Hydro Ottawa Limited 3025 Albion Road North, PO Box 8700 3025, chemin Albion Nord, C.P. 8700 Ottawa, Ontario K1G 3S4 Tel.: (613) 738-6400 Fax: (613) 738-6403 www.hydroottawa.com

Hydro Ottawa limitée Ottawa (Ontario) K1G 3S4 Tél.: (613) 738-6400 Téléc. : (613) 738-6403 www.hydroottawa.com



May 20, 2008

Ontario Energy Board P.O. Box 2319 2300 Yonge Street 27th Floor Toronto, ON M4P 1E4

Attention: Kirsten Walli, Board Secretary

EB-2007-0673 - 3rd Generation Incentive Regulation Re:

On May 16, 2008, the Coalition of Large Distributors ("CLD") – (Enersource Hydro Mississauga Inc., Horizon Utilities Corporation, Hydro Ottawa Limited, PowerStream Inc., Toronto Hydro-Electric System Limited and Veridian Connections Inc.) and Hydro One Networks filed comments on the proposal by staff of the Ontario Energy Board ("Board staff") for the 3rd Generation Incentive Regulation Mechanism (3GIRM). Following are supplementary comments on the capital module proposed by Board staff on May 15, 2008.

This submission is being uploaded to the Board's Regulatory Electronic Submissions System (RESS) and hard copies will also be couriered for delivery tomorrow.

If you have any questions about this material, please feel free to contact me at 613-738-5499 ext 527 or e-mail lynneanderson@hydroottawa.com.

Yours truly,

Lynne Anderson Chief Regulatory Affairs and Government Relations Officer

On behalf of the CLD and Hydro One

1. INTRODUCTION

On May 16th, 2008, the CLD and Hydro One filed comments with respect to the staff of the Ontario Energy Board ("Board staff") proposal on the third generation incentive regulation mechanism ("3GIRM"). At that time, the revised proposal for the incremental capital module, released on May 15th, was still being reviewed. The CLD and Hydro One are pleased to provide comments on the Board staff's proposal and the need for a comprehensive capital module in 3GIRM.

2. CAPITAL INVESTMENT MODULE

The current Board staff's proposal includes an incremental capital module that could be triggered annually in rate applications by a utility depending upon its situation. A utility would have the right to trigger an incremental capital module only if its capital expenditure budget ("Capex") meets the materiality threshold, whereby capital expenditures are *"150% of the distributor's depreciation expense embedded in base rates*".¹ While the CLD and Hydro One are concerned about the magnitude of the threshold in the revised proposal, the form of the mechanism is a major step forward in recognizing the business drivers necessitating such a module.

The CLD and Hydro One understand that under the Board Staff proposal if a distributor's average Capex exceeds the proposed threshold of 150% of the Board-approved base year's depreciation expense, the distributor may apply to recover the revenue requirement associated with its capital spending. The distributor's average Capex would be calculated as the sum of total Capex in each 3GIRM year (since the base year), divided by the number of years since rates were rebased. The resulting number is then compared to the threshold of 150% of depreciation expense². This approach will create some incentives for companies to invest efficiently in all years of the 3GIRM. It is the CLD and Hydro One's understanding that a utility which finds itself in circumstances that require it to make a submission in respect of triggering the capital module would provide the necessary information and rationale in support of such a submission.

The CLD and Hydro One understand that once the threshold has been determined, the applicable utility would seek to recover the associated revenue requirement components of the total capital plan for the year of adjustment. In other words, the threshold plays no part in determining the relevant cost components in relation to the amount of capital in any year of application.

¹ Letter from Board Staff dated May 15, 2008, page 1.

² Letter from Board Staff dated May 15, 2008, pages 2 and 3

2.1 Rationale for using a capital adjustment module during 3GIRM term

The CLD and Hydro One strongly support the inclusion of a capital module as an optional element of 3GIRM. There is clear justification for such a module. Attachment A provides an example of why a capital adjustment module is required during the term of 3GIRM for many distributors. This is an illustrative example prepared by Hydro Ottawa, a member of the CLD, which clearly demonstrates why a price cap formula would not be sufficient to provide reasonable expectation of achieving an approved rate of return whilst managing the expected OM&A and capital programs during the term of the plan. This particular example illustrates the situation of a relatively low growth utility that nevertheless experiences growth in rate base that may result in significant unfunded costs being incurred during the term of 3GIRM. However, this situation can also occur for higher growth utilities during periods of intensive capital investment.

