Shepherd Rubenstein

**BY EMAIL and RESS**

**Mark Rubenstein**
mark@shepherdrubenstein.com
Dir. 647-483-0113

Ontario Energy Board
2300 Yonge Street
27th Floor
Toronto, Ontario
M4P 1E4

August 26, 2019
Our File: EB20180165

**Attn: Kirsten Walli, Board Secretary**

Dear Ms. Walli:

**Re: EB-2018-0165 – Toronto Hydro 2020-2024 – SEC Public Redacted Final Argument**

We are counsel to the School Energy Coalition ("SEC"). Pursuant to Procedural Order No. 9, enclosed please find SEC's Public Redacted Final Argument.

Yours very truly,
**Shepherd Rubenstein P.C.**

*Original signed by*

Mark Rubenstein

cc: Wayne McNally, SEC (by email)
Applicant and intervenors (by email)

**EB-2018-0165**

**ONTARIO ENERGY BOARD**

**IN THE MATTER OF** the *Ontario Energy Board Act*, *1998*, S.O. 1998, c.15, Schedule B;

**AND IN THE MATTER OF** an Application by Toronto Hydro-Electric System Limited for an order approving just and reasonable rates and other charges for electricity distribution to be effective January 1, 2020 to December 31, 2024.

---

# FINAL ARGUMENT OF THE SCHOOL ENERGY COALITION
# [Public Redacted Version]

---

August 26, 2019

**Shepherd Rubenstein**
**Professional Corporation**
2200 Yonge Street, Suite 1302
Toronto, ON M4S 2C6

**Mark Rubenstein**
**Jay Shepherd**
Tel: 416-483-3300
Fax: 416-483-3305

**Counsel for the School Energy Coalition**

## TABLE OF CONTENTS

# 1 OVERVIEW

## 1.1 *Introduction*

***1.1.1*** Toronto Hydro-Electric System Limited ("THESL" or the "Applicant") filed an application with the Ontario Energy Board (the "Board" or "OEB") pursuant to section 78 of the *Ontario Energy Board, 1998* ("*OEB Act*"), for an order setting distribution rates for the years 2020 to 2024.

***1.1.2*** Toronto Hydro is seeking approval for a base distribution rate increase which will result in a bill impact for Ontario public schools of between 3.4% and 3.6%, for each of the next five years.[1] As discussed in detail in this argument, the increase in the proposed rates, the underlying rates framework, and the proposed costs, will lead to rates for Toronto Hydro's customers[2] that are not just and reasonable.

***1.1.3*** This is the Final Argument of the School Energy Coalition ("SEC").

***1.1.4*** SEC has followed the Board panel's direction, so has not made submissions on every issue and proposed cost, but has instead focused on the major components of the application.[3] Silence on any given issue, or forecast cost, should not be construed as acceptance of Toronto Hydro's proposal.

## 1.2 *Overview*

***1.2.1*** Toronto Hydro has filed a Custom Incentive Ratemaking ("Custom IR") application that is primarily being driven by its proposed $2.83Bn capital expenditure proposal over the five-year term of its plan[4]. This amount represents a 26% increase over what was approved as part of its current 2015 to 2019 Custom IR plan.[5]

---

[1] Bill impact for GS<50 rate class is on average 3.6% and for GS>50 is 3.4% (See J7.4, Appendix A). To put that in context, SEC estimates that, if the Application is approved, the annual distribution bill for Toronto schools will be more than $1.8 million higher in 2024, an increase from the last completed year, 2018, of about 22.8%.

[2] SEC uses the term customer and ratepayer interchangeably in this Final Argument.

[3] Tr.11, p.100

[4] Interrogatory Response U-Staff-171, Appendix C, Tr.1, p.27-p.29; Tr.7, p.191

[5] *Ibid*

***1.2.2*** The proposed plan would result in a significant base distribution rate increase that, depending on rate class, will average between 3% and 3.6% per year.[6]

***1.2.3*** In return for this increased spending and significant rate impact, most customers will receive no benefits. In fact, Toronto Hydro's plan is based on no system outage duration or frequency improvements.[7] This is in stark contrast to Toronto Hydro's current Custom IR plan, which included significant rate impacts, but coupled with expectation of significant reliability improvements.[8] Now, under its proposed plan, Toronto Hydro is asking its customers to pay even more, yet they will not receive any benefits for that increased spending.

***1.2.4*** The value proposition Toronto Hydro is proposing for its customers in this application is 'pay more for the same.' This is contrary to the Board's Renewed Regulatory Framework ("RRF"), which is centered on the paradigm that customers should receive value for money.[9]

***1.2.5*** In the Board's first decision on a contested Custom IR application, the Board described the difference between how it expects to review such an application, as compared to one in a traditional cost of service proceeding. The Board considered the aim of the review to be more of a performance inquiry, rather than a more traditional line-by-line review:

> As already noted, traditional cost of service review will continue to entail detailed input cost assessments. However, Custom IR proceedings are intended to be framed more like performance inquiries resulting in multi-year outcome commitments and measures that facilitate year-over-year performance assessment. The productivity and efficiency elements allow the OEB to move away from detailed input cost assessment and focus more on utility performance. These factors provide utilities with strong incentives to continually seek efficiencies and share expected savings with ratepayers "up front" avoiding "after the fact" regulatory scrutiny.[10]

***1.2.6*** A performance review is not possible in this case, whether with respect to future performance, or past performance.

---

[6] Undertaking J7.4, Appendix A

[7] Tr.1, p.40; U-SEC-105, Table 1; K1.2, p.20

[8] Undertaking J7.4, Appendix A ; U-SEC-105, Table 1; K1.2, p.20; Tr.1, p.39

[9] *Report of the Board: Renewed Regulatory Framework for Electricity Distributors: A Performance-Based Approach*, October 18 2012, p.1

[10] See *Decision* (EB-2013-0416/EB-2014-247 - Hydro One Dx), March 12 2015, p.15

***1.2.7*** The Applicant's proposal contains few elements to allow the Board to focus on future utility performance, at least insofar as performance supports the proposed rates. Toronto Hydro has made no real multi-year outcome commitments, especially none that are commensurate with the rate increases proposed. It has proposed to share expected savings "up front", but at a level half of what was approved in its last proceeding (0.3% as compared to 0.6%), even though it seeks even more annual capital funding.

***1.2.8*** In addition, although it claims it has achieved productivity, Toronto Hydro is unable to account for it in any way that would allow the Board to assess the utility's performance over its previous term. With respect to cost and efficiency metrics, Toronto Hydro has thrown out its previous measures and proposed an entirely new set. This prevents the Board and parties from scrutinizing performance year-over-year. Its new metrics in this area do not even have targets, so it is not even possible to assess their performance going forward.

***1.2.9*** What the Application does tell us is that, on the most important outcomes, price and reliability,

> ***(a)*** ***rates*** will continue to increase at between two and three times inflation[11], and
> ***(b)*** with the exception of a few customers, ***reliability*** is not expected to improve.[12]

***1.2.10*** This is not the level of utility performance that the Board envisioned under the RRF.

***1.2.11*** SEC submits that Toronto Hydro's proposed Custom IR framework, which is similar in structure to its currently approved framework, requires changes to ensure a more equitable sharing of the risks and rewards between the company and its customers. The current plan does not sufficiently account for productivity and efficiency gains that Toronto Hydro should be expected to make, especially if it continues to be allowed to spend increasing sums of ratepayer money on its capital assets. The Board only needs to look at the competing total cost benchmarking evidence filed in this proceeding. Both experts show a sustained period of declining cost performance by Toronto Hydro.[13] The decline is not just during its current plan

[11] Undertaking J7.4, Appendix A

[12] Tr.1, p.40; U-SEC-105, Table 1; K1.2, p.20

[13] PSE, Reply Report to PEG's Report, March 31 2019, p.4; K7.3, p.36

but, based on the proposals in this Application, will continue through to the end of the proposed Custom IR term in 2024.

***1.2.12*** This is simply unacceptable.

***1.2.13*** The Board made clear to Toronto Hydro in its previous Custom IR decision that the alignment between the interest of customers and shareholders under the RRF "shifts the focus of regulatory review from strictly an examination of the reasonableness of costs to measuring and monitoring performance indicators as they relate to the value of services received by customers."[14] For most customers, Toronto Hydro's proposed 'value of services received by customers' is that, in exchange for paying *more*, they will not receive any improvements in reliability or anything else the customers' value.

***1.2.14*** Toronto Hydro's proposed plan does not deliver what the Board has described as being at "[a]t the heart of the RRFE policy objectives…. customer-focused outcomes and continuous performance improvements by distributors."[15]

## 1.3 ***Summary of Key Submissions***

***1.3.1*** ***Custom IR Framework.*** Toronto Hydro's proposed Custom IR framework does not meet the principles of the RRF. The Board should ensure that the proposed Toronto Hydro Custom IR framework is brought into line with the RRF by amending it the following ways:

***(a)*** ***Inflation Factor.*** Toronto Hydro's proposed inflation factor should be accepted.

***(b)*** ***Productivity Factor.*** The Board should consider adopting for Toronto Hydro a positive productivity factor, as identified by PEG in its studies of US distributors. Based on those studies, a productivity factor of at least 0.31% could reasonably be applied.

***(c)*** ***Stretch Factor***. The overall stretch factor applied to Toronto Hydro should be 0.60%. Toronto Hydro continues to be a poor cost performer, and the Board should be taking strong action to move them towards a 'continuous improvement' paradigm. The obviously wrong congested urban variable, as it has been presented by PSE in this proceeding, should be directly rejected by the Board.

***(d)*** ***C-Factor***. Given the significant problems with the capital plan, no C-

[14] *Decision and Order* (EB-2014-0116 - Toronto Hydro 2015-2019), December 29 2015, p.5

[15] *Ibid*, p.4

factor should be approved by the Board. Rates should be adjusted after 2020 through only the I-X price cap formula. In the alternative, the C-Factor should be reduced to be in line with SEC's proposed adjustment to the capital plan, described in this Final Argument, and should be further reduced by a 0.64% additional stretch factor each year, in line with the recommendation of PEG, to reflect anticipated productivity, and a deadband similar to ICM/ACM, during the Custom IR period 2020-2024.

***(e) Growth Factor –*** The growth factor should be rounded to two, not one, decimal place. This would increase the amount from 0.2% to 0.25%.

***(f) ESM***. The ESM should be changed to cover all aspects of ROE, and should be asymmetrical.

***1.3.2 Capital Plan & Rate Base.*** Rate base and in-service additions arising from the proposed capital plan should be adjusted in the following manner.

***(a) 2020-2024 Capital Budget.*** If the Board determines that it will allow a C-Factor (or similar mechanism) then, as a starting point, the Board should reduce the proposed capital expenditures by $590M. Since Toronto Hydro has not proposed reliability benefits for all but a few customers, it should not be spending more on capital expenditures than in its current five year Custom IR plan.

The Board should further reduce the capital expenditures budget to account for productivity benefits that Toronto Hydro should have achieved during its current 2015 to 2019 plan, as well as additional productivity it knows it will achieve during the proposed plan, but has not built into its capital forecast.

If the Board believes that notwithstanding the lack of any benefits customers are to receive for the added costs, Toronto Hydro should be able to recover additional capital expenditures than have previously been approved, there is sufficient evidence that its capital planning process is flawed and has led to an unreasonable proposed level of capital expenditures. The proposed increase should therefore be reduced substantially.

***(b) Opening Rate Base.*** Opening 2020 rate base should be reduced by $17.8M, reflecting a disallowance of the impact of cost certain overruns on the Copeland TS Phase 1 project ($9M) and the ERP Phase 1 project (8.8M).

***(c) Rate Base Calculation Methodology.*** The calculation of in-service additions should be done on a monthly basis as Toronto Hydro does for depreciation. This will result which will result in a lower and more accurate calculation of rate base. Additional changes should be made to how Toronto Hydro converts capital expenditures to in-service additions.

***1.3.3*** ***OM&A.*** The OM&A forecast for 2020 should be reduced by at least $18.3M to reflect the impact of hiring delays, bad debt expenses, and an amount to reflect both annual productivity and efficiencies during the current Custom IR period, and incremental amounts that were not built into the 2020 test year budget.

***1.3.4*** ***Conditions of Service.*** Although Toronto Hydro has withdrawn its proposal to amend its conditions of service with respect to vault entry, the Board should direct Toronto Hydro not to make that, or any similar change, without first getting the approval of the Board.

# 2 CUSTOM IR RATE-SETTING (ISSUE 2)

## 2.1 *Overview*

***2.1.1*** Toronto Hydro has adopted as its framework for its Custom IR plan the same methodology as was approved by the Board in its EB-2014-0116 proceeding. It describes it as a "continuation of the framework approved by the OEB" in its 2015 to 2019 rates proceeding.[16]

***2.1.2*** The framework in years 2 through 5 of the proposed plan is based on a custom price-cap approach, with the inclusion of a C-factor. The intent of the C-factor is to reconcile the capital funding available under a traditional inflation minus X-factor rate-setting framework with Toronto Hydro's specific capital funding request over those years.[17] The formula also includes an amount to capture revenue growth expected, based on Toronto Hydro's load forecast.[18]

***2.1.3*** Toronto Hydro is the first distributor that has returned for a second Custom IR application since the release of the RRF, after its previous one was generally approved.[19] This is a chance for the Board to review the results of the previously approved Custom IR framework, and determine what changes should be required to further incent Toronto Hydro to achieve the goals of the RRF. It is not just the utility who must strive for continuous improvement in its operations. The regulatory framework must also evolve to ensure the outcomes that it strives to achieve are better incented. While remaining consistent with the core principles driving the RRF, the Board should in this case adopt a revised framework for this distributor based on incremental improvements – a Toronto Hydro Custom IR framework 2.0.

***2.1.4*** In the alternative, even if the Board retains the proposed framework, SEC has several concerns with the inputs, as they are in many cases either inappropriate or contrary to Board policy.

[16] Ex.1B-4-1, p.1; K7.3, p.2

[17] Ex.1B-4-1, p.1-5; K7.3, p.2-5

[18] *Ibid*

[19] SEC notes that the Board has now heard two distribution applications from Hydro One since the RRFE was released. However, in the first application, the Board denied Hydro One its request for a five year rate framework on the basis that its proposed 'Custom Cost of Service' application was not a Custom IR application. (See *Decision* (EB-2013-0416/EB-2014-247 - Hydro One Dx), March 12 2015, p.8)

## 2.2 ***Proposed Framework Reduces Toronto Hydro's Risk***

***2.2.1*** At a high level, the Board must ensure that the proposed framework represents the appropriate sharing of risks and benefits between Toronto Hydro and its customers. Regardless of which rate-setting framework Toronto Hydro applies under - Custom IR, traditional rebasing and Price-Cap IR, or Annual IR - the overall risk/reward balance should be the same.

***2.2.2*** The Board did not provide the option of three different rate-setting frameworks so that distributors will be able to game the system. While the Board's different rate frameworks may have different components that are in place to suit a distributor's specific circumstances, any ability to earn additional revenue under one framework, as opposed to another, must be offset with a higher expectation of customer benefits. Just like companies in the competitive markets, utilities under the RRF are expected to optimize the balance between costs and benefits. Higher costs are allowed as long as they produce higher benefits valued by the customers at least as much. Once the cost/benefit curve crosses this threshold, and the improved outcomes are not sufficient, higher costs should not be allowed.[20]

***2.2.3*** As the Board has previously noted, it does not decide whether a rate-setting option is most appropriate. It "decides rather whether the proposal contains features that can be relied on to achieve the RRF objectives".[21] Toronto Hydro's proposal does not.

***2.2.4*** The vast majority of Ontario distributors are able to manage their assets and operations under the Board's 4th Generation IRM ("4GIRM"), which provides cost of service rebasing followed by 4 (or more) years of inflation minus an X-Factor rate-setting, Toronto-Hydro appears to be unable to deliver the same rate outcomes to its customers. Customers of those other distributors are able to experience below inflation rate increases for at least 4 out of every 5 years (and sometimes all 5). If Toronto Hydro's application is approved, its customers will not have experienced a distribution rate increase below inflation in a decade, with no end in sight. [22]

---

[20] In the competitive markets, it is assumed that market forces will determine whether price increases are adding value for money. Customers will vote with their wallet. In a rate regulated business, the Board fulfills that function by acting as the market proxy in assessing whether improved outcomes have sufficient value to justify increased prices (see *Ontario (Energy Board) v. Ontario Power Generation Inc.*, 2015 SCC 4, para 120).

[21] *Decision and Order* (EB-2014-0116 - Toronto Hydro 2015-2019), December 29 2015, p.4

[22] Undertaking J7.4, Appendix A

***2.2.5*** Moreover, it is not like there is a plan to get to more reasonable rate increases. Toronto Hydro has not proposed any plan that will see it file for a non-Custom IR application in the future, and there is no suggestion that they have considered a future rate trajectory that bends back down. Ratepayers deserve an answer to an important question: when do these above inflation rate increases end?

***2.2.6*** While the Board has previously said it will "not make a decision as to whether [Custom IR] is the best option for any particular distribution", it did say that the "custom option in the policy allows for proposals that are tailored to a distributor's needs as well as for innovative proposals intended to align customer and distributor interests."[23] Indefinite above average rate increases are not in the customers' interests, especially when for customers of other distributors they are generally seeing below inflation increases.[24] If the Board is to allow a distributor to choose whichever rate-setting framework it believes is appropriate to its circumstances, choosing Custom IR cannot simply mean a way to collect additional revenue through higher rates than otherwise would be the case.

***2.2.7*** Toronto Hydro's proposed Custom IR framework represents a significant shifting of risk from the utility to ratepayers, compared to other rate-setting options and models, without any corresponding increase in benefits. At its core it is a 5-year cost of service for its significant capital program, with a limited stretch factor applied to it. While its OM&A is adjusted by inflation minus a stretch factor, it has proposed a unique, symmetrical earning sharing mechanism ("ESM") to true-up any differences beyond a 100 basis-point deadband.[25] This is basically a hidden true-up of OM&A overspending.

