

**Réponses du Transporteur
à la demande de renseignements numéro 1
d'Option consommateurs (« OC »)
à Concentric Energy Advisors (« CEA »)**

**DEMANDE DE RENSEIGNEMENTS N^o 1 D'OPTION CONSOMMATEURS (OC) À CONCENTRIC
ENERGY ADVISORS (CEA)**

**DEMANDE DU TRANSPORTEUR DE MODIFICATION DES TARIFS ET CONDITIONS DES
SERVICES DE TRANSPORT POUR L'ANNÉE 2019**

R-4058-2018

CARACTÉRISTIQUES DU MÉCANISME DE RÉGLEMENTATION INCITATIVE (MRI)

X Factor

- 1. Reference :** i) Pièce B-0012, p. 9-10.

Preamble :

Pursuant to the Régie's decision D-2018-011, the Carrier has to conduct a productivity study to serve as a basis for setting the X factor for the second-generation MRI. The Carrier was unable to present its proposed methodology to the Régie in the current ratecase.

Request :

- 1.1 To help guide intervenors and the Régie, please provide comments on the appropriate methodology for the upcoming PMF study.

Réponse :

- 1 **HQT has not yet formulated its view on the appropriate methodology for this**
2 **study. Among the factors to be considered will be: the outcome of this**
3 **Phase III decision, the costs to be included under the MRI, the availability of**
4 **appropriate peer group data, the guidance of its expert on the appropriate**
5 **methodology, and the costs and time required for completion of the study.**
6 **Voir la réponse à la question 2.2 de la demande de renseignements numéro 1**
7 **d'OC à la pièce HQT-13, Document 6.1.**

2. Reference : **i) Pièce B-0013, p. 11.**

Preamble :

- i) « For NGET, this number is composed of a 0.5% Opex productivity target and 0.8% Capex productivity target, suggesting that Capex is dominating Opex in the Totex. These targets are based on a combination of benchmarking analysis and forecast review by Ofgem. However, there are several adjustments to allowed revenues, providing increased revenue allowances for innovation spending, for volume-based cost drivers including load and non-load related Capex, a provision for “uncertainty mechanisms” and related adjustments.

The U.K framework is comprehensive but represents a different approach than that adopted by the Régie for this first-generation MRI for HQT. Ofgem relies on a forecast revenue requirement factoring in a productivity target with a number of other adjustments. These forecasts cannot be uniformly applied to HQT’s Opex cost trend without consideration of the many adjustments, and therefore cannot be practically used to establish an appropriate X factor for HQT. »

Request :

- 2.1 Please elaborate on “*targets are based on a combination of benchmarking analysis and forecast review by Ofgem*”.

Réponse :

1 **The current RIIO model applied by Ofgem is an 8-year business plan forecast**
2 **with benchmarking analysis using an international dataset, “ an important part**
3 **of the overall toolkit.¹”** The specific reference in this request refers to the
4 **review of the business plan of National Gas Electricity Transmission (NGET),**
5 **which considered benchmarking analysis presented by NGET as well as by**
6 **consultants retained by Ofgem in order to make adjustments to the revenue**
7 **forecast.**

¹ Decision on strategy for the next transmission price control - RIIO-T1 Tools for cost assessment, March 31, 2011, pp. 3, 20-21.

2.2 Please provide a list of the adjustments to allowed revenues that relate to OPEX.

Réponse :

- 1 **Ofgem produces a handbook that defines the financial inputs used to calculate**
2 **the ET-1 Price Control results for transmission carriers. Concentric relied on**
3 **the current version of the handbook, dated August 22nd, 2017. The handbook**
4 **identifies the following 14 expense adjustments, six of which apply to a single**
5 **transmission provider:**
- 6 • **uncertain costs – enhanced physical site security ;**
 - 7 • **uncertain costs – Exceptional Subsea Cable Fault Costs ;**
 - 8 • **uncertain costs – non-load related work costs ;**
 - 9 • **baseline and strategic wider works expenditure ;**
 - 10 • **generation connections volume driver ;**
 - 11 • **enhancements to pre-existing infrastructure ;**
 - 12 • **innovation roll out mechanism ;**
 - 13 • **electricity Market Reform Enduring Solution ;**
 - 14 • **NGET – only :**
 - 15 ○ **incremental wider works ;**
 - 16 ○ **undergrounding volume driver ;**
 - 17 ○ **demand related infrastructure volume driver ;**
 - 18 • **SHETPLC – only :**
 - 19 ○ **uncertain costs – compensation costs for land owners**
 - 20 **for wayleaves ;**
 - 21 ○ **uncertain costs – BT 21st Century ;**
 - 22 • **SPTL – only :**
 - 23 ○ **uncertain costs – workforce renewal.**

3. Reference : i) **Pièce B-0013, p. 15.**

Preamble :

- i) *« The AER also examines both total and partial factor productivity indicators (PFP) for each of the five TNSPs, and for the transmission industry in aggregate. These data, as prepared by a consultant for the AER, are presented below. This analysis shows that the total factor productivity averaged -2.07% over the entire 2006-2016 period and -1.90% over the most recent 2012-2016 period. The Opex PFP averaged -0.64% over the full 2006-2016 period, and shifted to -1.80% over the more recent 2012-2016 period. »*

Request :

3.1 Please discuss the drivers of change in TFP and OPEX PFP observed for the five TNSP's over the 2006-2016 and 2012-2016 periods.

