

Establishment of a Mécanisme de
Réglementation Incitative (MRI)
for
Hydro-Québec TransÉnergie
Phase 1

Hearings before the Régie de l'énergie

HQT-10, Document 2

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Alternative MRI Models

Three basic models:

Option 1: Index-Based Revenue or Price Cap – revenues (or prices) are increased year over year based on an inflation index minus an estimate of efficiency gains (“I-X”).

Option 2: “Hybrid” – an index for some cost categories and cost-based treatment for categories beyond the control of the utility or do not fit well under an index approach.

Option 3: “Building Block” – Revenues (and prices) are adjusted each year based on a multi-year projection of costs that reflect an estimate of efficiency gains.

- The majority of MRI models are of a hybrid form, utilizing both performance based and cost of service regulation principles.
- The Régie considered that distinct MRIs would be required for HQD and HQT to reflect their particularities and unique context.
- No North American jurisdiction currently has an MRI program for a transmission-only entity, and this proposed program would be a first-of-its-kind in North America.

Impact of the HQD Decision on HQT's Proposal

HQT's proposal reflects many elements of the HQD Decision, D-2017-043, without qualification:

- 4-Year Term
- Regulatory Reporting
- Elimination of Phase 2
- Review of Variance and Deferral Accounts in Phase 3
- Clarification of Inflation Factor in Phase 3
- Review of Treatment of Pension Costs within I-X in Phase 3
- MTER, Off-Ramp, MRI Renewal, and Efficiency Carry-Over Mechanism

Other elements of the HQT MRI must be customized to reflect its particularities and unique context:

- Capital: capital related costs for HQT are not a good fit with I-X and merit COS treatment
- Certain other elements also merit cost treatment without a materiality threshold
- Z- Factor : threshold value to be determined in Phase 3
- Productivity Study: limited number of comparable transmission companies for HQT to perform a statistically valid productivity study; judgement approach for the entire MRI term
- Performance Indicators: categories and specific indicators need to correspond to HQT obligations

HQT's MRI Proposal

HQT proposes a “hybrid” model that:

- Is consistent with the prior determination that there may be differences between the HQD and HQT MRI models;
- Incorporates as many elements of the HQD decision as can be applied to HQT's particularities and unique context;
- Is customized to specific HQT circumstances where it is necessary and appropriate to do so.

Impact of HQT's Capital Plan on its Cost Structure

Reflective of its physical attributes and public service obligations, HQT has an extraordinary proportion of its revenue requirements that are directly related to the return on (42.5%) and of capital (32.7%):

HQT 2016 Authorized Revenue Requirement

	\$ Millions, CAD	%
Return	1,323.2	42.5
Amortization	1,019.0	32.7
OPEX	691.1	22.2
Taxes	100.1	3.2
Corporate Expenses	32.1	1.0
Transport Purchases	18.5	0.6
Electricity Purchases	15.1	0.5
Total RR	3,112.6	

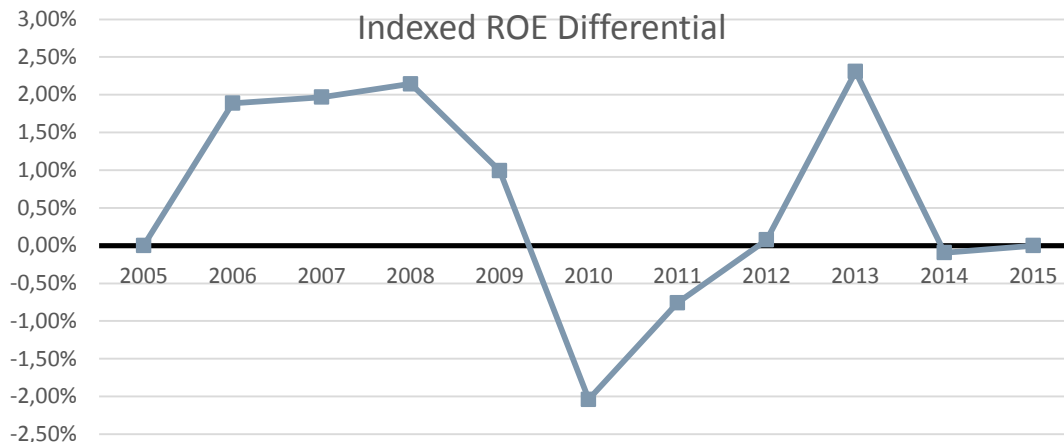
(R-3981-2016, HQT-05-01)

- Taken together, the HQT depreciation and amortization expense, its return on rate base, and applicable taxes comprise 78.4% of the company's revenue requirements.
- This is in sharp contrast to HQD, where 11% of its revenue requirement is capital related.
- Total CAPEX and related property, plant and equipment (PP&E) placed in service for HQT vary considerably from year-to-year, depending on the mix of projects.

