

Table 3 Phased commissioning – example of application of the proposed methodology

Project cost Maximum allowance	\$200 million \$120 million \$80 million				
Surplus					
Including 3 switchyards					
Cost	\$30	million			
Allowance	\$25	million			
Surplus	\$5 1	nillion			
Calculation of surplus for switchyards		Comm 1	Comm 2	Comm 3	Total
Cost		30	30	30	90
Switchyard allowance		25	25	25	75
Surplus (allowance per switchyard)	Α	5	5	5	15
Calculation of surplus for project					
Other costs		40	50	20	110
Switchyard allowance		25	25	25	
Total cost net of surplus for switchyards		65	75	45	185
Allowance: beginning balance		120	55		
Allowance: ending balance		55	0		
Surplus (total \$120 million allowance)	В		20	45	65
Total surplus	A+B	5	25	50	80

With respect to the contribution for switchyards owned by the Transmission Provider, the Transmission Provider requires payment of the contribution upon the commissioning of each switchyard. The Transmission Provider will continue this practice.

The Transmission Provider proposes to amend the *Transmission Tariff* to require transmission service customers to begin paying a contribution as of the commissioning at which the maximum allowance for the project is reached and subsequently upon each commissioning thereafter.

Transmission Provider's Proposal

Require transmission service customers to begin paying a contribution as of the commissioning at which the maximum allowance for the project is reached and subsequently upon each commissioning thereafter.

3.5 Specific risks associated with certain projects

Following the review of the Éléonore project,²³ in its Decision D-2008-073 the Régie expressed concern about the risks associated with connecting some of the Distributor's customers. In that Decision, the Régie stated:

²³ Docket R-3656-2008.

One of the characteristics of the Project is that, at the Distributor's request, the Transmission Provider is building facilities in an <u>isolated area</u> that will, in practice, be <u>dedicated to serving a single native load customer</u>. The Régie questioned the Transmission Provider about the rate impact on the Transmission Provider and its customers of a hypothetical <u>discontinuation of operations</u> by the Distributor's customer after only a few years of operation with uninterrupted supply" (emphasis added).²⁴

The Transmission Provider understands that the Régie is concerned about the possibility that the Transmission Provider's customers may have to bear the risk associated with capital projects carried out to accommodate the needs of a certain type of customer of the Distributor in the event that such a customer discontinues its operations.

The Transmission Provider recalls that, under the *Transmission Tariff*, its customer for the Native Load Supply Service is the Distributor. It has no business relationship with the Distributor's customers.

In response to the Régie's concerns, the Transmission Provider proposes a policy to address the specific situation described by the Régie. This policy would apply to the Distributor in the case of projects to connect industrial customers with facilities in isolated areas to the transmission system. The Transmission Provider intends to apply the specific criteria described below in order to identify the projects that will be subject to this policy. The Transmission Provider will ensure that this policy is reflected in its internal connection agreements with the Distributor for the identified projects.

Under the proposed policy, the Distributor would be required to pay an indemnity equal to the remainder of the allowance plus operating and maintenance expenses in the event that one of the industrial customers in question should discontinue operations within 20 years or the period for which the allowance was granted. The remainder of the allowance will be prorated based on the number of years remaining in the duration of the granted allowance.

The indemnity paid by the Distributor will be equivalent to the remainder of the allowance in the event of the discontinuation of the operations of a customer subject to this policy. If such an indemnity is paid, the remainder of the allowance will be deducted from the Transmission Provider's rate base and will no longer be reflected in its revenue requirement.

The Transmission Provider intends to analyze projects that connect industrial customers of the Distributor that may be subject to this policy to the transmission system on the basis of two specific criteria.

The purpose of the first criterion is to identify projects that are liable to have an impact on the revenue requirement in the event of discontinuation of the customer's operations. That impact is assessed on the basis of the costs borne by the Transmission Provider, i.e. net of any amount paid back through contributions. The Transmission Provider therefore proposes to consider projects for which it bears costs equal to or greater than \$5 million.

²⁴ Decision D-2008-073, page 14.

The purpose of the second criterion is to identify projects located in isolated areas or involving facilities dedicated to serving a single customer. This criterion is defined by the following ratio:



Industrial customer's load + local load

The value of the ratio gives the weight of the industrial customer's load in relation to local load. Local load is defined as the sum of current loads on the transmission system within a radius of 15 kilometres of a geographic point. This radius reflects the average area served by a rural satellite substation. The higher the ratio, the greater the weight of the customer's load in relation to local load, indicating that the customer is located in an isolated area. The Transmission Provider sets the threshold for this ratio at 90%. A customer with a ratio equal to or greater than that threshold is deemed to be located in an isolated area.

Prior to payment of the indemnity by the Distributor, a payability test will be applied. This test assesses whether the facilities originally deemed to be "located in an isolated area" and "dedicated to serving a single customer" still qualify for that category, and whether the remainder of the allowance is greater than \$5 million. The Transmission Provider will perform this check by recalculating the aforementioned ratio. If the project no longer qualifies, no repayment will be demanded. If a repayment is still due, it will be paid by the Distributor following the discontinuation of operations.

The regulatory accounting treatment of the indemnity would be consistent with similar treatment authorized in Decisions D-2003-214²⁵ and D-2003-12²⁶ concerning transactions between the Transmission Provider and the Distributor.

Transmission Provider's Proposal

Collect an indemnity from the Distributor in the event of discontinuation of operations by an industrial customer that matches the risk profile defined by the Régie, identified on the basis of a financial criterion and an isolation criterion.

²⁵ Docket R-3512-214, which concerns an application filed by the Transmission Provider and the Distributor to connect the Cree village of Waskaganish, as described in Exhibit HQT-7, Document 1, section 1.4.

²⁶ In docket R-3401-98, the treatment of contributions for the connection of a private generator (Attachment J, section B-4 of the *Transmission Tariff*), as described in Exhibit HQT-11, Document 2.4, pages 5 to 7.

3.6 Applicable credits when the customer has its own step-down substation

In its review of the Éléonore project, ²⁷ the Régie accepted the Transmission Provider's proposed treatment of adjustments to the maximum allowance in cases where the Distributor's customer has its own step-down substation. The Transmission Provider had deducted from the allowance granted to the project a lump sum which it deemed equivalent to the costs associated with the customer's step-down substation.

In its Decision,²⁸ the Régie noted that the rules and methodology of this adjustment are not defined in the text of the *Transmission Tariff* and asked the Transmission Provider to present and support the conceptual framework and reference data used to establish the adjustment to the maximum allowance and the method of application.

