Ontario Power Generation Inc. ("OPG")
Interrogatories for CCC/VECC

INTERROGATORY #1

Ref: Page 18, schedule 13

Preamble: Dr. Booth discusses bond yield spreads.

Interrogatory

Please provide the underlying yields for Schedule 13. What is the average term to maturity for each of the bond series in Schedule 13?

INTERROGATORY #2

Ref: Page 22, lines 4-5

Preamble: Dr. Booth states that he does not see a decline of 50 basis points in A spreads as being significant.

Interrogatory

Please identify what period Dr. Booth is referring to when he says that there has been a decline of 50 basis points in A spreads.

INTERROGATORY #3

Ref: Page 21, lines 22-23

Preamble: Dr. Booth presents yields and spreads for A rated bonds in December 2007.

Interrogatory

Please provide the corresponding yields and spreads as of end of April 2008.

INTERROGATORY #4

Ref: Page 42, line 6

Preamble: Dr. Booth states that PNG's loss of load dwarfs anything that could conceivably affect Gaz Metro.

Interrogatory

a) Did Dr. Booth mean OPG?

b) Would Dr. Booth please confirm that even with the assistance that has been provided by the BCUC, PNG is still rated BBB (low) with a negative trend by DBRS?

INTERROGATORY #5

Ref: Page 43, lines 18-20

Preamble: Dr. Booth discusses the shareholders' experience in PNG.

Interrogatory

a) Could Dr. Booth please confirm that the share price of PNG was approximately $27 at the end of 1998?

b) Could Dr. Booth please confirm that the share price of PNG was under $7 at the end of April 2001?

c) What is PNG's current allowed common equity ratio and what is its year end 2007 common equity ratio?

d) Please indicate the period over which Dr. Booth concludes that PNG's shareholders earned a reasonable ROE and provide all empirical support for that conclusion.

INTERROGATORY #6

Ref: Page 43, lines 10-12, footnote 13

Preamble: Dr. Booth indicates that "the allowed ROE is for the Fort St. John region where the allowed ROE is the lowest so the shortfall is minimized."

Interrogatory

a) Please explain in more detail why Dr. Booth used the Fort St. John allowed ROE as a comparison to the actual ROE.

b) Please indicate the percentage of total rate base that the Fort St. John operations account for in relation to the total.

c) What were the corresponding allowed ROEs for PNG (West).

INTERROGATORY #7

Ref: Page 59-60

Preamble: Dr. Booth estimates the cost of equity using the tax-corrected financial leverage equation.

Interrogatory

a) Please confirm that the tax-corrected financial leverage equation predicts that the after-tax cost of capital will continue to decline as the debt ratio rises. If this cannot be confirmed, please explain why not.

b) Please calculate the cost of equity that would result at a 70/30 debt/equity capital structure from using unlevered costs of equity of 6% and 8%, a debt cost of 5%, a corporate tax rate of 36.12% and the assumption that the after-tax/pre-tax costs of capital do not vary as debt is added to the capital structure.

INTERROGATORY #8

Ref: Pages 57-58

Preamble: Dr. Booth provides the risk rankings (e.g., average risk, above average risk) assigned by RBC to various power and pipeline funds.

Interrogatory

Please provide the corresponding risk rankings assigned by RBC to the Energy Infrastructure Corporations (Enbridge, TransCanada, etc).

INTERROGATORY #9

Ref: Page 60, lines 13-17 and page 61, lines 1-5

Preamble: Dr. Booth references the unlevered equity returns of Bruce.

Interrogatory

a) Please confirm that the middle of the 9.5% to 13.5% range would be 11.5%.

b) Using Dr. Booth's tax-corrected financial leverage equation, what is the indicated ROE at a 40%/60% debt/equity capital structure?

c) Using the assumption that the after-tax/pre-tax cost of capital does not change as more debt is added to the capital structure, what is the levered ROE at an 11.5% unlevered equity cost and a 40/60 debt/equity capital structure?

d) What are the corresponding ROEs using the assumptions/equations in (b) and (c) at a 10% unlevered equity return?

INTERROGATORY #10

Ref: Page 61, lines 1-5

Preamble: Dr. Booth concludes that "this would place the fair return at significantly less than this 10% unlevered cost."

