

September 23, 2010

BY COURIER (8 COPIES) AND EMAIL

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
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Dear Ms. Walli:

**Re: Pollution Probe – Intervenor Evidence – Typographical Corrections
EB-2010-0008 – Ontario Power Generation – 2011-12 Payment Amounts**

Please find enclosed five typographical corrections to the expert evidence prepared by Dr. Lawrence Kryzanowski and Dr. Gordon Roberts on behalf of Pollution Probe. Three of these corrections were detailed previously in responses to interrogatories from OPG and Energy Probe, and the other two corrections are minor and non-substantive.

For ease of reference, we include only the revised pages as part of the paper and PDF copies enclosed with this letter. An electronic copy that integrates these typographical corrections with the original filing in a collated PDF will be filed separately.

Yours truly,



Basil Alexander

BA/ba

Encl.

cc: Applicant and Intervenors per Applicant and List of Intervenors attached to
Procedural Order No. 3

determined in our EB-2007-0905 evidence, we continue to maintain 50% as the fair level of equity for OPG's nuclear assets. These individual equity percentages are consistent with the overall equity thickness for the combined regulated entity of 47% recommended in our 2008 Evidence and adopted by the Board.

To show that our recommendations of 40% equity for OPG Hydro and 50% for OPG Nuclear are not incompatible with a rating in the A range, we calculate the implied values of three metrics considered by bond rating agencies using the forecast data provided by OPG in its Application. We conclude that our recommendations of 40% and 50% equity for Hydro and Nuclear respectively are in the A range (i.e. A- to A).

2. CASE FOR MAINTAINING CURRENTLY ALLOWED EQUITY THICKNESS AND RETURN ON EQUITY FOR OPG'S AGGREGATE REGULATED OPERATIONS

2.1 Decisions of the OEB

In its EB-2007-0905 Decision, the OEB determined that the cost of capital for OPG's aggregate regulated operations:

- should be consistent with the stand-alone principle (pages 140 to 142);
- reflect the "adoption of a formula approach to setting the ROE" (page 162); and
- reflect differences in OPG's relative (business) risk for its aggregate regulated operations in its capital structure (page 162).

The OEB set OPG's allowed ROE at 8.65 per cent effective April 1, 2008. Based on the Board's view that "OPG's regulated nuclear business is riskier than regulated distribution and transmission utilities in terms of operational and production risk, but is less risky than merchant generation" (page 149), the Board prescribed a 47 per cent common equity ratio (page 149) for OPG's aggregate regulated operations.

- d) Provide an incentive for OPG to contain costs and to maximize efficiencies
- e) Allow OPG to better service its debt while earning a rate of return that balances the needs of customers and ensures a fair return”

Under the stand-alone principle of regulation, we must set aside the impact of provincial ownership of OPG and assess a fair capital structure from the standpoint of an investor-owned utility of comparable risk. This standard is provided by our sample in Schedule 5.2. Our analysis establishes that the sample represents a group of companies which, with appropriate adjustments discussed below, can proxy for the risk that would be faced by OPG if it were investor owned. Mindful of the goals set by the province but emphasizing the stand-alone principle, we use this sample to establish an appropriate capital structure for OPG.

5.6.1 Sample benchmarks

First, we turn to Schedule 5.3 where we observe that the average actual equity ratio for utilities in our sample was 40.46% for 2009, the most recent year for which we have data. This represents one useful benchmark for the equity ratio for a Canadian utility. Other benchmarks are helpful for two reasons. First, like any sample average, our average equity ratio depends on the sample drawn and can vary somewhat for this reason. Second, as we indicated earlier, the average is based on equity ratios for traded companies which include non-regulated activities which are likely to be more risky than regulated utilities. Academic research by Drs. Sanyal and Bulan documents the increase in business risk with U.S. deregulation which was accompanied by a decrease from 38% to 32% in the average book value leverage ratio for U.S. electrical utilities (i.e. with deregulation, these companies do not have their leverage ratios set by regulators so these declines reflect adjustments to shifts in business risk).⁵⁸ Their paper demonstrates that for individual companies key factors explaining the decline in leverage were introduction of

⁵⁸ Sanyal, Paroma and Bulan, Laarni T., Regulatory Risk, Market Risk and Capital Structure: Evidence from U.S. Electric Utilities (August 1, 2008). Available at SSRN: <http://ssrn.com/abstract=781230>.

higher than that of a distribution utility and somewhat above the business risk of an integrated electric utility. This suggests that a fair common equity ratio for OPG Hydro should be at 40%, at the middle of our generous range.