Upon analysis, the Transmission Provider believes it is not appropriate to deduct from the maximum allowance an amount equivalent to the costs associated with step-down substations, for the reasons outlined below.

Today, all industrial customers that are directly connected to the transmission system have their own step-down substation.

The maximum allowance is an allowance in an amount up to the costs actually incurred by the Transmission Provider for network upgrades. As these costs exclude the cost of the step-down substations owned by the Distributor's customers (built and paid for by them), these are clearly not included in the allowance granted to the Distributor. This means that the Distributor does not receive, as part of the allowance it is granted by the Transmission Provider, an amount specifically intended to cover the cost of the step-down substations owned by its customers. There is, at the outset, no coverage of these costs by the Transmission Provider.

The Transmission Provider also believes it would be appropriate make some clarifications with respect to the connection that was drawn in the past between this treatment and the Distributor's credit for supply at medium or high voltage. Under article 10.2 of the *Distribution Tariff*, the customer is entitled to a monthly credit in dollars per kilowatt on the monthly demand charge applicable to the contract.

At the time, it was the Transmission Provider's view that, since the customer had its own stepdown substation and received a credit from the Distributor, reducing the maximum allowance for the project would avoid giving the customer double financial compensation. However, the allowance is granted to the Distributor, not the customer. The step-down substations are not assets that belong to the Transmission Provider and therefore their costs are not rolled into its rate base. The maximum allowance is applied to the total project cost, which does not include the cost of the step-down substation.

²⁷ Docket R-3656-2008.

²⁸ Docket R-3656-2008, Decision D-2008-073, page 12.

Accordingly, the Transmission Provider submits that no amendment to the *Transmission Tariff* is required.

Transmission Provider's Proposal

Maintain the full allowance for projects to connect the Distributor's industrial customers, with no reduction, in accordance with the current text of the *Transmission Tariff.*

3.7 Approach to network upgrade cost-sharing among transmission service customers

In its Decision on the application relating to the Saint-Césaire – Bedford project,²⁹ the Régie found that "the methodology used by the Transmission Provider to divide the total project cost between the Distributor and a point-to-point customer, in this case the Generator, is not codified in the *Transmission Tariff*."

The Transmission Provider proposes to codify, in the *Transmission Tariff*, the approach used to divide project costs among the various transmission service customers who benefit from a project.

The Transmission Provider may determine that work related to different network upgrade projects could advantageously be replaced by a common technical solution that is more optimal in terms of cost and network development than piecemeal solutions. The Transmission Provider's proposed approach would, if applicable, assign to each of the projects involved a portion of the cost of the common solution, based on the amount by which it reduces the cost of the project. If this approach does not apply to a particular project, the Transmission Provider will submit the replacement method to the Régie.

Transmission Provider's Proposal

Codify in the *Transmission Tariff* the approach to cost-sharing among customers for network upgrades that constitute a common, optimal technical solution.

²⁹ Docket R-3819-2012, Decision D-2012-152, paragraph 58.

3.8 Follow-up on commitments

Framework of commitments

Section 12A.2 of the *Transmission Tariff*³⁰ deals with connecting generating stations to the network and the commitments that point-to-point customers must make in order to cover the costs, nets of contributions. The Transmission Provider notes that only Hydro-Québec when carrying on electric power generation activities (the "Generator") has such commitments at this time.

Prior to the adoption of the provisions in section 12A.2 of the *Transmission Tariff*, the Generator made "Toulnustouc-type commitments," which are take-or-pay commitments to make annual payments to cover the costs incurred by the Transmission Provider for certain projects that connect generating stations to the network. Such commitments apply to connection of the following generating stations: Toulnustouc, Eastmain-1, Mercier, Péribonka, Chute-Allard and Rapides-des-Cœurs. To validate Toulnustouc-type commitments, the Transmission Provider compares the total commitments made by the Generator with the annual revenues from the point-to-point services it provides. The Transmission Provider currently follows up on Toulnustouc-type commitments in its annual report, as requested by the Régie in Decision D-2009-071.³¹

For all other types of projects that connect generating stations to the transmission system, the provisions of section 12A.2 of the *Transmission Tariff* have applied since it was adopted in April 2006. Section 12A.2 describes three options by which point-to-point customers can repay the Transmission Provider's generation integration costs.

The first option, set out in paragraph 12A.2(i), consists in the customer executing at least one Service Agreement for Long-Term Firm Transmission Service for which the present value of payments to be made to the Transmission Provider over the term of the Agreement at least equals the costs incurred by the Transmission Provider to ensure connection of the generating station, less any amount repaid to the Transmission Provider. The Generator made commitments of this type for the connection of the Eastmain-1-A and La Sarcelle generating stations, the connection of the La Romaine complex and the Manic-2 project.

The second option, set out in paragraph 12A.2(ii), consists in signing a take-or-pay commitment to purchase Firm or Non-Firm Point-to-Point Transmission Services for an amount that at least equals the present value of costs incurred by the Transmission Provider, less any amount repaid to the Transmission Provider, to ensure connection of the generating station. Connection of the Magpie generating station is the only project subject to a commitment of this type by the Generator at this time. This commitment is followed up on by means of metering at the generating station.

³⁰ Decisions D-2006-66, D-2007-08 and D-2007-34, in which the Régie approved the conditions.

³¹ Docket R-3669-2008.

The third option, set out in paragraph 12A.2(iii), consists in repaying the Transmission Provider an amount that equals the present value of the costs it incurred to ensure connection of the generating station.

The Transmission Provider notes that the current commitments under paragraph 12A.2(i) were not made on an annual basis. Pursuant to the *Transmission Tariff*, application of this paragraph must result in the present value of revenues from long-term transmission service agreements being sufficient to cover the costs of a transmission service customer's connection project.

Proof to this effect has been submitted to the Régie in three applications for authorization of capital projects.³²

As noted above, the Generator, the only customer currently affected by section 12A.2, has made commitments to the Transmission Provider to cover network upgrade costs arising from the aforementioned projects, in accordance with paragraph 12A.2(i) of the *Transmission Tariff.*³³ These upgrade costs are fully covered by the revenues from the Generator's transmission service under current long-term service agreements. That is, the present value of payments to be made to the Transmission Provider over the term of the applicable service agreements at least equals the network upgrade costs incurred by the Transmission Provider for the aforementioned projects. Proof to this effect was submitted to the Régie and it authorized the capital projects in question in Decisions D-2008-149, D-2011-083 and D-2011-098.

