

**Transmission Provider's Responses  
to Information Request #1 from the  
Association coopérative d'économie  
familiale de l'Outaouais ("ACEFO")**

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

**INFORMATION REQUEST #1 FROM THE ACEF DE L'OUTAOUAIS**  
**TRANSMISSION PROVIDER'S APPLICATION CONCERNING**  
**TRANSMISSION NETWORK UPGRADES POLICY**

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1. **Reference:** B-0004 or HQT-1, document 1, page 14.

**Preamble:**

*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.*

**Requests:**

- 1.1 Please specify whether the *forecasted growth in satellite substations* consists of growth in all satellite substations or only those where there are upgrades.

**R1.1**

**The forecasted growth in proposed satellite substations consists of growth in satellite substations that are within the impact zones of proposed network upgrades, as indicated in Table 2 of Exhibit HQT-3, Document 1, page 12.**

- 1.2 Please specify whether the resource projects included in the aggregation are dedicated exclusively to growth projects included in the aggregation. Does the capacity of resource projects equal the capacity of growth projects included in the aggregation?

**R1.2**

**See the response to question 6.4 in Information Request #1 from the Régie, Exhibit HQT-4, Document 1.**

**The Transmission Provider treats all of its customer requests separately. The Transmission Provider's proposal aims to establish the costs of the Distributor's resource projects eligible for coverage by the maximum amount associated with the growth of satellite substations and customers connected directly to the Transmission Provider's system.**

2. **Reference:** B-0004 or HQT-1, Document 1, page 15.

**Preamble:**

*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.

### Requests:

- 2.1 In the case of a wind farm, please specify if the *maximum capacity to be transmitted on the network* equals the installed capacity of the wind farm.

#### R2.1

**The maximum capacity to be transmitted on the network equals the installed capacity of the wind farm.**

**See also the response to question 5.1 of Information Request #1 from the Régie, Exhibit HQT-4, Document 1.**

- 2.2 Please explain the application of the proposed methodology in the case of a new Distributor resource (following a call for tenders) if this new resource is an existing generating station.

#### R2.2

**It is the Transmission Provider's understanding that this is an existing generating station and that as a result, there is no network upgrade required to connect the generating station. Accordingly, in such a case, the methodologies proposed for the aggregation of the Distributor's projects do not apply.**

3. **Reference:** B-0004 or HQT-1, Document 1, page 15.

### Preamble:

Table 2 below illustrates the sample aggregation submitted by the Transmission Provider in the reference document.

**Table 2**  
**Proposed determination 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 <sup>1</sup>	-100.0
<b>Total</b>	<b>100</b>	<b>59.8</b>	<b>189.8</b>	<b>-130.0</b>
<b>Operating and maintenance expenses (15%)</b>				<b>-19.5</b>
<b>Distributor's contribution</b>				<b>-149.5</b>

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.

It is our understanding that the Transmission Provider's maximum allowance is calculated using the load growth of satellite substation A over 20 years, i.e., the difference between satellite substation A's existing load and its forecast load in 20 years.

### Requests:

**3.1** For the sample shown in the preamble, please state what the Distributor's contribution would be in each of the following situations: the resource project is a generating station requiring transmission investments of \$150M and with a capacity of:

- (i) 50 MW;
- (ii) 100 MW;
- (iii) 150 MW.

### R3.1

The Transmission Provider proposes first to determine the contribution that will be required for each resource project, such that the eligible costs to be covered by the maximum amount associated with the growth of satellite substations and of customers connected directly to the Transmission Provider's system can be determined. The following table shows the determination done in the first step.

**Table R3.1.1**  
**Determination of the contribution required from the Distributor for resource connection projects**

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
Resource project 1	50	29.9	150.0	(120.1)
Resource project 2	100	59.8	150.0	(90.2)
Resource project 3	150	89.7	150.0	(60.3)
Total	50	179.4	450.0	(270.6)
Operating and maintenance expenses (15%)				(40.6)
				(311.2)

In this example, the Distributor will have to pay a contribution, determined in the first step, of \$311.2M.

Second, the cost of the resource project, less the contribution determined in the first step, would be included in the aggregation of load and resource projects.

The following table shows, by way of example, the resulting aggregation if the projects were commissioned in the same year.