Interrogatory

a) Please explain why the comparison is to the 10% rather than the middle of the range value of 11.5%.

b) When Dr. Booth uses the term "fair return" does he mean return on rate base or return on equity?

c) If return on equity, please explain why an unlevered return on equity would be directly comparable to a levered return on equity for OPG?

d) Please provide Dr. Booth's quantification of the unlevered cost of equity for OPG's prescribed assets, and provide a detailed explanation of all assumptions and inputs.

INTERROGATORY #11

Ref: Page 77

Preamble: Dr. Booth discusses the Siegel article and his observation that the US TIPS yield was 4.0%, leading to the conclusion that actual bond returns were 1.8% less than expected.

Interrogatory

a) What has been the average yield on long-term TIPS over the past five years?

b) If the originally observed 4.0% overstates the long-term required real return on bonds, how does that alter Dr. Siegel's conclusion that actual bond returns were 1.8% less than expected?

c) If, as the Ibbotson Associates data on equity risk premiums in the U.S. indicate, the income return on long-term government bonds was 5.2% (arithmetic average) from 1926 to 2007 and the total return on long-term government bonds was 5.8% (arithmetic average) from 1926 to 2007, does this comparison indicate that, on average, bond investors earned less than expected? Please explain the response.

INTERROGATORY #12

Ref: Appendix A, page 10

Preamble: Dr. Booth lists the companies in whose cases he or he and Dr. Berkowitz appeared as expert witnesses.

Interrogatory

Please provide a table showing:

a) the recommended returns on equity and capital structure in each case in which Dr. Booth has appeared since 2000.

b) the date of the testimony.

c) the client on whose behalf the testimony was prepared.

d) the regulatory jurisdiction.

e) the date of the decision.

f) the awarded returns on equity and capital structures – if the case resulted in a settlement, please so indicate.

Please provide copies of all testimonies and accompanying schedules for each of the proceedings listed in the table.

INTERROGATORY #13

Ref: Appendix E, page 5

Preamble: Dr. Booth states that prior to the early 1950's, interest rates were controlled to stimulate the economy.

Interrogatory

a) Which interest rates is Dr. Booth referring to, what period is he referring to, and how were those interest rates controlled?

INTERROGATORY #14

Ref: Page 3

Preamble: Dr. Booth references the social cost of capital.

Interrogatory

a) Please define social cost of capital and explain in detail how it differs from the private cost of capital.

b) Please explain in detail how Dr. Booth would go about estimating the discount rate that he would use to evaluate new investments in regulated generating assets.

c) Please quantify the difference between the cost of capital Dr. Booth recommends for the prescribed assets and the cost of capital or discount rate Dr. Booth would expect OPG to use when evaluating investments in new regulated generation.

d) To the extent that the social cost of capital includes externalities such as environmental considerations, would he expect that investor-owned utilities should take such externalities into account when evaluating new projects? If no, please explain why not.

e) Does Dr. Booth know whether other regulated companies use discount rates that differ from their approved return to evaluate new regulated projects?

INTERROGATORY #15

Ref: Page 49

Preamble: Dr. Booth states that AltaLink has only capital deferral accounts, and therefore faces somewhat higher capital expenditure forecasting risk for a portion of its capital projects.

Interrogatory

Please explain in more detail how the capital expenditure forecasting risk differs between the typical gas pipeline and AltaLink.

INTERROGATORY #16

Ref: Page 51

Preamble: Dr. Booth refers to the risk transfer from generation to distribution in Alberta.

Interrogatory

a) Please confirm that the risk transfer related to the "legislated hedges".

b) Please explain how the legislated hedges worked.

c) Please explain whether there is an analogue in the Ontario circumstances.

d) Please confirm that the allowed common equity ratio of the distribution function, due to the transfer of risk, was 56%.

INTERROGATORY #17

Ref: Page 87

Preamble: Dr. Booth estimates the market risk premium at 5.0%, compared to 4.5% in his 2003 evidence in the combined Enbridge/Union proceeding.

Interrogatory

Please explain in detail the reasons for increasing the market risk premium from 4.5% to 5.0%.

INTERROGATORY #18

Ref: Page 55

Preamble: "The fact that OPG has asked for so many deferral accounts on such minutia indicates to me that the risk has been reduced to at or below the level of most standard utilities. As often happens for Canadian utilities, the risk of OPG's operations is not borne by the shareholder, but by the ratepayer."

Interrogatory

Identify the "standard utilities".

