

July 29, 2010

BY COURIER (2 COPIES) AND EMAIL

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

**Re: Pollution Probe – Interrogatories to OPG
EB-2010-0008 – Ontario Power Generation – 2011-12 Payment Amounts**

Pursuant to *Procedural Order No. 1*, please find enclosed Pollution Probe's interrogatories to OPG for this proceeding.

Yours truly,



Basil Alexander

BA/ba

Encl.

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

Pollution Probe Interrogatories to OPG

July 29, 2010

Issue 2.2

1. Reference: Ex. D2, Tab 2, Sch. 1, p. 8; Minutes of Stakeholder Information Session 1, p. 18; and Ex. D2, Tab 2, Sch. 2, p. 3

OPG's current projected cost of the Darlington refurbishment project is \$6B to \$10B (in 2009\$) excluding capitalized interest.

Please provide OPG's low and high estimates of the total capital cost for this project (in 2009\$) assuming the Board does **not** allow OPG to include these capital costs in rate base before the project is completed and in-service.

2. Reference: Ex. D2, Tab 2, Sch. 1, pp. 4 & 5; and Minutes of Stakeholder Information Session 1, p. 18

OPG estimates that the Darlington refurbishment project will have a LUEC of between 6 and 8 cents per kWh (2009\$) excluding capitalized interest.

With respect to these LUEC estimates, please state OPG's assumptions with respect to the refurbishment project's:

- (a) pre-tax weighted average cost of capital;
- (b) after-tax weighted average cost of capital;
- (c) average annual capacity factor;
- (d) present value of the short-term, medium-term and long-term costs associated with the management of used nuclear fuel.

3. Reference: Ex. D2, Tab 2, Sch. 1, pp. 4 & 5; and Minutes of Stakeholder Information Session 1, p. 18

OPG estimates that the Darlington refurbishment project will have a LUEC of between 6 and 8 cents per kWh (2009\$) excluding capitalized interest.

Please provide a break-out of OPG's LUEC estimates according to at least the following categories:

- (a) capital costs;

- (b) fixed operating, maintenance & administration;
- (c) fuel cost;
- (d) variable operating, maintenance & administration;
- (e) short-term, medium-term and long-term costs associated with the management of used fuel.

4. Reference: Ex. D2, Tab 2, Sch. 1, pp. 4 & 5; Minutes of Stakeholder Information Session 1, p. 18; and Ex. E2, Tab 1, Sch. 2, Table 1b

OPG estimates that the Darlington refurbishment project will have a LUEC of between 6 and 8 cents per kWh (2009\$) excluding capitalized interest.

Please re-calculate these LUECs under the following two scenarios:

- (a) The Board does not allow OPG to include these capital costs in rate base before the project is completed and in-service;
- (b) The Board does not allow OPG to include these capital costs in rate base before the project is completed and in-service; and the project has an annual average capacity factor of 64.2% .

Please provide a break-out of these revised LUEC estimates according to at least the following categories:

- (a) capital costs;
- (b) fixed operating, maintenance & administration costs;
- (c) fuel cost;
- (d) variable operating, maintenance & administration costs;
- (e) short-term, medium-term and long-term costs associated with the management of used fuel.

5. Reference: Ex. C2, Tab 1, Sch. 1, p.6; and Ex. D2, Tab 2, Sch. 1, Attachment 4, p. 4

According to OPG's prefiled evidence:

Under the ONFA, the limit of OPG's financial exposure with respect to the cost of long-term management of used fuel was capped at \$5.94B (January 1, 1999 present value) for the first 2.23M fuel bundles. OPG is responsible for funding the incremental costs associated with the long-term management of fuel bundles in excess of 2.23M. It is currently estimated that physically, the 2.23M bundle threshold will be reached in 2012.