Réponse :

1 **The AER provides some comments in its latest report regarding the trends in**
2 **productivity over the entire period, but less commentary on the differences**
3 **between the TFP and PFP results, and the respective periods.²**

4 **As can be seen in figure 1, industry-wide TFP continued to decline over 2016**
5 **decreasing by 2.7 per cent. This is the third consecutive year of declining**
6 **TNSP productivity – TFP decreased by 2.9 percent over 2014 and 2.2 per cent**
7 **over 2015. It is also a faster rate of decline than the long term average industry**
8 **rate of -2.1 per cent from 2006-16.**

9 **The long term decrease in TFP – 19 per cent over the last 11 years – has been**
10 **driven by network inputs growing at a faster rate than outputs. Total inputs**
11 **increased 29 per cent over 2006-16 while total outputs grew by only five per**
12 **cent.**

13 **Analysis of the longer term trends in TNSP productivity shows that the key**
14 **drivers of the 2.1 per cent average annual decline in TFP over 2006-2016**
15 **(Figure 3) were:**

- 16 • **growth in capital inputs (transformer inputs grew at an average annual**
17 **rate of 3.7 per cent from 2006-16 contributing -1.5 percentage points**
18 **(ppts) to the annual rate of TFP decline while overhead lines grew at 2.0**
19 **percent contributing -0.6 ppts) ;**
- 20 • **growth in opex spending which increased at an average annual rate of**
21 **1.1 percent over the 11 years contributing -0.3 ppts to the change in TFP ;**
- 22 • **a decrease in reliability as measured by energy not supplied (ENS) which**
23 **contributed -0.3 ppts to the average annual rate of decline in TFP.**

24 **Growth in some outputs over 2006-16 partly offset these negative**
25 **contributions to the TFP growth rate identified above, including:**

- 26 • **an annual 0.8 per cent increase in circuit lengths which added 0.3 ppts to**
27 **the rate of change in TFP ;**
- 28 • **an annual 1.3 per cent increase in end user numbers which added**
29 **0.3 ppts ;**
- 30 • **growth in ratcheted maximum demand (RMD) which added 0.2 ppts.**

² AER, Annual Benchmarking Report, [Electricity Transmission Network Service Providers](#), November 2017, pages 7-9.

3.2 Are reversed trends observed for all of the five TNSP's over these periods?

Réponse :

1 **The following table shows the changes in Opex PFP (excluding redundancy**
2 **payments) for each of the five transmission companies.³**

Table R3.2
Changes in OPEX PFP of five Australian transmission companies (%)

Company	2006-2016	2006-2012	2012-2016
AusNet Services Transmission (ANT)	0.51%	3.01%	-3.25%
ElectraNet (ENT)	-2.82%	-3.31%	-2.09%
Powerlink (PLK)	-0.7%	0.49%	-2.47%
TasNetworks Transmission (TNT)	3.67%	0.39%	8.6%
TransGrid (TRG)	-0.19%	0.21%	-0.80%

3 **As illustrated, 3 of the 5 companies, (ANT, PLK, and TRG) had significant**
4 **downturns in Opex PFP (indicating operating expenses were increasing faster**
5 **than system outputs) over the most recent five-year period in comparison to**
6 **the prior 5 and 10-year periods. ElectraNet's remained negative, but improved**
7 **over the 5 and 10-year trends, and TasNetworks, the smallest of these**
8 **companies, had a significant improvement in the trend.**

4. Reference : i) Pièce B-0013, p. 16-17.

Preamble :

i) *« In comparing Australia's network to Québec's, the NEM transmission network comprised of these five transmission networks are both privately and publicly owned: 3 are government owned and 2 are privately owned. [...] »*

While Australia's electric grid may be unique in contrast to other western countries, HQT is also unique. HQT's system serves long distances between generation and loads, and represents an even greater 25% of the average price of electricity. The Australian data therefore serves as a useful international benchmark for HQT. »

³ TNSP Benchmarking Results, p. 32 – 57.