**Table R3.1.2**  
**Determination of the contribution required for the aggregation of the Distributor's projects**  
**(load and resource)**

Project	20-year growth	Transmission Provider's maximum allowance (\$598/kW)	Cost of network upgrades	Difference between maximum allowance and costs
	\$	\$ million	\$ million	\$ million
Satellite substation A	100	59.8	39.8	20.0
Source substation B			50.0	(50.0)
Resource project 1			29.9	(29.9)
Resource project 2			59.8	(59.8)
Resource project 3			89.7	(89.7)
Total	100	59.8	269.2	(209.4)
Operating and maintenance expenses (15%)				(31.4)
				(240.8)

**Based on the aggregation result, the Distributor would have to pay a contribution of \$240.8M in addition to its contribution determined in the first step, for a total contribution of \$552.0M.**

- 3.2** Given that the value for 100 MW of growth is reached only in the 20<sup>th</sup> year, please confirm that rate neutrality is reached as of the 20<sup>th</sup> year. If it is not, please explain.

**R3.2**

The Transmission Providers notes first that section 3.1.2.2 of Exhibit HQT-1, Document 1, deals with the application of the maximum allowance to the forecast load growth over 20 years, and not to reaching this growth in the 20<sup>th</sup> year only.

The Transmission Provider further notes that it takes into account the entire 20-year period. This approach is consistent with the application of the maximum allowance (which is itself established over a 20-year period<sup>1</sup>) to the forecast load growth over 20 years, given the nature of native load service.

- 3.3** Please specify whether there is necessarily a link between the upgrades to satellite substation A and the upgrades to source substation B. Please explain your answer.

**R3.3**

**See the response to question 6.4 in Information Request #1 from the Régie, Exhibit HQT-4, Document 1.**

- 3.4** Please specify if the upgrades to source substation B are linked to the same demand growth value as the demand growth value for satellite substation A. Please explain your answer.

<sup>1</sup> The maximum allowance corresponds to the present value over 20 years of the annual rate, less operating and maintenance expenses and applicable taxes, i.e., the public utility tax.

**R3.4**

**See the response to question 6.4 in Information Request #1 from the Régie, Exhibit HQT-4, Document 1.**

- 3.5** Please indicate what the situation would be if, for a given year, there was no satellite substation project but there were source substation projects.

**R3.5**

**As set out in section 3.1.2.1 of Exhibit HQT-1, Document 1, in the absence of satellite substation projects for a given year, there could be an allowance amount associated with projects to connect Distributor customers directly to the transmission network. If there also were no projects to connect Distributor customers directly to the transmission network, there would thus be no maximum amount for the Transmission Provider applicable to that given year. However, a maximum allowance not used during subsequent years could be factored into the annual project aggregation, in particular for source substation projects.**

- 4. Reference:** B-0004 or HQT-1, Document 1, pages 15 and 35 to 44.

**Preamble:**

*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.*

Appendix 1 (pages 35 to 44) includes satellite substation projects, resource projects, source substation projects and transmission line projects.

**Requests:**

- 4.1** Please indicate whether all source substation projects and transmission line projects commissioned during 2006-2014 to meet needs arising from growth in native load are included in the tables in Appendix 1.

**R4.1**

**As stated in Exhibit HQT-1, Document 1, page 16, the table in Appendix 1 shows the annual aggregations that were used to determine the Distributor's required contribution and filed in the rate applications addressed in the Régie's decisions, including the resource projects for integrating wind farms within the transmission system.**

- 4.2** Otherwise, please provide the list of excluded projects and explain why they are excluded.

**R4.2**

**See answer to Question 4.1.**

- 5. Reference:** B-0004 or HQT-1, Document 1, page 15.

**Preamble:**

*"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."*

We consider native load requirements to be permanent.

**Requests:**

- 5.1 Please justify the establishment of a 20-year period for recovering the costs of the upgrades required to meet native load requirements (see question 2.3 from the Régie).

**R5.1**

**See responses to questions 2.1 to 2.3 of Information Request #1 from the Régie, Exhibit HQT-4, Document 1.**

- 5.2 Please indicate whether the Transmission Provider determined the impact on the maximum allowance of using a 40-year period instead of 20 years (see question 2.3 from the Régie).

**R5.2**

**The Transmission Provider proposes maintaining the maximum allowance based on a 20-year period.**

**See Exhibit HQT-2, Document 1, Table 4, and the response to Question 2.2 in Information Request #1 from the Régie, Exhibit HQT-4, Document 1.**

- 5.3 If yes, please provide the impact.

**R5.3**

**See Exhibit HQT-2, Document 1, Table 4, and the response to Question 2.2 in Information Request #1 from the Régie, Exhibit HQT-4, Document 1.**

6. **Reference:** B-0004 or HQT-1, Document 1, page 16.

**Preamble:**

*"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."*

**Requests:**

- 6.1 Please justify the proposal to treat the annual balance differently depending on whether it is positive or negative.