Methodology proposed by the Transmission Provider

The Transmission Provider proposes a new approach to following up on commitments for future projects. The proposed follow-up would be conducted on an annual basis, as desired by the Régie.³⁴

Under this proposal, the Transmission Provider will perform an annual follow-up to demonstrate that upgrade costs for each customer, as established for monitoring purposes for all projects subject to paragraph 12A.2(i) and sections A, B and D of Attachment J, are being recovered annually by total transmission revenues for that customer.

The Transmission Provider proposes to follow up on commitments on an annual basis, in this

³² Authorization applications: Application by the Transmission Provider for authorization to acquire and construct required immovables and assets to connect the Eastmain-1-A and La Sarcelle generating stations to its transmission system (R-3674-2008), Application by Hydro-Québec when carrying on electric power transmission activities for the required authorization to acquire and construct immovables or assets for electricity transmission - The Transmission Provider's project to connect the generating stations in the La Romaine complex to the transmission system (docket R-3757-2011) and Application by Hydro-Québec when carrying on electric power transmission activities for the required authorization to acquire and construct immovables or assets for electricity transmission activities for the required authorization to acquire and construct immovables or assets for electricity transmission activities for the required authorization to acquire and construct immovables or assets for electricity transmission activities for the required authorization to acquire and construct immovables or assets for electricity transmission - The Transmission Provider's project to replace two step-up transformers at the Manic-2 station (docket R-3762-2011).
³³ The Generator has executed long-term firm transmission service agreements for deliveries to ON, MASS and NE in

³³ The Generator has executed long-term firm transmission service agreements for deliveries to ON, MASS and NE in order to cover its commitments. The long-term transmission service agreement for deliveries to ON was signed on October 16, 2006 and filed with the Régie on November 16, 2006. The long-term transmission service agreements for deliveries to MASS and NE were signed on March 31, 2009 and filed with the Régie on April 21, 2009.
³⁴ Docket R-3669-2008. Decision D-2009-071. paragraph 34.

manner:

- Annual revenues consist of actual revenues under current service agreements minus revenues that cannot be counted and revenues used to cover commitments under paragraph 12A.2(ii) (metering at the generating station). The difference gives the revenues that can be used to cover Toulnustouc-type commitments and other commitments;
- Commitments are established by calculating annual payments over a maximum 20-year period based on the costs borne by the Transmission Provider for each project. The Toulnustouc-type commitments under paragraph 12A.2(i) and Attachment J are then added up;
- For each customer, the sum of annual revenues must offset the sum of commitments for all its projects.

The Transmission Provider is proposing a format for follow-up on commitments. The Transmission Provider proposes that commitments be reported in its annual report, using the submitted format, for all point-to-point customers that have projects commissioned after the Transmission Provider's proposal comes into effect, should the Régie accept it.

The Generator's existing obligations, which consist in commitments and transmission service agreements, are subject to established legal frameworks insofar as the various agreements and contracts executed with the Transmission Provider, and the resulting projects authorized by the Régie, were consistent with the regulatory framework in effect at the time they were signed. Among other things, this regulatory framework called for a demonstration that the cost of network upgrades was covered on a present value basis that does not lend itself to annual follow-up.

To be able to conduct an annual follow-up, the Transmission Provider now proposes to consider all these obligations for monitoring purposes, insofar as such arrangements can be formalized between the Transmission Provider and its customer. If so, the method described above will be applied to existing projects. If revenues exceed the annual payments made under Toulnustouctype commitments and commitments metered at the generating station, the surplus will be applied as a complementary repayment to all projects being followed under paragraph 12A.2(i) and Attachment J, so as to more quickly fulfil the obligations to the Transmission Provider with respect to the network upgrade costs borne by the latter. Such complementary repayments are a reasonable transitional measure between the framework under which the commitments were made and the framework now being proposed. In order to conduct annual follow-up of existing projects and signed service agreements, it is appropriate to transpose the present-value analysis to an equivalent annual follow-up. To achieve this equivalence on an annual basis, complementary repayments will be required in order to honour the customer's commitment. In this way, annual revenues will be recognized in full. In the table in Appendix 2, the Transmission Provider presents a follow-up on commitments using the proposed method. The table shows all of the Generator's commitments and annual revenues.

Transmission Provider's Proposals

- Follow up on annual payment commitments for upgrades to serve point-to-point customers.
- Perform an annual follow-up by comparing, for each customer, total commitments with the total revenues provided by that customer.
- Perform an equivalent annual follow-up on obligations now in effect, subject to reasonable transitional measures insofar as such arrangements can be formalized by the Transmission Provider and the customer in question.

3.9 Other issues

3.9.1 Rate impact calculation methods

The Transmission Provider must submit to the Régie a rate impact calculation in any application for authorization of a capital project worth \$25 million or more, or for projects with an individual cost of less than \$25 million, as stipulated in the *Regulation respecting the conditions and cases where authorization is required from the Régie de l'énergie,* as well as in its rate applications. In the two latter cases, the methodology and results for all capital expenditures are identical.

In its Decision D-2012-059,³⁵ the Régie asked the Transmission Provider to file a proposal for making the rate impact calculation method used in applications for capital projects and that used in rate applications more consistent. The Transmission Provider presents the reasons for the differences in the rate impact calculation methods below.

In a capital project related to growing needs, the demonstration of rate neutrality is provided in the application for project authorization, in accordance with the regulatory framework. The marginal impact on the reference rate, i.e. the most recent approved annual rate, is presented over a 20-year period and a period comparable to the average useful life of project facilities. It shows the impact on the reference rate of expected commissionings related to the project and the associated growth. This calculation method yields the project's rate impact, other things being equal.

In a rate application, the Transmission Provider presents transitory movements in unit transmission costs resulting from all capital expenditures, including the impact of expected commissionings of all projects in the "customer demand growth" category, taking into account

³⁵ Docket R-3777-2011, Decision D-2012-059, paragraph 373.

growth in transmission needs over the next 10 years, in relation to the reference rate. Unlike an application for authorization of a capital project, project costs are not matched with revenues from the project; rather, a trend is established on the basis of the data available at the time. Therefore, the estimated revenues may come from service agreements in effect at the time the reference rate is set, which generate revenues over a long period of time, while the capital project costs have not yet been incurred. These long-term agreements have a downward marginal effect on the transmission rate, other things being equal. However, the costs of the capital projects needed to meet demand for transmission service may materialize at a later date. Network upgrades therefore seem to have an upward impact on the transmission rate in future years, whereas sufficient commitments were made to cover the cost of the network upgrades before they were carried out.