Request :

4.1 Please provide a list of similarities and dissimilarities between the HQT and NEM transmission networks.

Réponse :

1 **The business functions of the electric industry in Australia are similar to those**
2 **in Québec, with the exception of a separate retail function. According to the**
3 **AER⁴ :**

4 **The electricity industry in Australia is divided into four segments —**
5 **generation, transmission, distribution and retail. As electricity generators**
6 **(i.e. coal, gas, hydro, wind etc.) are usually located near fuel sources and**
7 **often long distances from electricity consumers, networks of poles and**
8 **wires are required to transport power from the generation sources to end**
9 **use consumers. These networks include :**

- 10 • **High voltage transmission lines operated by transmission network**
11 **service providers (TNSPs) which transport electricity from generators**
12 **to distribution networks in urban and regional areas ;**
- 13 • **Transformers, poles and wires operated by distribution network**
14 **service providers (DNSPs) which convert electricity from the high**
15 **voltage network into medium and low voltages and transport electricity**
16 **to residential and business consumers.**

17 **The following table contrasts HQT with the five Australian transmission service**
18 **providers according to aggregate system characteristics. HQT is larger than**
19 **each all these companies, but not surprisingly, as HQT is also one of the largest**
20 **North American electric transmission companies.**

⁴ AER, Annual Benchmarking Report, [Electricity Transmission Network Service Providers](#), November 2017, page 12.

Table R4.1
System characteristics of five Australian transmission companies

	Company	Line length circuit km	Electricity Transmitted (GWh) 2015-2016	Rate Base (\$M) (Mid-Year 2016)	Rate Base (\$M CAD) [3]
[1]	ElectraNet	5,524	14,248	2,102	2,005
[1]	Powerlink	14,756	52,872	6,571	6,268
[1]	AusNet Services	6,559	na	2,880	2,747
[1]	TasNetworks	3,564	11,655	1,378	1,315
[1]	TransGrid	13,039	72,200	6,082	5,802
[2] [4] [5]	HQT	34,272	171,300	na	19,045
[1] Australia State of the Energy Market, May 2017, p. 96					
[2] 3981-2016 HQT-7, Document 3, p. 3					
[3] https://www.x-rates.com/average/?from=AUD&to=CAD&amount=1&year=2016					
[4] http://www.hydroquebec.com/transenergie/en/reseau-bref.html					
[5] Electricity sales in Quebec - 2015 - assumed comparable to electricity transmitted, Hydro Quebec 2015 Sustainability Report, p. 14					

4.2 Please discuss why CEA used the AER sample as opposed to North American FERC sample/data.

Réponse :

1 **Concentric utilized the AER research because its consultant has conducted**
 2 **this research over multiple years with considerable stakeholder input and the**
 3 **AER relies on this reasearch for setting parameters for the each of the**
 4 **companies' performance based regulation plans. It is also the one example of**
 5 **peer group transmission research where Opex is specifically broken out for**
 6 **productivity trends, making it particularly useful for informing the Régie's**
 7 **determination of an X factor for HQT's operating expenses.**

8 **To use North American data, it would have required creation of a new**
 9 **productivity study, and the establishment of an appropriate peer group for**
 10 **HQT, which was beyond the scope of this Phase III proceeding.**

11 **Since filing its evidence, however, Concentric has learned that Hydro One has**
 12 **filed an expert report with the OEB containing results of a North American**
 13 **Study.⁵ From this report:**

14 **Using a sample of 48 transmission utilities, PSE calculated the total**
 15 **factor productivity trend of the industry from 2004 to 2016.**
 16 **This twelve-year period showed an average annual decline in industry-**
 17 **wide TFP, with an annual growth rate of -1.71%.**

⁵ EB-2018-0218, [Transmission Study for Hydro One Electric](#) : Recommended CIR Parameters and Productivity Comparisons, Prepared by: Power System Engineering, Inc., May 23 2018, pp. 9-10.

1 Hydro One’s own TFP from the 2004 to 2016 period declined, but at a
 2 much slower pace than the industry, with an average annual growth
 3 rate of -0.31%. Hydro One’s TFP is projected to decrease during the
 4 CIR⁶ period of 2019 to 2022, with an average annual growth rate of -
 5 1.43%. Hydro One’s TFP trend is lower in the CIR period; however,
 6 Hydro One’s lower TFP trend (-1.43%) is still outpacing the historic
 7 industry TFP trend of -1.71%.

8
 9 Those results are reported below⁷. The industry trend in TFP shows both a
 10 more negative trend than Concentric had factored in its recommendation,
 11 and a decline in the most recent period, consistent with the results from
 12 other studies cited in Concentric’s research.

13
 14 The report does not, however, break out a partial factor for Opex.