**R6.1**

**One of the guiding principles of the Upgrades Policy is to avoid excessive costs for network upgrades requested by a customer, thus protecting existing customers. Carrying forward positive balances respects this principle. Carrying forward negative balances would not respect it in full, because it would mean that at least temporarily, the Transmission Provider's other existing customers would bear the costs that may exceed the maximum allowance for network upgrades requested by the Distributor.**

- 6.2 Please comment on the possibility of determining balances over a 3 or 5 year period and determining the value of contributions so as to avoid substantial annual variations.

**R6.2**

**For the reason given in response to question 6.1, the Transmission Provider is of the**

view that a determination of balances over a three or five year period is not applicable, and maintains its proposal as set out in the preamble.

- 7. Reference:** (i) B-0004 or HQT-1, Document 1, page 19;  
(ii) B-0004 or HQT-1, Document 1, pages 38 and 40.

**Preamble:**

Reference (i) above states as follows:

*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 system.*

Reference (ii) shows a value in the Growth over 20 years column for the Sorel-Tracy line replacement project and the Hauterive source substation project.

**Requests:**

- 7.1** Please explain the MW assignment for the Sorel-Tracy line replacement project and the Hauterive source substation project.

**R7.1**

**In both cases, the MW are associated with capital expenditures made at the Distributor's request to meet the load growth requirements of its customers directly connected to the transmission system (upstream of the satellite substations).**

- 8. Reference:** (i) B-0004 or HQT-1, Document 1, page 20 and B-0011 of HQT-3, Document 1, page 16;  
(ii) Hydro-Québec Open Access Transmission Tariff for 2014, page 180.

**Preamble:**

Reference (i) above states as follows:

*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.*

Reference (ii) states as follows:

*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 Hydro-Québec Open Access Transmission Tariff (OATT) shall be \$598/kW multiplied by the new maximum capacity in kW to be transmitted on the system.*

**Requests:**

- 8.1** Given that the maximum amount is tied to the new maximum capacity to be transmitted, and that a commissioning is not necessarily tied to the total new capacity to be transmitted, please explain why the maximum allowance has to be reached before requiring a contribution.

**R8.1**



As set out in section E of Attachment J to the Open Access Transmission Tariff, the maximum allowance represents the maximum amount to be borne by the Transmission Provider for network upgrades made in response to the Customer's request. As long as the project costs stay within the maximum amount, the Transmission Provider does not require any contribution from the customer.

The Transmission Provider adds that although a project may have several commissioning dates, it is still a single project for which a single maximum amount is calculated based on the project capacity to be transmitted.

- 8.2 Where a contribution is required, please comment on the possibility of starting to pay a contribution as soon as the maximum allowance equal to the new capacity to be transmitted following commissioning is less than the cost of this commissioning.

**R8.2**

See answer to Question 8.1 and the Transmission Provider's proposal in Exhibit HQT-1, Document 1, page 21.

9. Reference: B-0004 or HQT-1, Document 1, page 22.

**Preamble:**

*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.*

**Requests:**

- 9.1 Please justify setting a specific parameter of 15 km.

**R9.1**

The 15 km value represents the average area of a Transmission Provider's rural satellite substation.

- 9.2 Please state whether the "local load" must be supplied by the same source substation.

**R9.2**

The "local load" is not necessarily supplied by the same source substation, but the Transmission Provider notes that it is very unlikely to find two source substations within a 15 km radius.

- 9.3 Please state how a "given geographic point" is defined (see question 12.2 from the Régie).

**R9.3**

See answer to Question 12.2 of Information Request #1 from the Régie, Exhibit HQT-4, Document 1.

- 9.4 Please explain how the following situation would be treated: A new 50 km line is required to supply a mine (20 MW). It can also supply a new load 10 km from the source (10 MW), i.e., 40 km from the mine. If the mine discontinued operations after 10 years, please explain how the indemnity paid by the distributor would be determined, based on the Transmission Provider's proposal.

## R9.4

According to the industrial customer isolation criterion, the ratio resulting from the situation cited by the intervenor would be 100%. The industrial customer would thus represent the only existing load within a 15 km radius and would therefore be considered as located in an isolated area. For details of the calculation, see answer to Question 15.a), Information Request #1 from AQCIE-CIFQ, Exhibit HQT-4, Document 3.

10. Reference: B-0004 or HQT-1, Document 1, page 23.

## Preamble:

The reference states as follows: *“Collect an indemnity from the Distributor in the event of discontinuation of operations by an industrial customer.”*

According to the proposal, the indemnity applies only in the event that operations are discontinued.

## Requests:

10.1 Please state whether an indemnity would be paid in the event of a reduction in operations or demand less than forecast. If the answer is yes, explain the methodologies (see requests 10.3 and 10.4 from the Régie).