Again, the Transmission Provider notes that the transitory movements in unit transmission costs presented in a rate application remain only an indication, as most of the capital projects considered in the analysis are at a preliminary stage. Some native load projects may subsequently be postponed or even abandoned. The costs of the Distributor's future projects, beyond a three-year horizon, have not been subjected to application of the maximum allowance for the purpose of establishing the contribution, if applicable. Moreover, the projected contributions payable by the Distributor in respect of its aggregated projects, compiled for the purpose of assessing its contribution, are not known beyond that period as it is difficult to accurately forecast the capital projects that will actually be commissioned in a single year over a longer horizon. It is also difficult to link projects with the associated MWs beyond that period. In a rate application, therefore, the Transmission Provider presents the projects that are most likely to materialize within 10 years but cannot assess contributions related to the projects beyond the aforementioned period, which may lead to overestimation of the value of the commissionings to be included in the rate base beyond that period and hence of the projected unit transmission cost.

As well, the simulation of transitory movements in the unit transmission cost presented in a rate application is calculated over 10 years, but the growth in the needs these projects are intended to serve is estimated over a 20-year period. Network planning is conducted with a view to the long term. Given economic cycles, it is therefore possible that the rate impact will be estimated over a few years and absorbed over the entire period. In the case of native load, growth materializes gradually. As native load-related capital expenditures are made in order to accommodate forecasted growth over a 20-year period, there may be a momentary upward impact on the rate, even if there is a downward impact over the entire period. Since the maximum allowance is conservatively calculated over 20 years, while the assets are amortized over an average of 40 years, the upward impact is temporary and is subsequently neutralized.

For these reasons, the Transmission Provider believes that, given their specific mode of application, it would not be appropriate to change the rate impact calculation methods presented in capital projects on a marginal basis, and in rate applications. However, given that, as noted above, the simulations submitted in rate applications in fact show transitory

movements of the unit transmission cost over a 10-year period, the Transmission Provider proposes to call these simulations "effect of projected commissionings on the unit transmission cost."

Transmission Provider's Proposals

- Maintain the rate impact calculation methods now used for different purposes, i.e. the marginal impact on the reference rate for investment projects and a 10-year simulation for rate applications.
- In rate applications, use the following wording for the rate simulation: "effect of projected commissionings on the unit transmission cost."

3.9.2 Special arrangements

The Transmission Provider announced in its 2011 rate application³⁶ that it was undertaking a reflection on "special arrangements" for some types of projects, such as projects to integrate new renewable energy sources.

The Transmission Provider has not continued this reflection and is no longer considering such an approach, having concluded that the proposals respecting its Upgrades Policy set out in this application will provide a suitable framework for the methodology for such projects.

Transmission Provider's Proposal

Maintain the existing methodology for projects of this type. The Transmission Provider is no longer contemplating a new approach.

3.9.3 Methodology for the refurbishing or replacement of existing generating station switchyards

In its Decision D-2011-039,³⁷ the Régie noted, with respect to the refurbishing or replacement of generating station switchyards, that there exists a potential for inequity in the treatment of generating station owners, depending on whether or not the generating station switchyards are part of the Transmission Provider's assets at the time they are refurbished or replaced.

In response to the Régie's concerns, the Transmission Provider submits the following proposal.

³⁶ Docket R-3738-2010, Exhibit HQT-10, Document 3, page 17.

³⁷ Docket R-3738-2010, Decision D-2011-039, paragraph 450.

First, the Transmission Provider divides the existing generating stations connected to its transmission system into three categories, depending on the contractual framework:

- Generating stations belonging to Hydro-Québec;
- Generating stations belonging to private generators where the Transmission Provider makes a repayment for the switchyards up to the maximum contribution;
- Other generating stations belonging to private generators where the Transmission Provider does not make a repayment for the switchyards (e.g. APR-91 for small hydroelectric plants).

Treatment of generating station switchyards belonging to Hydro-Québec upon refurbishing or replacement is the same as for all capital expenditures required at the end of an asset's useful life.

In the case of generating stations owned by private generators, a contribution is paid for the switchyards upon initial commissioning. The switchyards thus become transmission system assets, in accordance with capital lease accounting principles. However, the generators remain responsible for the design, construction, operation and maintenance of their switchyards. When these switchyards are refurbished or replaced at the end of their useful life, the Transmission Provider subsequently treats them in a similar manner as generating station switchyards belonging to Hydro-Québec, provided that certain contractual conditions are satisfied. Among other things, the generator must demonstrate that it has a current agreement (contract with the Distributor or the Generator, or a transmission service agreement), that it has maintained its switchyard in accordance with the requirements in the connection agreement, and that continued use of its switchyard is required. The Transmission Provider emphasizes that all customers in similar situations are treated in the same manner.

In the case of other generating stations belonging to private generators where the Transmission Provider did not make a repayment for the switchyards, the Transmission Provider is not responsible for continued use of the facilities; that responsibility rests with the private generators. As these assets are not part of the transmission system, the Transmission Provider is not proposing any methodology for their subsequent treatment.

The Transmission Provider notes that, as some of the contracts were signed before the introduction of the current regulatory framework, identical treatment for all generators, as described above, is not possible. Under the circumstances, the Transmission Provider is however offering equitable treatment tailored to each situation, taking into account the applicable contractual framework, if any.

Transmission Provider's Proposals

At the end of their useful life, apply the treatment of generating station switchyards belonging to Hydro-Québec to generating station switchyards belonging to private generators, provided that the Transmission Provider has made a repayment in respect of these switchyards up to the maximum contribution, and taking into account the contractual framework at the time of their refurbishing.

4 Conclusion

The Transmission Provider believes that the evidence filed in this case addresses the basic elements of the legal and regulatory framework and the specific business context in which the Transmission Provider operates.

The Transmission Provider's proposals respond to the Régie's concerns, are based on established practices and are consistent with the framework established by the Régie through its Decisions and with the business context in which transmission services are provided to customers. The proposals apply the same principles to different customers. The Transmission Provider proposes equitable treatment of all customers, as the Régie wished when the Upgrades Policy was adopted.

The purpose of the proposed provisions for the Network Upgrades Policy is to make it possible to carry out network upgrades that meet customers' needs and ensure reliable transmission service.

Appendix 1

Aggregation of load growth projects and resource projects and assessment of the Distributor's required contribution

The following table shows the annual aggregation (loads and resources) of load growth projects and resource projects for native load.

