

**DEMANDE DE RENSEIGNEMENTS N° 1 DE LA AQCIE-CIFQ (PEG) À
HYDRO-QUÉBEC DANS SES ACTIVITÉS DE TRANSPORT D'ÉLECTRICITÉ
(LE TRANSPORTEUR)
RELATIVE À LA DEMANDE DE MODIFICATION DES TARIFS ET
CONDITIONS DES SERVICES DE TRANSPORT POUR L'ANNÉE 2019**

FACTEUR X

1. Référence : HQT-4, Document 2.1

Préambule :

In earlier testimony, Concentric Energy Advisors (“CEA”), as consultant to Hydro-Québec Transmission (“HQT” or “the Company”), recommended that the X factor for the Company be determined by a process of “judgement.” In its July report for HQT, however, CEA noted that

“There are multiple methodologies to help inform X for *distribution* utilities, ranging from observing past productivity gains to industry benchmarking studies to complex productivity studies. The challenge in this case is to identify and determine the appropriate analyses and methodologies to be used for informing X for *transmission* utilities.” [italics added]

Concentric highlighted several reasons for the lack of comparable productivity data on transmission companies in relation to distribution utilities. Among these factors are:

- Traditional approaches to performance-based regulation adopted for distributors have been more selectively adopted for the regulation of transmission companies;
- Transmission, as a share of the customer’s final bill, is typically the smallest cost component, in contrast to generation and distribution;
- The capital intensive and project specific nature of transmission creates a less homogeneous operating and cost profile; and
- Challenges in terms of creating appropriate peer groups for cost benchmarking and industry productivity analysis.

Demande:

- 1.1 With the benefit of hindsight, and considering CEA’s extensive reliance on productivity studies by others to substantiate its X factor judgement for HQD, does CEA believe that its recommendation to the Régie not to undertake a transmission productivity study prior to the start of the MRI for HQT was sound?

2. Référence: HQT-4 Document 2.1

Préambule :

CEA discusses productivity trend research in the E3Grid study on pages 8-10 of its report.

Demande:

Please confirm that this study considers the trend in *total expenditure (totex)* productivity and not the total cost productivity that is conventionally considered in Canadian MRI proceedings. The totex trend is not slowed by the depreciation of older plant.

3. Référence: HQT-4, Document 2.1

Préambule:

CEA states on p. 7 that

Taken more broadly, the Kahn method can be considered as a measure of productivity as revealed by the industry's past experience and actual accounting costs. As illustrated in the next section, the Australian Energy Regulator calculates productivity in this manner as an input to appropriate X factors for its regulated transmission companies.

Demande:

3.1 Does CEA intend to say that the AER has used the Kahn method in its productivity calculations? If so, please substantiate this claim.

**4. Références : CEA report of 4 April 2018
HQT-4, Document 2.1**

Préambule :

CEA discusses on pp. 22-27 of its April 2018 report and on pp. 13-17 of its July report studies for the Australian Energy Regulator of the productivity trends of jurisdictional power transmitters.

Demande:

- 4.1 Please confirm that the AER's consultant uses a "physical asset" approach to measuring the capital quantity that ignores the tendency of depreciation to slow cost growth.
- 4.2 Please confirm that the AER's multifactor productivity results are not used to set X factors.
- 4.3 What output index was used in the latest AER study and how was it derived?
- 4.4 Why does Table 7 in the April report not include results for MurrayLink and DirectLink?

5. Référence : CEA report of 4 April 2018

Préambule :

CEA discusses on pp. 32-35 of its April 2018 the use of "formula-based rates" by the FERC to regulate the revenue of jurisdictional transmission owners. CEA notes on p. 32 that "this enables transmission owners to recover costs in as close to real time as possible."

Demande:

Please confirm that formula rates produce weaker incentives to contain O&M expenses than the MRI which the Régie has chosen for HQT.