- (a) Please provide OPG's best estimate of its financial exposure with respect to the long-term management of the used fuel which will be produced if service life of the Darlington Nuclear Station is extended by 30 years.
- (b) Is there a cap on OPG's financial exposure with respect to the long-term management of the used fuel which will be produced if service life of the Darlington Nuclear Station is extended by 30 years? If yes, please state the cap on OPG's financial exposure.
- (c) Please provide OPG's best estimate of the Government of Ontario's financial exposure with respect to the long-term management of the used fuel which will be produced if the service life of the Darlington Nuclear Station is extended by 30 years.

6. Reference: Ex. D2, Tab 2, Sch. 1, pp. 4 & 5 and Attachment 4, p. 9; Minutes of Stakeholder Information Session 1, p. 18; and Ex. E2, Tab 1, Sch. 2, Table 1b;

OPG estimates that the Darlington refurbishment project will have a LUEC of between 6 and 8 cents per kWh (2009\$) excluding capitalized interest.

Please re-calculate your low and high LUEC estimates with the following revised assumptions:

- (a) All costs associated with construction work in progress are included in the LUEC. In other words, the Board does not allow OPG to include its capital costs in rate base before the project is completed and in-service;
- (b) The project is financed 30% by debt and 70% by equity; and
- (c) The project's required after-tax rate of return on equity is 18%.

Please also provide your re-calculated LUEC estimates under the following scenarios with respect to the project's average annual capacity utilizations rates:

- (a) 64.2% ;
- (b) 70%;
- (c) 82%; and
- (d) 87% .

Please also break out your re-calculated LUEC estimates according to at least the following categories:

- (a) capital costs;
- (b) fixed operating, maintenance & administration costs;
- (c) fuel cost;
- (d) variable operating, maintenance & administration costs; and
- (e) short-term, medium-term and long-term costs associated with the management of used fuel.

Please also state your low and high total capital cost estimate for the project with respect to the above-noted assumptions.

7. Reference: Ex D2, Tab 2, Sch. 2, p. 3

According to OPG: "Inclusion of CWIP in rate base for the Darlington Refurbishment project is warranted since it meets the criteria for qualifying investments specified by the OEB in its Report" [EB-2009-0152, *Report of the Board: The Regulatory Treatment of Infrastructure Investment in connection with the Rate-regulated Activities of Distributors and Transmitters in Ontario*].

However, Pollution Probe notes that the referenced report is restricted to investments by electricity distributors and transmitters, which are natural monopolies. OPG, on the other hand, is an electricity *generator* and electricity generation is not a natural monopoly (in Pollution Probe's view).

Has the Board indicated that it believes that inclusion of CWIP in rate base could be appropriate for an electricity generator?

8. Reference: Ex. D2, Tab 2, Sch. 1, p. 4; and Ex. D2, Tab 2, Sch. 1, Attachment 3

OPG's management has not received permission to date to proceed with the refurbishment of the Darlington Nuclear Generating Station from its Board of Directors, its sole shareholder, or the Board.

Have any regulatory tribunals approved the inclusion of a project's CWIP in rate base before they have determined that the project is in the public interest and should proceed? If "yes", please provide copies of the applicable decisions.

9. Reference: Ex. D2, Tab 2, Sch. 1, p. 4; and Ex. D2, Tab 2, Sch. 1, Attachment 3.

OPG is seeking Board approval to recover, from all of Ontario electricity ratepayers, its costs associated with assessing the feasibility of and planning one of OPG's potential future electricity generation projects.

Does OPG believe it would also be appropriate for investor-owned generation companies (such as Brookfield Power) to be also allowed to recover, from all Ontario electricity ratepayers, their costs associated with assessing and planning its potential future electricity generation projects in Ontario? If so, please fully describe under what circumstances. If not, please explain why not.

10. Reference: Ex. D2, Tab 2, Sch. 2, p. 1

Long-term electric power planning is the responsibility of both the Ontario Power Authority and the Ontario Energy Board. However, the Board has not approved to date an integrated power system plan developed by the OPA which includes the refurbishment of the Darlington Generating Station.