To explore the reasonableness of this conclusion, we reconsider our four benchmarks in turn. Our first benchmark, the average of actual equity ratios for 8 traded utilities is 40.46%. These companies are transmission, distribution or integrated utilities. However, because this measure also includes capital for unregulated activities, which tend to be riskier than regulated businesses, we believe that it exceeds the appropriate level of equity for an average-risk utility. We confirm this view when we look next at our second benchmark of allowed average equity thickness of 40.09% reinforced by our third benchmark of 40% allowed by the Board for electricity distributors. It follows from our view of allowed returns as generous measures of appropriate capital structures that this 40% benchmark should be appropriate for a higher level of business risk. To illustrate, Schedule 5.7 shows that in its Generic Decision, the AUC awarded 39% equity thickness for electricity distribution while we recommended 35%. Given our view that OPG Hydro's level of business risk is above those of the transmission, distribution and integrated utilities in our sample, our second benchmark indicates that a level of equity of no less than 40% is required.

We reinforce this view with our fourth benchmark of 42 to 45% equity recommended and generously allowed by the AUC for a high-risk Alberta utility. Given OPG Hydro's level of business risk, we believe that its target equity ratio should fall toward the low end of this range.

Schedule 5.7 summarizes this discussion and restates our recommendation to set the common equity ratio for OPG Hydro at 40%.

5.6.3 Relating the benchmarks to OPG Nuclear

Schedule 5.7

Electric Utilities Business Risk Rating and Capital Structures

	Transmission	Distribution	OPG Hydro	Integrated	OPG Nuclear	OPG Regulated
Business risk^a	L 1	L-M 1.4	L-M 1.8	L-M 1.5	M 2.6	M 2.3
Equity Component Deemed by Regulators						
AUC 2009	35%	39%		37.5%		
NSUARB 2007						
OEB 29006, 2007	40%	40%				47%
Fortis Alberta		37%				
Fortis BC				40%		
Maritime Electric				40.50%		
Newfoundland Power				44.14% ⁶⁴		
Recommended by Drs. Kryzanowski And Roberts Prior Evidence	33% ⁶⁵	35% ⁶⁶		35% ⁶⁷ 42% ⁶⁸		
For OPG			40%		50%	47%⁶⁹

^aL refers to low business risk; L-M refers to low to medium business risk; and M refers to medium business risk. L 1 refers to low business risk based on a business risk rating of 1 to 5 where 5 is the highest numerically business risk rating.

⁶⁴ Integrated company, buys 90% of power from Newfoundland and Labrador Hydro.

⁶⁵ Generic hearing, Alberta, 2009.

⁶⁶ Generic hearing, Alberta, 2009.

⁶⁷ NSPI 2002.

⁶⁸ Northwest Territories Power Corporation 2007, included business risk premium for size and isolation.

⁶⁹ 6,606 regulated MW nuclear (66.47%), 3,332 MW hydro (33.53%).

Schedule 5.8C

This schedule uses OPG's projections of EBITDA, Taxes, Capitalization and Costs of Equity and Debt to calculate its Interest Coverage Ratio, its FFO Coverage Ratio and its Cash Flow to Debt Ratio for OPG's Nuclear Assets for 2012. 'Interest Coverage Ratio' is calculated by dividing 'Allowed \$ return on rate base' or 'EBIT' by 'Cost of Capital \$' for 'Total Debt' (i.e. interest expense). 'FFO Coverage Ratio' is 'EBITDA (i.e. Funds From Operations or FFO or EBIT as given by 'Allowed \$ return on rate base' plus Depreciation & Amortization) divided by 'Cost of Capital \$' for 'Total Debt' (i.e. interest expense). 'Cash Flow to Debt Ratio' is calculated by dividing 'Earnings After Tax' + 'Depreciation & Amortization' by 'Total Debt'.

<u>Capital Structure</u>	<u>Principal</u>	<u>Component (%)</u>	<u>Cost (%)</u>	<u>Cost of Capital (\$)</u>
Total debt (% of total)	2,175.27	50.00%	5.58%	121.38
Common equity (% of total)	2,175.27	50.00%	9.85%	214.26
Adjustment for taxes on equity return ^a				75.90
Rate Base financed ^b	4,350.53	100.00%		
Allowed \$ return on rate base (EBIT)				411.54
Depreciation & Amortization ^d				255.60
EBITDA				667.14
Interest Coverage Ratio (times)	3.39			
FFO Coverage Ratio (times)	5.50			
Cash Flow to Debt Ratio (%)	21.6			

Notes:

^a Corporate income tax from EB-2010-0008, Exhibit F4, Tab 2, Schedule 1, Table 3, Filed: 2010-05-26.

^b Total rate base financed by capital structure of 6448.1 million from EB-2010-0008, Exhibit C1, Tab 1, Schedule 1, Table 1, Filed: 2010-05-26, multiplied by 67.47%.

^c Depreciation & Amortization of 239.5 million plus 16.1 million from EB-2010-0008, Exhibit B3, Tab 4, Schedule 1, Table 1. Filed: 2010-05-26.