Capital Costs and the I-X Formula

HQT's Distinct Capital Spending Requirements Influence the MRI design:

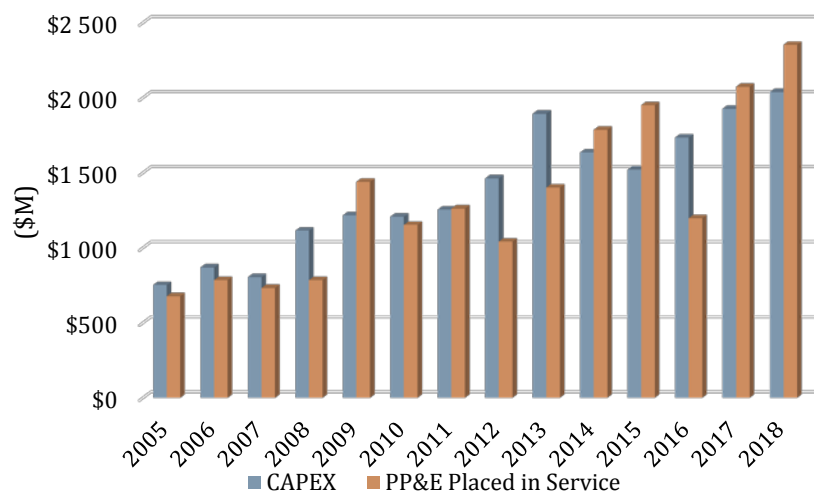
- Variability of capital costs from year-to-year driven by size, diversity, and complexity of HQT's network
- Annual capital investment is large enough, even if a relatively small proportion of rate base, to have a meaningful impact on amortization and return if it is higher or lower than implied by an I-X formula
- Capital investment is often attributable to replacing aging infrastructure and connecting new generation and frequently not associated with an increase in billing determinants
- With the continuous refinement of the MGA, HQT's capital spending is efficient



The I-X formula does not accommodate HQT's particularities and unique context with respect to CapEx

HQT's Capital Investments Reflect its Unique Operational Requirements

- HQT's network is substantially different from other transmission companies, with unique attributes due to its complex network design required to accommodate geographic location of hydro and wind generation at great distances from load centers.
- The network, which faces challenging climatic conditions, will continue to be stressed to acceptable limits as it ages by design, and its increased utilization.
- Large commissioning projects exhibit substantial variability from year-to-year.



- This variability, along with the size and duration of individual projects, creates the conflict between the smoothness implied by an I-X approach and HQT's reality as it optimizes its capital spending on an annual basis, reflecting updated MGA analyses.

Integral Role of HQT's Asset Management Model (MGA)

- Asset management models evaluate the probability and impact of potential equipment failures, and create optimized levels of asset maintenance expenditures and the lowest long-term cost for customers.
- The MGA complements existing regulatory tools that provide visibility into HQT's capital expenditures (the existing authorization process for projects greater than and less than \$25 million), and the implementation of a “sliding factor” to improve the accuracy of HQT's capital forecasts.
- Distinct treatment of maintenance expenses and CapEx under the MRI will, by definition, incent suboptimal and inefficient expenditures.
- The MGA is a central component of HQT's asset strategy and the MRI proposal should reinforce this approach to asset optimization.

Cost-Based Items and Z-Factors

The Revenue Requirement formula incorporates Cost-Based Items and Z-Factors:

Cost-based items accommodate capital-related items and other expense or revenue items without the need for a threshold:

- Return on Rate Base (related to capital)
- Amortization (related to capital)
- Taxes (related to capital)
- HQT chargeback revenues (related to capital)
- Corporate Fees (allocated to HQT based on capital)
- Certain other residual items: transmission by others' expense, external revenues, and interest reimbursement related to the 1998 ice storm

Z-Factors accommodate extraordinary and unforeseen events that satisfy pre-established criteria and may include:

- Responding to extreme weather events
- A significant equipment failure
- Change in law or tax code
- Government decrees; regulatory agency decisions

HQT's Proposal Reflects its Specific Characteristics

- HQT's proposal with respect to capital costs and maintenance expenses preserves the ability to retain the substantial optimization and efficiency benefits made possible by continuous improvement in HQT's MGA model.
- Z-factors are limited to categories that are consistent with HQT's characteristics. Appropriate materiality threshold to accommodate HQT's cost attributes to be determined in Phase 3.
- Specific parameters, including performance categories, will be based on HQT characteristics in Phase 3.

As a corollary, failure to properly reflect HQT's characteristics in the design of the MRI will introduce unacceptable risks:

- Including capital costs within the I-X formula will result in a suboptimal outcome and negate the value that is being realized from implementation of the MGA.
- An MRI that does not provide an opportunity to support prudent investment and operating expenses, or yield an adequate return for the shareholder will not serve customers, HQT, or the public interest.

Summary: HQT Proposal Achieves Objectives

MRI Objective	Assessment
1 Meets Section 48.1 objectives	
Ongoing improvement in performance and service quality	4-Year term, although it comes with some risk, provides an incentive and sufficient time for HQT to identify and implement continuous improvements in its operations and other efficiencies; quality metrics established in Phase 3 will ensure efficiency gains are not pursued at the expense of service quality.
Cost reduction that is beneficial to both consumers and the transmitter	HQT will have a financial incentive to strive to beat the “I-X” formula for covered items. Ex-ante (X-Factor) and ex-post (MTER) sharing of efficiency gains with customers subject to achievement of service quality performance targets. MGA factor adds “optimization feature as it relates to the tradeoff between capital and OPEX with resulting savings in total revenue requirements.
Streamlining of the regulatory process	Consistent in many respects with the HQD approach. Avoids the line by line examination of items covered by the formula.
2 Reflects HQT’s specific particularities and unique context, including operations, business, and regulatory aspects	In addition to points made on the prior slide, this will depend on parameters to be established in Phase 3 including X-factor that reflects up-front efficiencies and MTER parameters.
3 “First-generation” MRIs should be relatively straight-forward in their design and implementation	Defers consideration of certain complexities including efficiency carry-over mechanism. Four years provides valuable learning opportunity.