Although the CLD and Hydro One recognize the purpose behind the implementation of 3GIRM is to enhance productivity and efficiency in terms of managing total costs, it has to be recognized that there will be situations where the application of a price cap formula will not be sufficient in allowing a utility to reasonably expect to achieve its approved return whilst managing its OM&A and capital programs. In Section III of her affidavit filed as Attachment A to the CLD and Hydro One's written comments submitted on April 14, 2008 Ms. Frayer also demonstrated the potential erosion of returns and impact on OM&A and capital programs in the example she provided for a utility under a price cap IRM.³ The issue of unfunded capital arises when a utility has to undertake programs or projects to meet requirements that may be in excess of what is allowed in the price cap formula, which implicitly considers a steady state growth rate in depreciation and returns, based on the historical costs of capital, and capital expenditures that are in effect equal to that annual depreciation expense. The CLD and Hydro One are supportive of moving forward in 3GIRM with a comprehensive price cap as the core plan. In other words the CLD and Hydro One are not advocating that utilities are held "whole" during the 3GIRM term for all capital expenditures but rather that they may have a reasonable expectation of achieving their approved returns without being unduly penalized by having to significantly reduce their OM&A and/or capital programs. In this respect the CLD and Hydro One are pleased to see that Board Staff has recognized this concern and has recommended and revised the use of a capital adjustment module.

³ CLD and Hydro One comments on Board Staff Discussion Paper on 3rd generation Incentive Regulation for Ontario's Electricity Distributors, Section III, pages 17-35, April 14, 2008

2.2 Analysis of Board staff's Proposal

2.2.1 <u>Threshold</u>

Board staff has proposed that eligibility for the capital module would be based on a materiality threshold for capital expenditure of 150% of the depreciation in the base rates. The CLD and Hydro One assume that "depreciation in the base rates" means the depreciation approved at the time of rebasing. This should be the depreciation with all impacts from the Smart Meter program removed, including depreciation of Smart Meters and recovery of the costs of stranded meters. While the CLD and Hydro One were planning on recommending a threshold related to growth in rate base, the proposal to use a multiple of the Board-approved depreciation cost is acceptable.

Notwithstanding the improvements in the latest proposal there continue to be underlying concerns that, even with the proposed threshold, the capital investment module is still not dealing with the underlying problem of the difference in historical and current costs for asset replacement. For example, assume that a utility has depreciation in approved rates of \$10 million and a Capex budget of \$14.9 million to replace aging assets. That Capex budget would not meet the materiality threshold and the utility would need to deal with the \$4.9 million funding deficit through other means. Consequently for any utility whereby capital is 149% of base year depreciation, then the utility would still have to fund the difference in historical and current costs. If this is a financial burden, as one would expect it to be, this utility with a gap of \$4.9 million will most likely seek Cost of Service rates to narrow the gap. Attachment B to this submission illustrates the financial impact on a utility whose capital expenditures exceed their depreciation expense by only 125%. As can be seen, there are still financial implications related to return on and of capital that would not be funded because this situation does not meet the proposed threshold. In this example the utility would have rate base additions of just under 1.9% or approximately \$10.5 million on average over four years. This is not significantly different than the dollar value proposed by Board staff in their original proposal (25% of capital expenditures of \$49.1 million is \$12.3 million). On this basis, the CLD and Hydro One would recommend that the threshold for capital expenditures be set at a lower multiple than 150% of the depreciation from the year of rebasing. The CLD and Hydro One have not had time to perform a complete analysis of what might be a suitable range of threshold values that would be representative for the utilities in general and so in the absence of empirical evidence we recommend a threshold set at 125% of the depreciation costs approved in the base rates based on the example shown in Attachment B.