Year		2006	2007	2008	2009	2010	2011	2012	2013	2014
Total MW growth over 20 years - Loads	(A)	865	106	369	460	429	229	230	551	190
HQT's maximum allowance in \$ million - Loads	(B)	484	60	195	286	253	130	131	287	114
HQT's total capital expenditures in \$ million - Loads	(C)	143	58	140	173	170	126	105	296	389
HQT's total capital expenditures in \$ million - Resources (Note 1)	(D)	64	19	62	121	25	215	234	236	175
Annual difference (Note 2)	(E) = (B) - (C + D)	277	(18)	(6)	(8)	58	(211)	(208)	(244)	(449)
Multi-year difference	Sum of (E)	277	259	253	245	303	91	(117)	(361)	(810)

Note 1: The Transmission Provider's capital expenditures are before deduction of expected surpluses to be paid by the Distributor.

Note 2: Without the additional 15% for operating and maintenance expenses.

The following tables show details of the annual aggregation of load growth projects and resource projects for native load for the years 2006 to 2014.

Project LOADS Cowansville satellite substation Donnacona satellite substation, 25 kV Grouk satellite substation berville satellite substation Mascouche satellite substation Mascouche satellite substation Mirabel satellite substation St-Félicien satellite substation ComounLanglois line Notre-Dame-du-Laus satellite substation Arnaud substation (Customer Alouette - Phase Nobec mine (Cambior) Goldex in Val d'Or (Agnico-Eagle Mines) Telecom Total loa RESOURCES Ast wind power call for tenders Baie-des-Sables (109.5 MW) Common facilities Upgrade Telecom Subtot	20-year growth	Transmission Provider's maximum allowance	Project cost	Difference between max. allowance and cost
	MW	\$ million	\$ million	\$ million
LOADS				
Cowansville satellite substation	38.0	21.3	8.0	13.3
Donnacona satellite substation, 25 kV	13.7	7.7	16.3	-8.7
Groulx satellite substation	66.0	37.0	6.0	31.0
berville satellite substation	11.5	6.4	9.3	-2.9
Mascouche satellite substation	55.0	30.8	6.2	24.6
Mirabel satellite substation	46.5	26.0	9.6	16.4
Renaud satellite substation	96.0	53.8	3.8	50.0
St-Félicien satellite substation	10.0	5.6	7.3	-1.7
St-Rémi satellite substation, 25	12.5	7.0	8.9	-1.9
Dorion-Langlois line	0.0	0.0	5.9	-5.9
Notre-Dame-du-Laus satellite substation	2.0	1.1	1.0	0.1
Arnaud substation (Customer Alouette - Phase	500.0	280.0	37.5	242.5
Niobec mine (Cambior)	3.0	1.7	1.2	0.5
Goldex in Val d'Or (Agnico-Eagle Mines)	10.5	5.9	3.3	2.6
Telecom	0.0	0.0	18.6	-18.6
Total load	864.7	484.2	142.9	341.3
RESOURCES				
1st wind power call for tenders				
Baie-des-Sables (109.5 MW)			9.9	
Common facilities			0.3	
Upgrade			13.2	
Telecom			3.0	
Subtotal			26.4	
Cogeneration call for tenders				
Kruger (19.0 MW)			0.1	
TCE (547.0 MW)			36.1	
Bowater Gatineau (23 MW)			1.5	
Kruger Lachute (Lydia Épergie) (10.0 MW)			0.2	
Subtotal			38.0	
Total resources			64.4	
			-	
TOTAL LOAD + RESOURCES			207.3	

Project	20-year growth	Transmission Provider's maximum allowance	Project cost	Difference between max. allowance and cost
	MW	\$ million	\$ million	\$ million
LOADS				
Arthabaska-Kingsey satellite substation	6.7	3.8	16.3	-12.5
Marie-Victorin satellite substation	14.7	8.4	12.7	-4.3
Mgr. Émard satellite substation	50.4	28.7	8.2	20.5
Ste-Thérèse O satellite substation	26.9	15.3	12.4	3.0
Chénier source substation	0.0	0.0	3.9	-3.9
Notre-Dame source substation	0.0	0.0	3.0	-3.0
Casa Berardi Mine (Normétal substation)	6.8	3.5	1.6	1.9
Total load	105.5	59.8	58.0	1.8
RESOURCES				
1st wind power call for tenders				
Baie-des-Sables (109.5 MW) Anse-à-Valleau (100.5 MW) Common facilities Upgrade Telecom			0.2 0.5 13.2 4.6 0.0	
Subtotal			18.5	
Cogeneration call for tenders Kruger (19.0 MW) TCE (547.0 MW) Kruger Lachute (Lydia Énergie) (10.0 MW) Subtotal			0.2 0.5 0.4 1.0	
Total resources			19.5	
TOTAL LOAD + RESOURCES			77.5	

	20-year growth	Transmission Provider's maximum	Project cost	Difference between max. allowance and
Project		allowance		cost
	MW	\$ million	\$ million	\$ million
LOADS				
St-Lin satellite substation	67.0	38.5	45.1	-6.6
Wemindji – power supply to Cree community	3.8	2.2	43.2	-41.0
St-Sulpice satellite substation	54.2	31.1	15.2	15.9
Power supply to the customer Erco Mondial	85.1	44.4	15.2	29.2
Power supply to Eastmain-1 worksite	4.8	2.5	2.6	0.0
Replacement of Sorel-Tracy line	114.0	53.2	12.5	40.7
Other projects	40.5	23.2	5.9	17.3
Total load	369.4	195.2	139.7	55.5
RESOURCES				
1st wind power call for tenders				
Baie-des-Sables (109.5 MW)			0.3	
Anse-à-Valleau (100.5 MW)			16.9	
Carleton wind farm (109.5 MW)			32.8	
Common facilities			5.6	
Upgrade			2.9	
Telecom			3.1	
Subtotal			61.7	
Cogeneration call for tenders				
Kruger (19.0 MW)			0.0	
TCE (547.0 MW)			0.0	
Kruger Lachute (Lydia Energie) (10.0 MW)			0.0	
Subtotal			0.0	
Total resources		1	61.7	
TOTAL LOAD + RESOURCES			201.4	