***2.2.8*** Compare this approach to what is available under a 4$^{th}$ Generation IRM ("4GIRM"). Under 4GIRM, a utility would have no ability to true-up its OM&A, and it can only have ratepayers fund additional capital above what would be funded out of the test year approvals and growth by way of an incremental or advanced capital module ("ICM/ACM"). But ICM/ACM is limited. It is not a blank cheque. It does not fund all additional capital, but only projects that

[23] *Decision and Order* (EB-2014-0116 - Toronto Hydro 2015-2019), December 29 2015, p.4

[24] Undertaking J7.4, Appendix A

[25] Tr.7, p.157

are discrete, incremental, necessary, material, and not part of typical annual capital programs.[26] In addition, the Board only funds eligible projects above a materiality threshold that includes a 10% deadband.[27]

***2.2.9*** Toronto Hydro does not believe it should be required to meet any of these requirements.

***2.2.10*** Toronto Hydro's proposal also includes another feature that shifts the risk from the company to ratepayers without the corresponding benefits. Part of its capital program is driven by externally driven capital work, and Toronto Hydro proposes that this category be protected by a variance account which tracks the difference from the amount built into rates.[28] This ensures that Toronto Hydro is protected against the risk of both more externally driven work requests than it has forecast, and cost overruns on those relocations that eventually have to be done.[29] As Toronto Hydro itself notes, "if and when the major projects identified…materialize in the 2020-2024 application period, program spending will rise significantly".[30]

***2.2.11*** While Toronto Hydro has proposed a continuation of its Capital Related Revenue Requirement Variance Account ("CRRRVA"), which on an asymmetrical basis tracks variances in the revenue requirement impact related to in-service additions, its design does little to shift the *risk* back to the company.[31]

***2.2.12*** Ultimately, Toronto Hydro is the one in control of its capital program. If a project is going over budget, Toronto Hydro has the ability to reduce spending on other aspects of its capital program by deferral or cancellation. Since the CRRRVA is tracked against the total capital budget, any risk Toronto Hydro has that some project will go over budget can and should be managed by Toronto Hydro by deferring or eliminating other projects, to ensure the total spend remains the same. It would be different if Toronto Hydro were required to complete a certain

[26] See *Report of the OEB: New Policy Options for the Funding of Capital Investments - Supplemental Report* (EB-2014-0219), January 22, 2016; *Report of the Board: New Policy Options for the Funding of Capital Investments: The Advanced Capital Module* (EB-2014-0219), September 18, 2014; *Decision and Order* (EB-2017-0024 - Alectra), April 5 2018, p.21-30

[27] *Ibid*

[28] The variance account is called the called the Externally Driven Capital Variance Account. See Ex.9-1-1, p.14

[29] *Ibid*

[30] *Ibid*

[31] Ex.9-1-1, p.10; Tr.2, p.4-5

number of projects, or replace a certain number of assets, within a fixed budget. Then there would be a real risk of overspending that could not be passed on to ratepayers during the term.[32] That is not the case with the Toronto Hydro proposal.

*2.2.13* Moreover, the stretch factor or other productivity benefits that Toronto Hydro has proposed, or may need to be imposed by the Board in its decision, will not actually require the company to find or achieve those efficiencies. Toronto Hydro may just decide to do less work. Since projects and programs will undoubtedly change during the five-year term due to intervening factors, it will be almost impossible in Toronto Hydro's next application to determine if it has delivered on its plan within the budget approved by the Board.

*2.2.14* There are many different mechanisms the Board has to ensure that risk is more appropriately balanced between the utility and ratepayers. The Board can impose a more demanding earning sharing mechanism, increase the productivity/stretch factors, eliminate or change the terms of various accounts, reduce the requested budget items, and adjust the amount collected for cost of capital by lowering the equity thickness to reflect the change in its risk. Consistent with the RRF, regardless of the approach it takes, the Board should only approve a Custom IR framework that appropriately allocates the risks and benefits between Toronto Hydro and its customers equitably. The current plan allocates too much risk (and cost) to customers, without the corresponding benefits. SEC's proposed adjustments to the Custom IR framework better aligns Toronto Hydro's incentives with that of its customers, more fairly allocated risks, and ensure the benefits of the increased costs are more equitably shared.

## 2.3 ***Inflation and Productivity Factor***

*2.3.1* ***Inflation Factor.*** Toronto Hydro has proposed to adopt the Board's annual inflation factor for IRM.[33] SEC agrees that this is appropriate, although we submit the Board should explicitly state that if it changes the methodology for setting the generic inflation factor for IRM, the new methodology will apply to Toronto Hydro during the proposed plan.

[32] In fact SEC has argued in some recent previous cases, the CRRRVA concept may now create the perverse incentive of incenting utilities to simply spend money to ensure they do not have to return it to ratepayers. The account may have the effect of blunting the incentive to seek efficiencies and productivity improvements, since if those benefits are not already included in the underlying approved budgets, then any benefits gained would have to be returned to ratepayers.

[33] Tr.7, p.139-140; Ex.1B-4-1, p.5

***2.3.2*** When asked about this possibility, Toronto Hydro refused to commit to using any new methodology that the Board may adopt.[34] This is not appropriate. If the Board adopts a new methodology, whether it is more or less favorable to Toronto Hydro, that new methodology should apply to Toronto Hydro. It should not be allowed to see if it is more favorable to determine if it will seek to have it applied. If you adopt the Board's methodology, and that is what the Board approves, that is what should apply.

***2.3.3*** ***Productivity Factor.*** The X-factor productivity component of the Toronto Hydro Custom IR formula is made up of two components, i) a base productivity amount, and ii) a stretch factor.[35] Toronto Hydro has set the base productivity amount at zero, on the basis that that was the amount that the Board set for Ontario distributors under 4GIRM.[36]

***2.3.4*** With respect to the stretch factor, Toronto Hydro based it on a significantly flawed[37] custom analysis undertaken by its expert Power System Engineering ("PSE"), which results in a 0.3% stretch factor. The econometric total cost benchmarking study done by PSE included a peer sample of a large number of US utilities, plus 6 Ontario utilities.[38] This differs from the 0.6% stretch factor that would be assigned by the Board for Toronto Hydro using its standard, Board-approved methodology.[39] The Board-approved methodology places Toronto Hydro in the fifth and worst cohort and, based on its forecasted cost, it would remain in that cohort for the entire plan term.[40]

***2.3.5*** The result of the two components of the productivity factor is that Toronto Hydro proposes a 0.3% reduction in its price cap formula to reflect productivity targets for years 2 through 5 of the plan.

***2.3.6*** A proposal of only a 0.3% reduction is contrary to the Board's Handbook for Utility Rate

[34] Tr.7, p.141

[35] Ex.1B-4-1, p.5-6; K.7.3, p.6-7; Tr.7, p.141

[36] Ex.1B-4-1, p.4; K7.3, p.6; Tr.7, p.141

[37] See our analysis of the PSE study in Section 2.7 on Cost Performance.

[38] Ex.1B-4-1, p.6; K7.3, p.7; Tr.7, p.142-143

[39] Tr.7, p.143-144

[40] Ex.1B-4-3, p.7; K7.3, p.34; Tr.7, p.144

Applications. The Handbook states that for Custom IR applications, the annual rate adjustment must be based on a productivity factor incorporated through a custom index.[41] In setting that productivity amount, the Board was clear in its expectation that it should include a stretch factor that was no less than the Board's stretch factor for Price Cap IR:

> It is insufficient to simply adopt the stretch factor that the OEB has established for electricity distribution IRM applications. Given a utility's ability to customize the approach to rate-setting to meet its specific circumstances, the OEB would generally expect the custom index to be higher, and certainly no lower, than the OEB-approved X factor for Price Cap IR (productivity and stretch factors) that is used for electricity distributors.[42]

***2.3.7*** A stretch factor of 0.3% is lower than the Board's approved stretch factor for Price Cap IR of 0.6% for Toronto Hydro, and thus contrary to Board policy. A stretch factor of 0.6% is the minimum. As the Board has said, it generally expects a higher amount, not lower.

***2.3.8*** SEC notes that the Handbook was released after Toronto Hydro's previous Custom IR decision, which would explain why this was never explicitly discussed in the previous case. Regardless, in that case the Board determined that it did not agree with Toronto Hydro's proposal, and imposed a stretch factor of 0.6%, which equaled the Board approved productivity and stratch factor at the time.[43] It is simply inaccurate for Toronto Hydro to claim that it has satisfied all Board requirements and policy guidance.[44]

***2.3.9*** SEC is also concerned with Toronto Hydro's selective use of non-Ontario benchmarking data in setting the proposed productivity factor. With respect to the stretch factor, Toronto Hydro determined that an Ontario only sample was not appropriate for a distributor with its size and characteristics.[45] Instead, it undertook its own research through its expert, and looked at a broad array of US distributors.[46] Yet, with respect to the productivity factor, it proposes to adopt the Board's base productivity amount of 0%, which is based on Ontario only distributors.

[41] Handbook to Utility Rate Applications, October 13 2016, p.25

[42] *Ibid*, p.26

[43] *Decision and Order* (EB-2014-0116 - Toronto Hydro 2015-2019), December 29 2015, p.15

[44] Argument-in-Chief, Introduction, p.1

[45] Tr.7, p.149-150

[46] Tr7, p.150

***2.3.10*** This is cherry-picking of data. Pacific Economics Group ("PEG"), who filed evidence on behalf of OEB Staff, noted in its report that it had recently conducted research calculating the productivity trend of US distributors. It found that there is a positive annual productivity trend of 0.45% in the US distributor sector for the years 1988-2014, and 0.39% for a more recent 1996-2014 sample period.[47] In another cited study, PEG found that a sample of utilities had a 0.43% annual productivity trend for 1996-2016 period, and for utilities in the Northeast US it was 0.31% per year.[48]

***2.3.11*** While SEC is not claiming that the results of the referenced studies should necessarily be adopted in this proceeding, it is evidence that if Toronto Hydro had done a productivity study which included the same peer group as its total cost benchmarking study, it would likely have led to a X-factor that was *greater* than 0.6%, when added to its proposed stretch factor. Toronto Hydro should not be allowed to cherry pick the sources of data it wishes, as it has in this proceeding.

***2.3.12*** Toronto Hydro's explanation for not undertaking a custom productivity analysis is that it will "only depart – i.e. customize - where required to reconcile the utility's needs and unique business conditions within the existing incentive framework" and that it "continues to believe that the OEB's total factor productivity approach would not benefit from utility-specific customization."[49] The response can be properly translated as follows: *Toronto Hydro only customizes its proposed plan when it benefits the company***.** Such an approach is inappropriate, and unfair to ratepayers.

***2.3.13*** The Board should consider adopting sa positive productivity factor to be applied to Toronto Hydro, similar to what PEG has found with respect to US utilities, a *minimum* productivity factor of 0.31%, which represents the lowest of the cited amount in those studies.. If Toronto Hydro wants to compare itself to mainly US utilities for stretch factor purposes, then it should do so for the setting of its productivity factor.

[47] Ex.M1, p.38-39; K7.3, p.38-39

[48] *Ibid*

[49] Undertaking J7.6, p.2

## 2.4 ***Growth Factor.***

***2.4.1*** Toronto Hydro proposed a growth factor (or "G-factor') of 0.2% based on the average growth in load and customer count forecast to occur between 2020 to 2024 period. SEC has no concern with the underlying load forecast, but notes that the underlying calculation that results in the 0.2%, if rounded two decimal places consistent with the Board's approach to the stretch factor, results in a G-Factor of 0.25%.[50] SEC submits the growth factor should be adjusted from 0.2% to 0.25%.

## 2.5 ***Capital Factor.***

***2.5.1*** Toronto Hydro has proposed a C-Factor to reconcile the amount of funding it would be allowed to recover from ratepayers under 4GIRM, with that needed to match its significant 5-year capital plan. [51]

***2.5.2*** There are two fundamental problems with the proposed C-factor. First, it allows recovery of the full amount of a proposed capital plan that year after year results in excessive spending. Second, the mechanism itself does not reflect the appropriate amount of capital productivity that would be expected given the circumstances.

***2.5.3*** On the first issue, the evidence, discussed in greater detail in Section 3 of this Final Argument, is that the C-factor is based on a capital plan that is not appropriate and is a result of a planning process that sees the replacement of more assets than the evidence demonstrates is required. Even after the Board's criticism in the last Custom IR decision, Toronto Hydro's planning process remains age centric, and that inevitably leads to poor planning decisions.

***2.5.4*** In addition, even with the magnitude of capital spending proposed, only a very small segment of customers will expect to see any reliability benefits. While Toronto Hydro's previous Custom IR saw the approval of a C-factor to allow for Toronto Hydro to collect revenue to fund its increased level of capital spending, customers benefited from gains in reliability. In this Application, Toronto Hydro is seeking approval for an even greater level of capital

[50] This can be seen if one uses the calculation provided in response to Undertaking J8.1. The formula of ((804,823,006/796,881,545)^(1/4))-1 actually results in a growth factor of 0.248% when rounded to 3 decimal places.

[51] Ex.1B-4-1, p.7

spending, but customers are not provided with commensurate benefits, or in most cases any benefits at all. Why should Toronto Hydro be given a C-Factor to recover additional capital revenues under these circumstances?

***2.5.5*** The second issue is less a matter of judgment, and more a matter of Board precedent and expert analysis.

***2.5.6*** In Undertaking J10.5, PEG has carried out an analysis to determine an appropriate adjustment factor for the C-factor to ensure that it does not over-fund incremental capital spending. The PEG calculations demonstrate that an additional capital stretch factor of 0.64% is required for Toronto Hydro to ensure that, even if all of its incremental capital otherwise qualified for ICM/ACM (which it does not), the C-factor at least reflects the 10% threshold in the ICM/ACM formula.[52]

***2.5.7*** SEC notes that this concept of an additional stretch for the capital factor was approved by the Board in Hydro One's recent distribution Custom IR decision (EB-2017-0049), but the addition was 0.15%.[53] In the current proceeding, the Board has the benefit of a more detailed calculation, which shows that in the case of Toronto Hydro, if the Board grants a C-factor, an additional stretch of 0.64% should be applied.[54]

## 2.6 ***Earning Sharing Mechanism***

***2.6.1*** Toronto Hydro proposed an earning sharing mechanism ("ESM") that is identical to the one approved in its previous Custom IR application.[55] In that proceeding, the Board approved a symmetrical ESM, with a 100 basis point deadband, that tracked the variance between actual and approved non-capital related revenue requirement (i.e. OM&A and other revenues).[56]

***2.6.2*** The specific elements of the ESM were not canvassed thoroughly during Toronto Hydro's previous application, as they were not part of its original proposal. In response to submissions

[52] Undertaking J10.5

[53] *Decision and Order* (EB-2017-0049 - Hydro One Dx 2018-22), March 7 2019, p.31

[54] Undertaking J10.5

[55] Ex.1B-4-1, p.14; K7.3, p.15

[56] Tr.7, p.157

made by intervenors, Toronto Hydro proposed a specific version of ESM during the argument phase, and that was accepted by the Board.[57] Since the proposal was made in a reply argument, intervenors did not have an opportunity to make submissions on the proposal. In addition, since the CRRRVA was also not part of Toronto Hydro's proposal, and similarly only discussed by parties during the arguments, there was no opportunity to explore how to best design an ESM that excluded capital spending.[58] Due to the evolution of the ESM in the last proceeding, the Board should look at the issue afresh.

***2.6.3*** SEC has several concerns with the ESM proposal. First, while the ESM must account for the CRRRVA, there is no reason why it should only be restricted to sharing variances between actual and approved non-capital revenue requirement. The Board's normal practice for ESMs is to share earnings related to variances in ROE.[59]

***2.6.4*** Toronto Hydro's opposition to include an ESM that accounts for load growth that differs from its G-factor is simply that it, and particularly Mr. Seal, were unaware of any other utilities having variances in load included in its ESM calculation.[60] SEC submits that excluding variances in load is, if anything, the exception, not the rule related to ESM. In fact, almost all approved ESMs make no distinction between elements of the sources of revenue and expenditures in the calculation of the actual ROE.

***2.6.5*** For example, in the Board's recent Hydro One Distribution application, the Board approved an ESM that accounted for variances in both cost and load. In doing so the Board stated, "[t]he use of an earnings sharing mechanism (ESM) will provide protection for customers if cost and load forecasts differ from actual results."[61] It found that Hydro One's proposal in this regard was appropriate, as it shared actual regulated earnings:

> As proposed by Hydro One, the ESM will be on an actual basis (earnings not normalized for weather). Using actual earnings is a simpler approach to assessing

[57] *Decision and Order* (EB-2014-0116 - Toronto Hydro 2015-2019), December 29 2015, p.48-49

[58] *Ibid*

[59] Tr.7, p.162

[60] Tr.7, p.164

[61] *Decision and Order* (EB-2017-0049 - Hydro One Dx 2018-22), March 7 2019, p.2

> the earnings that will be shared, and any amounts shared with customers will be based on the actual regulated earnings of Hydro One each year.[62]

***2.6.6*** Similarly, the Board approved settlement proposals for Horizon Utilities[63], Hydro Ottawa[64] and Kingston Utilities[65], respective Custom IR applications which included ESMs that did not exclude overearnings due to load variances. In fact, SEC is not aware of a single ESM for an electricity distributor that excluded load variations from the calculation of an ESM.

***2.6.7*** It should also be noted that the Hydro One, Kingston Hydro and Horizon Utilities approved Custom IR frameworks also included CRRRVA (or similar-type accounts), yet these were easily backed out of the calculation of ESMs to ensure there was no double counting.

***2.6.8*** Second, Toronto Hydro's proposed ESM is symmetrical. SEC is not aware of any other utility for which the Board has approved a symmetrical ESM. In each Custom IR application that the Board has approved with an ESM, besides Toronto Hydro, it has included an asymmetrical ESM. This includes not just the referenced Hydro One, Horizon Utilities, Kingston Hydro, and Hydro Ottawa, but also the 2014-2018 Enbridge Gas Distribution Inc. application.[66]

***2.6.9*** An asymmetrical ESM is appropriate as it reflects the relative control the utility has, compared to ratepayers, with respect to managing costs and forecasting revenue. This is especially the case with Toronto Hydro, which has proposed to offload much of the risk to a variance account for one of its hardest types of costs to forecast – externally initiated plant relocations.[67]

***2.6.10*** SEC submits the Board should approve an asymmetrical ESM, based on regulatory ROE, that captures <u>all</u> aspects of costs and revenues, with the exception of those captured within other deferral and variance accounts (i.e. CRRRVA and externally initiated plant relocations). SEC submits that the proposed sharing of 50:50 of those over-earnings above a 100 basis point

[62] *Ibid*, p.41

[63] EB-2014-0002, Settlement Proposal, September 22 2014, p.12-13, approved in *Decision and Order* (EB-2014-0002 - Horizon Utilities 2015-2019), December 11 2014, p.2-3

[64] EB-2015-0004, Settlement Proposal, September 18 2014, p.19-20, approved in *Decision and Rate Order* (EB-2015-0004 - Hydro Ottawa 2016-2020), December 22 2015, p.5-6

[65] EB-2015-0083, Settlement Proposal, November 3 2015, p.18, approved in *Decision and Order* (EB-2015-0083 - Kingston Hydro 2016-2020), November 26 2015, p.3-4

[66] *Decision with Reasons* (EB-2012-0459 - Enbridge Gas Distribution 2014-2018), July 17 2014, p.13

[67] Tr.3, p.63; Ex.2B-E5.2, p.2

deadband is appropriate, as it provides some incentive for Toronto Hydro to seek out efficiency improvements, which will benefit ratepayers in the long-term.

## 2.7 ***Cost Performance***

***2.7.1*** There are two main facets of Toronto Hydro's cost performance that concern its customers, and should concern the Board: absolute costs relative to an external benchmark, and the trend of its costs relative to its peers.

***2.7.2*** ***Performance to the Benchmark.*** Using the Board's benchmarking methodology for electricity distributors, Toronto Hydro has long (and notoriously) been one of the poorest performers in the province. They have regularly been in the lowest cohort for stretch factor purposes[68], and that shows no signs of changing.