2.2.2 Individual Drivers

The Board staff proposal states that *"for reasons of simplicity, staff's revised proposal for the threshold test is indifferent to the driver"*⁴. The CLD and Hydro One agree with that proposal. A threshold should be indifferent to the case that a distributor will make in its application to the Board to justify the capital plan. Given the diversity of circumstances amongst Ontario's distributors, it would be difficult for the Board to consider all reasonable individual drivers that would be eligible. It is preferable to allow each distributor to describe its particular situation in an application.

2.2.3 Revenue Requirement and Rates

The CLD and Hydro One supports the position stated by Board staff that an incremental capital module should provide all elements of the revenue requirement associated with the capital spending including return on and of capital (debt, equity and depreciation) and payments in lieu of taxes (PILs)⁵. While the CLD and Hydro One support flexibility for utilities to propose the specific rate relief sought, the CLD and Hydro One's preference for the rate treatment for the incremental capital module would be to have base rates adjusted to reflect the incremental capital. A rate adder approach, similar to the approach used with Smart Meters, would be acceptable.

It is understood by the CLD and Hydro One that once the threshold has been met, an application for the capital module will include all of the incremental revenue requirement related to capital programs for that year that is not already captured implicitly in the rates set by the price cap, not just the revenue requirement for the capital expenditures that exceed the threshold. For example, if a utility has a capital expenditure budget of \$ 30 million on depreciation expenses in base rates of \$10 million, the incremental capital investment module will consider the entire \$30 million, net of depreciation and less that which is already implicitly embedded in rates (taking into account a mid-year rate base in the calculation).

2.2.4 Historical versus Forecast Capital Amounts

Board staff's proposal does not specifically indicate how the capital spending, on which to determine the revenue requirement, will be determined. One approach would have the revenue requirement determined based on historical capital spending. In this circumstance, a proxy would be used for the capital spending for a particular year based on the most recent available data on actual capital spending. This historical approach may be appropriate for most circumstances. However, it should also be recognized that basing the proposal entirely on historical capital spending may create hardship situations particularly for those utilities that have significant capital expenditures in the rate setting years. Typically historical costs imply provision of actual costs and the concern here is that given the rate setting timelines there may not be

⁴ Letter from Board Staff dated May 15, 2008 page 3

⁵ Letter from Board Staff dated May 15, 2008, page 4, 3rd bullet

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sufficient time to provide actual costs for establishing the capital module for the rate adjustment year. For example, submission for 2009 rate setting would rely on 2008 historical information whereas in fact the 2008 data would be only partially reflective of actual costs given that not all of the information would be available in time to set the rates for May 2009. So it is only in setting the 2010 rates that the actual data for 2008 would be available and similar considerations would apply to the 2009 data. Thus in effect two-years of historical data would not be available till the setting of 2011 rates. The CLD and Hydro One consider that a combination of historical, projected and forecast information would perhaps be most appropriate for managing the capital adjustment module. That way a utility would not be disadvantaged by the time lag associated with waiting for the actual (historical) costs. Thus, to use the above example, the capital module used in the 2010 rate submission would use 2008 actual (historical) capital costs, partial or projected 2009 costs for 2009 and forecast costs for 2010. In this approach utilities would have the flexibility to submit the best available information to support their proposal to use a capital adjustment module.

2.2.5 Application Requirements

The CLD and Hydro One have reviewed the application requirements proposed by Board staff and find them reasonable, with only one clarification. The proposal indicates that justification for the capital amounts to be incurred must demonstrate that the amounts *"represent the most cost-effective option (not necessarily least initial cost) for ratepayers*⁶. By this statement, it is assumed that under circumstances in which the best option is not necessarily the least cost option because the projects have ancillary benefits to customers and the society as a whole (e.g. reliability or conservation benefits), such projects would not be excluded from consideration in the capital adjustment module.