Table 3 Industry TFP and Hydro One TFP

Year	Industry TFP Index	Hydro One TFP Index
2004	1.000	1.000
2005	0.945	1.026
2006	0.963	1.024
2007	0.987	1.000
2008	0.971	1.042
2009	0.967	1.003
2010	0.940	0.992
2011	0.946	0.992
2012	0.922	0.971
2013	0.893	0.962
2014	0.871	0.967
2015	0.841	0.956
2016	0.814	0.964
2017 (projected)	NA	0.958
2018 (projected)	NA	0.954
2019 (projected)	NA	0.945
2020 (projected)	NA	0.933
2021 (projected)	NA	0.920
2022 (projected)	NA	0.906
Average Annual Growth Rate		
2004-2016	-1.71%	-0.31%
2010-2016	-2.40%	-0.47%
2019-2022	NA	-1.43%

⁶ Custom Incentive Regulation.

⁷ EB-2018-0218, Transmission Study for Hydro One Electric: Recommended CIR Parameters and Productivity Comparisons, Prepared by: Power System Engineering, Inc., May 23 2018, p. 10.

4.3 Please provide an analysis of PFP for a sample of FERC-Regulated Transmitters. Please provide references to such studies from Concentric’s Research.

Réponse :

1 **Please see the response to question 4.2.**

5. Reference : i) Pièce B-0013, p. 18.

Preamble :

i) « There are a number of factors involved in the estimation of productivity trends, involving both the data used, methods used to determine the trend, and the time-period analyzed. In the development of industry trends of productivity, it is important to consider multiple-year periods due to the considerable annual fluctuation in results from one year to the next. »

In reference i), CEA presents in table 6 the Kahn factor calculation for HQT.

Request :

5.1 How much of HQT’s CAPEX is capitalized/expensed. Please provide a table showing percentages for the past 5 years.

Réponse :

2 **Please see table below.**

**Table R5.1
Operating expenses (M\$)**

	Actuals				
	2013	2014	2015	2016	2017
Operating expenses	684,4	708,4	719,8	702,5	807,4
Capitalized cost	133,6	131,3	133,6	142,5	132,6
Operating expenses¹	818,0	839,7	853,4	845,0	940,0
Capitalized / expenses	16,3%	15,6%	15,7%	16,9%	14,1%

¹ Includes capitalized costs

5.2 Please discuss how the amount of capitalization affects the PFP result.

Réponse :

1 **Given that the Kahn method (or a PFP study) is utilized to establish a trend,**
2 **one would not expect this factor to be significant driver. Any impact would be**
3 **most noticeable if a change in capitalization policy occurred during the study**
4 **period. If the policy is relatively consistent, a secondary effect might be felt if**
5 **the capitalized items inflated at different rates than non-capitalized items.**

5.3 Please provide all the reasons for using a sample period of 2013-2017 instead of a longer period.

Réponse :

6 **Please see response to Régie question 10.4.**

5.4 With such year-to-year fluctuations, how is it appropriate to use the 2013-2017 period rather than a longer period ?

Réponse :

7 **Please see response to Régie question 10.4.**

5.5 Please provide graphs showing the change in PFP (OPEX) and statistics for the HQT Data for 10 years and 5 years. Specifically provide standard deviations and T-tests.

Réponse :

8 **The graphs and statistics are presented as follow:**

Figure R5.5A
Year-to-Year Change in Applicable Costs – Formula I-X (%)

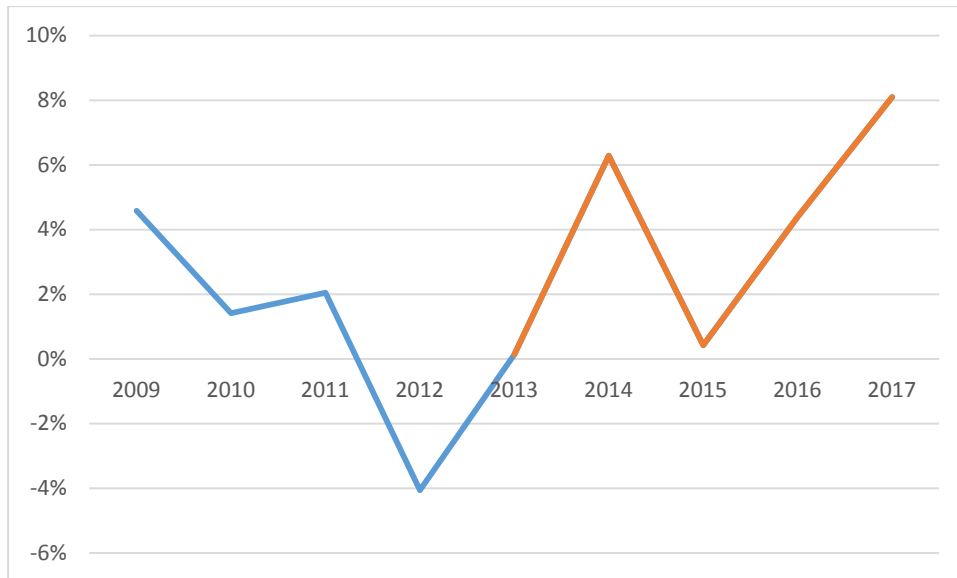


Figure R5.5B
Year-to-Year Implied X Factor (%)