		Transmission		Difference between
	20-year growth	Provider's maximum	Project cost	max. allowance and
Project	, ,	allowance		cost
	MW	\$ million	\$ million	\$ million
LOADS				
Chomedey source substation, 315-120 kV	0.0	0.0	6.6	-6.6
Mont-Tremblant substation	38.4	23.9	47.3	-23.4
Saraguay substation, new section, 315-25 kV	90.0	56.0	30.1	25.9
Vaudreuil-Soulanges substation	78.2	48.7	26.5	22.2
Chomedev satellite substation, 315-25 kV	138.8	86.3	10.9	75.4
Baie d'Urfée substation	60.1	37.4	9.6	27.8
Mégantic substation	13.3	8.3	10.0	-1.7
Magog substation	25.3	15.8	12.4	3.4
Connection of the customer ETGO	14.3	7.3	6.0	1.3
Temporary connection of La Sarcelle camp	N/A	1.7	1.7	0.0
Other projects < \$5 million	1.6	1.0	11.8	-10.8
Total load	460.0	286.3	172.9	113.4
RESOURCES				
1st wind nower call for tenders				
Bale-des-Sables (109.5 MWV)			0.2	
Anse-a-Valleau (100.5 MW)			0.2	
Carleton wind farm (109.5 MWV)			0.2	
St-Ulric wind farm (127.5 MW)			27.6	
Common facilities			90.0	
Upgrade			2.6	
lelecom			1.4	
Subtotal			122.2	
Cogeneration call for tenders				
Kruger (19.0 MW)			0.3	
ICE (547.0 MW)			-0.3	
Kruger Lachute (Lydia Energie) (10.0 MW)			-0.6	
Subtotal			-0.7	
Total resources			121 5	
			121.5	
TOTAL LOAD + RESOURCES			294.4	
			-	

Period	20-year growth	Transmission Provider's maximum	Project cost	Difference between max. allowance and		
Project		allowance		cost		
	MW	\$ million	\$ million	\$ million		
LOADS						
Chomedey source substation - 315-120 kV lines	0.0	0.0	0.0	0.0		
Anne-Hébert satellite substation	91.0	54.2	73.5	-19.3		
St-Maxime satellite substation	17.0	10.1	14.5	-4.3		
Delson satellite substation	67.0	39.9	11.9	28.1		
Connection of La Romaine worksite	N/A	8.8	12.3	-3.5		
Connection of Canadian Malartic Osisko	85.0	47.4	14.4	33.0		
Bourget satellite substation	42.6	25.4	10.0	15.4		
Francheville satellite substation	18.2	10.8	1.0	9.9		
Neufchatel satellite substation	37.1	22.1	0.7	21.4		
Hauterive source substation	70.8	34.4	29.5	4.9		
Leneuf source substation	0.0	0.0	2.4	-2.4		
Total load	428.7	253.2	170.0	83.2		
RESOURCES						
1st wind power call for tenders						
Baie-des-Sables (109.5 MW)			0.1			
Anse-à-Valleau (100.5 MW)			0.0			
Carleton wind farm (109.5 MW)			0.0			
St-Ulric wind farm (127.5 MW)			0.5			
Montagne Sèche wind farm (58.5 MW)			11.7			
Common facilities			10.2			
Upgrade			0.0			
Telecom			-0.2			
Subtotal			22.3			
Small hydro plants (net of HQD and P-to-P						
Francustin (0.0 MM)			0.4			
Franquelin (9.9 MW)			3.1			
Subtotal			5.1			
Total resources			25.4			
TOTAL LOAD + RESOURCES			195.4			

Project	20-year growth	Transmission Provider's maximum allowance	Project cost	Difference between max. allowance and cost	
	MW	\$ million	\$ million	\$ million	
LOADS					
Chomedey source substation, 315-120 kV	0.0	0.0	7.1	-7.1	
Mistissini / Waconichi satellite substation	7.3	4.2	36.8	-32.6	
Beauceville - Ste-Marie line, 120 kV	0.0	0.0	32.6	-32.6	
Notre-Dame and Berri line	0.0	0.0	3.9	-3.9	
L'Annonciation satellite substation	14.3	8.1	9.0	-1.0	
Bois-Francs satellite substation	18.5	10.5	9.6	0.9	
Ste-Agathe satellite substation	32.8	18.6	5.1	13.5	
Saraguay satellite substation, 315-25 KV	88.0	49.8	12.4	37.5	
Other projects of \$5 million	24.2	13.7	5.3	δ.4 20.7	
Other projects < \$5 million	44.0	24.9	4.2	20.7	
	229.2	129.7	120.9	3.9	
1st wind power call for tenders Baie-des-Sables (109.5 MW) Carleton wind farm (109.5 MW) Montagne Sèche wind farm (58.5 MW) St-Ulric wind farm (127.5 MW) Mont-Louis wind farm (100.5 MW) Gros Morne wind farm (211.5 MW) Common facilities Subtotal 2nd wind power call for tenders Lac-Alfred wind farm (300 MW) St-Robert-Bellarmin wind farm (80.0 MW) Le Plateau wind farm (138.6 MW) Subtotal Biomass call for tenders St-Thomas (9.4 MW) Subtotal Small hydro plants (net of HQD and P-to-P surpluses) Franquelin (9.9 MW) Chute Garneau and Pont-Arnaud (13.3 MW) Subtotal			0.0 0.0 40.9 0.0 29.9 29.5 108.1 208.4 0.8 0.2 4.2 5.3 0.5 0.5 0.5 0.5 0.3 0.9 1.1		
Total resources			215.3		
TOTAL LOAD + RESOURCES			341.2		

