

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 May 1, 2015 and for each following year effective January 1 through to December 31, 2019.

**COMMENTS ON DRAFT RATE ORDER
ENERGY PROBE RESEARCH FOUNDATION
("ENERGY PROBE")**

February 5, 2016

TORONTO HYDRO-ELECTRIC SYSTEM LIMITED

CUSTOM IR RATES CASE 2015-2019

EB-2014-0116

SUBMISSION OF ENERGY PROBE RESEARCH FOUNDATION ON DRAFT RATE ORDER

A- INTRODUCTION

Toronto Hydro-Electric System Limited (THESL) filed its draft rate order (DRO) on January 22, 2016, as directed by the Ontario Energy Board (OEB) in its December 29, 2015 Decision and Order (Decision).

This is the Submission of the Energy Probe Research Foundation (Energy Probe) related to the DRO. Energy Probe has reviewed the DRO filed by THESL on January 22, 2016. Our comments are focused on the implementation of the Custom Price Cap Incentive Mechanism (CPCI).

B - SUBMISSIONS

Background

Under the RRFE the Board provides 3 options for generating rates for Electricity Distributors:

- 4GIRM PCI (with Stretch factor)
- 4GIRM with Capital Module
- Custom IRM with Capital Factor

THESL filed for the latter option.

General Form

$CPCI=I-X+C$

THESL Form (as filed)

$CPCI=I-X+Cn-Scap*(I-X)$

The OEB Decision has modified the CPCI Formula by Applying the X Stretch factor to Capital:

$$CPCI = I - X + [(C - Scap) * (I - X)]$$

Supporting Equations

$$Cn_{(yr)} = (CRRR_{(yr)} - CRRR_{(yr-1)}) / TRR_{(yr-1)}$$

$$C_{(yr)} = Cn - Scap * (1 - X)$$

In addition, other input assumptions have been amended by the Board

Capital Expenditures and C Factor

The Application

The Capital (CAPEX) Plan as filed/revised (E1BT2S4p6)

2015- \$531 million

2016- \$519 million

2017- \$467 million

2018- \$470 million

2019- \$502 million

The Capital-Related component of the annual Revenue requirement is generated by the application of the THESL proposed CIRM formula (as filed and revised). **(Energy Probe Undertaking J9.5 March 2, 2015)**

Energy Probe Exhibit K3.3 REVISED March 2, 2015		Comparison THESL and PEG CUSTOM PCI FORMULAS					Based on PEG Report Table 8 Adjusted to 5yr CIR Plan						
	THESL Formula	As Filed	Corrected per THESL			PEG Formula	Corrected Dr. Kauffman J3.3, THESL J9.5						
Key Assumptions							Key Assumptions						
X Stretch factor	-0.003					X Stretch factor	-0.006						
Cn Stretch factor	0					Cn Stretch factor	-0.004						
Billing Determinant Adjustment	0					Billing Determinant Adjustment	-0.015						
Growth	0					Growth	0						
PCI=(I-X)+Cn-Scap*(I-X)		PCI Formula Calculation					PCI=(I-X)+Cn-Scap*(I-X)		PCI Formula Calculation				
THESL Formulation	2015 Base V	2016	2017	2018	2019	TOTAL	2015 Base V	2016	2017	2018	2019	TOTAL	
Input Parameters							Input Parameters						
Inflation	N/A	0.017	0.017	0.017	0.017		Inflation	N/A	0.017	0.017	0.017	0.017	
X-Stretch Factor	N/A	-0.003	-0.003	-0.003	-0.003		X-Stretch Factor	N/A	-0.006	-0.006	-0.006	-0.006	
I-X	0	0.014	0.014	0.014	0.014		I-X	0	0.011	0.011	0.011	0.011	
Base year RR	655.0						Base year RR	655.0					
Capital-related RR 1BT2S3Table4	431.6	460.9	517.6	567.5	607.6		Capital-related RR 1BT2S3Table4	431.6	460.9	517.6	567.5	607.5	
Cn	0	0.0447	0.0825	0.0668	0.0501		Cn	0	0.0447	0.0841	0.0696	0.0532	
Stretch factor	0	0.0000	0.0000	0.0000	0.0000		Stretch factor	0	-0.0041	-0.0043	-0.0045	-0.0047	
Growth	0	0.0000	0.0000	0.0000	0.0000		Billing Determinant Redn	0	-0.01500	-0.01500	-0.01500	-0.01500	
Adjusted Cn		0.0447	0.0825	0.0668	0.0501		Adjusted Cn		0.0256	0.0648	0.0501	0.0335	
Scap Factor[% RR(prior yr)]	0	0.6710	0.6930	0.7090	0.7200		Scap Factor[% RR(prior year)]	0	0.6838	0.7220	0.7552	0.7840	
PCI=[(I-X)+Cn-Scap*(I-X)]	0	0.0493388	0.0867927	0.0708771	0.05405		PCI=[(I-X)+Cn-Scap*(I-X)]	0	0.0291082	0.0635104	0.048238	0.031979	
PCI Escalator %	N/A	4.93	8.68	7.09	5.41		PCI Escalator %	N/A	2.91	6.35	4.82	3.12	
Revenue Requirement \$ M	655.00	687.32	746.97	799.91	843.15	3732.35	Revenue Requirement \$ M	655.00	674.07	716.88	751.46	774.90	3572.30
Rate (RR) Increase	14.81%	4.93%	8.68%	7.09%	5.41%	8.18%	Rate (RR) Increase	14.81%	2.91%	6.35%	4.82%	3.12%	6.40%

Base Year Adjustments

The Board made certain Decisions regarding Operating and Capital costs.