***2.7.3*** The Board's purpose with benchmarking is to incent poorer performing utilities like Toronto Hydro to reduce their costs, i.e. to move toward the benchmark. Many distributors have done that, with the result that they are improving relative to the benchmark. In the Board's recent letter providing results of its 2018 benchmarking analysis, it noted that average level of cost performance in 2018 for all distributors was 5.8% *below* forecast costs, which was a higher level of cost performance compared to the previous three years.[69] Toronto Hydro's 2018 performance got worse. Its costs increased to 53.0% *above* forecast costs.[70] Except for 2012, when the Board simply denied an application for a substantial rate increase[71], and Toronto Hydro was suddenly able to cut costs, it has taken a different approach to its cost performance. Instead of controlling its costs, it has sought to increase the benchmark (expected) costs, so that it looks better.

***2.7.4*** In its previous Custom IR application, Toronto Hydro put forth the notion that it was simply different from other distributors, largely because of its urban core responsibilities. They hired

[68] Ex.1B-4-3, p.7; K7.3, p.34; In fact their cost trends (as opposed to absolute performance) were so bad that the Board had to exclude Toronto Hydro (as well as Hydro One) from the calculation of the productivity factor, in order to have a more reasonable number.

[69] Letter from Board Secretary: *Re: Incentive Rate Setting: 2019 Benchmarking Update for Determination of 2019 Stretch Factor Rankings - Board File No: EB-2010-0379*, dated August 15 2019, p.1

[70] *Report to the Ontario Energy Board: Empirical Research in Support of Incentive Rate-Setting: 2018 Benchmarking Update*, August 2019, Table 3A

[71] *Decision with Reasons and Order On the Preliminary Issue* (EB-2011-0144 - Toronto Hydro), January 5 2012

an expert, PSE, who crafted an urban core variable for their econometric benchmarking model, with the result that Toronto Hydro did not look as much like a poor cost performer any more. The new variable was criticized by OEB Staff's expert, PEG, and ultimately was not accepted by the Board.[72]

***2.7.5*** Now, in the current proceeding, Toronto Hydro has again gone to the PSE well for assistance in making their external benchmarking standard easier to achieve. PSE has created a new, much more sophisticated congested urban variable. As a result, Toronto Hydro is now no longer a poor performer, but in fact a stellar performer. Although its performance is getting worse, according to PSE it has always been, and will be until the end of the current Custom IR period, keeping its costs below the expected costs in the benchmark.[73]

***2.7.6*** This time, while highly critical of the details of the PSE variable, PEG has incorporated a slimmed down version of the variable.[74] The evidence of Dr. Lowry was reluctant acceptance that a congested urban variable of some sort was appropriate, commenting:

> I have not been averse to having some sort of a -- some sort of urban congested variable in the model, and this one was certainly the best available, even though it has a number of flaws.[75]

***2.7.7*** However, PEG also recognized that the PSE congested urban variable was not appropriate as PSE had implemented it, saying:

> MR. SHEPHERD: …
> This looks like a huge difference. If this is primarily as a result of the congested urban variable, by my calculation we're talking about a difference of $300 million a year in additional costs, additional expected costs, as a result of congested urban. Is that -- is that right? Is there some big number?
>
> DR. LOWRY: I think that if you don't consider a congested urban variable in a model applied -- that you are going -- you could get a pretty good-sized impact when it is added to, in a study for a company like Toronto Hydro.
>
> But it is also the case that maybe this [PSE] variable is a little jazzed up, in terms of its impact.[76]

[72] *Decision and Order* (EB-2014-0116 - Toronto Hydro 2015-2019), December 29 2015, p.16

[73] Exhibit 1B, Tab 4, Schedule 2, Table 1 (updated)

[74] Tr.10, p. 45

[75] Tr.10, p.45-6

***2.7.8*** During the course of the proceeding, PSE resisted providing the Board with information on the impact of its new congested urban variable. They preferred to talk about the logic behind urban cores driving higher costs, rather than the quantitative impact of this particular proposed adjustment to expected costs.

***2.7.9*** In Interrogatory 1B-SEC-22, SEC asked for a calculation of the impact on the model of this particular variable, but Toronto Hydro refused to provide it.[77] Then, in the oral hearing, SEC again asked for that information, and there was a further refusal, with Toronto Hydro's counsel fighting hard to keep this information off the record.[78] Ultimately, it was not until the Chair stepped in and asked for this information from PSE[79] that we got it.[80] Later, the Chair asked for the same information from PEG[81], which we have also received.[82]

***2.7.10*** Sadly, in both cases the experts provided only the natural log for each year of the difference between the model with the variable, and the model without the variable. This is perhaps the most inaccessible format in which to provide the information, but for econometricians it is also the normal approach.

***2.7.11*** So, while both responses provided the Board with an indication that the congested urban variable has a substantial impact, in neither case was it quantified in a way that is intuitive to non-econometricians.

***2.7.12*** SEC has, therefore, calculated the difference in expected costs between the PSE model with and without the congested urban variable, and the difference in expected costs between the PEG model with and without the congested urban variable. The results are the following:[83]

---

[76] Tr.10, p.47

[77] Interrogatory Response 1B-SEC-22

[78] Tr.9, p.184-185

[79] Tr.9, p.207

[80] Undertaking J9.3

[81] Tr.10, p.39

[82] Undertaking J10.4

[83] An Excel spreadsheet with the full calculations, including the conversions of the natural logs is being provided to all parties and filed with the Board.

| Benchmarking Results - Impact of Congested Urban Variable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | *PSE Cost Performance Results* | | | | *PEG Cost Performance Results* | | | |
| *Year* | *THESL Cost* | *With* | *Without* | *Increase in Benchmark* | *Percent Increase* | *With* | *Without* | *Increase in Benchmark* | *Percent Increase* |
| 2005 | $436,128 | -38.6% | 15.1% | $266,546 | 71% | -38.5% | -15.0% | $134,214 | 26% |
| 2006 | $450,686 | -41.3% | 13.5% | $287,336 | 73% | -37.5% | -13.8% | $138,350 | 27% |
| 2007 | $502,433 | -39.3% | 16.2% | $316,986 | 74% | -30.9% | -7.1% | $144,924 | 27% |
| 2008 | $556,429 | -38.0% | 16.5% | $341,825 | 72% | -29.1% | -5.2% | $158,223 | 27% |
| 2009 | $595,932 | -35.8% | 17.8% | $353,659 | 71% | -27.5% | -3.5% | $167,384 | 27% |
| 2010 | $647,456 | -30.9% | 22.5% | $364,831 | 71% | -20.0% | 3.9% | $168,094 | 27% |
| 2011 | $710,544 | -25.0% | 28.0% | $375,300 | 70% | -12.2% | 11.7% | $170,633 | 27% |
| 2012 | $691,388 | -27.6% | 25.2% | $373,726 | 70% | -13.9% | 10.0% | $168,879 | 27% |
| 2013 | $727,152 | -24.1% | 28.4% | $377,901 | 69% | -8.7% | 15.1% | $167,991 | 27% |
| 2014 | $777,414 | -22.8% | 29.7% | $398,805 | 69% | -6.9% | 17.0% | $177,055 | 27% |
| 2015 | $826,394 | -21.4% | 30.7% | $415,611 | 68% | -4.6% | 19.2% | $183,250 | 27% |
| 2016 | $861,394 | -18.3% | 34.1% | $421,831 | 69% | 0.8% | 24.6% | $180,971 | 27% |
| 2017 | $904,560 | -16.0% | 36.3% | $432,270 | 69% | 3.7% | 27.5% | $184,608 | 27% |
| 2018 | $964,885 | -12.7% | 39.6% | $446,132 | 69% | 7.5% | 31.3% | $189,578 | 27% |
| 2019 | $999,492 | -11.6% | 40.7% | $457,078 | 69% | 8.7% | 32.5% | $194,035 | 27% |
| 2020 | $1,044,567 | -9.5% | 42.9% | $468,446 | 69% | 11.4% | 35.2% | $197,384 | 27% |
| 2021 | $1,085,324 | -7.9% | 44.5% | $478,999 | 69% | 13.4% | 37.1% | $200,277 | 27% |
| 2022 | $1,134,689 | -5.7% | 46.7% | $489,890 | 69% | 15.9% | 39.6% | $204,217 | 27% |
| 2023 | $1,180,820 | -4.0% | 48.4% | $501,214 | 69% | 17.8% | 41.5% | $208,520 | 27% |
| 2024 | $1,225,282 | -2.6% | 49.8% | $512,856 | 69% | 19.5% | 43.2% | $212,725 | 27% |
| Source: | Ex.1B-4-2, Table 1 | Ex.1B-4-2, Table 1 | J9.3 | Calculated Result | | Ex.M1, Table 10 | J10.4 | Calculated Result | |

***2.7.13*** The bottom line is that adding the congested urban variable to the PSE model – the "jazzed up" version, as PEG described it – increased the expected costs for Toronto Hydro in each year by a fairly consistent 69%.[84] Put another way, the PSE model says that having an urban core like Toronto's is the cost driver for 41% of Toronto Hydro's costs. By way of example, the PSE model, without congested urban, shows expected costs in 2020 of $680M. If you add this one variable, the model shows 2020 expected costs for Toronto Hydro of $1,148M, $468M more per year. [85]

***2.7.14*** The PEG model shows similar results, but less ridiculous because their version of the urban core variable is not "jazzed up". In their model, the congested urban variable increases

[84] Tr.10, p.47

[85] One way to look at this is that, according to PSE, next year Toronto Hydro's expected incremental costs because they have urban congestion are $468M, and their expected costs not the result of that cost driver are $680M.

expected costs by 27%. Using the same example, the PEG model without this variable has 2020 expected costs of $735M. When the variable is added, expected costs go up to $932M, a $197M increase.[86]

***2.7.15*** PEG has explained in some detail the reasons why the PSE version of this variable is poorly designed.[87] It is clear that, by using it without some of the most critical flaws, PEG has reduced the annual impact by hundreds of millions of dollars, i.e. from a 69% bump in expected costs to 27%.[88]

***2.7.16*** These differences, however, belie the real truth. Without a massive increase in the benchmark level, Toronto Hydro remains a poor cost performer. Unless the Board accepts that the Toronto Hydro 5% congested urban area is sufficient to increase costs by between $200 million and $500M a year, the Applicant's proposed conclusion – they are merely converging on the benchmark – is not credible.

***2.7.17*** It is intuitive that urban utilities may have specific challenges that increase their costs. It is not intuitive that the incremental cost of being a big city is 69%, or even 27%. No-one could seriously consider that to be a reasonable conclusion, which is likely the reason why PSE and Toronto Hydro resisted providing the Board with the impact data. It follows that Toronto Hydro's suggestion that the Board treat them as a good cost performer is also not reasonable.

***2.7.18*** SEC notes that this discussion is not just about stretch factors. Although stretch factors are a tool the Board can use to influence utility cost performance, especially among the poor performers, this discussion is about something more than that. The Board considers the claims of utilities that they need bigger rate increases differently if the utility is already more efficient, vs. those that are not. There is no formula for this. It is just common sense.

***2.7.19*** In this case, we have a utility that has always in fact been a very poor cost performer, and continues to be. The best case for Toronto Hydro – and SEC does not support this

[86] All of these numbers, and the calculations supporting them, are included in the live model filed with this Final Argument.

[87] Tr.10, p. 47-52.

[88] SEC notes that, in the unit cost benchmarking, UMS assumes that the difference in cost levels between high and low density utilities is 9%. See Tr.8, p. 122-3.

characterization – is the PEG model with the simplified congested urban variable. In that case, Toronto Hydro is proposing to spend $1,045M in 2020, which is $112M above expected costs, and instead of moving closer to expected costs, it wants Board approval to spend $1,225M in 2024, which is $217M above expected costs.[89] Over the course of the next five years, Toronto Hydro is seeking Board approval to spend $825M more than expected costs, with the excess amount increasing each year[90].

***2.7.20*** This is all *after* PEG has increased expected costs by 27%. Without that increase, the excess spending Toronto Hydro wants this Board to sanction is $1,848M over those five years.

***2.7.21*** The Board should not consider this acceptable. Whether the excess spending, properly calculated, is $1.8 billion or $0.8 billion[91], the Board should not approve it. The Board should reject the Applicant's cries that they need more money. They don't.

***2.7.22*** ***Cost Trend.*** A red flag regarding Toronto Hydro's previously approved, and its proposed, Custom IR framework is the common theme of those two plans: declining cost performance. The evidence of both Toronto Hydro's expert PSE, and OEB Staff expert PEG, is that Toronto Hydro's cost performance compared to the benchmark declined during the 2015 to 2019 Custom IR term, and is forecast to continue to decline during the proposed 2020 to 2024 term.[92] This is unacceptable to ratepayers, and does not align with the goals of the RRF. While Toronto Hydro claims, based on the PSE results, they are simply "converg[ing] with the benchmark"[93], the RRF is based on "continuous improvement in productivity and cost performance", not regression to the mean.[94] No wonder Toronto Hydro did not put the results of its total cost performance to its customers during its engagement activities.[95]

[89] All figures cited are costs as calculated for the econometric models. Costs on a revenue requirement basis are different, although of course the relative magnitude of the differences, and the direction, will be similar.

[90] $5,671M vs. the PEG model expected cost of $4,846M.

[91] It is probably somewhere in between, in fact, because some urban cost driver is probably reasonable, even if 69% or 27% cost impacts are obviously too much. Zero is probably too little.

[92] PSE, Reply Report to PEG's Report, March 31 2019, p.4; K7.3, p.36

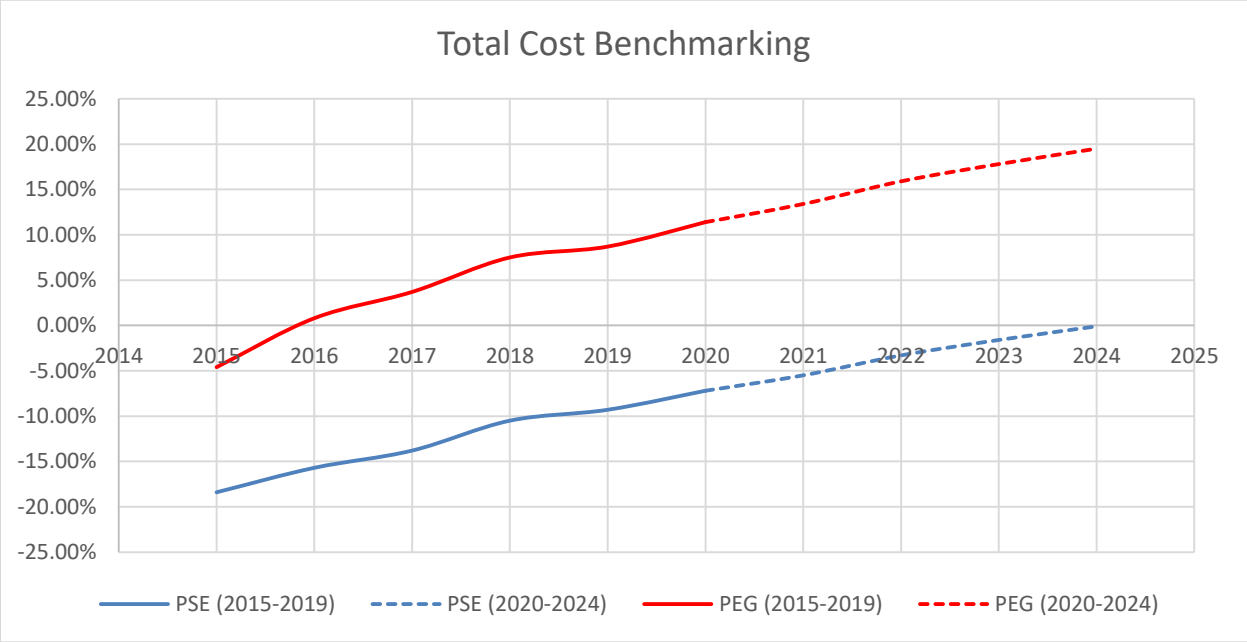
[93] Tr.7, p.168

[94] K7.3, p.31

[95] Tr.7, p.172

***2.7.23*** Toronto Hydro does not seem to be too bothered that its performance keeps getting worse. Even after inflating expected costs by 69%, PSE still assumes that Toronto Hydro will be above the benchmark of its expected costs by 2025. Toronto Hydro hangs their hat on this opinion, which as we have noted above is not credible.

***2.7.24*** The PEG results show that Toronto Hydro is increasingly moving farther above the benchmark. Based on PEG's econometric work, with costs only inflated by the (still too high) 27%, Toronto Hydro began the last Custom IR term better than the benchmark, and has steadily gotten worse each and every year. By the end of the proposed term, it will be 19.5% above its expected costs.[96]




***2.7.25*** SEC submits the Board should only approve a Custom IR framework if its results begin to reverse this trend. Toronto Hydro customers should expect a utility that is a better performer at the end of its plan then at the beginning. The evidence of both experts show that, based on Toronto Hydro's proposed plan, this will not be the case.

## 2.8 ***Metrics***

***2.8.1*** One of the ways that performance can be judged is through the use of metrics. Toronto Hydro

[96] Exhibit M1 (Updated PEG) Report, May 22, 2019, p.54

has proposed a number of custom metrics to be included on its custom scorecard that will exist in parallel with the Board's scorecard.[97]

***2.8.2*** It appears to SEC that the metrics that have been proposed for cost control and productivity are not being taken too seriously, by Toronto Hydro. This conclusion has been reached for a number of reasons.

***2.8.3*** First, Toronto Hydro has only proposed two custom metrics, unit costs for pole replacements and vegetation management.[98]

***2.8.4*** Second, those two metrics do not even have targets, so it's not even clear what Toronto Hydro considers a 'success' that it should strive to achieve. All Toronto Hydro will say is it is "monitoring" its performance.[99] Its position is that it requires experience in tracking the metric before it can set a target.[100] Toronto Hydro witnesses went so far as to refuse to even say if, just on a directional basis, their expectation is that unit costs are going to increase or decrease.[101]

***2.8.5*** Third, while unit cost is a good metric to track, the problem with only tracking these two areas for the purposes of measuring and reporting on its cost control performance, is that while they represent material programs, they are a relatively small portion of the total capital and OM&A budget.[102] There is no reason to believe that they are a representative sample of Toronto Hydro's proposed $4.24Bn in total OM&A and capital spending over the plan term.[103]

***2.8.6*** Last, none of those metrics appear on Toronto Hydro's corporate scorecard. Since neither of Toronto Hydro's regulatory scorecards (custom or Board mandated) provides any financial incentives or penalties[104], the only path for the measures to have direct financial incentive on

[97] Exhibit 1B-2-1, p.7; Undertaking JTC2.9

[98] Tr.7, p.176

[99] Tr.7, p.179-180

[100] Tr.7, p.182

[101] Tr.7, p.180

[102] Tr.7, p.177

[103] $4.24Bn = capital expenditure of $2.83Bn (Interrogatory Response U-Staff-171, Appendix C) OM&A spending of 1,412.7M (Ex.1B-4-1, p.9, Table 2)

[104] Tr.7, p.175

the company or its management is its own corporate scorecard. It is the corporate scorecard that is used to determine a portion of the incentive compensation that will be awarded to eligible employees.[105]

***2.8.7*** With respect to the corporate scorecard, Ms. Klein testified that the corporate performance indicators in the scorecard sit on top of a pyramid Toronto Hydro uses to measure its own performance.