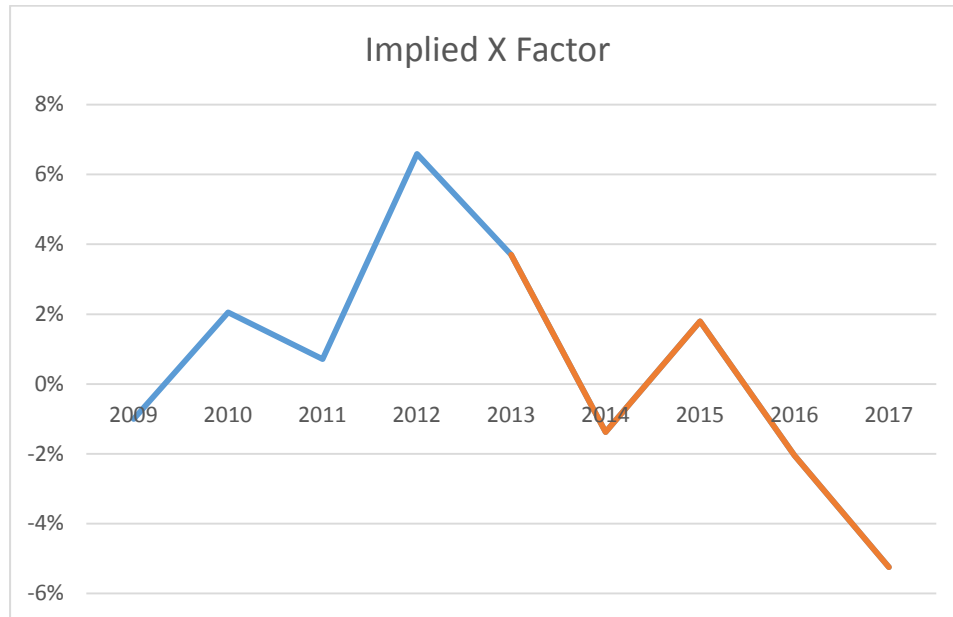


Table R5.5C
Year-to-Year Change in Applicable Costs From I-X Formula and Implied X Factor

	Applicable costs I – X Formula (M\$)	Implied X Factor
2008	713.3	
2009	746	-1%
2010	756.6	2%
2011	772.1	1%
2012	740.8	7%
2013	741.8	4%
2014	788.4	-1%
2015	791.8	2%
2016	826.6	-2%
2017	893.5	-5%

Table R5.5D
HQT’s Statistics 5 and 10 years Data – Standard Deviation and T test

	Std.Dev 10 yrs	Std.Dev 5 years	T test
Applicable costs I - X Formula	52.057	56.312	0.32997
Implied X Factor	0.03	0.03	0.54953

5.6 Please discuss the results in terms of statistical significance as related to an X factor of negative 0.6.

Réponse :

- 1 **A discussion of statistical significance is ideally suited for a sample size**
- 2 **of at least 30 datapoints which is not available. We therefore look for**
- 3 **indications of inflection points or changes in the trend that signal more than a**
- 4 **simple year-to-year variation.**
- 5 **As illustrated in charts above, the most recent years (post 2012) indicate a**
- 6 **clear shift in the transmission industry cost trend, which is corroborated by**
- 7 **the results of the Australian and most recently the Hydro One study.**

6. Reference : **i) Pièce B-0013, p. 20.**

Preamble :

- i) « Also consistent with the Régie’s HQD Phase III Decision, Concentric does not find it necessary to add an additional stretch factor (s factor) to the X factor. Considering the introduction of HQT’s parametric formula, the Carrier has been motivated by the Régie to achieve efficiencies so the measured X factor is a reasonable baseline for HQT’s first generation MRI, and is supported by the evidence of international transmission trends which reveal costs exceeding inflation.»

Request :

- 6.1 Please discuss in more detail/motivate the proposal to set a zero stretch factor.

Réponse :

- 1 **Please see responses to EBM questions 3.4.1 and 3.4.2.1.**

- 6.2 Please provide a review of recent regulatory decisions regarding stretch factors for each of 1st and 2nd (or higher) generation IRM’s.