- 6. Références :**
- (i) Pièce B-0013, p. 6;
 - (ii) Pièce B-0013, p. 7;
 - (iii) Pièce B-0013, Tableau 6, p.18

Préambule :

- (i) « In addition to the international research, Concentric worked with HQT to examine its past record of productivity, as measured by the cost categories covered by the formula adopted by the Régie in its Phase I Decision for HQT. This analysis produced a "Kahn method" X factor. This method refers to the work of economist and regulatory expert Alfred E. Kahn. ...Dr. Kahn developed a methodology...for computing industry -wide weighted average costs for purposes of calculating the industry cost trend ».
- (ii) « Taken more broadly, the Kahn method can be considered as a measure of productivity as revealed by the industry's past experience and actual accounting costs ».

Demandes:

- 6.1 Please provide Concentric's understanding of Kahn method mathematics.
- 6.2 What is "authorized growth" in Table 6 and why is it relevant?
- 6.3 Please explain how the methodology for calculating Facteur X detailed in Table 6 tracks historical changes in the *actual* costs of the Transmitter.
- 6.4 Please explain how Facteur X calculated in (iii) is solely a measure of productivity.
- 6.5 Please provide the Excel version of Table 6 with all formulas intact.

Formule Paramétrique

7. Références : HQT-4, Document 2

Préambule :

HQT claims to use the Kahn method to calculate the X factor in a *formule paramétrique* for its capital cost. The 2013-2017 sample period for this calculation is unusually short for a Kahn method calculation.

Demandes:

- 7.1 What are "prestations de travail aux investissements?"
- 7.2 Please confirm that X is calculated on the basis of actual costs and not revenue requirement. If not, please calculate using actual costs.
- 7.3 Please provide the Excel version of Table C-1 with all formulas intact.

MTER

8. Références : HQT-4 Document 2

Préambule :

HQT has proposed to link results of an *indice global du maintien de la qualité du service* ("IMQ") which it has constructed to its proposed *mécanisme de traitement des écarts de rendement* ("MTER"). The IMQ would summarize variance from benchmarks in metrics for several dimensions of the Company's service quality during the plan. Each benchmark is the average

value of the metric which the Company has achieved in five recent years. The IMQ assigns equal weight to performance in four quality areas.

- *Fiabilité du Service*
- *Disponibilité du Réseau*
- *Sécurité*
- *Satisfaction de la Clientèle*

The IMQ is designed so that its value falls to -1.0 if performance using each metric declines by the amount of its standard deviation.

The Company proposes that it keep its share of surplus earnings so long as the value of the IMQ equals or exceeds -1.0. The Company's share of surplus earnings would decline with progressively more negative IMQ values and fall to zero at a value of -2.0. There is no further financial consequence for the Company if the value of the IMQ is less than -2.0.

Demandes:

- 8.1 Please confirm that, under the Company's proposal, the penalty for a given decline in service quality varies with the earnings variance. If the earnings variance is negative or only slightly positive, the penalty for very poor service quality would be zero or negligible.
- 8.2 Why is it desirable to link service quality only to positive earnings variances? Since negative or slightly positive earnings variances can easily occur during an MRI, doesn't this weaken the Company's incentive to maintain quality?
- 8.3 Why does the IMQ assign equal weight to the four service quality areas? Please provide studies that the Company has commissioned or is aware of which estimate the value of transmission reliability. Please also provide studies that the Company has commissioned or is aware of that appraise the relative importance to customers of reliability and other characteristics of transmission service.
- 8.4 Article 48.1 of the *Loi sur la Régie de l'Énergie* states that incentive regulation must promote, among other things, “ongoing improvement in performance and service quality.” Does the proposed mechanism encourage improved service quality? If so, how?

9. Référence : HQT-4 Document 2

Préambule :

The Company proposes to base the customer satisfaction score on the outcomes of satisfaction surveys for *Hydro-Québec dans ses activités de distribution d'électricité* and *les clients du service de point à point*.

The Company proposes the following two *fiabilité du service* metrics:

- *Indicateur Nombre de pannes et interruptions planifiées*
- *Indicateur Indice de continuité (IC – Opérationnel) normalisé*

The Company proposes one *disponibilité du réseau* metric:

- *Indisponibilités forcées*

The Company proposes one *sécurité du public et des employés* metric:

- *Taux de fréquence des accidents*

Demandes:

- 9.1 Please provide the customer satisfaction survey questions and a table with five years of survey results (to the extent available). What are the weights on the individual questions?
- 9.2 What is the Transmitter's definition of a sustained interruption for each indicator? For example, how long must an interruption be before it is sustained? Are planned interruptions included in the *indicateur indice de continuité normalisé*? Are outages caused by generation included as interruptions in any indicator?
- 9.3 Does HQT participate in any transmission service quality (or just reliability) benchmarking undertaken by the Canadian Electricity Association? If so, please provide the latest results in as much detail as the confidentiality restrictions of the study allows. Please also provide the Canadian Electricity Association's latest report on Canadian transmitter performance.
- 9.4 Can the Company provide the transmission service quality metrics for different regions of the service territory? If so, what are some feasible regional breakdowns?
- 9.5 The Régie has asked for metrics in the area of "*sécurité du public et des employés*". Why then has the Company not proposed a public safety metric?
- 9.6 Please provide Table B-1 in Excel form with all formulas intact.

9.7 Does HQT participate in First Quartile's employee safety benchmarking? If so, please provide the latest results in as much detail as the confidentiality restrictions of the study allows.

10. Référence : HQT-4 Document 2

Préambule :

The Company proposes to base the annual target of the *Indisponibilités forcées* over the term of the MRI on forecasts rather than a fixed historical average due to an expected upward trend over the next 4 years. The Company states on page 27:

« Toutefois, pour l'indicateur *Indisponibilités forcées (IF)*, le Transporteur propose l'utilisation de valeurs projetées considérant l'évolution à la hausse observée et celle prévue pour les prochaines années. Cette situation a déjà été reconnue par la Régie, qui a autorisé aux demandes tarifaires 2017 et 2018 une mise à niveau de la maintenance afin de permettre au Transporteur de contrôler cette hausse des IF. Dans ce contexte, plutôt que de lier l'évaluation de performance du Transporteur à une valeur fixe basée sur la moyenne des années 2013 à 2017 le Transporteur propose l'utilisation de valeurs projetées.

Considérant la corrélation entre les IF et le risque en maintenance, le Transporteur propose d'établir des cibles pour l'indicateur *Indisponibilités forcées (IF)* proportionnelles au profil d'évolution prévue du risque en maintenance.

En utilisant les valeurs historiques des IF et le profil d'évolution future du risque en maintenance, le Transporteur a donc été en mesure d'estimer l'évolution des IF correspondant à la stratégie de maintenance adaptée ».

Demandes:

10.1 Please explain the forecast model used to estimate the evolution of the IF targets.

Clause de Sortie

11. Références : HQT-4 Document 2

Préambule :

The Company retained Concentric Energy Advisors ("CEA") to help it develop an appropriate *Clause de Sortie*. CEA documented some Canadian precedents for such clauses in Document 2.1 and recommended that the clause be triggered once the Company's rate of return on equity varied

from its target by 150 basis points.

Demandes:

- 11.1 Please clarify the Company's proposal as to what happens if its ROE variance equals or exceeds 150 basis points. Is it proposing the immediate return to cost of service regulation (i.e., rates would be reset to the Company's expected cost of service in a forward test year) pending possible later development of a new MRI?
- 11.2 CEA's survey states on p. 21 that "once an exit clause is triggered, the PBR plan is usually suspended for review or terminated." Please explain what is meant here by "suspended for review". In what sense is the MRI suspended during the review? Please note which of the MRIs surveyed by CEA have this provision. Please explain what happens if the off ramp/reopener provisions in the four gas MRIs are triggered.
- 11.3 What is the typical ESM provision in 4th generation (non-custom) IRMs for power distributors in Ontario?

Etude PMF

12. Références : HQT-4 document 2 pp. 9-10

Préambule :

HQT was required by the Régie to discuss its plan for a study of *productivité multifactorielle* ("PMF") in this proceeding. This discussion was supposed to encompass the methodology as well as the schedule for the study. The Company states on p. 9 that

Le choix de l'expert qui réalisera l'étude de productivité n'est pas encore connu. Il est donc prématuré pour le Transporteur, à ce point-ci, de proposer une méthodologie à employer pour produire son étude PMF.

A presentation of the proposed methodology is scheduled to occur in the third quarter of 2019, several months after the consultant is retained.

Demande:

- 12.1 Is it the Company's view that the Régie and stakeholders should not provide any guidance concerning the methods used in the PMF study prior to the commencement of work by the consultant?