## R10.1

The Transmission Provider does not plan to claim an indemnity in the event of a reduction in operations or demand less than forecast. See responses to questions 10.3 and 10.4, Information Request #1 from the Régie, Exhibit HQT-4, Document 1.

11. Reference: B-0004 or HQT-1, Document 1, page 35.

## Preamble:

The table below shows the maximum amount to be borne by the Transmission Provider for the period 2006-2014. The amounts in the “Calculated maximum amount” line were obtained by dividing the amounts on Line B by the amount on Line A in the reference. The numbers in the “Maximum amount in decisions” line are indicated in the decisions mentioned.

Maximum amount to be borne by the Transmission Provider									
	2006	2007	2008	2009	2010	2011	2012	2013	2014
Calculated maximum amount	560	566	528	622	590	568	570	512	600
Maximum amount in decisions	560	570	574	636	596	566	571	571	598
	D-2005-63	D-2007-34	D-2008-27	D-2009-15	D-2010-41	D-2011-61	D-2012-66	D-2014-49	D-2014-49
								C-HQT-148	

The amounts are different for the same year. In some years, the differences are more significant.

## Requests:

11.1 Please explain the differences between the calculated maximum amounts and the amounts indicated in the decisions.

## R11.1

First, the Transmission Provider notes that the data in the table referenced in the preamble contain some errors. That said, the Transmission Provider notes that in the annual aggregation tables, for the projects built to supply the loads of Distributor

customers connected to the transmission system, it applies the maximum allowance in effect as of the signing date of the internal connection agreement with the Distributor, rather than that of the agreement in effect as of commissioning of the project. The Transmission Provider further notes that the Distributor may request supply of its customer's load for a period of less than 20 years. Where applicable, the project to supply this load is granted an allowance lower than the maximum allowance, as set out in section E of Attachment J to the Open Access Transmission Tariff.

**12. Reference:** B-0004 or HQT-1, Document 1, page 5.

**Preamble:**

The table referenced presents long-term point-to-point revenues, and shows substantial revenues for MASS and NE as of 2009. It is our understanding that these revenues come from reservations on existing interconnections before 2009. The cost of building these interconnections is rolled into the Transmission Provider's rate base and is thus part of the revenue requirement that the Transmission Provider can recover in its rates.

**Requests:**

**12.1** Please justify the inclusion of revenues from reservations on these two interconnections to cover the costs of other projects (see question 16.1 from the Régie).

**R12.1**

**See answer to Question 16.1, Information Request #1 from the Régie, Exhibit HQT-4, Document 1.**

**13. Reference:** (i) B-0004 or HQT-1, Document 1, page 46;  
(ii) Dockets R-3497-2002, R-3527-2004, R-3581-2005, R-3585- 2005.

**Preamble:**

The table referenced in (i) shows Touloustouc-type commitments.

According to the commitments made in various dockets referenced in (ii), the commitment term is 10 or 20 years.

**Requests:**

**13.1** Please explain the proposed treatment of Touloustouc-type projects upon expiry of commitments.

**R13.1**

**When the Touloustouc-type commitments expire, the revenues from point-to-point service will be available to the Generator's other commitments, in accordance with the Open Access Transmission Tariff.**

**14. Reference:** B-0011 or HQT-3, Document 1, page 5.

**Preamble:**

*"The Transmission Provider's network upgrades are guided by three principles set out in Decision D-2002-95:*

- *Avoid excessive costs for network upgrades requested by a customer, thus protecting existing*

customers;

- Cover the costs of upgrades done for a customer;
- Ensure equitable treatment and non-discriminatory access to the transmission system, for all of the Transmission Provider's customers."

**Requests:**

**14.1** Please state whether "cover the costs of upgrades done for a customer" means that the objective, at a minimum, is to ensure rate neutrality. Please explain your answer.

**R14.1**

**See the response to questions 1.1 and 1.3, Information Request #1 from the Régie, Exhibit HQT-4, Document 1.**

**14.2** Please state whether "ensure equitable treatment for all customers" means ensuring identical treatment for each customer class.

**R14.2**

**Equitable treatment means treatment based on the same principles but adapted to the context of each.**

- 15. Reference:**
- (i) B-0011 or HQT-3, Document 1, pages 7 and 9;
  - (ii) R-3903-2014, HQT-5, Document 1, page 3;
  - (iii) D-2014-049, page 10.