Réponse :

2 **Concentric presents in the following table, the regulatory stretch factor**
3 **decisions for various utilities for the last several years. Concentric notes that**
4 **stretch factors are determined in conjunction with X factors, as a regulator**
5 **mainly use them when it believes that the regulated firm is able to generate**
6 **higher productivity than that of its sector of activity. Therefore, stretch factor**
7 **decisions cannot be evaluated without also considering the corresponding**
8 **X factor.**

9 **Concentric also notes that the Régie has established an efficiency factor for**
10 **HQT and has monitored its efficiency efforts since 2008. It noted in its Decision**
11 **2018-067 that for HQD, these efforts have produced efficiency gains that**
12 **consumers have also benefited from. For this reason, among others, the Régie**
13 **concluded that the appropriate stretch factor for HQD would be zero.⁸**

⁸ D-2018-067, paragraphs 174-178.

**Table R6.2
Recent Regulatory X Factor and Stretch Factor Decisions for Various Utilities**

Proceeding	X Factor (%)	Stretch Factor (%)	Type of Utility
2012 Alberta - Generic PBR Proceeding	0.96%	0.2%	Electric & Gas Distribution
2012 Ontario Renewed Regulatory Framework for Electricity Distributors	0.0%	0.0% - 0.6%	Electric & Gas Distribution
2014 Ontario – Enbridge Gas Distribution Inc. 2014-2018 Rate Application	N/A	Building block approach approved with a 5-year rate plan	Gas Distribution
2014 British Columbia – FBC Multi-Year Performance Based Ratemaking Plan for 2014-2018	0.93%	0.1%	Electric Distribution
2014 British Columbia – FEI Multi-Year Performance Based Ratemaking Plan for 2014-2018	0.9%	0.2%	Gas Distribution
2015 Ontario - Toronto Hydro-Electric System Limited, Electricity Distribution Rates for 2015 – 2019	0.0%	0.6%, and stretch factor will apply to the C-factor	Electric Distribution
2016 Alberta - Generic PBR Proceeding	0.3%	None	Electric & Gas Distribution
2017 MA - Eversource DPU 17-05	-1.56%	0.25% when inflation > 2%	Electric Distribution
2018 Québec - Hydro Québec Distribution	0.3%	0.0%	Electric Distribution
2018 Enbridge Gas & Union Gas Distribution	0.0%	0.3%	Gas Distribution

Mécanisme de traitement des écarts de rendement (MTÉR)

- 7. Reference :**
- i) Pièce B-0012, p. 23-30.**
 - ii) Pièce B-0013, p. 23-24.**

Preamble :

In reference i), HQT presents its proposal to link indicators to the ESM.

In reference ii), Concentric provides a benchmark of ESM and Off-Ramp precedents in Canada.

Request :

7.1 While doing its review of ESM's and Off-Ramp precedents in Canada, has CEA evaluated how indicators were linked to the ESM? If yes, please provide the results.

Réponse :

1 Yes, CEA evaluated both the Gazifère PBR (Jan 2011- Dec 2015) and the
2 Gaz Metro PBR (Oct 2007- Sept 2012) :

3 Gazifère, D-2010-112 (pages 57-58) :

4 **4.2.13 Indices de qualité de service**

5 *"[216] The sharing of productivity gains is conditional on the*
6 *achievement of an overall percentage of achievement of the quality*
7 *of service indices, the thresholds of which are established as*
8 *follows:*

- 9 • *Gazifère's overall performance must be at least 90% for*
10 *earnings sharing to apply ;*
- 11 • *If the overall performance is between 80% and 90%, Gazifère*
12 *can keep a percentage of the gains according to the formula:*
13 *real global performance multiplied by the formula of sharing*
14 *of the gains ;*
- 15 • *If overall performance is below 80%, customers get 100% of*
16 *productivity gains."*

17 GazMétro (Energir), D-2007-47 (pages 21-22) :

18 **3.2.5 Indices de qualité de service**

19 *"Both the return adjustment within the rate file and the sharing of*
20 *the over-earnings at the end of the year will be conditional on the*
21 *achievement of an overall percentage of service quality index.*

22 *This overall index will be equal to the weighted average of the*
23 *percentages of achievement of each index which are themselves*
24 *calculated according to the particularities of their components.*

- 25 • *The conditions of access to the over-earnings are as follows:*
26 *A minimum 85% overall achievement index will be required to*
27 *qualify for 85% of GM's share of the actual over-earnings ;*
- 28 • *Between 85% and 100%, the percentage retained by GM will*
29 *correspond to the overall index ;*
- 30 • *Below 85%, GM will not be eligible for any sharing of over-*
31 *earnings."*

32 The fact that there is existing precedent in Québec supports HQT's effort to
33 link SQI indicators to the ESM. Concentric has reviewed the mechanics of
34 HQT's proposal and finds them to be a reasonable.

7.2 Please provide an assessment of HQT's proposal. Discuss specifically why HQT's proposition that exceeding the threshold in any one year should terminate the plan and lead to a return to COS regulation.