> Every corporate KPI fits into a larger framework at Toronto Hydro in terms of how we manage performance. I think I referenced that pyramid earlier, and the corporate scorecard is at the top, and underneath it are additional layers of how we measure and govern performance that feed up.[106]

***2.8.8*** But none of the cost control or productivity measures are in its corporate scorecard. Toronto Hydro's view is that the main metric that measures cost control on its corporate scorecard is net income.[107] While net income can in some way measure cost control (i.e. less costs equals more net income), it more accurately measures net profit. Yes, this can be impacted by spending less money, but spending less money is not the same as being more productive or efficient in undertaking the work. That is what direct cost control metrics attempt to measure.[108]

***2.8.9*** The only other cost metric on the corporate scorecard, historically, relates to implementation of the DSP. The DSP investment metric measures Toronto Hydro's capital spending either on an annual or cumulative basis against that approved in the last proceeding.[109] The metric does not measure efficiency of the spending; it simply measures total dollars spent. Profligacy would show equally good performance compared to true operational excellence. The last thing customers want is a metric that rewards managers for overspending.

***2.8.10*** Toronto Hydro has no measure that looks, either on an individual or cumulative basis, at whether its individual project or work orders are being completed on budget, or at the most

[105] Tr.7, p.183

[106] Tr.7, p.183

[107] Tr.7, p.185

[108] It is always possible to improve profits in the short term while being less productive or less efficient. Just accomplish less work. In the competitive markets, that is not sustainable in the longer term.

[109] Interrogatory Response 1B-SEC-8; Technical Conference Undertaking JTC 3.26

efficient cost.

***2.8.11*** The DSP metric is also measured in capital expenditures. As Toronto Hydro was the first to point out at the start of the hearing, the Board approves the revenue requirement, and what is included in that is in-service additions, not capital expenditures.[110]

***2.8.12*** When asked why Toronto Hydro did not include in-service additions on its scorecard, Ms. Klein commented that a "cap ex measure is an understandable expression of a capital program at a high level that assists in uniting our employees with respect to working the plan, and that is essentially why we have chosen it over time."[111] Yet, at its core, in-service additions is the spending metric that is more in line with what impacts customers, as it aligns the cost of the capital work program with when that spending is used or useful and benefits the customers. It is that which should (using Toronto Hydro's words) 'unite their employees with respect to working the plan'.

***2.8.13*** Toronto Hydro proposed in the last application five similar cost control metrics, or as it called "cost efficiency/effectiveness of planning and implementation metrics."[112] It did not forecast targets for those metrics on a similar basis as it claims in this proceeding, that the metrics are in the early stages of development.[113] With the exception of the DSP implementation metric, which is on its generic Board scorecard, all the remaining four metrics have been jettisoned.[114] The Board will never be able to hold Toronto Hydro accountable if it on the one hand claims it cannot set targets for its cost control and efficiency metrics without experience, but every application, it proposes a new set of metrics with which it has no experience.

## 2.9 ***Productivity***

***2.9.1*** Ratepayers and the Board should expect that over the last five years Toronto Hydro has achieved significant levels of productivity, which it should have incorporated into its proposed budget. They should also expect that Toronto Hydro would have built incremental productivity

[110] Tr.1, p.28

[111] Tr.7, p.187

[112] EB-2014-0116, Ex.2B-C,p.3; K1.2, p.116

[113] EB-2014-0116, Technical Conference Undertaking J1.1, p.1-2; K7.3, p.67-68.

[114] Tr.1, p.108

savings into its budget with respect to initiatives that it plans to undertake over the next 5 year term. It is insufficient for Toronto Hydro to point to the stretch factor mechanism in its Custom IR framework as the only means that productivity is to be built into its plan.[115]

***2.9.2*** In the recent Hydro One Distribution proceeding, Hydro One had included productivity in addition to its proposed stretch factor, and had embedded those productivity initiatives in its underlying OM&A and capital budgets.[116]While the Board had concerns regarding how it measured those productivity gains in its forecasts, it still imposed an *additional* stretch factor on Hydro One's proposed capital factor to incent further productivity improvements.[117]

***2.9.3*** In contrast, Toronto Hydro did not even attempt to quantify the productivity savings it claims are built into its budget.

***2.9.4*** When asked to quantify the savings of planned initiatives, Toronto Hydro stated that it was "unable to quantify the estimates of cost savings of the planned initiatives".[118] If they cannot be quantified, then they are not built into the forecast capital and OM&A budgets. Budgets are measured in dollars. If productivity cannot be expressed in dollars, then it is not reducing the budgets.

***2.9.5*** With respect to previous initiatives, Toronto Hydro did not provide any quantification until pushed to do so at the oral hearing. As a result, it provided Undertaking J3.2, which listed productivity savings in its capital program. What stands out from the review of the undertaking response is that there has been very minimal productivity savings, compared to Toronto Hydro's overall capital spending during the same time.[119]

***2.9.6*** Based on adding up the listed savings included in the undertaking, Toronto Hydro was able to quantify about $26M in capital savings over the 2015 to 2019 period. This represents a savings

[115] Interrogatory Response 1B-CCC-14; K.5.3, p.2-3

[116] *Decision and Order* (EB-2017-0049 - Hydro One Dx 2018-22), March 7 2019, p.41-43; K1.2, p.111-113

[117] *Ibid*, p.41

[118] Interrogatory Response 1B-CCC-14, p.2; K1.2, p.104

[119] Undertaking J3.2

of a measly 1.2% on an approved capital budget of $2.24Bn.[120]

***2.9.7*** While some of the listed initiatives and savings will have been incorporated into the 2020 to 2024 budgets, it is not clear that many others have, or are even recurring sustainable savings. Toronto Hydro has not demonstrated that the budget builds in any of those savings. When asked about this at the oral hearing, all Toronto Hydro could do was point to the fact that an inflationary increase of 2% within its capital budget is below the City of Toronto inflation rate of 2.2% and that its performance measures will demonstrate how it has executed on its plan.[121]

***2.9.8*** Neither of these demonstrates that Toronto Hydro has built the cost of its known productivity initiatives into its budget. Its own evidence is that its agreements with its external contractors, who do most of Toronto Hydro's capital work, are already below general construction indices. [122] As the Board stated in Toronto Hydro's last proceeding, "[c]ompetitive bidding for unit cost contracting is not in itself a sufficient demonstration of productivity improvements."[123]

***2.9.9*** While custom measures may give the Board and ratepayer a glimpse in how it performed its plan after the fact, it does not demonstrate savings are built into the plan. In fact, Toronto Hydro has steadfastly refused to set a target for its only two cost control metrics.[124]

***2.9.10*** On the other hand, there is clear evidence that Toronto Hydro has explicitly <u>not</u> incorporated forecast savings it knows it will achieve into the budgets that underlie the application. For example, Toronto Hydro is moving the majority of the operational responsibilities of its supply chain operations to a third-party procurement provider.[125] It has done so in part because it will "reduce the overhead cost per purchase order".[126] Yet even though it forecasts the transition will be complete by the end of 2019, when asked what the expected savings are, it stated that it "is unable to comment on the specific amount or timing of when the expected savings can be

[120] Interrogatory Response U-Staff-171, Appendix C; K1.2, p.2

[121] Tr.1, p.195

[122] Interrogatory Response 2B-SEC-73; Undertaking J5.5

[123] *Decision and Order* (EB-2014-0116 - Toronto Hydro 2015-2019), December 29 2015, p.25

[124] Tr.7, p.176-177; Ex.B-2-1, Appendix A, p.2; K7.3, p.57

[125] Interrogatory Response 4A-CCC-48; K5.3, p.4

[126] *Ibid*

realized".[127] Toronto Hydro is implementing a productivity initiative this year (2019) and yet it is not including the savings in its budget. This is inappropriate.

***2.9.11*** One would expect that, as Toronto Hydro spends more money on capital, it will be able to achieve even more productivity savings. For example, Toronto Hydro is seeking approval to include in rates the impact of a proposed new CIS system.[128] In the business case for the new CIS system, each of the various options was evaluated against a standard that included "[d]oes the option provide direct and quantifiable benefits and to what magnitude".[129] While it turns out Toronto Hydro did not actually do this part of the evaluation yet, it does admit that a new CIS system "will have quantifiable benefits"[130] Those benefits are not included in Toronto Hydro's capital or OM&A budgets.[131] Customers will pay for the investment in the CIS, but the benefits will go to the shareholder in higher profits.

***2.9.12*** A similar effect is seen with Toronto Hydro's proposed significant system renewal spending. This level of spending is so significant that Toronto Hydro requires a capital factor primary because of this spending category. One benefit of the spending should include reduced operation and maintenance expenses. Toronto Hydro has proposed no mechanism to capture these OM&A savings. The amount of OM&A costs that Toronto Hydro will recover is entirely independent of how much is approved for capital spending, even though it is common ground that the spending levels of capital and OM&A are, in this case, inversely correlated.

[127] *Ibid*; Tr.3, p.132

[128] Tr.5, p.123

[129] Interrogatory Response 2B-SEC-70, Appendix B, p.10 K5.3, p.48

[130] Tr.5, p.122

[131] Tr.5, p.124-125

# 3 RATE BASE AND CAPITAL PLAN (Issue 3)

## 3.1 *Overview*

***3.1.1*** Toronto Hydro's capital plan that underpins its application is a request to spend up to $2.83Bn in capital expenditures during the plan term.[132] This is an increase of approximately 26% or $590M over the amount approved in its previous plan.[133] On an in-service addition basis, Toronto Hydro is seeking approval of $2.74Bn over the plan term, an increase of approximately 11% or $270M over what was approved in its previous plan.[134]

***3.1.2*** The largest portion of the increase is Toronto Hydro's system renewal budget.[135] Toronto Hydro proposes to spend $1.62Bn in system renewal capital expenditures over the plan term, an increase of 24% over the $1.31Bn it will spend over the current 2015 to 2019 Custom IR plan.[136]

***3.1.3*** At the same time, the capital expenditures that underpin the application are only expected to bring limited reliability benefits, and to only a few targeted customers who have significant existing reliability issues.[137] For the vast majority of Toronto Hydro customers, there will be no reliability benefit.[138]

***3.1.4*** Even with the proposed increases in capital spending, customers will benefit from almost no incremental productivity benefits, nor reap the benefits of any small productivity benefits achieved during the current 2015 to 2019 plan. The expectation that Toronto Hydro must increase its focus on productivity was a central component to the Board's previous Custom IR decision. In that decision the Board stated that "Toronto Hydro must place more emphasis on productivity gains and that Toronto Hydro must find efficiencies over the five years of its capital plan".[139] The evidence in this proceeding demonstrates that Toronto Hydro has not

[132] Interrogatory Response U-Staff-171, Appendix C; K1.2, p.2

[133] *Ibid*, Tr.1, p.27-p.29

[134] Ex. U-2-1, Appendix A; K1.2, p.4

[135] Tr.1, p.30

[136] *Ibid;* Interrogatory Response U-Staff-171, Appendix C; K1.2, p.2

[137] Tr.1, p.40; Interrogatory Response U-SEC-105

[138] Tr.7, p.194

[139] *Decision and Order* (EB-2014-0116 - Toronto Hydro 2015-2019), December 29 2015, p.26; K1.2, p.43

heeded the Board's comments.

***3.1.5*** Consistent with the Board's outcomes based approach to rate-setting, Toronto Hydro customers should not pay more for no increase in the quality of service (i.e. reliability). As a matter of basic principle, no C-factor should be allowed at all. Toronto Hydro should manage its capital plan within the IRM framework. When it is in a position to provide improved outcomes for customers, then and only then should it be able to ask for more money to finance the spending needed to achieve those improved outcomes.

***3.1.6*** In the alternative, if the Board prefers in this case to assess the capital plan directly, for a example with a view to funding part of the excess capital spending, SEC submits that some logical top-down limits should be placed on the quantum of the capital spend. As a starting point, the Board should not consider approving any additional capital expenditures (and their in-service addition impact) above those approved previously as part of its current Custom IR plan (a reduction from the proposed plan of $590M). In addition, customers should benefit from the then record setting capital expenditures in the last five-year Custom IR framework by seeing more of those productivity benefits realized in their rates, which should result in a further reduction from that starting point.

***3.1.7*** As well, Toronto Hydro's more bottom-up approach to budgeting its capital expenditures, through its capital planning process and asset management process, remains flawed. While in some areas it may have improved since the last time it was before the Board, it is still insufficient to allow the Board to be satisfied that Toronto Hydro is replacing assets only when replacement is actually required, and using a robust set of tools to allocate its capital funding in an efficient and effective manner. The evidence demonstrates that Toronto Hydro is not doing so and, as detailed below, this has led to the proposed capital plan before the Board, one that is unreasonable and inappropriate.

## 3.2 ***Strategic Parameters and Customer Engagement***

***3.2.1*** Toronto Hydro's high-level constraints on its capital program were determined by its strategic parameters. The key components of those parameters were a) a price limit of 3.5% on the residential annual increase to base distribution rates, and b) a capital budget limit of an average

of $562M per year.[140] These constraints were informed by its customer engagement activities.[141]

***3.2.2*** In its evidence, Toronto Hydro provided a long list of inputs it considered in coming to these strategic parameters, but from those inputs it is still unclear how Toronto Hydro landed on the amounts. Most of the elements on the list are high-level considerations, such as "customer needs and preferences", "historic and system performance", "long-term asset stewardship needs" and "resiliency and business continuity risks, including climate change risk".[142] How these translated into a specific price limit and exact capital budget limit is not clear.

***3.2.3*** Moreover, a number of important inputs were not even available at the time the strategic parameters were set in the late fall of 2017. For example, Toronto Hydro had not completed its new asset condition assessment ("ACA") process and so did not have the required information. In addition, while Toronto Hydro claims it considered the "total cost benchmarking" results as one of its inputs[143], it did not actually have the results of PSE's benchmarking analysis until July 2018.[144]

***3.2.4*** The strategic parameters that were provided from customers to Toronto Hydro during its customer engagement were very clear. The number one issue for almost all customer segments was price, and only second was reliability.[145] Yet, Toronto Hydro's view is that an average annual distribution rate increase of 2 or 3 times the Board's inflation rate reflects customer preferences.[146]

***3.2.5*** Toronto Hydro claims that its "plan is supported by all customer classes". [147] That is

[140] Ex.2B-E2, p.2-3; K1.2, p.31-32

[141] *Ibid*

[142] Ex.2B-E2, p.3-4; K1.2, p.31-32; Tr.1, p.47

[143]Ex.2B-E2, p.4; K1.2, p.32; Tr.1, p.100

[144] Ex.1B-4-2, p.1; K1.2, p.114

[145] Ex.1B-3-1, Appendix A, p.5; K7.2, p.5

[146] When the application was filed the 2018 OEB approved inflation factor was 1.2%. The 2019 OEB approved inflation factor is 1.5%. Depending on the customer class, the annual average base distribution increase from 2020 to 2024 ranges from 3% for residential to 3.6% for GS<50 customers. (See Undertaking J7.4, Appendix A)

[147] Argument-in-Chief, Introduction, p.1

inaccurate. The customers did not tell Toronto Hydro to increase its rates each year by more than twice the rate of inflation in return for no reliability or other customer benefits.[148] If Toronto Hydro thinks they did say that, they are not listening.

***3.2.6*** The customer engagement results are entirely based on the quality of the information provided to customers, and their understanding of it.[149] As discussed throughout this Final Argument, the information provided to customers regarding the plan was based on faulty capital planning information.

***3.2.7*** More troubling, it appears many customers were confused regarding what the plan actually entailed. When Toronto Hydro went back to its customers in Phase 2 of its customer engagement and for the first time presented them with the 3.5% average annual increase, it is clear that even the most sophisticated of customers were confused. The responses to the online survey given to Toronto Hydro's key account customers (1MW or above), some of whom did not even consider price their number one concern, show they clearly did not understand the information that was being presented to them. Those customers who said the "increase is reasonable as long as service quality can be maintained", thought that the proposed rate increase presented to them (3.9%) was over the term of the plan, and was not an average annual increase.[150] For example, one customer stated ""[t]the increase of 3.9 over four years is appropriate....", and other stated "I agree....even [sic] we have to pay the related cost with an increase in distribution charges of maximum up to 4%" [emphasis added].[151]

***3.2.8*** Mr. Lyle from Innovative Research, who conducted the customer engagement, agreed that based on those comments, it was possible that these key account customers were confused.[152]

***3.2.9*** If Toronto Hydro's key account customers (1MW or larger), who are some of its most sophisticated electricity users, were confused, one can only imagine the confusion among residential and other smaller volume customers.

---

[148] Undertaking J7.4, Appendix A

[149] Tr.7, p.137

[150] Ex.1B-3-1, Appendix A, p.5, Appendix 2.5, p.28; K7.2, p.18

[151] *Ibid*

[152] Tr.7, p.106

## 3.3 ***Capital Planning***

***3.3.1*** Toronto Hydro derived its capital plan from its asset management process which flows into its annual investment Planning and Portfolio Reporting ("IPPR") process. SEC has several concerns with Toronto Hydro's capital planning process. The flawed process is leading to a proposed capital budget, primarily the System Renewal category, that is higher than it should be, due to a) a risk assessment and analysis process that leads to sub-optimal asset replacement decisions, and b) a plan that does not reflect the underlying asset condition information and remains too age-centric. These issues support the proposed reduction in Toronto Hydro proposed capital spending.

***3.3.2*** ***Risk Analysis.*** As Toronto Hydro's own evidence recognized, the core element to proper asset management is a risk assessment framework that looks at the probability of asset failure (i.e. likelihood) and the consequences of such a failure (i.e. magnitude).[153] The problem is that Toronto Hydro does not actually use a tool that is able to consistently determine asset risk amongst the range of different assets that it manages across the system. Without such a system, Toronto Hydro is not in a position to evaluate what assets should be replaced at what point in time, and how to prioritize and optimize its capital spending across programs when its budget is constrained by the rate impacts. Without this information, Toronto Hydro asset replacement decisions are not optimal.

***3.3.3*** Toronto Hydro's risk assessment framework is a combination of many disparate tools and processes. It has a number of tools to determine inputs to risk, such as its ACA methodology, reliability projections, customer engagement, and customer interruption costs, among others, which individually look at either probability or consequence of failure.[154] It then uses multiple tools that individually may use some of the input information, on its own or in combination, to provide an analysis of the risk.[155] Differing assets and programs will be designed using different tools which include some, but not all, of the input data. The process is anything but the "systematic approach" that Toronto Hydro claims it is.[156] There is no single tool which

[153] Ex. 2B-D3, p.20; K1.2, p.63

[154] Ex. 2B-D3, p.29-34; K1.2, p.72-77

[155] *Ibid*

[156] Tr.1, p.69-70; Ex.2B-D1, p.1

provides a calculation of probability times the consequence of failure.[157]

***3.3.4*** Toronto Hydro explained how its various tools are brought together in its actual planning process. It provided an example of two planners who are designing various capital programs. One is working on its Station Renewal program which may place more weight on predictive failure modelling, while a planner responsible for the Overhead System Renewal program may place greater weight on historic reliability analysis or economic-risk based analysis.[158]

***3.3.5*** Mr. Morris, on behalf of UMS, commented on how Toronto Hydro uses a manual approach to optimization, and it is lagging behind in the industry.[159] In his opinion, the industry has moved towards what he called portfolio optimization processes, in which systems are designed to determine the optimal combination of work based on what constraints are applied using a programmatic process.[160]

***3.3.6*** SEC submits there are problems with the Toronto Hydro approach. First, different planners are using different tools to determine the level of capital expenditures, which leads to a differing basis on which programs are being optimized. It also leaves too much leeway to individual planners on which tools are used to determine which assets need to be replaced. Second, it is not as if the planners are weighing different *risk analysis* tools differently (i.e. tools that try to assess both probability and consequence of failure). From the example provided, the planner working on Station Renewal is putting more weight on a forecast failure tool (predictive failure modelling), whereas the Overhead System Renewal planner is putting more weight in historical failure information (historical reliability analysis) and risk analysis tool (economic risk-based analysis).