Please explain why it would be in the public interest for the Board to approve OPG's CWIP proposal before the Board reviews and approves an integrated power system plan for Ontario?

11. Reference: Ex. D2, Tab 2, Schedule 1, Attachment 4

According to OPG's prefiled evidence: "Based on publicly available information, the economics of Darlington Refurbishment are more attractive than alternative generation options including New Nuclear and Combined Cycle Gas Turbines (CCGT)."

Please provide OPG's best estimates of the LUECs for both new nuclear and combined-cycle gas turbines.

Please also provide a break-out of your LUEC estimates according to at least the following categories:

- (a) capital costs;
- (b) fixed operating, maintenance & administration;
- (c) fuel cost;
- (d) variable operating, maintenance & administration; and
- (e) short-term, medium-term and long-term costs associated with the management of used fuel.

Please also state the key input assumptions for your LUEC calculations, including: capital costs per MW; capital structure; costs of equity and debt; heat rates, commodity cost of gas; annual capacity utilization rates.

12. Reference: Ex. D2, Tab 2, Schedule 1, Attachment 4

According to OPG: "Based on publicly available information, the economics of Darlington Refurbishment are more attractive than alternative generation options including New Nuclear and Combined Cycle Gas Turbines (CCGT)."

- (a) Has OPG compared the economics of the Darlington Refurbishment with the economics of incremental energy efficiency investments, natural gas-fired combined heat and power, and/or hydro-electricity imports from Quebec? If so, please provide copies of OPG's analyses.

- (b) Does OPG believe it would be in the public interest for the Board to approve OPG's CWIP proposal before it has reviewed the economics of alternative options, such as incremental energy efficiency investments, natural gas-fired combined heat and power, and/or hydro-electricity imports from Quebec? If so, please explain why.

13. Reference: Ex. D2, Tab 2, Sch. 2, Table 1

Please extend the time horizon of this Table to show the revenue requirement and rate impact of OPG's CWIP proposal in 2013 & 2014.

Issues 2.2 and 4.5

14. Reference: Ex. D2, Tab 2, Sch. 1, Table 3

Please extend the time horizon of this Table to show the forecasted capital expenditures for Nuclear Generation Development Projects in 2013 and 2014.

Issue 3.3

15. Reference: Exhibit C1, Tab 1, Schedule 1, Page 1 of 6, line 22; Exhibit C1, Tab 1, Schedule 2, Table 6a

OPG states that it has "applied the ROE of 9.85 per cent set by the OEB for use in 2010 cost of service applications in the OEB's letter of February 24, 2010."

- (a) Given that the credit and financial markets have returned to longer run normality, would OPG please explain why the ROE of 9.85 per cent set by the OEB for use in 2010 cost of service applications in the OEB's letter of February 24, 2010 is applicable for 2011 and 2012?
- (b) Given that the credit and financial markets have returned to longer run normality, would OPG please explain why the equity risk premium implicit in the allowed 9.85 percent that ranges between 5.47% and 5.91% based on the expected yield on 30-year GOC for 2011 given in Exhibit C1, Tab 1, Schedule 2, Table 6a, note 12 is not too high.
- (c) Would OPG explain why the GOC Q1-11 yield is 3.94% for issue 24 and for Niagara 15 and is 4.19% for issue 25 in Exhibit C1, Tab 1, Schedule 2, Table 6a, note 12?