Réponse :

1 **The rationale for a single year performance period is addressed on CEA's**
2 **evidence⁹. As noted in the section titled " Performance Period ", a two-year**
3 **mechanism is unlikely to have any practical impact during the four-year plan**
4 **period.**

5
6 **Moreover, the threshold of ± 150 basis points, after any earnings sharing**
7 **provided for by the application of the MTÉR, is of sufficient size to trigger the**
8 **off-ramp to address outcomes that will be unacceptable for either customers**
9 **or the shareholder.**

Off-ramp

8. Reference : **i) Pièce B-0013, p. 23-27.**

Preamble :

In reference i), CEA presents in table 8 a list of 7 Canadian Electric ESM and Off-ramp precedents.

CEA also states that « *Based on these factors, and the evidence above, Concentric recommends an exit clause with a symmetric off-ramp of ± 150 basis points after any earnings sharing provided for by the application of the MTÉR, recognizing that HQT will continue to absorb all of earnings shortfalls under the existing MTÉR. Based on application of HQT's existing MTÉR, this is equivalent to a 500 basis point upside off-ramp for a utility that either does not have an ESM or expresses the off-ramp with reference to earnings before the ESM is applied.* »

Request :

8.1 Concerning ENMAX Power Corp. in Alberta, is the Off-Ramp adjusted to take into account the asymmetry or the deadband?

⁹ Concentric Energy Advisors, Performance Based Regulation: Phase III Plan Parameters for HQT. July 27, 2018, page 28.

Réponse :

1 **There are no basis-point thresholds that define the off-ramp in the case of the**
2 **2009 ENMAX PBR. Paragraph 256 of AUC Decision 2009-035 states:**

3 ***256. Finally, with respect to other items that may require the FBR plan***
4 ***to be re-opened and potentially adjusted or terminated, the***
5 ***Commission accepts that EPC, or other interested parties, may apply***
6 ***for an adjustment to or termination of the FBR plan in the***
7 ***circumstances set out in Application sections 3.7.2.6 and 3.7.2.7.***

8 **Those circumstances are listed on page 50 of the AUC Decision 2009-035,**
9 **and are repeated in Concentric's evidence in Table 8¹⁰.**

8.2 Can you confirm that all of Ontario's precedents in table 8 use the same type of Off-Ramp (+- 300 basis points)?

Réponse :

10 **Confirmed. Concentric also notes that while the Ontario precedents listed in**
11 **Table 8 have an off-ramp of +/- 300 basis points, these off ramps are assumed**
12 **to be pre-ESM. Based on application of HQT's existing MTÉR, the proposed**
13 **HQT's off-ramp is equivalent to a 500 basis point upside off-ramp for a utility**
14 **that either does not have an ESM or expresses the off-ramp with reference to**
15 **earnings before the ESM is applied.**

8.3 Please confirm that none of the companies surveyed in table 8 operate under a ±150 basis points Off-ramp.

Réponse :

16 **Concentric notes that FBC operates with a post-ESM +/- 150 basis point**
17 **off-ramp for two consecutive years. Concentric also notes that several of the**
18 **off-ramps listed in Table 8 are assumed to be pre-ESM, and require an**
19 **adjustment in order to make an apples-to-apples comparison to Concentric's**
20 **proposal. Based on application of HQT's existing MTÉR, the proposed HQT**
21 **off-ramp is equivalent to a 500 basis point upside off-ramp for a utility that**
22 **either does not have an ESM or expresses the off-ramp with reference to**
23 **earnings before the ESM is applied.**

¹⁰ Concentric Energy Advisors, Performance Based Regulation: Phase III Plan Parameters for HQT. July 27, 2018, page 23.

Parametric formula for CAPEX

- 9. Reference :**
- i) **Pièce B-0013, p. 30.**
 - ii) **Pièce B-0013, p. 35.**
 - iii) **Pièce B-0013, p. 37.**

Preamble :

- i) *« Concentric identified three “formulaic” approaches to capital that have been adopted in other jurisdictions to determine their effectiveness for HQT and their responsiveness to the Régie’s directive described above. The first approach is that approved by the Ontario Energy Board (OEB) for Toronto Hydro in its most recent Custom IR plan.⁴⁴ The second approach is that approved by the British Columbia Utilities Commission (BCUC) for Fortis BC in its current performance-based regulation plan, approved in 2014.⁴⁵ The third approach is the “smoothing method” employed by the AER. »*
- ii) *« Adoption of the Australian approach, similar to the Toronto Hydro model, would require a capital related forecast for the term of the MRI, and Régie approval of such a forecast. As stated in the case of Toronto Hydro, this would require additional filings and be counter to the objective of regulatory streamlining. »*
- iii) *« Should the Régie find the Toronto Hydro approach reasonable, the formula would need to be adjusted for consideration of the fact that Toronto Hydro operates under a price cap, and HQT will operate under a revenue cap. This distinction requires a different treatment for growth. »*

Request :

- 9.1 Please provide a list/references of other regulatory decisions using parametric formula for Capital Factor. Please indicate if CAPEX or PPE is used.