***3.3.7*** Different planners must be very careful if they are to be weighing different tools differently in making asset replacement decisions. While there should always be room for expert judgement, and no one type fits all, there must be a systematic process which provides enough uniformity within a given capital program, and also between capital programs.

---

[157] Tr.1, p.79

[158] Interrogatory Response 2B-Staff-67(e)

[159] Tr.9, p.31-32

[160] Tr.9, p.31-33; Ex.2B-D, Appendix A, p.14; K8.3, p.54

***3.3.8*** A common risk-based analysis across assets and programs, which incorporates and combines all input data to measure the probability and consequence of asset failure, is an approach to risk assessment across the system that is more consistent with best practices.

***3.3.9*** When asked about how to compare projects in differing programs, Mr. Lybergiannis essentially said that it could not since "[it] has to do with differences and different needs that the projects are addressing, and the fact that often times those needs cannot be adequately compared on an apples to apples basis."[161] In this, he is correct. Transformers are not the same as bucket trucks, and they cannot both be treated as if they are the same asset. The best way to assess both probability and consequence of failure of Asset A may well be different from Asset B.

***3.3.10*** But that misses the point. Prioritization decisions between different types of assets and needs are exactly the decisions which Toronto Hydro has to make in terms of allocating funding between programs and prioritizing the execution of the work. Equally so, it is the task of the Board in deciding if the total sum of the proposed capital expenditures is appropriate, which includes determining if the underlying allocation of spending is appropriate. This requires that Toronto Hydro have the tools to make comparisons between asset priorities that are not straight forward 'apples to apples' comparisons.

***3.3.11*** An example of one such a risk assessment methodology is the Common Network Assets Indices Methodology ("CNAIM") that is used in the U.K by the national regulator OFGEM. Toronto Hydro has adopted part of the methodology. But even in adopting part of the methodology, the ACA, it has not adopted even that entire part.

***3.3.12*** The <u>full</u> CNAIM methodology is a full risk analysis tool that pulls in all input data to determine a full risk score. It determines asset heath by categorizing each asset into a health Index (HI1 to H15) which is based on a number of different indicators, including asset condition. It then multiples that Health Score by a consequence of failure measure, called a Criticality Index (C1 to C4), which is derived from a number of inputs.[162] Those inputs include

[161] Tr.2, p.131

[162] DNO Common Network Asset Indicies Methodology, p.26 (Link to document included in response to 2B-SEC-44)

many of the same factors that Toronto Hydro discusses in its evidence such as reliability, financial, safety, and environmental impact.[163] The ultimate score gives planners, management, customers, and the regulators the ability to measure asset risk on a consistent basis within a program and across programs.

***3.3.13*** Using such an approach does not mean that the output of the score is the sole driver of the capital program. A probabilistic risk analysis does not always produce the right answer. What it does do is provide a truly systematic approach to risk analysis. Every planning process ends with the exercise of expert human judgment. Where that judgment has the benefit of seeing a rigorous and systematic risk analysis, it is better informed, and the planning judgment will produce better outcomes. Toronto Hydro's approach does not allow this, and almost certainly is leading to a capital program that is not being driven by 'value for money'.

***3.3.14*** If Toronto Hydro is going to implement the CNAIM, then it should implement the entire methodology. It is not meant to be implemented on a piece meal basis. While Ms. Narisetty called it "different stages in the methodology"[164], it is in fact, simply taking one aspect of the methodology and using it in isolation from its purposes – to determine a risk score for an asset that can be compared to the risk score of any other asset in the system. The risk score (called a Risk Index) is supposed to represent the monetized risk measure determined by a combination of the Health Score and Critical Index.[165]

***3.3.15*** What Toronto Hydro has attempted to implement as its new ACA methodology is *part* of the probability of failure component of the CNAIM methodology.[166] The probability of failure component is broader than simply asset condition. That is why it is not entirely fair to compare the previous Kinectrics methodology that Toronto Hydro had discussed in past applications to the new ACA methodology.[167] They are not meant to represent exactly the same thing. The previous methodology, which had limited use of asset demographics, was primarily a tool to show condition of Toronto Hydro's assets. The new ACA methodology, while including

[163] *Ibid*, p.71; Ex.2B-D3, p.25-29; K1.2, p.68-72

[164] Tr.4, p.119

[165] Interrogatory Response 2B-SEC-44, Appendix X, p.5; K3.3, p.72

[166] Tr.3, p.132

[167] Tr.1, p.55-56

condition as one input, is meant to be a more complete probability of failure methodology than previous asset condition assessment tools. But since Toronto Hydro has only implemented part of the methodology, it is not clear how much value can be drawn from it.

***3.3.16*** For example, the CNAIM methodology for probability of failure is supposed to include, not just age and condition, but also location and duty factors. Toronto Hydro has not included location information, and only has duty factor information for some of its assets.[168] In addition, the CNAIM methodology includes the impact of certain reliability issues through a 'reliability modifier' to the initial Health Score. Toronto Hydro has not included this component of the CNAIM methodology either.[169]

***3.3.17*** Even with respect to the age component to the methodology, Toronto Hydro has not fully implemented it. First, Toronto Hydro is using average asset life data from a 2009 Kinectrics study, which its own consultant EA Technologies describes a "broad brush".[170] The consultant's view is that Toronto Hydro should subdivide its asset population into sub-groups based on manufacturer/type, decade of manufacture, insulator type, etc.[171] EA Technologies considers calibrating age in this way is "low-hanging fruit", and something Toronto Hydro should implement.[172] Toronto Hydro confirmed at the hearing that it has yet to do so.[173]

***3.3.18*** Second, EA Technologies has pointed out that average asset life calibration "must be kept under regular review and be relevant to the asset population which remain in service at the time of the review".[174] The average asset life information that is the main input to its ACA has not been updated since 2009. Toronto Hydro has confirmed that it has not gone back and looked at how the actual age of its assets still in-service compares to what was used as the basis for the new methodology.[175] Given that Toronto Hydro has had a very aggressive capital spending

[168] Tr.3, p.131-132; Ex. 2B-D-C, p. 14; K3.3, p.27

[169] *Ibid*

[170] Interrogatory Response 2B-SEC-44, Appendix B, p.3; K3.3, p.98

[171] *Ibid*

[172] *Ibid*

[173] Tr.3, p.137

[174] Interrogatory Response 2B-SEC-44, Appendix B, p.3; K3.3, p.98

[175] Tr.3, p.138

pattern in the last ten years, it is likely that age-related information from ten years ago is outdated, and could be materially different. As EA Technologies points out, if there is a significant discrepancy, then the values included in the model, and thus their output, are "almost meaningless".[176]

***3.3.19*** A surprising feature of Toronto Hydro's implementation of the new ACA model is that there is no evidence that it did any back testing of its accuracy. By that, SEC means Toronto Hydro did not utilize data it had collected and used for the previous methodology to see how the results fared against what it saw in the field by way of actual failures. Considering that there are significant differences in results between the old and new models, one would have expected Toronto Hydro to validate the new model to ensure its accuracy. In fact, when asked as a general matter whether, when it creates new models, it back tests them, they said they may do so, but it would be very case specific.[177] If Toronto Hydro is not going to back test a model like this, which drives significant capital investment decisions, it should at least demonstrate to the Board how it has validated the model in a rigorous manner.

***3.3.20*** Even some of its other existing tools that analyze risk are based on outdated information. One of Toronto Hydro's major risk-based tools it its economic risk based-analyses.[178] The calculations in the tool measure customer cost as a major input assumption on the cost to customers of an interruption.[179] In its last proceeding, Toronto Hydro proposed to undertake a customer interruptions cost ("CIC") study in 2015 to update the inputs used, as they were not Toronto Hydro specific customer costs but based on generic research data from (at the time) a much earlier.[180] The purpose of the study was to continue "refinement and improvement of the development of the capital projects within the five-year period along with future development of capital programs from 2020 and beyond".[181] Toronto Hydro has not completed the study, and so Toronto Hydro continues to use non-Toronto Hydro customer specific CIC costs for the

[176] Interrogatory Response 2B-SEC-44, Appendix B, p.3; K3.3, p.98

[177] Tr.4, p.70

[178] Ex.2B-D3, p.30; K1.32 p.27

[179] Ex.2B-D3, p.27; K1.32 p.70; Tr.1, p.83

[180] EB-2014-0116, Ex.2B-E8.8, p.1-12; K1.2, p.84-92; Tr.1, p.86

[181] EB-2014-0116, Ex.2B-E8.8, p.1;K1.2, p.80

investments proposed in this capital plan.[182] Toronto Hydro should have prioritized completion of this project, as proposed in this last application, so accurate information could have been used for its economic risk based analysis.

*3.3.21* ***Replacing Too Many Assets.*** The largest part of Toronto Hydro's capital plan, its system renewal budget, is premised on ensuring that the asset failure risk will not increase over the plan term, by seeking to maintain the number of assets in HI4 and HI5 condition.[183] But the evidence shows Toronto Hydro is actually replacing significantly more assets than its own forecasts show would be required.

*3.3.22* For example, in its single largest capital program[184], the Underground System Renewal program, based on the updated evidence filed as a response to Undertaking J1.4 at the time the capital plan was developed in 2017, showed that there were 559 underground transformers were in H14 and H15 condition.[185] Based on its forecasts, if no investments were made to underground transformers, 1,738 would be in HI4 or HI5 condition by the end of 2024. But the proposed capital plan estimates the replacement of 1,941 underground transformers in the Toronto Hydro's horseshoe region.[186] This would represent 762 more than would need to be replaced to maintain the current underground transformers in the horseshoe region, and 203 more than the entire population that is forecast to be in HI4 and H15 at the end of the plan, if none were replaced.

*3.3.23* In addition, Toronto Hydro's evidence is that through its Reactive and Corrective program, about 10 to 20 percent of its work orders involve intervention on assets that are part of planned capital work.[187] If even only 10% of underground transformers are replaced through the Reactive and Corrective program, it would mean an additional 243 transformers are being

[182] Interrogatory Response 2B-SEC-32; K1.2, p.95-96

[183] Interrogatory Response U-EP-65(b), p.5

[184] Tr.1, p.65-66

[185] Undertaking J1.4, p.2, Table 7

[186] 2B-E6.2, p.28; K1.2, p.50

[187] Technical Conference Undertaking JTC 1.11

replaced that would be counted in the 'planned' category.[188]

***3.3.24*** When confronted by SEC of these numbers at the oral hearing, Toronto Hydro attempted to explain the discrepancy between its stated approach and the replacement numbers by pointing to the need to replace underground transformers that have PCBs.[189] Transformers with PCBs (or more accurately that measure above a certain threshold) are required to be replaced by 2025 under environmental regulations and are not contained within the condition data used in Toronto Hydro's ACA.[190] While that itself is a red flag regarding its ACA methodology, one would assume that the transformers with PCB should track closely with those in HI4 or HI5, considering those transformers are likely to be of an older make, which is the most significant driver of the ACA methodology.[191]

***3.3.25*** The issue is not contained only to underground transformers. The evidence is that Toronto Hydro is replacing too many underground switches. Toronto Hydro had 80 switches in HI4/HI5 in 2017, when the proposed plan was developed. In 2024, if not a single underground switch is replaced, it forecasts to have 157 with a health score of HI4/H15.[192] Yet, its proposed plan forecasts a replacement of 231 underground switches.[193] This represents 74 more than will be in HI4/HI5 by 2024, and more than 3 times the number Toronto Hydro would need to replace to maintain HI4/H15 levels (77) over the same period. This would be in addition to those that would otherwise be planned replacements but are instead replaced as part of the Reactive and Corrective program. Unlike transformers, there are no PCBs contained in underground switches.[194]

***3.3.26*** At the hearing, Toronto Hydro tried to explain away the discrepancy by pointing to the need to replace them in higher numbers than the ACA would indicate because of higher failure rates of

[188] Calculation is based on an average of 485 UG transformers replaced on reactive bases between 2015-2018 (2B-AMPCO-62(c); K1.2, p.52) x 5 years (2020-2024) x 10%. Its proposed Reactive and Corrective program budget is based on receiving the same number of work orders that Toronto Hydro has had historically (See Ex.2B-E6.7, p.2)

[189] Tr.3, p.31

[190] Tr.3, p.35-36

[191] Tr.3, p.35

[192] Undertaking J1.4, p.2, Table 8

[193] Ex. 2B-E6.2, p.28; K1.2, p.50

[194] Tr.3, p.38

air insulated switches compared to their expected useful life.[195] In other words, the average useful life information based on a 2009 Kinetrics study that is the basis of the ACA is incorrect, so Toronto Hydro has decided to replace more than the data would otherwise indicate.[196]

***3.3.27*** SEC submits this reveals a problem at the root of its approach to its new ACA. Toronto Hydro simply ignores the results to replace assets when it believes the information populating the model, or the results the model lead to insufficiently high rates of asset replacement. At the same time, there is no evidence that the opposite has occurred, i.e. when the Toronto Hydro's other data reveals it should replace less assets then the model would dictate. Toronto Hydro apparently only ignores the model in one direction.

***3.3.28*** The Board should be concerned that the plan for the only two asset classes with condition information, in Toronto Hydro's single largest capital program, is not driven by its own ACA model results. This is especially true since this is the same program about which the Board criticized Toronto Hydro in its last Custom IR decision.[197]

***3.3.29*** The impact on the capital budget is significant. For example, with respect to the replacement of underground switches alone, Toronto Hydro is proposing to spend at least $13.5M (based on 2020 unit costs) more than would be required if it only replaced the number of switches needed to maintain the number of HI4/HI5 over the term (77).[198] Spread across its entire capital plan, amounts like this will be significant.

***3.3.30*** What is also surprising is that the only version of the capital plan that was presented to Toronto Hydro's Board of Directors, the penultimate plan, makes no reference to asset condition.[199] The Business Plan indicated the drivers of the proposed capital expenditures are "aging assets",

[195] Tr.3, p.39

[196] Tr.3, p.40

[197] *Decision and Order* (EB-2014-0116 - Toronto Hydro 2015-2019), December 29 2015, p.23-24; K1.2, p.40-41

[198] 231 proposed switches to be replaced – 77 switches to maintain the number in HI4/HI5 = 154 switches, multiplied by 2020 forecast unit cost ($87,333, See Interrogatory Response 2B-Staff-81(c); K1.2, p.98) = $13.5M

[199] Interrogatory Response 1A-CCC-1, Attachment A

"city growth" and "climate change action plan".[200] Aging assets are measured entirely by assets beyond end-of-life. [201]

***3.3.31*** This is not consistent with the narrative the Toronto Hydro is presenting to this Board.

***3.3.32*** During the hearing, Mr. Lyberogannis tried to explain that these were simply "three very high-level indicators of drivers that influence our decision- making", and that each of its programs is supported by "very detailed measures".[202] The direction from the Board in the previous decision was quite clear that in Toronto Hydro's asset renewal work, condition should be the high-level indicator that drives its decision-making, not age.[203]

***3.3.33*** In fact, Toronto Hydro did not even have its final ACA information when it went to its Board of Directors in November 2017 for the necessary approvals to move forward (as part of the approval of the corporate Business Plan).[204] Only the ACA results for a subset of asset classes were available beginning of Q3 2017, with the entire ACA final in March/April 2018.[205]

***3.3.34*** It is not sufficient to have only some of the ACA results when developing the plan. One of the major considerations in developing a plan of the size and scope that is proposed in this application is an understanding, within a given set of constraints, of how to allocate funding between capital projects. Of course, SEC does not expect, nor would it be advisable, for the Board of Directors to actually allocate funding between programs. They are not management. However, they should be aware of what has or will be done, and the basis for prioritization by management, before providing a final approval of this multi-billion dollar capital plan. Clearly, the Board of Directors was unable to do so, since the ACA information was either unavailable, or was not presented or discussed clearly with the directors based on the materials management presented to them.

***3.3.35*** ***Previous Custom IR Decision.*** In Toronto Hydro's last Custom IR decision the Board

[200] *Ibid*, p.29

[201] *Ibid*

[202] Tr.3, p.127

[203] *Decision and Order* (EB-2014-0116 - Toronto Hydro 2015-2019), December 29 2015, p.23-25; K1.2, p.40-42

[204] Tr.3, p.124

[205] Tr.3, p.123

commented that it was concerned that Toronto Hydro's asset replacement programs were driven too heavily by asset age and not condition.[206] The evidence in that proceeding was that Toronto Hydro was proposing to replace a significantly greater number of assets than its ACA would indicate required replacement, based on their condition.[207] Toronto Hydro explained that while it did use ACA information, it was primarily for the purposes of accelerating replacement of assets.[208] This was a significant driver of the Board's decision to order a reduction to the proposed capital plan. The Board determined that, "Toronto Hydro's approach should include more emphasis on asset condition in the assessment of when a steady state of asset renewal should be achieved".[209]

***3.3.36*** After receiving the decision, Toronto Hydro did not respond by implementing the recommendations of its ACA, as one would have expected. It decided instead to seek out an entirely new ACA methodology. It decided to implement the asset condition part of the previously discussed CNAIM methodology. That truncated version of the CNAIM methodology is based on asset age, and then modified to account for condition and other factors that impact the health of an asset. [210] At its core, though, it is an age-centric model.

***3.3.37*** Toronto Hydro may be correct as to some of the flaws in how the Kinectrics model calculates asset condition, but the answer is not to use a new methodology that subordinates condition to asset age. Doing so only reinforces the concerns the Board had in Toronto Hydro's last Custom IR application. A comparison of the two methodologies shows that, across asset classes, the new methodology makes Toronto Hydro's system appear to be in worse condition than it did under the old methodology.[211] This in turn is part of the reason that Toronto Hydro is proposing to increase spending on system renewal work.