16. Reference: Exhibit C1, Tab 1, Schedule 1, Page 1 of 6, line 22

OPG states that it “continues to support the use of a single cost of capital for its prescribed facilities”:

- (a) When evaluating the desirability of capital expenditures, does OPG use net present value (“NPV”) or internal rate of return (“IRR”)?
- (b) If OPG uses NPV to evaluate capital expenditures:
 - i. What does OPG use as the discount rate and how is it determined?
 - ii. Does the discount rate differ for capital investments that differ in their risks?
 - iii. If the discount rate differs for capital investments with perceived risk differences, how does it differ and how are the different discount rates calculated?
 - iv. Does the discount rate differ for capital investments for hydroelectric versus nuclear operations (i.e. so-called divisional “cost of capital”)?
 - v. If the discount rate so differs, how does the discount rate differ and how are the different discount rates calculated?
 - vi. Does the discount rate differ for capital investments for regulated versus non-regulated hydroelectric or nuclear operations?
 - vii. If the discount rate differs for capital investments for regulated versus non-regulated hydroelectric or nuclear operations, how does the discount rate differ and how are the different discount rates calculated?
- (c) If OPG uses IRR to evaluate capital expenditures:
 - i. What does OPG use as the hurdle or cut-off rate of return for making (or are considered in making) accept/reject investment decisions?
 - ii. How is this hurdle rate determined?
 - iii. Does the hurdle rate differ for capital investments that differ in their risks?
 - iv. If the hurdle rate differs for capital investments with perceived risk differences, how does the hurdle rate differ and how is it calculated?
 - v. Does the hurdle rate differ for capital investments for hydroelectric versus nuclear operations (i.e. so-called divisional “cost of capital”)?
 - vi. If the hurdle rate differs for capital investments for hydroelectric versus nuclear operations, how does the hurdle rate differ and how is it calculated?
 - vii. Does the hurdle rate differ for capital investments for regulated versus non-regulated hydroelectric or nuclear operations?

- viii. If the hurdle rate differs for capital investments for regulated versus non-regulated hydroelectric or nuclear operations, how does the hurdle rate differ and how is it calculated?

17. Reference: Exhibit C1, Tab 1, Schedule 1, Page 1 of 6, lines 2-26

As summarized in this passage, the Board in EB-2007-0905 determined that the cost of capital for OPG's regulated operations "shall reflect the adoption of the formula approach to setting the ROE (page 162), consistent with the OEB's expectation that risk differences in the regulated businesses are appropriately addressed through the capital structure rather than the ROE (page 162)", and that "there *may* be merit in establishing separate capital structures for the two businesses as it would enhance transparency and more accurately match costs with the payment amounts". As a result, OPG engaged Fosters whose analysis considered five different potential quantitative methodologies for isolating the cost of capital for OPG's regulated hydroelectric and nuclear generation operations.

- (a) If the Board's expectation is that risk differences in the regulated businesses are appropriately addressed through the capital structure rather than the ROE, why was Foster Associates, Inc. asked to evaluate potential methodologies for isolating the cost of capital and not capital structures for OPG's regulated hydroelectric and nuclear generation operations?
- (b) If the Board did not use a quantitative methodology for determining OPG's overall equity thickness, why does OPG consider it appropriate to evaluate different potential quantitative methodologies for isolating the cost of capital for OPG's regulated hydroelectric and nuclear generation operations?

18. Reference: Exhibit C3-1-1, Page 3

The following premise is invoked here in Ms. McShane's report: "To the extent required by the analysis, the conversion of differences in the cost of equity among proxy samples into capital structure equivalents will be based on the premise that the overall cost of capital is constant across the relevant range of capital structures."

- (a) Please have Ms. McShane specify the beginning and ending equity thicknesses (ratios) for the relevant range of capital structures over which the overall cost of capital is constant.
- (b) Please have Ms. McShane provide the results of all the quantitative tests that she has conducted to determine the range of capital structures over which the overall cost of capital is constant.
- (c) Please have Ms. McShane provide the results of all the quantitative tests that she has conducted to determine the robustness of the tests that she has

conducted to determine the range of capital structures over which the overall cost of capital is constant.

- (d) Does Ms. McShane believe that there is a relation between the range of capital structures over which the overall cost of capital is constant and bond ratings? If she does not, please explain why not. If she does, please explain what that relationship is.