	00	Transmission		Difference between
Bradaat	20-year growth	Provider's	Project cost	max. allowance and
Project		maximum	-	cost
	MW	\$ million	\$ million	\$ million
LOADS				
Chomedev source substation - 315-120 kV lines	0.0	0.0	22.4	-22.4
Beauceville - Ste-Marie line, 120 kV	0.0	0.0	1.0	-1.0
St-Lin satellite substation	59.1	33.7	7.3	26.4
Bécancour network improvement	0.0	0.0	30.3	-30.3
Permanent connection of Lac Bloom mining project	34.0	19.2	11.8	7.4
Permanent connection of Éléonore project	48.0	27.4	27.4	0.0
Other projects < \$5 million	88.9	50.7	4.9	45.8
Total load	230.0	131.1	105.1	26.0
RESOURCES				
1st wind power call for tenders				
Montagne Sèche (58.5 MW) / St-Ulric (127.5			-6 ₆	
MW) / Mont-Louis (100.5 MW) wind farms			.0	
Gros Morne wind farm (211.5 MW)			7.8	
Common facilities			2.3	
Subtotal			3.5	
2nd wind power call for tenders				
Lac-Alfred wind farm (300 MW)			26.8	
St-Robert-Bellarmin wind farm (80.0 MW)			42.0	
De l'Érable wind farm (100.0 MW)			20.1	
Des Moulins wind farm (135.7 MW)			7.1	
Le Plateau wind farm (138.6 MW)			29.1	
Massif du Sud wind farm (150.0 MW)			23.7	
New Richmond wind farm (67.8 MW)			14.9	
Seigneurie de Beaupre 2 and 3 wind farms (271.8 MW)			24.8	
Montérégie wind farm (101.2 MW)			14.1	
Matapédia improvement			4.1	
Subtotal			206.6	
Stateman (0.4 MW)				
St-Thomas (9.4 MW)			1.1	
St-Nicephore (7.6 MW)			1.1	
Ste-Cecile Yamaska (2.2 MW)			0.0	
Ster allice-de-Deadlivage (4.0 MW)			0.3	
St-Félicien (9.5 MW)			2.5	
Subtotal			5.6	
Small hydro plants (net of HQD and P-to-P			0.0	
Franguelin (9.9 MW)			0.1	
Chute Garneau and Pont-Arnaud (13.3 MW)			0.3	
Sheldrake (25.0 MW)			17.9	
Subtotal			18.3	
Resolute FP - Dolbeau (41.5 MW)			0.0	
Total resources			234.0	
TOTAL LOAD + RESOURCES			339.1	

		Transmission		Difference between
	20-year growth	Provider's maximum	Business and	Difference between
Project		Provider's maximum	Project cost	max. anowance and
		allowance	4	cost
	MW	\$ million	\$ million	\$ million
LOADS				
Chomedey source substation - 315-120 kV lines	0.0	0.0	7.1	-7.1
New St-Bruno-de-Montarville satellite substation	91.0	52.0	52.7	-0.8
New Lachenaie satellite substation, 315-25 kV	90.0	51.4	41.8	9.6
New Charlesbourg satellite substation	82.5	47.1	55.4	-8.3
Lavaitrie satellite substation	64.0	36.5	12.2	24.3
Cheneville satellite substation	1.1	4.4	6.2	-1.8
Becancour network improvement	0.0	0.0	20.0	-20.0
Levis satellite substation	40.5	23.1	10.9	12.2
Dubuc satellite substation	9.6	5.5	0.4	-0.9
Landry actallite substation	0.0	0.0	24.0	-24.0
Mant Devel actellite substation	10.2	10.4	18.0	-7.0
Abitibi 215 k) (notwork improvement, phase 1	60.3	34.4	29.1	5.3
Figuery substation	0.0	0.0	77	-7.7
Other projects < \$5 million	97.6	22.2	27	-7.7
Other projects < \$5 million	67.0 EE1 A	22.3	3.7 205 9	18.0
	551.4	201.2	293.0	-0.0
RESOURCES				
Tist wind power call for tenders				
Montagne Seche (58.5 MW) / St-Ulric (127.5 MW) wind			0.2	
Cros Morne wind form (211 5 MW)			0.0	
Mont Louis wind form (100 5 MW)			0.0	
Common facilities			-2.3	
Surplus poughls by HOD (without 15% for operating and			1.9	
maintenance expenses)			-26.4	
Subtotal			-26.6	
2nd wind nower call for tenders			-20.0	
Lac-Alfred wind farm (300 MW/)			50.1	
St. Pohort, Bollarmin wind farm (80.0 MW)			-0.4	
De l'Érable wind farm (100.0 MW)			-5.4	
Des Moulins wind farm (135.7 MW)			23.1	
Le Plateau 3 wind farm (20.3 MW)			12.4	
Le Plateau wind farm (138.6 MW)			0.0	
Massif du Sud wind farm (150.0 MW)			16.4	
New Richmond wind farm (67.8 MW)			11.6	
Seigneurie de Beaupré 2 and 3 wind farms (271.8 MW)			95.5	
Montérégie wind farm (101.2 MW)			0.2	
Matapédia + main network improvement			29.5	
Subtotal			240.7	
Biomass call for tenders				
Ste-Cécile Yamaska (2.2 MW)			0.1	
St-Nicéphore (7.6 MW)			0.0	
Thurso (18.8 MW)			3.4	
St-Patrice-de-Beaurivage (4.6 MW)			0.3	
St-Félicien (9.5 MW)			0.5	
Subtotal			4.2	
3rd wind farm call for tenders				
Le Plateau 2 wind farm (23.0 MW)			6.9	
St-Damase wind farm (24.0 MW)			0.9	
Viger-Denonville wind farm (24.6 MW)			8.7	
Subtotal			16.5	
Small hydro plants (net of HQD and P-to-P surpluses)				
Val Jalbert (16.0 MW)			4.7	
Sheldrake (25.0 MW)			-3.9	
Subtotal			0.8	
Resolute FP – Dolbeau (41.5 MW)			0.0	
Total resources			235.5	
TOTAL LOAD + RESOURCES			531.3	