**Preamble:**

On page 7 of reference (i), the Transmission Provider states the following:

*The maximum allowance equals the present value over 20 years of the annual rate, less operating and maintenance costs and applicable taxes, i.e., the public utility tax.*

On page 9 of the same reference, we can see that the cost of capital used to determine the maximum allowance is the projected weighted average cost of capital, and that this is 5.666% for 2014. The amount of the capital expenditure obtained in the table on page 9 of reference (i) (\$598/kW), is equal to the capital expenditure that results in a revenue requirement equal to the 2014 rate.

The table in reference (ii) showing the revenue requirement for transmission service indicates that the return on the rate base is calculated using the weighted average cost of capital.

Reference (iii) indicates that the proposed weighted average cost of capital for 2014 is 7.053%.

**Requests:**

**15.1** Given that the rate is calculated using the Transmission Provider's revenue requirement, and that this includes a return on the rate base calculated using the weighted average cost of capital, please justify use of the projected weighted average cost of capital to determine the maximum allowance.

**R15.1**

**In the case of the maximum allowance, the projected weighted average cost of capital is used to ensure that the allowance captures the fact that the costs will occur in the future,**

during a maximum 20-year period. However, it is important to use a cost of capital close to the cost of capital that will prevail during this period.

In this respect, the Régie also wrote as follows in Decision D-2002-95:<sup>2</sup>

*In the Régie's opinion, in determining whether or not to approve a project, its financial and rate impacts should be determined, as set out in the Regulation made pursuant to section 73 of the Act. Because the capital expenditures will be made in the future, the financing of the facilities required will, where applicable, be based on the conditions in financial markets at that time. Accordingly, the Régie considers it reasonable to allow the Transmission Provider to use a projected capital cost to determine the profitability of projects and their impact on rates. The Régie accepts the proposal that the projected capital cost is equal to the projected weighted average cost of debt and the cost of equity.*

*TransÉnergie's deemed capitalization including 30% equity should be used as an average financing structure for new projects, because it is reasonable to anticipate that the risk of new transmission projects will be comparable to the risk of existing assets. The same logic also applies for the risk taken into account in determining the cost of equity."*

The Régie also addressed this issue in Decision D-2004-47<sup>3</sup>, and ruled that the financial determination of capital expenditure projects should be based in particular on the fair determination of the capital cost, which equals the projected capital cost that reflects the cost of the new debt, and the discounting of cash flows using this capital cost.

- 16. Reference:**
- (i) B-0011 or HQT-3, Document 1, page 11;
  - (ii) Transmission Provider's 2012 Annual Report, HQT-2, Document 1.1, page 5.

**Preamble:**

In reference (i), the Transmission Provider states that the operating and maintenance costs are \$380.2M for 2012.

Reference (ii) indicates that the net operating costs are \$633.2M for 2012.

**Requests:**

**16.1** Please explain the difference between the two amounts.

**R16.1**

The amount of \$380.2M used by the Transmission Provider in reference (i) equals the direct operating and maintenance costs included in the 2012 net operating costs, which are presented in table A1-2 of Exhibit HQT-3, Document 2, page 27 of Docket R-3823-2012.

The following table presents the reconciliation of direct operating and maintenance costs and direct gross costs.

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<sup>2</sup> Docket R-3401-98, Decision D-2002-95, page 171.

<sup>3</sup> Docket R-3492-2002, Phase 2, Decision D-2004-47, pages 37-38.

**Table R16.1**  
**Reconciliation of direct operating and maintenance costs**

	(\$M)
<b>Net operating costs</b>	<b>633.2</b>
<b>Excluding data below, as required by the ACE BPWG survey (HQT-3 Document-3, page 5)</b>	
Outside perimeter for survey purposes	45.0
Electricity purchases for internal use	12.9
Administration	61.6
Internal billing – support	124.7
Other	8.8
<b>Exclusion</b>	<b>253.0</b>
<b>Direct operating and maintenance costs</b>	<b>380.2</b>

**16.2** Using the table in reference (ii), please indicate the amounts used to obtain the \$380.2M mentioned in reference (i).

**R16.2**

**See answer to question 16.1.**

**17. Reference:** B-0011 or HQT-3, Document 1, page 9.

**Preamble:**

In the table referenced, the annual cost for 2014 is \$74.65/kW, i.e., the rate for firm point-to-point service for annual delivery, as set out on page 125 of the Hydro-Québec Open Access Transmission Tariff for 2014.

This amount was obtained using the 2014 revenue requirement, which includes the item Net Operating Costs.

The amount of the maximum allowance in the reference is obtained by looking at the value of the capital expenditure that will result in a revenue requirement equal to the 2014 rate. We should thus expect that the elements in the reference table reflect the same types of elements as those used to determine the revenue requirement for 2014.