2.3 Proposal for Incremental Capital Module

To assist the Board in developing a capital module, the CLD and Hydro One have provided, as Attachment C, an illustrative example of how the capital adjustment module may be implemented during the 3GIRM term. The CLD and Hydro One propose the following considerations for the capital module:

- 1. As part of the annual rate application for 3GIRM, a utility would assess the impact of their capital plan on the revenue requirement.
- Provided that forecast or proxy capital expenditures for a year would exceed the depreciation included in base rates by 125% a utility would be eligible to file an application with the Board for the incremental capital module.
- 3. Included in the application would be details of the proposed capital expenditures and a discussion of the rationale for that capital program.

⁶ Letter from Board Staff dated May 15, 2008, page 4, 5th bullet

- 4. A simple model would be used to determine the revenue requirement impact of the capital expenditures and the resultant rate adder.
- 5. Distributors would be required to demonstrate that additional revenue through growth that is above and beyond the incremental costs associated with this growth has been considered.
- 6. Upon rebasing, the capital expenditures for the 3GIRM term would be included in rate base. Details of the actual capital spending would be provided, however, no true-up would be required for the 3GIRM term unless there was evidence that there was a serious overstatement of capital requirements.

The proposal to use 125% above the depreciation expense from the approved base year represents a reasonable level of change below which the utility can manage its work plans without undue financial hardship, and above which the utility could expect financial hardship due to the level of unfunded capital required to fund the capital projects that need to be undertaken during the plan term.

3. Concluding Comments

The proposal by Board staff for the capital module has many merits and should form a workable mechanism. Certainly some details still need to be developed, but one of the strengths of the proposal is the flexibility for distributors to make their case for a capital adjustment in an application once the threshold has been met. The CLD and Hydro One are available to assist the Board and Board staff in refining the specifics of this proposal or the implementation issues as required.

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Attachment A

Hydro Ottawa illustrative example – Rationale for the application of a capital module

Provided below is an example illustrating the need for implementing a capital adjustment module during 3GIRM as applicable to Hydro Ottawa, a member of the CLD.

Impact of Board Staff Proposal

To illustrate the need for a capital module, Hydro Ottawa has prepared two scenarios for income statements for the 2008 to 2012 period. The values in the income statement shown for 2008 are from Hydro Ottawa's Board–approved 2008 cost of service application. The values shown for 2009 through 2012 are illustrative only and do not represent Hydro Ottawa's actual business plan for these years. In completing this analysis, a number of assumptions were required. The assumptions listed below are consistent with Hydro Ottawa's circumstances and an estimate for inflation and productivity factors, purely for illustrative purposes.

Assumptions	
Annual Growth	0.8%
Inflation Factor	2.0%
Productivity Factor	1.0%
Average Depreciation rate	5.7%
Depreciation on old assets	4.0%
Deemed ROE	8.57%
Tax Rate	33.50%
Debt Rate	5.26%

In the example, Hydro Ottawa illustrates the impact on the rate of return on equity (ROE) in the absence of a capital adjustment factor even though the capital expenditures remain frozen at the 2008 level and the operations, maintenance and administration expenses ("OM&A") increase only by an assumed inflation factor (2%) less a productivity factor (1%) plus a modest growth of 0.8% per annum. In other words, the utility has met the assumed productivity factor set by the Board but still has a 180 basis point decline in ROE.

\$ Thousands	2008	2009	2010	2011	2012
Revenues	Test Year				
Power recovery	548,547	552,935	557,359	561,818	566,312
Distribution sales	134,219	136,646	139,116	141,631	144,192
Other revenue	7,586	7,647	7,708	7,770	7,832
	690,352	697,228	704,183	711,219	718,336
Expenses					
Purchased Power	548,547	552,935	557,359	561,818	566,312
Operating, maintenance and admin.	57,088	58,120	59,171	60,241	61,330
Provincial capital tax	1,239	1,277	1,311	1,340	1,365
	606,873	612,332	617,840	623,398	629,007
EBITDA	83,479	84,896	86,343	87,820	89,329
Depreciation of capital assets ⁷	37,783	39,764	41,745	43,726	45,707
EBIT	45,695	45,131	44,598	44,095	43,623
Interest expense – net	17,048	17,615	18,121	18,563	18,943
Payments in lieu of income taxes	9,938	9,218	8,870	8,553	8,268
	26,985	26,833	26,990	27,116	27,211
Net income (loss)	18,710	18,298	17,607	16,978	16,412
ROE Realized	8.57%	8.11%	7.59%	7.15%	6.77%
Capital Data (\$000)					
Capital Expenditures	56,767	56,767	56,767	56,767	56,767
Average Assets reaching full depreciation	30,947	30,947	30,947	30,947	30,947
Board-approved Rate Base	545,806	545,806	545,806	545,806	545,806
Rate Base if rebasing	545,806	563,799	579,812	593,843	605,894
Equity @ 40%	218,322	225,520	231,925	237,537	242,358