Réponse :

- 1 **Concentric highlights one additional regulatory decision using a parametric**
- 2 **formula for capital : Alberta’s 2nd Generation PBR : AUC Decision**
- 3 **D-20414-D01-2016. The AUC’s 2nd generation PBR plans include both a capital**
- 4 **tracker element and an I-X element for capital treatment (the latter known as**
- 5 **the “ K-bar ”).**

1 **“ A base K-bar amount will be established for 2018 using an accounting test**
2 **similar to the accounting test used during the 2013-2017 PBR plans but applied**
3 **only to Type 2 capital projects and programs. The test will be calculated on a**
4 **projected amount of rate base for 2018 for Type 2 capital, which will determine**
5 **a capital funding shortfall or surplus for each program or project. “**¹¹

9.2 Please discuss the advantages and disadvantages of using a forecast approach similar to Toronto Hydro and AER instead of the Fortis BC approach.

Réponse :

6 **As discussed on page 37 of Concentric’s evidence,**

- 7 • **The Toronto Hydro approach allows for capital related revenue**
8 **requirements to become embedded in the escalation formula, because**
9 **they are pre-approved by the OEB.**
- 10 • **This approach allows for year-to-year variation in the implied X factor,**
11 **and therefore the escalation rate, to accommodate capital that does not**
12 **necessarily conform to a linear index.**
- 13 • **However, the formula would need to be adjusted for consideration of the**
14 **fact that Toronto Hydro operates under a price cap, and HQT will operate**
15 **under a revenue cap. This distinction requires a different treatment for**
16 **growth.**
- 17 • **The resulting escalation rate creates an incentive for optimizing both**
18 **Opex and Capex covered under the formula, but requires a multi-year**
19 **forecast of Capex-related revenue requirement, which would be difficult**
20 **to generate and approve at the immediate outset of the HQT plan.**
- 21 • **Similar to the Toronto Hydro approach, the AER approach allows for**
22 **capital related revenue requirements to become embedded in the**
23 **escalation formula, because expenditures are pre-approved by the AER.**
- 24 • **Unlike the Toronto Hydro approach, in Australia the year-to-year**
25 **revenues are smoothed over the term of the plan and an implied overall**
26 **escalation factor is derived from pre-approved revenue requirements.**

27 **Such an approach would require a capital forecast for the rate period,**
28 **including total and capital-related revenue requirements to compare to actuals.**

29 **Furthermore, this approach was abandoned by HQT and the Régie in Phase I.**
30 **As discussed in Concentric’s September 2016 evidence,¹² the Régie and the**
31 **intervenors were not in favor of the building block approach. Concentric’s**
32 **evidence states:**

¹¹ AUC D-20414-D01-2016 paragraph 242.

¹² Concentric Energy Advisors, Performance Based Regulation Recommendations: Revised. Prepared for: Hydro-Québec TransÉnergie. September 30, 2016, p. 1.

1 ***“ This revised MRI approach takes into account comments***
2 ***expressed by stakeholders regarding the reliance on the***
3 ***“Building Block” approach with a three-year up-front forecast***
4 ***and their general preference for a mechanism that incorporates***
5 ***elements of an I-X approach. Stakeholders expressed concern***
6 ***over forecast variances for the 3-year term¹³. One stakeholder***
7 ***expressed the view that this proposal had the effect of HQT***
8 ***filing three annual rate cases at the same time, placing a***
9 ***burden on stakeholders to review the forecast ”¹⁴.***
10

9.3 Please provide more details for the adjustments necessary to the Toronto Hydro approach.

Réponse :

11 **In the Toronto Hydro approach, growth is essentially subtracted from the**
12 **C factor through “(Scap * I) “. When (Scap * I) is subtracted from this**
13 **calculation, the C factor is then offset for the incremental funding for capital**
14 **that would have been provided under the standard price cap index adjustment**
15 **to base rates.¹⁵ Since HQT will operate under a revenue cap instead of a price**
16 **cap, growth would need to be accounted for differently, and added to the**
17 **formula rather than subtracted from it.**

9.4 Please provide an additional simulation for HQT using the Toronto Hydro C Factor approach.

Réponse :

18 **Please see the discussion about long-term forecasting in response to OC**
19 **question 9.2**

¹³ See for example, AHQ-ARQ response to HQ interrogatory 4, FCEI Evidence, p. 5.

¹⁴ Evidence submitted by FCEI, p. 20.

¹⁵ Ontario Energy Board, Decision and Rate Order for Toronto Hydro Electric System Limited, EB-2017-0077, December 14, 2017, p. 5.