**Requests:**

**17.1** Please state whether the operating and maintenance costs in the reference table reflect the Net Operating Costs shown in the Transmission Provider's revenue requirement for 2014.

**R17.1**

**The operating and maintenance costs in the table in Exhibit HQT-3, Document 1, page 9, Docket R-3823-2012 are equivalent to a determination of these costs for a transmission network upgrade corresponding to the maximum allowance of \$598/kW. These costs are part of the net operating costs.**

**17.2** If the answer is no, justify the use of the 2014 rate as a target to be achieved to determine the maximum allowance for 2014.

**R17.2**

See answer to question 17.1.

**18. Reference:** B-0011 or HQT-3, Document 1, page 10.

**Preamble:**

*The present value of the Transmission Provider's operating and maintenance costs is used to determine the maximum allowance. The Transmission Provider assumes that operating and maintenance costs over 20 years equal on average 15% of capital cost. This parameter has been used since R-3401-98. At that time, the Transmission Provider indicated that the percentage established in 2001 to account for operating and maintenance costs resulting from network upgrades, based on capital cost, was 18%. The Transmission Provider proposed using 15%, because the operating and maintenance costs and use of the transmission system are variable, and that percentage has been used up to now.*

**Requests:**

**18.1** Please provide the reference in Docket R-3401-98 stating that the percentage to account for operating and maintenance costs resulting from network upgrades, based on capital costs, is 18%.

**R18.1**

**See answer to Question 82.4, Information Request #1 from the Régie, Exhibit HQT-13, Document 1, page 145, Docket R-3401-98.**

**18.2** Please provide information to confirm that the following is still valid: "the percentage established in 2001 to account for operating and maintenance costs resulting from network upgrades, based on capital cost, was 18%."

**R18.2**

**As explained in response to question 82.4 of Information Request #1 from the Régie, Exhibit HQT-13, Document 1, Docket R-3401-98, the operating and maintenance costs and the use of the transmission system are variable. To ensure consistency and predictability, the Transmission Provider uses an average rate for the operating and maintenance costs, which equals 15% of the capital expenditure**

**18.3** The Transmission Provider states that "*the operating and maintenance costs and use of the transmission system are variable*". Please quantify the degree of variability of operating and maintenance costs for the period 2001-2013, and the degree of variability of transmission system use for the same period.

**R18.3**

**The direct operating and maintenance costs are shown in Exhibit HQT-3, Document 2, page 27, Docket R-3823-2012. The Transmission Provider has been using this data as a parameter to calculate operating and maintenance costs since 2005. For 2001 to 2004, as stated in response to question 82.4 of Information Request #1 from the Régie, Exhibit HQT-13, Document 1, Docket R-3401-98, the direct gross costs were considered.**

**For the variability of operating and maintenance costs and transmission system use, see the answer to question 2.4 of Information Request #1 from the Régie, Exhibit HQT-4, Document 1.**

**The Transmission Provider reiterates that system use equals the sum of forecast transmission requests to supply native load and forecast transmission requests for long-term point-to-point service.**

- 18.4** The Transmission Provider states that system use is variable. Please state whether current system use is the same as it was in 2001. If it is not, justify using the same rate that was used in 2001 for operating and maintenance costs.

**R18.4**

**See responses to questions 18.2 and 18.3.**

- 18.5** Please state whether the 15% rate would also be applicable if a period of 40 years was used to calculate the maximum allowance. Please explain your answer.

**R18.5**

**Using a period of 40 years to calculate the maximum allowance would reduce the annual operating and maintenance costs rate, which would offset the impact of the increase in the number of years. See answer to question 2.1 of Information Request #1 from the Régie, Exhibit HQT-4, Document 1.**

- 19. Reference:** B-0011 or HQT-3, Document 1, page 11.

**Preamble:**

Part of table 2 in the reference is shown below.

<ul style="list-style-type: none"> <li>• Load growth             <ul style="list-style-type: none"> <li>• Load growth – satellite substations<sup>(1)</sup></li> </ul> </li>   <li>• Load growth – Distributor customers connected directly to the transmission system</li> </ul>	<p>Maximum capacity to be transmitted equals the lesser of:</p> <ul style="list-style-type: none"> <li>• Forecasted 20-year load growth for satellite substations within the project's impact zone, calculated using load forecasts per satellite substation provided by the Distributor;</li> <li>• The capacity added by the project.</li> </ul> <p>The maximum capacity to be transmitted equals the new transmission load requested by the Distributor for its customer.</p>
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1. For network upgrades involving facilities upstream of satellite stations, no growth MWs are factored into the maximum allowance calculation because they are taken into account in projects involving satellite substations and projects to connect Distributor customers to the transmission system. In its evidence, the Transmission Provider proposes codifying this practice.