⁷ Reflects the removal of all elements related to the Smart Meter program including the accelerated recovery of stranded meter costs.

Comments on example

There are a number of important points that can be made regarding the erosion of net income in these scenarios.

- As can be seen from the analysis, while rates are based on the Board-approved rate base, because the capital expenditures exceed the depreciation there are unfunded additions to rate base each year. This increase to rate base occurs even though the capital expenditures remain unchanged each year. This is illustrated by the increasing interest expense. Furthermore, the equity continues to grow with the addition of capital and therefore the rate of return on equity decreases.
- It is important to note that the percentage increase in rate base is 2.7% in 2009 but that the rate base increases by a lower percentage each year as the depreciation "catches up" to the frozen capital expenditures. This illustrates that the importance of an incremental capital module to each utility is affected by the capital cycle of the utility. In Hydro Ottawa's case a comprehensive asset management plan was developed in 2005. This led to an incremental step increase in capital expenditures related to what Hydro Ottawa calls sustainment projects. This typically includes the replacement of aging assets based on a condition assessment. A further step increase will be required soon to manage the wave of assets reaching the end of their life. Therefore, this capital cycle will continue beyond the duration of 3GIRM, and capital expenditures will need to increase beyond the 2008 level.
- The analysis shows the increasing depreciation each year. This is consistent with Hydro Ottawa's experience. Actual depreciation increased by \$4.6 million from 2006 to 2007 (nearly a 14% increase) therefore the scenarios are very conservative in that depreciation is shown increasing only 4 to 5%. As new assets are added at today's dollars they are depreciated. There is an offsetting reduction in depreciation expense related to older assets that become fully depreciated; however, these assets are typically 25 years old or more and therefore had a much lower book value. Depreciation expense is the result of capital expenditures that have already been made and therefore management cannot control this expense. A rate adjustment of inflation less productivity simply does not provide adequate funding for the increase in depreciation expense even though there has been no increase in capital expenditures.
- In these circumstances, in order to achieve the regulated return on equity, the utility would have to reduce OM&A by \$6.5 million over the 4-year period (from \$61.3 million to \$54.8 million in 2012).

- Hydro Ottawa has very modest growth. This growth results in an increase in distribution revenue each year above and beyond the adjustment for inflation less productivity. Without this modest growth, the erosion to net income would have been even more significant.
- The impact of the increasing depreciation and interest expense on net income is mitigated by a reduction in the PILs expense. However, this would result in lower payments to the provincial government to pay the stranded debt.
- The analysis has been undertaken with the impact of the Smart Meter program excluded. It is assumed that incremental revenue requirement related to Smart Meters will be funded through a rate adder throughout 3GIRM.

An appropriately structured 3GIRM incents improvements in productivity but provides utilities a reasonable opportunity of achieving the regulated return. This reasonable opportunity would not exist in the absence of an incremental capital module that adequately funds the revenue requirement resulting from the capital program, even if capital expenditures remain the same. Otherwise there would be little option but to continue with cost of service regulation or proceed with alternative proposals.