19. Reference: Exhibit C3-1-1, Page 5, last 3 sentences of point F

According to this part of the prefiled evidence: "In principle, the CAPM measures the return requirement for nondiversifiable risks, that is, not company-specific risks, but risks that are attributable to market-wide factors, e.g., inflation, commodity prices, and interest rates. From a CAPM perspective, production and operating risks are company specific, largely unrelated to capital market or economy-wide events and thus should be largely diversifiable, i.e., reduced or eliminated in a portfolio of investments. The CAPM assumes that these risks are not "priced" by the capital markets."

- (a) Please have Ms. McShane explain why she believes that production and operating risks are company specific, largely unrelated to capital market or economy-wide events.
- (b) If Ms. McShane believes that production and operating risks are company specific, largely unrelated to capital market or economy-wide events, why does she discuss the impact of the passage of the Green Energy and Green Economy Act on the regulated hydroelectric and nuclear operations under point 1 of page 4 of Exhibit C3-1-1?
- (c) Please have Ms. McShane explain and discuss what firm-specific business risks are not linked to capital market or economy-wide events.

20. Reference: Exhibit C3-1-1, Page 9, point O

- (a) If the Board did not use a quantitative methodology for determining OPG's overall equity thickness, why does Ms. McShane consider it inappropriate to similarly use a degree of judgment to determine indicative equity thicknesses for OPG's regulated hydroelectric and nuclear generation operations?
- (b) Please have Ms. McShane explain why judgment can be used to conclude that OPG's regulated "nuclear generations face materially higher business risks than the hydroelectric operations" and to then use this conclusion in determining the OPG's overall capital structure, but that judgment is not appropriate for determining indicative and separate capital structures for OPG's regulated hydroelectric and nuclear generation operations.

21. Reference: Exhibit C3-1-1, Page 21, section D.1., second paragraph

The relevant passage for this interrogatory is: "It is important to recognize that the application of a "pure" stand-alone approach for rate setting purposes will result in a higher cost of capital than one which reflects the impacts of diversification."

- (a) Please have Ms. McShane explain how this is consistent with the value discount associated with diversified versus focused entities.
- (b) Please have Ms. McShane explain why investors would value the diversification when they could do it themselves.
- (c) Please have Ms. McShane explain why investors would value the diversification when they lose the flexibility of deciding themselves where and how they want to diversify when the choice of diversification is instead made by the utility.

22. Reference: Exhibit C3-1-1, Page 38, first full paragraph

This paragraph states that "reliance on income trusts as proxies is problematic from a cost of capital perspective due to the change in the Income Tax Act announced by the Department of Finance in the 2006 Tax Fairness Plan which will subject the distributions from income trusts to income tax as of 2011."

- (a) Please provide the results of any tests that Ms. McShane has conducted to support her contention that the "reaction of the capital markets to the announcement would have an impact on market measures of risk (e.g., beta) that is unrelated to the fundamental operating risks to which the underlying assets of the trusts may be subject".
- (b) Please provide references to all studies that Ms. McShane is aware of that have tested the reaction of the capital markets to the announcement by Department of Finance. Please also provide copies of any studies that are not readily available (e.g. not published).

23. Reference: Exhibit C3-1-1, Pages 47-61, Section A

- (a) Would Ms. McShane agree that all of the tests conducted in this section of her report deal with estimating betas? If not, please explain.
- (b) Would Ms. McShane agree that betas are useful for calculating the required return on equity but not for determining equity thickness? If not, please explain.
- (c) Please have Ms. McShane indicate which bond rating agency uses equity betas in the determination of bond ratings for utilities.
- (d) Please have Ms. McShane show any capital-structure-specific tests that she has conducted.

24. Reference: Exhibit C3-1-1, Page 49, first full paragraph

This paragraph states that: "The instability of betas from measurement period to measurement period may be problematic for analyses that attempt to measure differences in return requirement for investments exposed to fundamentally different levels of business and/or financial risk."