INTERROGATORY #19

Ref: Page 49

Preamble: Dr. Booth references the EUB's business risk categories.

Interrogatory

Please indicate if the conclusions regarding relative risk are those of the EUB or of Dr. Booth. If the former, please indicate where the EUB compared the supply risks of gas pipelines to those of electricity generation.

INTERROGATORY #20

Ref: Page 5-6

Preamble: [T]he cost of capital is the **minimum** rate of return required by investors in a firm. The fair return is then this minimum plus a financial flexibility allowance. The cost of capital then ignores the return requirement of non-investors since they have not invested in the firm and implicitly have a higher required rate of return: by definition if they had a lower rate of return they would have valued the assets more highly and invested in it! The fact that the province remains the sole owner and is unwilling to sell off the assets is a critical fact and indicates that these assets are more valuable to the province than to other investors. This fact cannot be ignored."

Interrogatory

What is the basis in finance theory for the claim that "The cost of capital then ignores the return requirement of non-investors…"?

INTERROGATORY #21

Ref: Page 31, lines 23-31

Preamble: "[M]ost private companies have an asset base that consists largely of intangible assets. For example, the major value of Nortel was its growth opportunities; of Coca Cola its brand name; of Merck its R&D team. It is extremely difficult for non-regulated firms to borrow against these assets. Growth opportunities have a habit of being competed away; brand names can waste away, while R&D teams have a habit of moving to a competitor. Regulated utilities in contrast largely produce un-branded services and derive most of their value from tangible assets. Unlike intangible assets, tangible assets are useful as collateral, for example in first mortgage bonds, and are easy to borrow against."

Interrogatory

What is the empirical basis for the claim that most private companies have asset bases made up largely of intangible assets?

INTERROGATORY #22

Ref: Page 5, lines 23-24 and 26-28

Preamble: "First, the standalone principal (sic) simply asserts that there should not be any subsidies in the operation of the utility…. However, it does not mean that ratepayers should be charged a phantom "risk premium" as if the utility was owned by a third party."

Interrogatory

What is the basis for the conclusion that the stand alone principle "simply" asserts that there should not be any subsidies? What legal research and/or judicial opinions has Dr. Booth relied on in arriving at that conclusion?

INTERROGATORY #23

Ref: Appendix G, schedule 7

Interrogatory

Please provide the underlying data used to calculate the interest coverage ratios.

INTERROGATORY #24

Ref: Page 60, line 16 to page 61, line 5

Preamble: "The Bruce Power restart is now projected to cost $3.1-3.4 billion and assuming a further 10% escalation in costs Mr. Hal Kvisle projects a 10% unlevered after tax return. This after tax return must be below the discount rate or fair return that TransCanada and its partners are using, otherwise they would not be continuing with the project. This would correctly put the fair return for the Bruce Power start up at the top of the discounts rates used by RBC-DS for more conventional power plants. Given that OPG's prescribed nuclear assets have more regulatory protection this would place the fair return at significantly less than this 10% unlevered equity cost."

Interrogatory

a) What is the empirical basis for your conclusion that 10% must be above the cost of equity target of TransCanada and its partners?

b) Does Dr. Booth agree that the return on equity target for the original lease contract would be based primarily on operating risk, not restart and refurbishment risk?

c) Does Dr. Booth believe that operating risk for Bruce Power is materially different from that of OPG? If so, please explain the reasons for this belief and provide the empirical basis for assessing the impact of operating risk on Bruce Power's capital structure and return on equity and explain how this would impact an assessment of appropriate capital structure and return on equity for OPG.

INTERROGATORY #25

Ref: Page 5, lines 17-19

Preamble: Dr. Booth indicates that we cannot ignore the actual owners of the utility.

Interrogatory

Please provide Dr. Booth's estimates of the equity ratios (nuclear, hydro and total) that would be required for a privately-owned utility with the same regulated assets as OPG and the same proposed deferral/variance accounts and payment structure.

INTERROGATORY #26

Interrogatory

In Dr. Booth's opinion, could the regulated nuclear facilities at Pickering and Darlington be financed on a stand alone basis? If so, how much equity investment would be required? On what basis has Dr. Booth come to this conclusion? Has he had in depth discussions with providers of debt and equity capital to power generators with respect to the reasonableness of his recommendations regarding the ROE and capital structure for OPG's nuclear assets?