**Requests:**

- 19.1** Please specify whether the maximum capacity to be transmitted equals the load growth for each satellite substation within the impact zone or coincident load growth for satellite substations within the impact zone at the time of the Distributor's peak demand. Please explain your answer.

**R19.1**

**The Transmission Provider uses the load growth for each satellite substation within the impact zone because this is the growth figure used for capital expenditure projects.**

- 19.2** Please justify this choice.



**R19.2**

**See answer to question 19.1.**

**19.3** Please explain how the transfer of load from a satellite substation to another source substation is accounted for.

**R19.3**

**A project's impact zone typically includes the satellite substations for which the Distributor is planning to transfer loads to the substation where the project is being carried out. These transfers are rolled into the load forecasts for the satellite substations provided to the Transmission Provider by the Distributor. Because the Transmission Provider uses these forecasts, its calculation of MW of growth for a project is net of load transfers between substations within the project's impact zone.**

**20. Reference:** B-0011 or HQT-3, Document 1, page 13.

**Preamble:**

*An allowance is granted to a point-to-point transmission customer only if the network upgrade required to meet the customer's demand generates revenue for the Transmission Provider, in the case of both point-to-point service and a generating station connection.*

It is our understanding that the allowance granted by the Transmission Provider is added to its rate base and increases its revenue requirement. To ensure that this increased revenue requirement does not impact its customers, the Transmission Provider must receive additional revenue equivalent to the increase in the revenue requirement.

**Requests:**

**20.1** Please state whether the revenues generated by the network upgrade are over and above the revenues that the Transmission Provider would receive without the upgrade.

**R20.1**

**See answer to question 16.1 of Information Request #1 from the Régie, Exhibit HQT-4, Document 1.**

**20.2** Please specify whether the revenues generated by the network upgrade are [word missing]. If they are not, please justify granting an allowance for upgrades that do not increase the Transmission Provider's revenues.

**R20.2**

**See answer to question 20.1.**

**20.3** If there are no additional revenues, please state how the principle of rate neutrality is respected for these upgrades.

**R20.3**

**See answer to question 20.1.**

**21. Reference:** B-0011 or HQT-3, Document 1, pages 15 to 17.

**Preamble:**

With respect to methods for establishing and paying the contribution for projects with phased commissioning, the Transmission Provider states in section 6.2 of the reference that the methods will apply for future projects when the requester is a point-to-point customer.

However, this is not stated in section 6.1 of the same reference in the case of the Distributor.

**Requests:**

**21.1** Please explain the proposed difference in methodology depending on whether the customer is the Distributor or a point-to-point customer.

**R21.1**

**The Transmission Provider is not proposing a different methodology for different customers. In its supplementary evidence<sup>4</sup>, the Transmission Provider states clearly that it proposes to apply the same methodology to all its customers' future projects.**

**22. Reference:** B-0011 or HQT-3, Document 1, page 21.

**Preamble:**

The Transmission Provider's proposal concerning the allocation of project costs including the costs of the customer demand growth and asset maintenance categories considers a full replacement and partial replacement of the facility.

In the case of a full replacement, *"the value of the replacement needed to maintain the existing service in accordance with current applicable standards is allocated to the asset maintenance category."*

**Requests:**

**22.1** Please explain how the replacement value is determined (facilities study, parameter cost, etc.) and state whether the accuracy of this estimate is the same as that of the proposed project.

**R22.1**

**The Transmission Provider notes that two main situations can occur:**

- **In the first situation, the proposed project does not use the equipment required solely to meet permanent requirements. Therefore, the replacement value will be determined by parameter because no facilities study is done for the solutions that are not used. This determination will be less accurate than if a facilities study were done.**
- **In the second situation, the proposed project uses all of the equipment required solely to meet permanent requirements. In this case, the replacement value of the equipment will be determined upon completion of the facilities study. This determination will be as accurate as the proposed project.**

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<sup>4</sup> HQT-3 Document 1, section 6.2, lines 26 to 28.

23. Reference: B-0011 or HQT-3, Document 1, page 22.

**Preamble:**

*In the case of projects that serve to achieve both growth and “maintenance and improvement of service quality” objectives and only those two objectives, where the costs to be allocated to the two categories in question cannot be objectively separated, the costs allocated to the “maintenance and improvement of service quality” category are estimated differentially, by comparing the total value of the project with the value of a functional solution that meets only growth needs.*

**Requests:**

23.1 Please define and explain what the Transmission Provider means by a “functional solution that meets only growth needs”.