***3.3.38*** Even before the new ACA methodology was implemented, Toronto Hydro did not appear to be following the guidance from the Board's decision. For example, the ACA information

[206] *Decision and Order* (EB-2014-0116 - Toronto Hydro 2015-2019), December 29 2015, p.23-25; K1.2, p.40-42

[207] *Ibid*

[208] *Ibid*

[209] *Ibid*, p.24-25; K1.2, p.41-42

[210] Tr.1, p.61

[211] See Table in Exhibit K1.2, p.46

provided in Toronto Hydro's last application showed that only 33 underground transformers were in poor or very poor condition, and yet Toronto Hydro planned to replace a significantly higher number.[212] It was this example – underground transformers - that the Board cited in its decision in which it directed Toronto Hydro to use condition, not age, as the driver of its asset renewal capital work. Despite this, after receiving the Board's decision, Toronto Hydro replaced more of those very transformers than it had previously planned over the 2015 to 2019 term.[213]

***3.3.39*** Toronto Hydro pointed to the need to replace these transformers due to PCBs. But even once you remove the 748 transformers replaced due to PCBs (that were not considered in the previous ACA), Toronto Hydro will have replaced many times more than the number the condition assessment would have dictated needed replacing.[214] Between 2015 and 2017, before the new methodology was implemented, Toronto Hydro had replaced 1,555 underground transformers on a planned basis, and 883 that were not a result of PCBs.[215] This is, significantly more than the 2014 ACA that was presented to the Board in the last proceeding would indiciate was required. [216]

***3.3.40*** ***UMS Asset Management Review.*** Toronto Hydro engaged UMS consultants to do a review of its asset management practices, as against the international ISO 55001 standard, and as well as to benchmark it against other North American utilities.[217] On a scale of 0-4, Toronto Hydro received an average score of 2.1 across the ISO 55001 domains that were assessed.[218] This compares to an average score of 1.6 for the comparator group of utilities.[219]

***3.3.41*** Under ISO 55001, to receive certification, a utility needs to receive a level 3, or competence

[212] *Decision and Order* (EB-2014-0116 - Toronto Hydro 2015-2019), December 29 2015, p.23-25; K1.2, p.40-42

[213] Toronto Hydro forecast as part of its EB-2014-0116 application to replace 1667 underground transformers between 2015 and 2019 as part of its Underground Circuit Renewal Program. It actually replaced 2070 underground transformers as part of that program over the same time period (See Interrogatory Response U-AMPCO-130, Appendix A (Updated 2B-SEC-51); K1.2, p.44).

[214] Undertaking J1.3

[215] Interrogatory Response U-AMPCO-130, Appendix A (Updated 2B-SEC-51); K1.2, p.44; Undertaking J1.3

[216] *Decision and Order* (EB-2014-0116 - Toronto Hydro 2015-2019), December 29 2015, p.24; K1.2, p.41

[217] Ex.2B-D, Appendix A

[218] Ex.2B-D, Appendix A, p.7; K8.3, p.47; Tr.8, p.193

[219] *Ibid*

score, on all domains within the standard.[220] Not only has Toronto Hydro not met the certifications standard, but it has not met the level 3 or competence score for *any* of the 11 domains that were assessed.[221] What this demonstrates is that Toronto Hydro has a long way to go to being a best in class distributor. Its asset management process, while slightly better than some of its comparators, is far from what the Board should require of a distributor seeking approval for billions of dollars of capital expenditures.

***3.3.42*** In fact, the comparators that the report 'benchmarks' Toronto Hydro against are not a representative peer group. They are simply a collection of utility business units that UMS has done similar work for over the past 5 years.[222] This leads to a different problem, as the benchmark does not compare utilities at the same point in time. For example, one of the utilities that were included in the comparator group is PowerStream. UMS did their assessment of PowerStream more than 5 years before its assessment of Toronto Hydro.[223] One would hope that utility asset management practice would improve over time, so at the time Toronto Hydro was assessed, the comparator group average would have been higher. Further, the comparator group includes not just distribution utilities, but both distribution and transmission, and transmission only utilities.[224] When one compares Toronto Hydro to similar distribution only utilities, the differential shrinks.[225]

***3.3.43*** In a similar study undertaken for Manitoba Hydro, UMS included a chart showing how a more representative sample of larger utilities across North America and beyond would fare based on a range of information sources.[226] The chart shows that there are many large utilities that are a good comparator to Toronto Hydro, and that have asset management practices that UMS scores better than 2.1. This includes BC Hydro, NextEra, Oncor, and a number of non-North American utilities such as UK Power Networks, Scottish Power, NGRID UK, and PowerLink

[220] Tr.9, p.14

[221] The distribution only average moves from 1.6 to 1.8 See Interrogatory Response 2B-SEC-43(b), Table 1; K8.3, p.78-79

[222] Ex.2B-D, Appendix A, p.11; K8.3, p.51

[223] Tr.9, p.10-11

[224] Ex.2B-D, Appendix A, p.11; K8.3, p.51; Tr.9, p.6

[225] Tr.9, p.8; Interrogatory Response 2B-SEC-43(c), Table 1; K8.3, p.78

[226] K8.3, p.76; Tr.9, p.15-16

Queensland.[227]In fact, Toronto Hydro's score of 2.1 is only about where Hydro One would have been at the time the chart was created in late 2016.[228] The Board in both its most recent Hydro One distribution and transmission decisions, commented on a number of concerns it had regarding its capital planning processes.[229]

## 3.4 ***Program Costs***

***3.4.1*** For most of Toronto Hydro's system renewal capital programs which involve replacement of a large number of similar assets, it built its forecast by inflating the 2015 to 2017 average unit cost each year by 2% into 2020 and through to 2024.[230] By doing so, it is forecasting that the average unit cost for work under some of its largest programs such as Underground Renewal Horseshoe, Reactive and Corrective Capital and Overhead System Renewal will increase each year by an amount that is above the Board's current inflation amount.[231] The reasonableness of its costs, in light of the above inflation increase, has been tested primarily through the unit cost benchmarking study.

***3.4.2*** ***Benchmarking Study***. Toronto Hydro undertook a unit cost benchmarking study conducted by UMS to demonstrate the reasonableness of its unit costs. The UMS study showed that, except for one asset category and activity that were revived, Toronto Hydro was in the second quartile compared to the selected peer group.[232] Toronto Hydro has interpreted the results as showing that it is a productive performer.

***3.4.3*** A careful review of the methodology shows that the Toronto Hydro's performance against the benchmark is not so clear.

***3.4.4*** The UMS methodology is unique, in that it does two major types of adjustments to the raw data. First, it makes several adjustments to ensure that the numbers are comparable. It adjusts

[227] K8.3, p.76

[228] Mr. Morris testified said that Hydro One would have been about a 2. (Vol. 9, p.16)

[229] See *Decision and Order* (EB-2017-0049 - Hydro One Dx 2015-19), March 7 2019, p.54-56; *Decision and Order* (EB-2016-0160 - Hydro One Tx 2017-18), September 28 2017 (Revised October 11 2017), p.31

[230] Tr.1, p.87-88

[231] The 2019 OEB approved inflation factor is 1.5%.

[232] Ex.1B-2-1, Appendix B, p.7; K8.3, p.8

for exchange rate, units of measurement, and accounting practices (i.e. which costs are included when a utility provides unit cost information).[233] Each of these adjustments is normal, and SEC has no concerns.

***3.4.5*** It is the second set of adjustments which raises some concerns. What UMS attempts to do is reflect factors which it believes impact the cost for the utility to replace or undertake an activity. These include relative regional cost differences, weather/climate, population density, vegetation, underground utility congestion, and a long list of other external factors.[234]

***3.4.6*** While, directionally, SEC does not dispute that many of these factors impact costs, UMS has either used specific calculations or translated qualitative factors into arbitrary quantitative adjustments. UMS has assigned equal weights to a number of external factors that are not apparently equal, and then assigns each utility into one of the three categories (low, medium, high), which it then assigns a numerical score. It then adjusts the utilities based on the scores they receive.[235] This leads to some very significant changes in costs for the peer distributors.

***3.4.7*** For example, as discussed during the oral hearing, the impact on all overhead asset replacement/activities of just the designation of population density factor of low compared to high is 9%. This means that all else being equal, if UMS assigns one utility a population density score of 'high' and another a score of 'low', to 'normalize' the unit costs, the lower density utility unit costs will need to be increased by 9%.[236] UMS has not done any empirical research to test whether a utility operating in a high-density service territory should have 9% higher costs.[237] So, while directionally there could be an increase, there is no basis to assume that it is anywhere close to 9%.[238]

***3.4.8*** The same problem exists with all of the other normalizing factors. UMS has not undertaken or based its mathematic adjustments on any empirical research. This is different from the

[233] Tr.8, p.108-109

[234] Ex.1B-2-1, Appendix B, p.29-31; K8.3, p.30-32

[235] Ex.1B-2-1, Appendix B, p.29-31

[236] Tr.8, p.122-123

[237] Tr.8, p.123-124

[238] While 9% is probably considerably more in the ballpark than the 69% applied by PSE, or the 27% applied by PEG, there is still no empirical basis for it.

evidence filed by PSE or PEG. They each do attempt to normalize for external factors, but make those adjustments based on empirical observations that are derived from statistical economic benchmarking. SEC does believe that their results do not reflect anything close to reality, but at least they tried to let the data produce the results.

***3.4.9*** These normalizing adjustments make a significant difference in Toronto Hydro's performance. If only the first category of adjustments (exchange rate, unit of measurement, and accounting) are considered, then Toronto Hydro's costs are higher than the median in 10 out of the 11 categories.[239] It is the second set of normalizing factors which reverse the outcome, with Toronto Hydro's costs suddenly below the median in 10 out of 11 categories.

***3.4.10*** Another major concern with the study is that with a number of asset categories that it benchmarks, it is combining different assets whose costs are not apparently correlated. For example, in benchmarking underground transformer replacements, UMS is actually combining three different assets: padmount, vault and submersible transformers.[240] While each is a transformer used in the underground system, they are not the same asset, and they have very different replacement costs. Unless in each year of the unit cost study the mix of asset replacements for each utility in the group is the same, then the comparison of unit costs is not reliable.[241]

***3.4.11*** Mr. Cummings, on behalf of UMS, agreed that the costs will be different for each transformer, but justified the approach on the basis that it is simply the level of detail that is currently tracked.[242] While that might be the case, it does not change the fact that, without knowing the mix of assets and their differing costs, little can be drawn from the results for asset categories that contain multiple assets. With respect to the UMS study, the same issue exists for overhead switch replacements and network transformer/protector replacements, which are asset

[239] K8.3, p.35; Tr.8, p.113

[240] Tr.8, p.128

[241] SEC accepts that different assets can be grouped together for benchmarking purposes in some cases. That can only be done, however, where the data shows that changes in asset mix do not change the outputs. The UMS study and evidence contain nothing that would show the Board the grouping of assets was done in a rigorous way.

[242] Tr.8, p.128-129

replacement categories with very different types of assets.[243]

***3.4.12*** While SEC submits that the unit cost benchmarking exercise is a good first attempt at assessing Toronto Hydro's asset replacement costs, the results cannot at this point provide much of a foundation for the Board's decision in this proceeding. Due to the various issues with the UMS study, it cannot be said with much confidence that Toronto Hydro is a superior performer. This is the conclusion Toronto Hydro would like the Board to reach. The evidence does not produce that conclusion.

***3.4.13*** ***Productivity.*** As noted in detail in Section 2.9, Toronto Hydro has not built into its capital plan either the productivity benefits of past investments, or a reasonable expectation of productivity from the proposed investments that make up its capital plan. It is not sufficient to simply rely on the stretch factor to account for the productivity benefits associated with the capital plan. SEC submits the Board should reduce the overall capital plan by including an amount to reflect what ratepayers should reasonably have expected from the previous approval of capital expenditures of $2.24Bn ($2.47Bn in in-service additions) .[244] This should be at least the 1.2% of capital spending that Toronto Hydro said it achieved in the previous Custom IR period.[245] Likely, a higher number would be more reasonable.

***3.4.14*** This is in addition to the 0.64% downward adjustment to the C-factor recommended by PEG, which effectively builds in the expected productivity from investments during this current CIR period. The combination of an adjustment to the capital budget to reflect past capital productivity, and an adjustment to the C-factor to reflect future capital productivity, is the minimum the customers should be entitled to expect from a utility that consistently spends more than its peers to operate and maintain its distribution system.

## 3.5 ***Dual Functioning Distribution Control Centre***

***3.5.1*** Toronto Hydro proposes to spend $40.2M to build a fully functional dual control centre.[246] The main driver of the proposed new dual control centre is to replace its existing back-up control

[243] Tr.8, p.129

[244] Ex. U-2-1, Appendix A; Interrogatory Response U-SEC-105

[245] See para. 2.9.6

[246] Ex.2B-E8.1, p.1; K5.3, p.70

centre, which Toronto Hydro views as insufficient to deal with the risk of catastrophic damage or prolonged outage of its primary control centre at its 500 Commissioners Street facility.[247]

***3.5.2*** To support this proposed project, Toronto Hydro retained London Economics Inc. ("LEI") to undertake a review of comparator utilities who have a fully functional backup control centre. The outcome of its LEI's analysis is that, of the identified utilities who have a fully functioning backup control centre, Toronto Hydro's proposed costs were aligned with theirs.[248]

***3.5.3*** What is most revealing about the LEI Report is that there appear to be only very few large utilities that have fully functioning backup control centres. LEI was able to identify only 5 utilities among the 20 largest (by number of customers) US utilities and 5 largest Canadian distributors.[249] In addition, at least 3 (Hydro One, Florida Power & Light Company, and San Diego Gas & Electric) of the 5 utilities also operate transmission assets, unlike Toronto Hydro.[250] Transmission operators are required to apply North American Electric Reliability Corporation (NERC) standards, which in certain circumstances require backup control facilities.[251] SEC is not aware of a similar standard for distribution utilities.

***3.5.4*** None of this is to suggest that there are no benefits from a fully functional dual operating facility, or that one is not in the best interest of Toronto Hydro customers. But any investment must be considered as a trade-off of the increase in rates against the benefits for the customers, and a comparison of that cost/benefit analysis with a similar analysis for other capital investments that could be made.

***3.5.5*** Based on LEI's survey of other distribution utilities, similarly large and important urban centres such as Los Angeles, Washington D.C., and Chicago, do not have backup facilities that have all the capabilities of its main control centre. SEC submits that the proposed expenditure requires a more careful consideration of the scope of the project, and a more comprehensive cost benefit analysis, than the one provided in Toronto Hydro's business case.

---

[247] *Ibid*, p.21; K5.3, p.72

[248] Ex.2B-E8.1, Appendix A, p.2; K5.3, p.80

[249] Interrogatory Response 1B-BOMA-22; K5.3, p.91

[250] Ex. Ex.2B-E8.1, Appendix A, p.9, 12, 14; K5.3, p.85, 88, 90

[251] *See* North American Electric Reliability Corporation (NERC) Standard EOP-008-1 — Loss of Control Center Functionality, section R3 <https://www.nerc.com/files/eop-008-1.pdf>

## 3.6 *IT Spending*

***3.6.1*** ***Overview.*** Toronto Hydro is proposing to increase its spending on information technology ("IT") during the test period. Although there is both a capital and an OM&A component to IT spending, the operational (as opposed to accounting) line between the two is not always clear, and it is often best to consider IT spending as a whole.

***3.6.2*** During the current 2015 to 2019 period, Toronto Hydro has or is forecast to spend $225.4M on capital related IT spending.[252] It proposes to spend $56M or 24.8% more over the upcoming plan term.[253] With respect to OM&A IT spending, Toronto Hydro proposed to spend $44M during the 2020 test year[254], an increase of $9.6M or 27.9% over its 2015 test year actuals, which is about another $225M of IT spending over the plan period, for a total of $506M.[255] SEC submits that these increases are not justified by the evidence.

***3.6.3*** ***Gartner.*** Toronto Hydro has filed a benchmarking study undertaken by Gartner Consulting to attempt to demonstrate that its current and forecasted IT spending is reasonable.[256] The Gartner Report assesses Toronto Hydro's overall IT spending (capital & OM&A) primarily against two major metrics: IT spending as a percentage of revenue, and IT spending as a percentage of operating expenses. The results show that Toronto Hydro's costs in 2017, and a forecast for 2020, are below that of the peer group.[257]

***3.6.4*** The problem with these results is that the Gartner Report methodology is deeply flawed. If anything, it shows that Toronto Hydro's IT spending is higher than its peer group.

***3.6.5*** The Gartner Report measures Toronto Hydro's IT spending not as a percentage of distribution related revenue and operating expenses, but against entire enterprise revenue and operating expenses. The problem with including all revenue and operating expenses is that within those

[252] Ex.U-2-2, Appendix A' K1.2, p.4

[253] *Ibid*; Toronto Hydro proposes to spend $281.4M on IT capital.

[254] Ex.U-4A-1, p.10, Table 11

[255] Total capital and OM&A IT in the 2015-2019 period is $418M, so the total IT spend is proposed to increase by $88 million, or 21.1%.

[256] Ex.2B, Section E7.4, Appendix A; Tr.5, p.127

[257] *Ibid*, p.1; K6.3, p.55; Tr.5, p.130

amounts is the cost of power,[258] which represents 79% and 86% of the respective totals.[259] The cost of power, which includes all other items on the bill that customers pay (i.e. commodity, transmission etc.), is entirely a flow-through cost for Toronto Hydro, and likely has little or *no* impact on the amount of IT investments needed. While it is correct that the cost of power is included in the peer group revenue and expenses, if the commodity cost in Ontario is higher than the peer groups, then all other items being equal, Toronto Hydro will look better, even though this differential does not drive IT spending at all. [260]

***3.6.6*** Further, the type of utility will have an impact on IT costs. For example, if a peer group utility is vertically integrated, and manages in part transmission or even generation assets, their IT costs will be included in the calculation of IT spending and will look higher compared to the others. Toronto Hydro, as a distribution-only utility, does not have those costs included, yet a share of the costs are included in the denominator portion of the calculation as they are included in the transmission and commodity costs for some of the peer group. IT costs for distribution are divided by total revenues from distribution, transmission, and commodity. This will skew the numbers significantly. Since Gartner has refused to provide even a list of the peer group companies, the extent of this issue is unknown.[261]

***3.6.7*** Toronto Hydro had no actual response to this issue. Its witness, Ms. Woo, simply stated again and again that Gartner was the expert.[262] It may have expertise in IT consulting and experience with benchmarking, but the methodology it used to assess Toronto Hydro, a utility that has no control over the vast majority of its overall revenue and expenses, is obviously flawed. Unless the Board can look under the hood and adjust for any biases in the methodology, this study is of limited value.