Attachment B

Illustrative example for Utility with Capital Spending at 125% of Depreciation Expense

\$ Thousands	2008	2009	2010	2011	2012	
Revenues	Test Year					
Power recovery	548,547	552,935	557,359	561,818	566,312	
Distribution sales	134,219	136,646	139,116	141,631	144,192	
Other revenue	7,586	7,647	7,708	7,770	7,832	
	690,352	697,228	704,183	711,219	718,336	
Expenses	l î					
Purchased Power	548,547	552,935	557,359	561,818	566,312	
Operating, maintenance and admin.	57,088	58,120	59,171	60,241	61,330	
Provincial capital tax	1,239	1,261	1,284	1,308	1,333	
	606,873	612,316	617,813	623,366	628,975	
EBITDA	83,479	84,912	86,370	87,853	89,361	
Depreciation of capital assets	37,783	39,332	40,938	42,663	44,514	
EBIT	45,695	45,580	45,431	45,190	44,847	
Interest expense – net	17,048	17,382	17,698	18,028	18,371	
Payments in lieu of income taxes	9,938	9,446	9,291	9,099	8,869	
	26,985	26,828	26,989	27,127	27,241	
Net income (loss)	18,710	18,752	18,443	18,063	17,606	
ROE Realized	8.57%	8.43%	8.14%	7.83%	7.49%	
Capital Data (\$000)	-					
Capital Expenditures	49,118	49,163	51,170	53,325	55,639	
Average Assets reaching full depreciation	30,947	30,947	30,947	30,947	30,947	
Board-approved Rate Base	545,806	545,806	545,806	545,806	545,806	
Rate Base if rebasing	545,806	556,389	566,420	576,867	587,761	
Equity @ 40%	218,322	222,556	226,568	230,747	235,104	

Attachment C

Illustrative Example of Calculation for Capital Module

	2008	2009	2010	2011	2012
	Test Yr				
Information to be submitted by distributor based on capital plan (\$000) Capital Expenditures (net of contributed capital) Depreciation expense Incremental Depreciation	56,767 37,783	59,000 39,130 1,347	60,000 40,450 1,320	69,000 42,100 1,650	70,000 43,900 1,800
Meeting Materiality Threshold					
Average Capital Expenditures		59,000	59,500	62,667	64,500
Board-approved depreciation in base rates	37,783				
Average Capital Expenditures as percentage of Board-approved depreciation		156.2%	157.5%	165.9%	170.7%
Determination of Revenue Requirement for new capital (\$000) Capital Additions (net of contributed capital) (1/2 year prior year plus 1/2 year current year) Adjusted Rate Base Adjusted Equity (40% of rate base)	545,806	19,427 565,233 225,946	19,710 584,943 233,325	23,225 608,168 241,778	26,500 634,668 251,232
Incremental Return on Capital (capital additions x average cost of capital) Incremental Depreciation Incremental PILs (income tax grossed up plus capital tax) Incremental revenue requirement required for capital		1,273 1,347 379 2,999	1,291 1,320 <u>385</u> 2,996	1,522 1,650 453 3,625	1,736 1,800 517 4,053

	2008	2009	2010	2011	2012
Determination of adjustment for capital related to inflation and productivity					
Percentage of Revenue Requirement associated with capital (from Board-approved cost of service)	57.5%				
Total Board-approved distribution revenue requirement	134,219				
Revenue requirement for capital with inflation less productivity	77,131	77,902	78,681	79,468	80,263
Increase in revenue requirement for capital with inflation less productivity		771	779	787	795
Additional Revenue Requirement for capital program (\$000)		2,227	2,217	2,838	3,259
General Information					
Deemed ROE (to be updated if the Board determines that the rate of return will be updated					
annually during 3GIRM)	8.57%	8.57%	8.57%	8.57%	8.57%
Average cost of capital (to be updated if the Board determines that the rate of return will be updated appually during 2GIPM)	6 55%	6 55%	6 55%	6 55%	6 55%
	0.55%	0.55%	0.55%	0.00 %	0.00%
Tax rate (income)	0.02%	0.00%	0.00%	0.00%	0.00%
l'ax rate (provincial capitax)	0.23%	0.23%	0.23%	0.23%	0.23%
Initiation Factor		2.00%	2.00%	2.00%	2.00%
Productivity Factor		1.00%	1.00%	1.00%	1.00%