**R23.1**

**This means a solution that does not require any equipment other than the equipment needed to meet the growth needs that the Transmission Provider must meet.**

23.2 Please provide an example of a “functional solution that meets only growth needs”.

**R23.2**

**An example is a transformer upgrade in a satellite substation to meet growth requirements.**

24. Reference: B-0011 or HQT-3, Document 1, page 24.

**Preamble:**

With respect to cost-sharing among the beneficiaries of a transmission system improvement project, the Transmission Provider states as follows:

*The Transmission Provider is not aware that cost-sharing among the beneficiaries of a transmission system improvement project is a common practice in other jurisdictions. While there has been extensive discussion of the concept of cost-sharing among beneficiaries, there is no single approach to this matter. This is essentially due to the heretofore unresolved difficulty of identifying all the beneficiaries of an upgrade and objectively determining and measuring the potential benefits over the upgrade’s entire useful life. This difficulty results from, among other things, the geographic and temporal diversity of the beneficiaries.*

**Requests:**

24.1 The Transmission Provider states that there is no single approach. Please present existing approaches.

**R24.1**

**The Transmission Provider notes that there is no consensus in North America on an approach to cost-sharing among beneficiaries. Accordingly, the Transmission Provider reiterates that the waiting list and cost causation principles remain the customary practices for managing customer requests that lead to network upgrades and for ensuring that the costs of these upgrades are borne entirely by the requesters rather than by the beneficiaries.**

**24.2** Please provide the methods that could be used when the beneficiaries of an upgrade can be identified (for example, supplying a new customer from a line that radially supplies an industrial customer).

**R24.2**

**According to the *Open Access Transmission Tariff*, the cost of a network upgrade must be borne by the customer that triggered the need for the capital expenditure.**

**25. Reference:** B-0011 or HQT-3, Document 1, page 24.

**Preamble:**

*In some cases, the sequence of requests for service or to connect generating stations may differ from the sequence of commissionings. In any event, the full costs are allocated to the customer that triggered the need for the network upgrade, in accordance with customary utility practice.*

Assuming the following:

- In 2014: request submitted for 1000 MW of point-to-point service for 2020;
- In 2015: request submitted to connect a 500 MW generating station for 2018;
- The system can meet both requests individually with no upgrades;
- Upgrades are required in 2020 to integrate all 1500 MW and the construction of the upgrades must begin in 2016 for commissioning in 2020;
- In 2016: signing of a service agreement for the request beginning in 2018 (500 MW);
- In 2016: no signature for the 1000 MW request for 2020.

**Requests:**

**25.1** In the scenario described in the preamble, indicate whether the Transmission Provider would commence construction of the upgrades in 2016.

**R25.1**

**The Transmission Provider commences construction of upgrades after obtaining the Régie's approval for the proposed capital expenditure. In accordance with section 12A.2 and Attachment J of the *Open Access Transmission Tariff*, in its application to the Régie for approval of the expenditure, the Transmission Provider shows that it can cover the costs incurred to the maximum amount by signing at least one agreement for long-term firm transmission service.**

**25.2** For the scenario described in the preamble, please state whether the Transmission Provider would require signing of a service agreement for the 1000 MW request before commencing work.

**R25.2**

**The Transmission Provider understands from the hypothetical scenario described in the preamble that the transmission system can meet the request for 1000 MW of point-to-point service without network upgrades. In that case, the Transmission Provider must notify the eligible customer as soon as possible and within 30 days of receipt of the request that an impact study is not required and that the service can be provided, and**

then must present the customer with a service agreement. The eligible customer has 45 days upon presentation of the service agreement to sign and return it to the Transmission Provider, failing which the request is deemed withdrawn or cancelled.

- 25.3** If yes, please define the methods that would be used with respect to the upgrade costs and the responsibility of each customer requesting the service for the payment of these upgrade costs.

**R25.3**

Each request for transmission service, for long-term point-to-point service or for a generating station connection is studied based on the existing condition of the entire transmission system and its forecast development over the period of the service request, according to the Distributor's native load growth forecast and the sequence of point-to-point service requests.

The Transmission Provider plans its system to be congestion-free and is required to respond to all customer requests on a non-discriminatory basis. As a result, the customer that triggered the upgrade is responsible for the cost of the upgrades required to meet its request.

- 25.4** Please indicate the methods that would be used if the 1000 MW transmission service request was cancelled after work had begun and the work was therefore no longer required.

**R25.4**

The point-to-point customer is required to repay the actual costs in the event of cancellation, including the costs of facilities studies.

Under section 19.4 of the *Open Access Transmission Tariff*, the customer must provide the Transmission Provider with a letter of credit or other reasonable form of security acceptable to the Transmission Provider equivalent to the cost of the network upgrades.