***3.6.8*** One of the Gartner metrics shows Toronto Hydro significantly above the peer group median – IT spending per employee.[263] Instead of accepting the results, Gartner just assumed there must

[258] Interrogatory Response 2B-SEC-72(c); K5.3, p.67

[259] Ex.1C-3-C, Appendix C, p.4; Tr.5, p.131

[260] Interrogatory Response 2B-SEC-72(d); K5.3, p.67

[261] Interrogatory Response 2B-SEC-72(b); K5.3, p.67

[262] Tr.5, p.131,133,135

[263] Ex.2B, Section E7.4, Appendix A, p.19; K5.3, p.59

be a problem, and that it was because Toronto Hydro's contractors and not just employees are drivers of IT spending.[264] Gartner may be correct in that IT spending per user is a better metric (which would imply that internal and external users have similar impacts on IT spending), but since it does not have similar user information for the peer group, there is no way to know how Toronto Hydro compares against the peer group on this alternative metric.[265]

***3.6.9*** ***ERP System.*** Toronto Hydro proposes to spend $46.3M during the plan term on upgrades to its Enterprise Resource Planning ("ERP") system. This is on top of the $62.8M that it will spend in total during the current 2015 to 2019 term on the same system.[266]

***3.6.10*** In the last proceeding, Toronto Hydro presented a plan to the Board to justify the approval of the spending on the ERP system, with a detailed business case that demonstrated that its proposed course of action was the most cost effective.[267] The evidence included a detailed cost and benefit calculation that demonstrates that the chosen option provided the most monetary and process benefits over a 10 year period.[268]

***3.6.11*** ***Phase 1.*** The ERP plan presented in the last application, which Toronto Hydro now belatedly calls Phase 1, was at a cost of $51.3M during the 2015 to 2019 term and a total of $54M ($2.7M spent before 2015).[269] It forecast to include monetary benefits to the company and ratepayers over 10 years of $73.7M ($60.5M through 2025), and a direct cost savings of $44.5M over the same period ($40.4M through 2025).[270]

***3.6.12*** The ERP Phase 1 project came in over-budget, behind schedule, and without most of the benefits that were forecast. The new ERP system was supposed to go live in 2016, but did not

[264] *Ibid*

[265] *Ibid.* SEC notes that while Gartner does not track in its benchmarking studies IT spending per user, other consultants do. In a recent Ontario Power Generation application OPG filed a IT benchmarking study from the Hackett Group and one of its major metrics was IT costs per 'per end-user'. (See *Decision and Order* (EB-2016-0152 - OPG 2017-2021), December 28 2017, p.69)

[266] Ex.2B-E8.5, p.18; K5.3, p.24; Tr.5, p.109

[267] EB-2014-0116, Interrogatory Response 2B-SEC-39, Appendix A; EB-2014-0116, Ex.2B-E8.6, p.47; K5.3, p.10, 17

[268] EB-2014-0116, Ex.2B-E8.6, p.47; K5.3, p.10

[269] Tr.5, p.110

[270] EB-2014-0116, Ex.2B-E8.6, p.47; K5.3, p.10

get done until late 2018.[271] The budgeted cost was $54M in total, but ended up costing a total of $62.8M.[272] With respect to the forecast benefits, based on the updated information provided in Undertaking J5.8 the monetary benefits drop from $73.7M to 36.5M over the same time period ($35M through till 2025) and the direct savings similarly drops from $44.5M to $13.3M ($11.6M through till 2025).[273] Ratepayers ended up paying more, and are getting substantially less. In fact, by all accounts this would seem to be an investment of ratepayer funds that will lose money overall, and that is before the additional spending proposed for the next Custom IR period.

***3.6.13*** Toronto Hydro attempted to dismiss the difference from the forecast benefits as its inability to measure some of the cost savings it forecasts from reduced overtime.[274] Yet, even if that is to be believed, if one assumed 100% of the forecast overtime savings occurred, $1.2M in year 1 of operation and 1.5M/year in years 2+[275], that still leaves a significant gap in the forecast versus revised expectation of the project benefits.

***3.6.14*** Much of the increased costs were related to additional resources required for the project, and an extension in the project schedule. SEC recognizes that, in their execution, project plans rarely go exactly as scheduled, but that is why Toronto Hydro built a contingency into its original budget.[276] The other cause of the cost increase relates to an additional $1.3M related to new features that Toronto Hydro added to specifications.[277] Yet, obviously those new features did not come with any added monetary or cost saving benefit. This is unacceptable, and the Board should disallow the $8.8M cost overrun.

***3.6.15*** ***Phase 2.*** The proposed $46.3M for Phase 2 of the ERP system is expected to update, maintain and upgrade the new core ERP system, as well as include "initiatives that bring additional

[271] Tr.5, p.111

[272] Tr.5, p.112-113

[273] Undertaking J5.8; EB-2014-0116, Ex.2B-E8.6, p.47; K5.3, p.10

[274] Tr.5, p.116; Technical Conference Undertaking JTC2.4

[275] EB-2014-0116, 2B-SEC-39, Appendix A, p.80; K5.3, p.21

[276] The amount of contingency is provided in response to Undertaking JX6.6

[277] Interrogatory Response 2B-SEC-71(a); K5.3, p.7

benefits of productivity, efficiency, ease of doing business, and improve customer service".[278] In considering which option to undertake to achieve these goals, the analysis included ensuring the estimated costs are commensurate with the intended benefits of the program.[279] But, unlike with Phase 1, Toronto Hydro has not actually attempted to quantify those benefits at this time. As Ms. Woo testified, they have identified qualitative benefits, but "[w]e don't have the quantitative numbers."[280] Based on the May 2019 Phase 1 implementation review, it appears that only now are parts of the company "supporting management to explore the costs and benefits of Phase 2".[281]

***3.6.16*** Without quantification of the benefits, several concerns naturally arise.

***3.6.17*** First, how did Toronto Hydro choose the 'moderate scope solution', versus any of the other three options? How was it able to determine that the benefits were commensurate with costs, and/or that the moderate scope optimized the cost/benefit balance? The answer must be that it did so without any rigorous analysis. This is unacceptable for a project with such a significant size.

***3.6.18*** The lesson from Phase 1 cannot be that since Toronto Hydro has not delivered on the forecast benefits that it presented to justify the project in the previous application, it should stop forecasting the benefits when seeking additional funds for a follow-on project.

***3.6.19*** Second, if Toronto Hydro does not quantify the benefits, then obviously those benefits have not been included in the OM&A or capital budgets, so from the customers' point of view they are effectively zero until the next rebasing. If there really are any benefits, they will go to the shareholders.

***3.6.20*** If customers are being asked to fund a significant capital project whose purpose is to achieve productivity and efficiency benefits[282], then those same customers should also get those

[278] Interrogatory Response, 2B-SEC-70, Appendix A, p.10-11; K5.3, p.35-36

[279] *Ibid*, p.14; K5.3, p.39

[280] Tr.5, p.120

[281] Undertaking J6.5, Appendix A

[282] Interrogatory Response, 2B-SEC-70, Appendix A, p.11,14; K5.3, p.36,39

benefits.[283] This should be true whether the benefits are on the capital or the OM&A side.

***3.6.21*** ***CIS.*** An even more stark example of Toronto Hydro's flawed analysis is its proposed new CIS system, discussed earlier. Toronto Hydro is proposing to spend $38.5M to change to a new CIS system.[284] In its own business case for the project, Toronto Hydro states that its four options were evaluated against four different criteria. The fourth of those criteria was 'comparative high-level costs vs. direct benefits' which is defined as "[d]oes the option provide direct and quantifiable benefits and what magnitude? How do these benefits compare to the estimated cost of the option."[285]

***3.6.22*** When asked about those quantified benefits, Ms. Woo stated that Toronto Hydro "have not quantified the benefits."[286] In fact, Ms. Woo further went on that they will quantify the benefits closer to project execution.[287] At that point it will be too late. Toronto Hydro, based on its qualitative assessment, has already chosen the 'Enhanced Implementation of CIS' which is the 'recommended option' based on what can be no more than a back-of-the-envelope assessment.[288] As Ms. Woo candidly put it, "[w]e have not quantified the benefits, but we are pretty confident of the ask of the capital spend that we need on this project."[289] Benefits and costs go hand-in-hand. Their confidence is no substitute for evidence. If it did, the Board would have nothing to decide.

***3.6.23*** SEC is troubled by this course of action. This is not how you decide to spend tens of millions of dollars on a mission-critical IT investment. Customers expect quantifiable benefits for new investments, and rigorous decision-making when their funds are being committed.

[283] Tr.5, p.120

[284] Ex.2B, E8.4, p.18; K4.3, p.24

[285] Interrogatory Response 2B-SEC-70, Appendix A, p.10; K5.3, p.48

[286] Tr.5, p.122

[287] Tr.5, p.121-122

[288] Tr.5, p.122

[289] Tr.5, p.124

## 3.7 ***Copeland Phase 1***

***3.7.1*** In previous applications, the Board approved the costs related to the construction of a new transformer station in downtown Toronto. This has now become known as the Copeland TS project Phase 1. [290] The approved cost for the Copeland TS was $195M. This included $136M for costs related to work Toronto Hydro was responsible for undertaking, and a $60M capital contribution to be paid to Hydro One for work that it would be responsible for related to assets it owned.[291] Ultimately, the construction of the Copeland TS was delayed, and Toronto Hydro now forecasts the costs to reach $204M.[292]

***3.7.2*** Toronto Hydro's position is that a variance of approximately 4.7% "is not unanticipated for a project of this size and complexity".[293] SEC disagrees, but regardless notes that the 4.7% is misleading. Based on the work Toronto Hydro was responsible for, the amount is significantly higher.

***3.7.3*** During the execution, Toronto Hydro determined that less work was required to be done by Hydro One. Instead of Hydro One installing 10 high-voltage breakers, only six were installed.[294] This ultimately reduced the needed capital contribution payable to Hydro One from $60.4M to $39.9M.[295] With the reduction of high-voltage breakers, Toronto Hydro did some additional work in the area of tunnel design.[296] This would explain the increase in costs associated with the tunnel.[297]

***3.7.4*** If one only looks at the station costs, however, which are not impacted by the decision by Hydro One, Toronto Hydro's forecast costs were 21.8% above the approved amount ($146.2M revised forecast versus $120M approved).[298] A 21.8% cost overrun is clearly not in a normal or

[290] Copeland TS was originally approved in EB-2012-0064. See *Partial Decision and Order* (EB-2012-0064 – Toronto Hydro ICM), April 2 2013, p.52-54

[291] Interrogatory Response 2B-Staff-95(c), Table1; K1.2, p.132

[292] *Ibid*

[293] Interrogatory Response 2B-Staff-95(c); K1.2, p.131

[294] Tr.1, p.115-116; Technical Conference (Feb 19 2019) Transcript, p.36

[295] *Ibid*; Interrogatory Response 2B-Staff-95(c), Table1; K1.2, p.132

[296] Technical Conference (Feb 19 2019) Transcript, p.36

[297] Interrogatory Response 2B-Staff-95(c); K1.2, p.132

[298] *Ibid*, Table 1; K1.2, p.132

reasonable range, even for a project of this size and complexity.

***3.7.5*** Toronto Hydro's explanation for the cost overrun does not demonstrate that its actions were prudent.

***3.7.6*** For example, Mr. Tragachef testified that the site conditions "were unknown to us at the time of planning and we encountered during our construction".[299] Those surprise site conditions included "[p]roximity to the heritage Roundhouse required special care and protection of the adjacent historic building".[300] The heritage nature of the Roundhouse, which sits right next to the Copeland TS, is not something that was an unknown to Toronto Hydro. If it was, that would represent a serious issue regarding Toronto Hydro's planning, but it clearly was not.

***3.7.7*** Further, the issue related to the logistical challenges of a downtown construction site should also not have been "unknown" to Toronto Hydro.[301] In a proceeding in which Toronto Hydro itself is making a big deal out of their special urban challenges, it is more than a little ironic that those same challenges were apparently not built into their Copeland TS planning, and are now trotted out as an excuse for cost overruns in a major project. An urban utility should not be surprised at being an urban utility.

***3.7.8*** SEC submits that, if Toronto Hydro had properly planned for these issues, there might have been additional costs, but it would have been able to better plan and mitigate the issues, which would have resulted in a lower incremental cost. It is the poor planning that was a significant cause of the cost increase.

***3.7.9*** Of course, it is also possible that these issues are being brought up after the fact to divert attention from the more obvious explanation for the cost overruns: insufficient cost control and/or lax project management. If the Board does not believe that Toronto Hydro planned this project without realizing that heritage buildings and urban locations can increase costs, then it may conclude that the real reason was not in the planning, but in the execution.

***3.7.10*** Toronto Hydro has also pointed to issues with respect to financial issues of its general

[299] Tr.1, p.123

[300] Interrogatory Response 2B-Staff-95(b), Table 1; K1.2, p.130

[301] *Ibid*

contractor Carillion, which led to their being granted creditor protection under the *Companies' Creditors Arrangement Act.*[302] [redacted]

***3.7.11*** SEC submits that the Board should disallow the entire overall $9M cost overrun for Copeland TS compared to the approved budget. While the cost overrun is not entirely due to imprudence on the part of Toronto Hydro's project planning, the initial OEB approved number is also no longer a valid measuring stick, as it includes capital contributions to Hydro One that were not paid due to the change in the scope. A reduction of $9M still reflects at most 34% of the Toronto Hydro specific cost overruns on the station.

## 3.8 ***Vehicles***

***3.8.1*** SEC has concerns with Toronto Hydro's proposed budget for vehicles (fleet and equipment services budget). Toronto Hydro has proposed a budget of $42.5M over the plan term for new vehicles[304], yet the evidence is that its current utilization rates for its existing vehicles appear to indicate that it does not require as many to complete its capital and maintenance work.

***3.8.2*** Toronto Hydro's fleet utilization rate, a metric that tracks the amount of standard working time (730am to 3pm)[305] its vehicles are being used, is only forecast to be 50% in 2020.[306] This number is lower than its 2015 fleet utilization rate (52%).[307] SEC submits that a rate of 50% of utilization during standard working hours is not reasonable. Half of Toronto Hydro vehicles are forecast to be sitting in its work centre and not at or on-route to at a jobsite. [308] This is a ripe area for a productivity improvement, and is evidence that Toronto Hydro does not need as many vehicles and a reduction should be made to its vehicle budget.

---

[302] *Ibid*

[redacted]

[304] Ex.2B-E8.3, p.1

[305] Tr.6, p.9

[306] Interrogatory Response 4A-AMPCO-94(b)

[307] *Ibid*

[308] Toronto Hydro calls a work centre a 'home zone'. See Technical Conference Tr.3, p.138

## 3.9 ***Energy Storage Projects***

***3.9.1*** ***The Segement.*** As part of its proposed capital plan, Toronto Hydro is seeking approval of its Energy Storage System ("ESS") program at a cost of $52.8M in gross costs and $10.5M in net costs over the term of the plan.[309] The ESS program contains three types of investment segments: Grid Performance, Renewable Enabling, and Customer-Specific. SEC has a significant concern with respect to the Customer-Specific ESS segment.

***3.9.2*** The Customer-Specific ESS segment is made up of projects that would be installed at the request of a customer, and behind-the-meter.[310] Toronto Hydro recognizes that the primary beneficiary of these investments are the requesting customers, who will be able to hourly peak-shave for the purposes of reducing Global Adjustment costs, if they are large enough, through the Industrial Conservation Initiative, as well as increase their reliability by providing emergency backup power.[311] In recognition that the beneficiary is the individual customer who has requested the installation of the storage system, those customers must pay a capital contribution to offset its cost.[312]

***3.9.3*** SEC submits the Board should deny the proposed Customer-Specific ESS segment.

***3.9.4*** ***OEB Act does not allow the activity to be included in rates.*** Under section 71(1) of the *OEB Act*, distributors are prohibited, outside of an affiliate, from undertaking activities other than distributing or transmitting electricity.[313] Constructing, maintaining, and/or operating behind-the-meter Customer-Specific energy storage systems are not distributing electricity. The Board has previously determined, in the context of an application by Toronto Hydro to transfer streetlighting assets to its rate base, is that the "concept of distribution implies 'multiple recipients'".[314] A service which is being provided to a single customer does not meet this

[309] Ex.2B-E7.2, p.1; K1.2, p.152

[310] *Ibid*, p.4; K1.2, p.155

[311] *Ibid*

[312] *Ibid*

[313] *Ontario Energy Board Act*, 1998, s.71(1)

[314] *Decision and Order* (EB-2009-0180/181/182/183 - THESL et al), February 11 2010, p.6

requirement.[315]

***3.9.5*** Section 71(3)(c) of the *OEB Act* does provide a specific exemption from the restriction on non-distribution business activities of a distributor for owning and operating a "a facility that is an energy storage facility".[316] But, pursuant to section 72 of the *OEB Act*, a distributor is required to "keep its financial records associated with distributing electricity separate from its financial records associated with other activities."[317] Including these Customer-Specific ESS projects in rates would not be keeping the financial records separate. In fact, it would be doing the opposite, and would involve comingling the financial accounts of Toronto Hydro's distribution service and that of its Customer-Specific ESS service.

***3.9.6*** ***Not A Monopoly Activity.*** Even if the Board believes it could legally allow Toronto Hydro to include the costs of these activities in its rate base, it should not. As Toronto Hydro readily admits, behind-the-meter storage is a competitive activity.[318] There are other unregulated service providers who currently offer a host of behind-the-meter energy storage solutions.

***3.9.7*** SEC submits there is no valid reason why Toronto Hydro should undertake an activity that already has an active and competitive market. The Board's fundamental role is to regulate rates and activities for monopoly services. Installation and operation of behind-the-meter storage does not have any monopoly characteristics, and so should not be done as part of Toronto Hydro's regulated activities. This is consistent with previous Board decisions on utilities engaging in activities in a competitive market.

***3.9.8*** In EB-2009-0172, the Board determined that, even if the Board had jurisdiction to allow Enbridge Gas Distribution Inc. to include certain renewable energy activities in rate base, it would decline to do so due to the existing competitive market for those activities.[319] The Board

[315] SEC recognizes that certain assets such as meters or secondary lines will by their very nature only service a single customer. The difference with those assets is they are inherently integral and necessary for a distribution service. Behind-the-meter energy storage is different as it is not integral or necessary for the customers' distribution service. In fact, it is really providing a separate service.

[316] *Ontario Energy Board Act*, 1998, s.71(3)

[317] *Ibid*, section 72

[318] Tr.1, p.132; Tr.3, p.65

[319] *Decision on a Preliminary Motion* (EB-2009-0172 - Enbridge Gas Distribution Inc), December 22 2019

stated that "[p]ermitting a well financed public utility to include its costs of participation in this market into its rate base, thereby transferring risk to the ratepayer, is unfair to other market participants."[320]

***3.9.9*** More recently, the Board rejected Enbridge Gas Distribution Inc.'s proposal to rate-regulate a renewable natural gas upgrading service on a similar basis. The Board found that, even if it had jurisdiction to do so, it would not do so on the basis that the activity was "potentially a competitive activity in Ontario."[321] In this proceeding, the behind-the-meter storage is not just a potential but an actual competitive activity, as recognized by Toronto Hydro. [322]

***3.9.10*** Similar to Toronto Hydro's proposal, Enbridge had proposed that customers be required to pay a capital contribution to offset the costs of the investment. But even with this approach, the Board determined that it "must also consider whether natural gas customers should bear any risk for this competitive service."[323] The Board found "that they should not".[324] The evidence is that all Toronto Hydro customers will bear risk even though a capital contribution is signed with the customer.

***3.9.11*** ***Ratepayer Risk.*** That risk is borne by customers because the capital contribution that the customer must pay is a forecast of the initial capital costs of the energy storage system, and a forecast of the incremental OM&A costs incurred over the life of the asset. As Toronto Hydro is utilizing its current offer to connect policy, the actual capital costs to construct the energy storage system are not trued-up.[325] The risk of a cost overrun, on a significantly sized capital project that Toronto Hydro has limited experience constructing and operating, is borne by ratepayers. Any difference from costs that are recovered from the contribution, and actual costs, Toronto Hydro admits will be borne by all ratepayers.[326] This includes not just differences in the initial construction costs, but also any further capital work required to

[320] *Ibid*, p.61

[321] *Decision and Order* (EB-2017-0319 - Enbridge Gas Distribution Inc), October 18 2018, p.11

[322] Tr.1, p.132

[323] *Decision and Order* (EB-2017-0319 - Enbridge Gas Distribution Inc), October 18 2018, p.11

[324] *Ibid*

[325] Tr.1, p.131

[326] Tr.1, p.131-132

maintain the storage system.