These are listed at Page 3 of the DRO.

- Base Operating, Maintenance and Administration Expenses (“**OM&A**”) to increase by 2.1% over the corresponding 2014 actual spend.
- Other Post-Employment Benefits (“**OPEBs**”) to be calculated on a cash rather than accrual basis.
- Regulatory application costs associated with the wireless forbearance application will not be recovered.
- Capital expenditure reduction of 10% relative to the amount sought by Toronto Hydro.
- Interest associated with the \$45 million promissory note to Toronto Hydro Corporation will be calculated using the OEB’s 2014 deemed long-term debt rate of 4.77%.

Energy Probe is concerned about the implementation of the 2015 base year CAPEX reduction and how this relates to the calculation of the Capital Factor in the CIRM period.

To summarize

- the as filed 2015 CAPEX amount was \$531 million, a 10% reduction would be \$53.1 million, leaving the approved 2015 amount as \$477.9 million
- as filed (and corrected in Undertaking J9.5), the 2015 Capital-Related component of the 2015 Revenue Requirement was \$431.6 million.

The Table below shows this amount and compares it to the revised amounts in Table 3 of the DRO. Unfortunately, the THESL February 5, 2015 evidence update did not provide the revised components of the updated \$431.6 million Capital-Related component of the \$655 million Revenue Requirement.

Comparison as filed and DRO 2015 Capital-Related RR

Revenue Requirement Components	2015 as filed Updated Feb 5 2015 per J9.5 Appendix	2015 as per DRO
Interest		79.3
ROE		120.2
Depreciation		206.0
PILs/Taxes		25.0
Capital-related RR	431.6	430.5
OM&A		248.9
Revenue Offsets		(41.3)
Total RR	655.0	638.1

We note that despite a lower 2015 base year CAPEX of \$477.9 million, the Capital-Related RR amount for 2015 is only \$1million lower than the amount of \$431.6 million. (K3.3 updated March 2, 2015 Undertaking J9.5).

We suggest, this requires detailed explanation by THESL.

CIRM 2016-2019

The Board has made 3 amendments to the THESL proposed CIRM formula:

- X Stretch Factor -0.006 (rather than -0.003)
- C Stretch Factor -0.006 (rather than 0.000)
- Addition of Growth/Billing factor G (-0.003).

These amendments change both the Price Cap and C Factor in the $CPCI = I - X + C$ Formula.

The Board also stated that there should be a 10% annual reduction in CAPEX during the CIRM.

In determining if THESL has interpreted the Board’s Decision correctly, the primary issues are:

- a) is the 10% reduction in annual CAPEX an overarching requirement (outside the CPCI Formula) or
- b) a reduction **after** the application of the Board- approved modified CIRM formula or
- c) a Base Year (2015) reduction that then modifies the CPCI in 2016-2019.

THESL has interpreted the CAPEX reduction as per option a) as shown at Table 2 Page 10 of the DRO-for 2016-2019 application of the X Stretch factor plus a further reduction for a total 10% .reduction in each year.

Table 2 – Approved Capital Expenditure Amounts

CAPEX	2016	2017	2018	2019
APPLICATION	\$518.8	\$467.4	\$470.1	\$502.2
Stretch Factor @ 0.6%	(\$3.1)	(\$2.8)	(\$2.8)	(\$3.0)
Additional reductions	(\$48.8)	(\$43.9)	(\$44.2)	(\$47.2)
DECISION: 10% Total Reduction	\$466.9	\$420.6	\$423.0	\$451.9

THESL's interpretation in essence removes CAPEX from the CPCI formula, indexing it at 90% of the applied for amounts, then using the capital-related cost as a separate Building Block in the Revenue Requirement generated by the CPCI Formula.

Energy Probe questions whether this was the intent of the Decision:

The OEB has consistently applied stretch factors to total costs in order to incent productivity in both the areas of capital expenditure and OM&A. The OEB finds no compelling reason to depart from this approach. While the Application put forward by Toronto Hydro may be a custom application, one of the key aspects of the OEB's RRFE is the requirement to continue to make productivity improvements. As discussed later in this Decision, the OEB is concerned that the Application does not contain enough productivity incentives. Application of the stretch factor to the C factor is one way to remedy this deficiency. Decision Page 18.