Project	20-year growth	Transmission Provider's	Project cost	Difference between		
110,000	MW	\$ million	\$ million	s million		
LOADS		ψ minion	ψ minion	ψ mmon		
Chomedev source substation - 315-120 kV lines	0.0	0.0	7.0	-7.0		
Rebuilding of Bélanger satellite substation	41.0	24.5	55.0	-30.5		
Le Gardeur source substation, 315-120 kV	0.0	0.0	77.3	-77.3		
Improvement of Palmarolle-Rouvn network, 120 kV	0.0	0.0	34.1	-34.1		
Laurent satellite substation	23.0	13.8	12.0	1.8		
Improvement of Bécancour network	0.0	0.0	7.2	-7.2		
Chaudière-St-Agapit 120 kV double-circuit line	0.0	0.0	0.2	-0.2		
Glenwood satellite substation	60.8	36.4	15.7	20.7		
Improvement of Abitibi network, 315 kV - phase 1 -						
Figuery substation	0.0	0.0	102.2	-102.2		
St-Césaire – Bedford project	0.0	0.0	25.0	-25.0		
Abitibi source substation - Replacement of transformers	0.0	0.0	20.0	-20.0		
Berthier satellite substation	25.2	15.1	19.2	-4.1		
Other projects to be confirmed. < \$5 million	40.4	24.2	13.9	10.3		
Total load	190.5	113.9	388.7	-274.8		
RESOURCES						
1st wind power call for tenders						
Montagne Sèche (58.5 MW) / St-Ulric (127.5 MW) wind						
farms						
			0.0			
Common facilities			0.0			
Subtotal			0.0			
2nd wind power call for tenders						
Lac-Alfred wind farm (300 MW)			0.4			
St-Robert-Bellarmin wind farm (80.0 MW)			0.0			
De l'Érable wind farm (100.0 MW)			0.0			
Des Moulins wind farm (135.7 MW)			0.2			
Seigneurie de Beaunré 2 and 3 wind farms (271.8 MW)			0.0			
Soignourio Booupró 4 wind form (60.0 MW)			11 7			
Massif du Sud wind form (150.0 MW)			0.0			
Bivière du Moulin wind form (250.0 MW)			0.0			
Nort du Kompt wind form (400.0 MM)			83.0			
Vent-du-Kempt wind farm (100.0 WW)			22.8			
wain network + Matapedia improvement			8.U			
Subtotal			120.4			
Lo Distonu 2 wind form (22.0 MW/)			0.1			
Viger Depenville wind form (24.6 MW)			0.1			
viger-Denonvine wind farm (24.6 MWV)			0.1			
St-Prillemon wind farm (24.0 MW)			12.9			
remiscouata wind farm (25.0 MW)			8.9			
Le Granit wind farm (24.6 MVV)			0.2			
St-Damase wind farm (24.0 MVV)			1.1			
La Mittis wind farm (24.6 MW)			6.6			
Subtotal			42.6			
Témiscamingue 2 (Tembec) (50.0 MW)			5.5			
Fortress à Lebel-sur-Quévillon (34.0 MW)			0.0			
Subtotal			5.5			
Total resources			174.5			
TOTAL LOAD + RESOURCES			563.3			

Appendix 2

Follow-up on Commitments

The following table shows the follow-up on commitments.

			Actual							Projected		
			2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1.0 R	evenues (\$ million)											
1.1	Point-to-point revenues	5										
	Delivery agreements											
	CORN		3.5	3.5	3.4	3.4	3.4	3.6	3.4	3.4	3.3	3.5
	HIGH		17.3	17.3	16.4	16.8	17.1	17.8	17.2	17.0	16.5	17.7
	CORN		4.2	7.7	7.5	7.5	7.6	0.0	0.0	0.0	0.0	0.0
	DER		4.6	4.6	2.2	2.2	2.3	0.0	0.0	0.0	0.0	0.0
	NE			1.9	4.5	4.1	4.2	0.0	0.0	0.0	0.0	0.0
	MASS						45.5	95.1	91.6	90.4	88.2	94.6
	NE						45.5	95.1	91.6	90.4	88.2	94.6
	ON						12.4	75.2	95.5	94.2	91.8	98.5
	NB						0.0	23.8	22.9	0.0	0.0	0.0
		Long-term revenues	29.5	34.9	33.9	33.9	137.9	310.6	322.2	295.4	288.0	309.0
		Short-term revenues	80.1	82.0	108.9	136.3	87.8	22.0	5.1	16.3	16.8	18.0
		Total – Point-to-point revenues	109.6	116.9	142.8	170.2	225.7	332.5	327.4	311.7	304.7	327.0
1.2	 Revenues not considered 	I										
	Long-term revenues		29.5	29.5	26.1	26.4	26.9	21.4	20.6	20.3	19.8	18.3
	Short-term revenues		26.3	26.3								
		Minimum revenue basis ¹	55.8	55.8	26.1	26.4	26.9	21.4	20.6	20.3	19.8	18.3
1.3•	Revenues from commitmen	nts under paragraph 12A.2 (ii) ²										
	Magpie generating sta	ation										
	Revenues				0.3	1.5	1.5	1.7	1.8	1.8	1.5	1.6
	Commitment				0.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	T	Total – Revenues not considered	55.8	55.8	26.3	27.9	28.4	23.1	22.4	22.2	21.3	19.9
1.4•	Revenues from Toulnustou	c-type commitments										
	and other commitments		53.8	61.1	116.5	142.3	197.4	309.4	304.9	289.5	283.4	307.1

	Actual							Projected		
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
2.0 Commitments (\$ million)										
2.1 • Toulnustouc-type commitments										
Toulnustouc generating station	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Rapides-des-Cèdres generating station	1.3	1.3	1.3	1.3						
Eastmain-1 generating station		25.9	25.9	25.9	25.9	25.9	25.9	25.9	25.9	25.9
Mercier generating station			1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Peribonka generating station			18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1
Chule-Allard and Rapides-des-Cours generating stations	24.5	50.4	<u> </u>	7.1	7.1	70.0	70.0	7.7	7.7	7.7
Total – Tounustouc-type commitments	24.5	50.4	69.9	//.0	76.3	70.3	76.3	76.3	/0.3	76.3
$2.2 \bullet$ Commitments under paragraph 12A.2 (i) and Appendix J_3										
Interconnection with Ontario					121.1	233.1	204.8	170.4	144.2	
Assumed annual payment					12.4	63.4	63.4	63.4	63.4	
Complementary repayment					108.6	169.6	141.4	107.0	80.8	
Eastmain-1-A and La Sarcelle generating stations							23.8	42.8	59.6	58.2
Assumed annual payment							7.4	15.9	15.9	15.9
Complementary repayment							16.4	26.9	43.7	42.2
Upgrades and modifications for the use of MASS and NE									3.1	36.5
Assumed annual payment									0.8	10.0
Complementary repayment									2.3	26.5
Manic-2 generating station									0.1	1.1
Assumed annual payment									0.0	0.3
Complementary repayment									0.1	0.8
La Romaine complex										128.3
Assumed annual payment										35.2
Complementary repayment										93.2
Saint-Césaire – Bedford										6.6
Assumed annual payment										1.8
Complementary repayment										4.8
Total – Commitments under paragraph 12A.2 (i) and Appendix J					121.1	233.1	228.6	213.2	207.1	230.8
3.0 • Surplus or deficit		10.7	46.6	64.7	0.0	0.0	0.0	0.0	0.0	0.0

1 Minimum revenue basis that would have been possible without the connection of the Toulnustouc generating station.

2 Revenues equal annual output multiplied by the hourly rate. Revenues for forecast years are estimated.

3 Annual commitments under paragraph 12A.2 (i) and Appendix J to the Transmission Tariff in effect from 2006 until the terms and conditions that result from this case take effect are presented provisionally insofar as these projects were authorized under terms that make it possible to cover the cost of network upgrades by the present value of long-term point-to-point transmission service revenues.