Please have Ms. McShane explain why time-variation in betas is more problematic for more differentiated investment (such as nuclear generation) as opposed to less differentiated investment (such as operation in vertical integrated hydroelectric).

25. Reference: Exhibit C3-1-1, Pages 56-57, last paragraph that carries over

- (a) Would Ms. McShane agree that her betas are estimates and thus are subject to sampling variation? If not, please explain.
- (b) Are the beta comparisons across the two samples based on the average betas of each of the 7 utilities in the High Nuclear subsample and of the 28 individual utilities in the High Generation subsample? If not, please explain, what was used in the comparisons.
- (c) Please confirm that: only one of the 7 utilities in the High Nuclear subsample has an S&P debt rating of A-; that the other six utilities have an S&P debt rating of BBB; and that the mean and median S&P debt rating for this subsample is BBB. If not, please explain.
- (d) Please provide the level of significance for the differences referred to in: "In one period, the estimated nuclear generation beta was significantly higher than the generation betas, but in the other period, the nuclear generation beta was materially lower than the generation betas."

26. Reference: Exhibit C3-1-1, Page 67, last paragraph

Please provide the names of the companies, along with their bond ratings from both bond rating agencies, that were excluded from each proxy sample because they did not have investment grade debt ratings (i.e. BBB- and Baa3 or higher) by both Standard and Poor's and Moody's.

27. Reference: Exhibit C3-1-1, Appendix A, Page 1

Please provide the names of the utilities that were removed from the sample of 59 utilities, along with their bond ratings from S&P, because they are rated below investment grade as well as the names of the utilities that were removed from the sample of 59 utilities because they were not rated by S&P.

28. Reference: Exhibit C3-1-1, Appendix B, Table B-1, Page 4

- (a) Please discuss how multicollinearity was dealt with in the regressions reported in Table B-1.
- (b) Please discuss how the endogeneity problem was dealt with in the regressions reported in Table B-1.

29. Reference: Exhibit C3-1-1, Appendix E, Section 2., Page 2

Which I/B/E/S consensus earning growth forecasts were used to estimate “g” in the growth component for each utility? (e.g. one-year forward? long-term growth rate? etc.)

30. Reference: Exhibit C3-1-1, Schedules 6 and 7

Please provide the allowed rate of return on regulated assets for each of the utilities for each of the years in these two schedules (i.e. 2003-2008).

31. Reference: Exhibit C3-1-1, Page 24

Ms. McShane states here that: “The Ontario economy generally and the manufacturing sector specifically, which accounts for a significant portion of the electricity consumed in the Province, have been relatively hard hit by the global recession.” The text goes on to quote the 2009 *Ontario Economic and Outlook and Fiscal Review*.

Does this forecast require any updating to be applicable to the test period? If so, please provide all updates applicable for the test period that Ms. McShane deems relevant.

32. Reference: Exhibit C3-1-1, Page 25

Ms. McShane states here that: “The development of green energy projects under the Feed-in Tariff program will potentially lead to an increasing occurrence of surplus baseload generation. The adoption of the Green Energy and Green Economy Act and the potential softening of demand support the conclusion that the dispatch risk to which OPG’s regulated operations are exposed is rising.”

- (a) Please provide Ms. McShane’s views on the percentage of energy that will be supplied by green sources during the test period.
- (b) Please provide all analyses conducted by Ms. McShane along with all relevant sources used to reach her conclusion that green energy is increasing OPG’s dispatch risk.

33. Reference: Exhibit C3-1-1, Page 27, first full paragraph

Ms. McShane states here that: ‘The Board declined to approve OPG’s proposed payment structure, instead adopting a 100% energy-based regulated payment. The Board concluded that OPG should be fully incented to produce as accurate a forecast of nuclear production as possible and should be at risk if actual output falls short of forecast. The adoption of a 100% energy-based regulated payment in lieu of a payment that partially recovers the revenue requirement in a fixed charge results in higher revenue risk to the regulated nuclear operations than anticipated in the 2007 business risk assessment and increases the business risk of OPG’s nuclear operations relative to that of the hydroelectric operations.’