***3.9.12*** SEC notes that it should not be the role of regulated customers to bear the downside risk while Toronto Hydro learns the competitive energy storage business. If Toronto Hydro wants to develop a new, unregulated energy storage line of business, it is allowed to, but it should do it without a safety net, just like any other company.

***3.9.13*** Competitive behind-the-meter storage providers do not have the same ability as Toronto Hydro is now seeking to download risk onto a group of monopoly customers. If Toronto Hydro wants to engage in a competitive activity such as behind-the-meter energy storage, it can do so through its current energy services affiliate, Toronto Hydro Energy Services Inc.[327] Undertaking the activity through an affiliate is the Board's way of seeking to ensure, through application of the Affiliate Relationship Code, that there is no cross-subsidization between the regulated and unregulated entities within the Toronto Hydro Corporation family. This not only protects Toronto Hydro customers, but also competitive energy storage providers.

***3.9.14*** Toronto Hydro has tried to claim that undertaking investments for customer-specific behind-the-meter storage as part of the regulated utility as appropriate, as it also provides a system benefit to all distribution customers.[328]

***3.9.15*** SEC submits the system benefits, if any, are either overstated or not actually known. At the oral hearing, Toronto Hydro pointed to its ability to control the storage system and prioritize distribution customers at the expense of the specific behind-the-meter customer in a case of emergency.[329] At best this is a pretty minimal benefit that would rarely if ever arise, since any prioritization of distribution customers would cost the specific customer in Global Adjustment or emergency power benefits.

***3.9.16*** Further, any benefits cannot properly be determined without understanding the actual

[327] Ex.1C-2-1, p.1. As noted earlier, SEC recognizes that under section 71(3)(c) of the *Ontario Energy Board Act*, Toronto Hydro can carry this activity out in the regulated utility as well, but only as a segregated, unregulated activity. Using an affiliate would be more transparent, but a non-utility activity within Toronto Hydro is also allowed.

[328] Ex.2B-E7.2, p.31-31; K1.2, p.155-156

[329] Tr.2, p.174-175

arrangement between the specific customer and Toronto Hydro. The arrangement is to be set out in an operating agreement. Those are agreements Toronto Hydro has yet to finalize, and thus are not available for the Board to review and assess.[330]

***3.9.17*** Whatever system benefits do exist, they are clearly secondary. As Toronto Hydro points out, "the [i]investments in this segment are driven by the requesting customer's needs".[331] They are not driven by overall distribution system benefits.

***3.9.18*** It should also be noted that the broader issue regarding regulated distributors' involvement in distributed energy resources (DERs) will be explored as part of the Board's Responding to Distributed Energy Resources consultation (EB-2018-0288). At the very least, the issue of the ability of distribution companies to engage in competitive behind-the-meter activities should be explored in the context of that consultation, and should not be preempted in this proceeding.

***3.9.19*** The Board should send a clear message to Toronto Hydro that it is not permissible to undertake behind-the-meter energy storage activities as part of its regulated utility activities. The market is currently competitive, so there is no reason for customers to bear any risk from this activity. If Toronto Hydro wants to undertake such activities, it should be separate from its regulated activity, preferably through in affiliate, in compliance with all of the existing rules that protect its distribution customers.

## 3.10 ***Rate Base***

***3.10.1*** ***Half-Year vs. Monthly Approach.*** Toronto Hydro calculates depreciation expenses on a monthly basis, as opposed to applying the simpler half-year rule. It does this both because it has the information, and because it results in a more accurate reflection of actual costs.[332] In contrast, for the calculation of its rate base, which utilizes the same underlying information, Toronto Hydro calculates in-service additions using the half-year rule.[333]

---

[330] *Ibid*

[331] Ex.2B-E7.2, p.4; K1.2, p.155

[332] Tr.1, p.178-179, 180

[333] Tr.1, p.178

***3.10.2*** Since using monthly information is more accurate, and is already being done for the purposes of its depreciation calculation, Toronto Hydro should be required to use the monthly calculation for additions to rate base as well. The rationale for the differing approaches appears to be nothing more than historical happenstance. Toronto Hydro has historically calculated depreciation on a monthly basis.[334]

***3.10.3*** The impact on customers of using the half-year rule versus the more accurate monthly average approach is significant. On average, the annual rate base is over $73M higher under Toronto Hydro's proposal, and over those five years the incremental revenue requirement and therefore rates from the Toronto Hydro approach is about $33 million.

| Rate Base Calculation ($M) | | | | | |
|---|---|---|---|---|---|
| | 2020 | 2021 | 2022 | 2023 | 2024 |
| THESL Proposal (1/2 Year Rule) | 4369.7 | 4601.9 | 4844.4 | 5128.5 | 5393.2 |
| SEC Proposal (Avg. Monthly Approch) | 4307.8 | 4537.4 | 4746.7 | 5058.8 | 5320.8 |
| Variance | 61.9 | 64.5 | 97.7 | 69.7 | 72.4 |
| *Source: Undertaking J1.9* | | | | | |

***3.10.4*** The half-year rule is used as a proxy, since most utilities cannot accurately forecast when an asset will go into service within a year. But Toronto Hydro is able to do so, on a monthly basis and, as it readily admits, a larger proportion of distribution assets go into-service in the latter half of the year due to the natural construction cycle.[335] Toronto Hydro expects that to continue.[336] Allowing Toronto Hydro to continue to use the half-year rule in light of its actual average in-service date is overcompensating Toronto Hydro.

***3.10.5*** SEC submits that the Board should require Toronto Hydro to calculate its additions to rate base on a monthly basis consistent with how it calculates depreciation. It provides a more accurate reflection of its costs.

***3.10.6*** ***Capital Expenditure to In-Service Addition Ratio.*** SEC has a concern regarding how Toronto Hydro converts capital expenditures into in-service additions for the purpose of ratemaking.

[334] Tr.1, p.179

[335] Tr.1, p.180

[336] Tr.1, p.180-181

Unlike other large utilities that have come before the Board, Toronto Hydro does not convert capital expenditures using a program specific capital expenditure to in-service addition conversion rate. With the exception of its major projects and capital spent in its general plant category, it uses a single ratio based on the historic conversion of all other capital programs and projects.[337]

***3.10.7*** Since over time the mix of capital expenditures will change, the use of a generic capital expenditure to in-service addition ratio will lead to inaccurate calculation of the actual amount of assets that are in-service. This is because different programs invariably have different lags between the spending of capital dollars (capital expenditures) and the asset becoming used or useful (in-service additions).

***3.10.8*** Further, without program specific capital expenditure to in-service addition ratios, Toronto Hydro is unable to provide an accurate forecast, on a program basis, of its in-service additions. At first, Toronto Hydro refused to even provide an estimate of its 2020 to 2024 programs on an in-service addition basis.[338] After much prodding, Toronto Hydro provided by Undertaking a forecast, but provided two pages of limitations on the reliability of its own methodology used to provide the forecast.[339] Without the information, the Board and intervenors cannot assess, after the fact, if Toronto Hydro was able to deliver on its capital program.

***3.10.9*** The Board should require Toronto Hydro to develop program specific capital expenditure to in-service addition ratios so that a more accurate in-service addition forecast can be developed for the purposes of setting rates, and to allow greater transparency.

[337] Undertaking JTC 1.4, Attachment A

[338] For example, see Interrogatory Response 2A-SEC-31

[339] Undertaking JTC 1.4, p.2-3

# 4 LOAD, CUSTOMERS, AND OTHER REVENUE (ISSUE 4)

***4.1.1*** SEC has no submissions on the load, customers, and other revenue forecasts.

# 5 OM&A, DEPRECIATION & PILS (ISSUE 5)

## 5.1 *Overview*

***5.1.1*** Toronto Hydro is seeking approval of a 2020 test year OM&A budget of $277.5M. This represents a 13.7% increase over its previous Board approved amount, and a compound annual increase of 2.6%.[340] Even after adjusting for changes in billing determinants, this represents an increase above the Board's inflation factor for each year of the Custom IR term.[341]

***5.1.2*** Toronto Hydro's cost per customer has also increased, especially that of its administrative costs per customer. One would expect that, as Toronto Hydro increases the number of customers served, the administrative costs to serve on a per customer basis would decline due to scale economies.[342] The opposite has happened. Toronto Hydro's administrative costs per customer have increased 11.7%, from $171.6 per customer in 2015 to a forecast cost of $191.7 per customer.[343] This is a compound annual growth rate of 2.3% per year, and because it is per customer, it already factors in growth. This is almost twice the rate of inflation for the 2015-2019 period.

***5.1.3*** SEC submits the Board should reduce the OM&A forecast for 2020 by at least $18.3M to reflect the impact of hiring delays, bad debt expenses, and an amount to reflect both annual productivity and efficiencies during the current Custom IR period, and incremental amounts that were not built into the 2020 test year budget.

## 5.2 *Productivity*

***5.2.1*** As discussed in detail in Section 2.9, Toronto Hydro has not included the benefits of productivity of OM&A investments during its current plan into its 2020 test year OM&A. Toronto Hydro has been unable to demonstrate *any* productivity savings that have been included in its 2020 OM&A budget.[344]

***5.2.2*** In addition, Toronto Hydro has not included the impact of any new initiatives in its 2020 test

[340] Ex.4A-2-1, p.2

[341] OEB inflation amounts: 1.60% (2015), 2.10% (2016), 1.90% (2017), 1.20% (2018), 1.50% (2019)

[342] Ex.4A-1-5, p.1

[343] *Ibid*

[344] In contrast, Toronto Hydro was able to quantify some of its capital savings in Undertaking J3.2.

year budget, even though it plans to spend $277.5M, and it has a substantial capital plan. This is unacceptable. The Board should impute those savings and reduce the proposed 2020 OM&A budget appropriately. SEC believes that a reasonable range of reduction in 2020 OM&A based on productivity is 5%, being 1% each year from 2015 to 2019. Compounded annually over the last plan period, this amounts to 5.1%, which would reduce the 2020 OMA by $14.2 million.

## 5.3 ***Staffing Costs***

***5.3.1*** Toronto Hydro's own evidence is that it does not expect to meet the staffing levels included in its proposal.

***5.3.2*** For example, Toronto Hydro has had to delay hiring approximately 50 FTE Power Line Technicians ("PLT") in 2019 due to issues regarding negotiations with the Power Workers Union.[345] Its own expectation is that this is going to impact its 2020 FTE numbers that underlie the application. Ms. Powell testified that, while they hope to have these new PLTs hired by 2020, it may take until 2021.[346] The updated information provided in response to Undertaking J5.1 shows that 2020 FTEs will be reduced from 1517 to 1491, and represent a total reduction in compensation costs of approximately $3.2M.[347] If anything, these revised numbers likely overstate the number of FTEs that Toronto Hydro will hire in 2020. To get to even the new revised 2019 levels, Toronto Hydro will need to hire the equivalent of 84 FTEs alone.[348]

***5.3.3*** In its response to Undertaking J5.1, Toronto Hydro states that it supplements its internal resources with external contractors, and so any delay in hiring PLTs will simply lead to the use of more contractor labour. In its view there will be no impact in OM&A costs in 2020.[349] SEC is doubtful that the entirety of the PLTs will be replaced with contractor labour, since most of these hires are likely to be less experienced employees who require significant training.[350] Further, the Toronto Hydro position assumes that the cost for external labour is the same as

[345] Interrogatory Response U-Staff-185; K5.1, p.10-11; Interrogatory 4A-AMPCO-101(d)

[346] Tr.5, p.136-137

[347] See Undertaking J5.1, Appendix A compared to Interrogatory Response U-SEC-102 Appendix A

[348] Undertaking J5.1

[349] *Ibid*

[350] Ex.4A-2-10, p.4-5

internal resources. SEC would assume that the main reason Toronto Hydro uses external resources, especially for non-capital work which is much less variable, is that over a period of time the contractors are more cost effective.

***5.3.4*** SEC submits the Board should reduce Toronto Hydro compensation costs by $3.2M a year. Based on the amounts allocated to OM&A and capital, this means a $1.7M reduction in OM&A and a $1.5M reduction in capital.[351]

## 5.4 *Bad Debt Expense*

***5.4.1*** Toronto Hydro has forecast a bad debt expense in $7.1M in 2020.[352] Toronto Hydro's view is that the winter disconnect moratorium is leading to an increase in bad debt expenses.[353]

***5.4.2*** The evidence, on the other hand, is that the amount is an overstatement, and such an amount is unlikely to materialize. The moratorium simply has not had the impact that Toronto Hydro expected. In 2018, Toronto Hydro had forecasted $6.5M for bad debt expenses, a $1.2M increase over 2017 actuals.[354] The 2018 actual bad debt expense was only $4.3M.[355]

***5.4.3*** With now two winters' experience with the winter disconnect moratorium in effect (2017 and 2018), the bad debt expense has not come close to the 2019 or 2020 forecasts that Toronto Hydro has provided.

***5.4.4*** SEC therefore submits that the Board should only approve an amount in OM&A related to bad debt expense equal to the average of the[356] 2017 and 2018 actuals of $4.7M. This results in a reduction of $2.4 from the proposed 2020 budgeted amount.

## 5.5 *PILs*

***5.5.1*** Toronto Hydro provided as part of the interrogatory response to its evidence update, updated PILS calculations related to the implementation of certain material tax changes as a result of

[351] Undertaking Response 4A-SEC-87(c)

[352] Interrogatory Response U-Staff-184: K5.1, p.14

[353] Ex.4A-2-14, p.19

[354] Ex.9-1-1, p.30; Interrogatory Response U-Staff-184; K5.1, p.14,16

[355] Interrogatory Response U-Staff-184; K5.1, p.14

[356] Tr.5, p.39

the 2019 Federal Budget (Bill C-97).[357] In its response, it noted that it was making a number of assumptions that may change as the legislation is finalized.[358] Bill C-97 has now passed, and so Toronto Hydro should be required to update the PILs methodology at the Draft Order stage, as opposed to simply the flow through amounts as a result of the Board's Decision.

***5.5.2*** Previously Toronto Hydro had stated that it would be able to capture the 2018 and 2019 impacts of the changes in its CRRRVA account.[359] SEC submits the Board should require, as it is currently doing for all regulated utilities, a separate Account 1592 subaccount to record the impact of the capital cost allowance changes as a result of Bill C-97. [360] The CRRRVA was meant to specifically protect customers from actual and approved capital related revenue requirement due lower then expecting spending and in-service delays. The proposed 1592 subaccount is to allow customers to benefit from the new capital cost allowance rules contained in Bill C-97. [361] The risk of allowing the impact of C-97 to be accounted for in the CRRRVA is that any credit to customers that may arise from the tax changes, may be offset by other elements of Toronto Hydro's actual annual capital revenue requirement, such as higher than forecast spending.

[357] Interrogatory Response U-Staff-188

[358] Interrogatory Response U-Staff-188(b)

[359] Interrogatory Response U-Staff-188(d)

[360] See Letter from the Board Secretary, Re: Accounting Direction Regarding Bill C-97 and Other Changes in Regulatory or Legislated Tax Rules for Capital Cost Allowance, July 25 2019

[361] *Ibid*, p.2

# 6 OTHER (Issues 1.2, 6-8)

## 6.1 *Effective Date (Issue 1.2).*

***6.1.1*** Toronto Hydro filed its application in late July 2018, seeking a proposed effective date of January 1st 2020. SEC submits that, considering the date of the filing of the application, and there being no material updates that were unforeseen, the proposed effective date is reasonable.

## 6.2 *Revision to Conditions of Service (Issue 7.3)*

***6.2.1*** Toronto Hydro previously proposed to revise its conditions of service with respect to its Person-in-Attendance charge. The proposed policy would have limited the current policy of one vault entry per year at no charge to a maximum of 2 hours.[362] At the hearing, Toronto Hydro confirmed that it had withdrawn the proposed amendment to its conditions of service.[363] On that basis, SEC did not cross-examine on the issue.

***6.2.2*** The proposed change was a particular concern for SEC, as many schools have Toronto Hydro electrical equipment located in on-site vaults. The customers have a responsibility to maintain the vaults, but in many cases they are not permitted to enter them unless Toronto Hydro staff is present.[364]

***6.2.3*** While the withdrawal of the proposed revision to the Conditions of Service is welcome, SEC still has some concerns it wishes to express.

***6.2.4*** First, the Board should ensure that Toronto Hydro will not simply revise the policy at some other time, after the Board has rendered its decision in this proceeding. Toronto Hydro has taken the view that the Distribution System Code does not require Board approval for changes to its Conditions of Service.[365] SEC is not taking any position on that interpretation, but by withdrawing the revision and thus claiming it is "no longer a live issue in this proceeding", there is an unfairness if Toronto Hydro later does change the Conditions of Service. By

[362] Interrogatory Response 4A-GTAA-8 part (b)(ii)

[363] Tr.4, p.159-160

[364] Conditions of Service, section 1.7.5 <https://www.torontohydro.com/documents/20143/85785/conditions-of-service.pdf/dd339e19-a626-794f-99e2-6daf14e3494c?t=1554732806706>; Interrogatory Response 4A-GTAA-8(a)(i)

[365] Argument-in-Chief, para.235

withdrawing the issue, it removes the scrutiny that the proceeding would have ensured, but Toronto Hydro is essentially saying that it retains the ability to simply revise the condition at any time during the plan term. This is unfair to directly affected customers. It is also unfair to all customers, since by withdrawing the request Toronto Hydro did not include the increased revenue as revenue offset to its revenue requirement. If Toronto Hydro is allowed to revise the policy at a later date during the Custom IR term, then in addition to the result that those affected by the charge would lose the opportunity to fight it, the added revenues would not act as a revenue offset, but as a windfall to Toronto Hydro.

***6.2.5*** Second, there is a broader issue that the Board should consider regarding what services should be allowed to be recovered at-cost or on a pass-through basis from customers pursuant to the Conditions of Service, and what is a rate that must be included in the Tariff. The line has been somewhat unclear for many years, and that likely leads to some distributors recovering certain specific costs on at-cost basis from individual customers, and others recovering those same costs through regulated rates.

***6.2.6*** For example, it is not clear to us, besides historical circumstance, why *any* Toronto Hydro costs related to these vaults should be the responsibility of the individual customer. These customer-owned vaults store THESL equipment at no cost to THESL[366], and are maintained by the customer pursuant to the Conditions of Service. At the same time, when customers access the vault to undertake maintenance and other activities, the same Conditions of Service require THESL personnel to be in attendance.

***6.2.7*** SEC is not proposing that this application be the forum for that discussion, but it is a policy issue that the Board could investigate and consider. In the meantime, it is submitted that – given the issue was raised and withdrawn in this proceeding - the Board should direct Toronto Hydro not to change this provision without Board approval.

## 6.3 ***Costs***

***6.3.1*** SEC submits that it has participated responsibly in this proceeding with a view to maximizing its assistance to the Board, and therefore requests that the Board order reimbursement of its

[366] Tr.2, p.102

reasonably incurred costs for so doing.

ALL OF WHICH IS RESPECFULLY SUBMITTED.

_____
Mark Rubenstein
Jay Shepherd
Counsel for the School Energy Coalition