If the intent is to incent THESL on **both** Operating Cost and CAPEX, then a 10% reduction in CAPEX, including the stretch factor, does not In our view, provide this incentive. Our reasons are:

- First, how the OM&A component of the revenue requirement is treated in the Decision.

3.3.3 Are 5 years of OM&A forecast required?

The OEB agrees with Toronto Hydro and some of the intervenors that Toronto Hydro is not required to prepare a forecast of five years of OM&A budgets to comply with the RRFE for a Custom IR application. This would essentially result in a five year cost of service application, rather than an incentive ratemaking scheme.[emphasis added] The OEB will expect Toronto Hydro to manage within the OM&A envelope adjusted annually by the incentive factor for the five year period of the plan addressed later in this Decision..

The Board has determined that the Base Year 2015 requirement should be reduced from \$ 269.6 million to \$246.3million. For the CIRM Plan period 2016-2019, the OM&A is as noted above, indexed as part of the Revenue Requirement generated by the Board-Approved CPCI formula (including stretch factor).

- Second, the THESL CPCI formula includes a component of Capital Expenditure related to the CPCI Index. This is the **Scap** term that reduces the C Capital amount generated by the Formula by the amount that would otherwise be generated by the Index. Applying the Stretch factor annually to Scap is inconsistent with a 10% decrease in Total Capital. We suggest that to provide appropriate balance **both** and C and Scap should be indexed annually by I-X.

THESL has reduced the CAPEX Amount by 10% in each year and then applies the CPCI formula to generate the CPCI and Revenue Requirement for each year of the CIRM Plan. The inputs are shown in Tables 3 and 4 and an illustrative calculation on Page 14/15 of the DRO.

Table 3 – Annual C_n Factor

Revenue Requirement Components	2015	2016	2017	2018	2019
Interest	79.3	87.7	95.4	99.9	104.3
ROE	120.2	133.0	144.7	151.6	158.3
Depreciation	206.0	218.7	242.2	257.7	275.0
PILs/Taxes	25.0	16.9	24.3	40.2	45.7
Capital-related RR	430.5	456.3	506.6	549.5	583.2
OM&A	248.9	252.6	256.4	260.2	264.1
Revenue Offsets	(41.3)	(41.9)	(42.5)	(43.2)	(43.8)
Total RR	638.1	667.0	720.5	766.5	803.5
C _n		4.04	7.55	5.94	4.40

In the draft Rate Order THESL indicates:

“C_n” is the factor that reconciles Toronto Hydro’s approved capital investment within a price cap index, and is determined for a given year by calculating the difference in forecast capital-related revenue requirement between the given year and the prior year, divided by the forecast total revenue requirement of the prior year.

The quantum of C_n reflects the OEB’s above-noted determination on capital expenditures.

o “Scap * (1 – X)” is the mechanism that returns to ratepayers funding for capital that would have been provided under the standard price cap index formula, where:

o “Scap” for a given year is determined by the proportion of forecast capital related revenue requirement to forecast total revenue requirement.

We noted above, that despite a lower 2015 base year CAPEX of \$477.9 million, the Capital-Related RR amount for 2015 is \$ 435.1 million, which is only \$1 million lower than the revised as filed amount of \$431.6 million (K3.3 updated March 2 2015 Undertaking J9.5).

We note that the 2015 CAPEX drives the trajectory of the C factor capital requirement for the CIRM period 2016-2019. The 2016 C_n factor is now calculated to be 4.04% which compares to the 4.47% in Undertaking J9.5.

Unfortunately, THESL has not provided the Working Papers in Excel Format to allow us to replicate the calculations. Specifically the forecast Capital-Related component of the 2015-2019 revenue requirements has been provided, but support for Scap and Soma have not.

THESL addresses this at Page 16 of the DRO:

At the same time, Toronto Hydro recognizes that for the OEB and other parties to validate the IR year calculations of revenue requirement and rates, some breakdown of key inputs is necessary. Therefore, Toronto Hydro has provided those key inputs at the appropriate level of granularity in the CPCI section above.

Producing an RRWF for an IR year would be inaccurate and misleading as it would suggest that the OEB is approving specific costs when that is not the case.

Considerations for the Board

THESL should provide the Board and Staff with an explanation for the Capital-Related Component of the 2015 revenue requirement and the detailed Working Papers that support the calculation of the Capital Factor and Revenue Requirement from the CIRM Formula for each year 2016-2019.

The Board should clarify if the intent of the Decision is to both reduce CAPEX request **and** incent THESL on Capital productivity. If so, Staff should consult with experts (such as Dr. Kauffman PEG) as the best way to achieve this in the context of the Decision.

e.g. The Capital Request C be indexed by the I-X factor for 2016-2019

$$C = (C_n - S_{cap}) * (I - X)$$

ALL OF WHICH IS RESPECTFULLY SUBMITTED

February 5, 2016

**Dr. Roger Higgin, SPA Inc
Consultant to Energy Probe**