- (a) Please provide the details of all deferral accounts that relate to forecasting risk.
- (b) Please explain the role of such deferral accounts in mitigating forecasting risk.

34. Reference: Exhibit C3-1-1, Page 28, first and last full paragraphs

The first full paragraph here states that: “In this application OPG has adjusted its nuclear production forecast methodology to include an allowance (2 TWh) for major unforeseen events based on its historical experience. While the refinement of the forecasting methodology to better take account of its actual experience reduces the production forecasting risk, OPG had not been fully compensated for that risk, as was made clear in the *Decision*”.

The last full paragraph here states that: “In light of the Board’s findings regarding compensation for forecasting risk, there is no change in the absolute or relative risk of the hydroelectric and nuclear operations arising from the proposed nuclear production forecasting approach. With no other material changes arising from or since the *Decision*, at this time, there has been no significant change in the relative or absolute production/operating risks of the nuclear and hydroelectric operations.”

- (a) Please provide Ms. McShane’s view on the correctness of the Board decision referred to in the citation above.
- (b) Please explain why the adjustment in OPG’s nuclear production forecast is necessary in light of the conclusion that there is no change in forecasting and production/operating risks.

35. Reference: Exhibit C3-1-1, Page 30, first full paragraph

Ms. McShane identifies here a regulatory risk related to the return on segregated funds: “The market value of the funds is determined by the performance of the capital markets. The methodology for recovery of nuclear liability costs does not take account of the

performance of the segregated funds and thus OPG is at risk for the performance of those funds (as they relate to Pickering and Darlington). The capital market experience of 2008, during which the return on the S&P/TSX Composite was – 33%, highlights that risk.”

- (a) Please provide Ms. McShane’s view of the degree to which capital market experience subsequent to 2008 has modified the market risk.
- (b) Please provide Ms. McShane’s view of the likelihood of a repeat of the 2008 crash during the test period.

36. Reference: Exhibit C3-1-1, Page 31, first full paragraph through Page 33, first full paragraph

Ms. McShane discusses here the financial leverage and capital structure impacts of the Board’s approach to determining net assets. She conducts calculations to support her argument that the “effective” leverage ratio for OPG is below that of each of two U.S. nuclear power producers (i.e. Exelon and Entergy).

- (a) Please provide the calculations supporting the view expressed that the “approach adopted by the Board” leads to effective equity ratios of 40% for composite assets and 32% for nuclear.
- (b) In comparing equity ratios among OPG and these two U.S. nuclear producers, are there any other factors that should be considered beyond those discussed in the cited passage? Please provide Ms. McShane’s view on this question together with her thinking on how such factors might impact the comparisons.

37. Reference: Exhibit C3-1-1, Page 34, third full paragraph

After discussing changes in business risk (not including regulatory risk), Ms. McShane concludes here that: “The associated impact on the cost of capital for either the hydroelectric or the nuclear operations during the test period is likely to be small, not amenable to quantification and unlikely to materially change the relative business risk of the two regulated operations.”

Based on the quoted passage, please provide Ms. McShane’s view and explanation as to whether the capital structure awarded by the Board in its last Decision was a fair one.

38. Reference: Exhibit C3-1-1, Page 34, last paragraph continuing on Page 35

With regard to regulatory risk, Ms. McShane states here that: “With respect to changes in relative risk that result from the *Decision*, the difference in the business risk profiles is greater than was anticipated in EB-2007-0905, largely due to the Board’s decision not to

adopt the proposed fixed payment for the nuclear operations and to vary the proposed ratemaking treatment of the nuclear liabilities.”

Is it logical for the Board to base its capital structure decisions in the present case, on alleged regulatory risk created by its Decision in the last rate case? Please provide Ms. McShane’s view of this issue and any corresponding explanations.