IN THE MATTER OF a review of the Ontario Energy Board's Cost of Capital Policy

COMMENTS OF ONTARIO POWER GENERATION INC.

Introduction

On June 18, 2009, the Ontario Energy Board (the "Board") issued a letter announcing a review of its cost of capital policy "to ensure that, on a going forward basis, changing economic and financial conditions are accommodated if required". The letter concluded a consultative process initiated by the Board by letter dated March 16, 2009 (the "Initial Consultation") to help it determine whether current economic and financial market conditions warrant an adjustment to any of the Cost of Capital parameter values (i.e., the Return on Equity, Long Term Debt rate, and/or Short Term Debt rate) set out in the Board's letter of February 24, 2009.

In a submission made as part of the Initial Consultation, OPG recommended that a generic review of the ROE formula be undertaken as the economic and financial conditions existing at that time met the threshold for review that the OEB established in RP-2002-0158. The current consultation is a positive step in this regard, provided that the OEB adjusts the current Equity Risk Premium ("ERP") method.

Recommendation

In the Initial Consultation, OPG proposed that the OEB add a market adjustment mechanism to its ROE formula to enable utilities to earn a fair return on equity, pending the outcome of a generic review.

OPG's proposed market adjustment is calculated by first determining the difference between the current long-term utility debt spread (i.e. the long-term debt rate determined using the OEB's current methodology and the underlying long-term Government of Canada ("GOC") bond yield) and the average long-term utility debt spread since the establishment of the current ROE adjustment formula. The difference is then multiplied by 75% to determine the market adjustment. This adjustment is transparent, easily understood, and is determined using cost of capital parameters currently used by the OEB. OPG continues to support the inclusion of a market adjustment mechanism into the formula that automatically and directly incorporates changes in capital market conditions such as those evidenced during 2008 and 2009, pending the outcome of a generic review process.

The OEB's current consultation requests comments on whether the current formula and the resulting ROEs are consistent with the Fair Return Standard. The Fair Return Standard is comprised of three components: (i) the comparable investment standard; (ii) the financial integrity standard; and (iii) the capital attraction standard. OPG is of the view that the current formula and resulting ROEs do not adequately address the comparable investment standard. OPG's agrees with the recommendation of Foster Associates in EB-2007-0905 that reasonableness tests such as the comparable earnings test should be given weight in the OEB's determination of ROE.

To ensure consistency with the Fair Return Standard and to accommodate changing economic and financial conditions, the OEB should, as a result of this or a subsequent generic process:

- reset the current ROE in the ERP formula using multiple tests including the comparable earnings test to ensure the comparable earnings standard is given consideration in determining an ROE;
- consider using other approaches such as the After Tax Weighted Average Cost of Capital ("ATWACC") analysis or a comparison with utilities whose ROEs are not established pursuant to a formula as a reasonableness check on the adequacy of the ROE produced by the formula;

- once the ROE has been reset, revisit the annual adjustment formula to determine if the relationship between the base (long Canada bonds, corporate bonds or both) should be updated; and
- incorporate the relationship between ROE and corporate bonds into the annual adjustment formula once the ROE has been reset either directly or by continuing OPG's proposed market adjustment.

After the formula is reset, the OEB should formally consider, every 4 to 5 years, whether to review the ROE to ensure that the annual adjustment formula has worked as intended, resulting in an ROE that is consistent with the Fair Return Standard.

OPG's responses to the nineteen questions on the Issues List follow.

1. What method(s)/test(s) might the Board formally consider to determine whether the return on capital meets: (i) the comparable investment standard; (ii) the financial integrity standard; and (iii) the capital attraction standard?

OPG's evidence in EB-2007-0905 supported the use of multiple tests to determine return on equity. The tests (Capital Asset Pricing Model, Equity Risk Premium, Discounted Cash Flow and Comparable Earnings) all measure different factors that should be considered in setting a fair return on equity that is consistent with the comparable investment standard, the financial integrity standard and the capital attraction standard. The OEB should not rely on a single method or test. In OPG's view, it is better to use each test and apply an appropriate weight to the test's result. In particular, the comparable earnings test ("CET") provided by Foster Associates in EB-2007-0905 should be used in setting ROE. That CET was based on a sample of unregulated companies of comparable risk and therefore it logically follows that to meet the comparable investment standard the results of this test must be given some weight.

Once an ROE has been determined based on the methods discussed above, other indicators can be used to assess the reasonableness of the ROE in achieving the Fair Return Standard, including the comparable investment standard. Returns available to regulated companies of comparable risk whose returns are not set using an automatic adjustment formula is one such measure. Another possible measure is the After Tax Weighted Average Cost of Capital method approved by the NEB in March, 2009 for TransQuebec and Maritimes Pipelines, Inc. (TQM). In an application to the British Columbia Utilities Commission dated May 15, 2009, Terasen Gas used an ATWACC analysis to demonstrate that the results of its proposed combined ROE and capital structure were reasonable and consistent with the comparable investment standard. ATWACC could be used as a check on whether an ROE and capital structure determined through other means results in a fair return.

2. Is the current deemed capital structure appropriate? If not, what alternative(s) might the Board consider?

OPG supports the continued use of a deemed capital structure under the current formula. OPG examined the issue of actual versus deemed capital structure in its initial payment amounts application. OPG's cost of capital expert, Ms. Kathy McShane of Foster Associates recommended[1] "the adoption of a deemed capital structure for OPG's regulated operations. The principal reasons for her recommendation were:

1. Using a deemed capital structure is consistent with basing the allowed return on an opportunity cost of capital that reflects the use of funds (the risks of the operations to which the funds are committed), rather than the source of those funds.
2. Using a deemed capital structure is consistent with regulatory practice (consistent with financial theory) of adherence to the stand-alone principle as followed by Canadian regulators, including the OEB, in setting the allowed return on rate base.
3. Using a deemed capital structure allows the general principle to be applied that the higher is the regulated operations' business risk, the lower the debt ratio should be. Recognizing the level of the regulated operations' business risks primarily through the allowed capital structure is a reasonable and accepted regulatory approach for differentiating among utilities and compensating them for differences in business risk.

[1] EB-2007-0905, Exhibit C2, Tab 1, Schedule 1, Pages 15 to 17.

4. OPG has significant non-regulated operations whose business risks and cost of capital may be different from the risks and cost of capital of its regulated business.
5. The use of a deemed capital structure provides assurance that ratepayers are protected from any negative impacts on the consolidated firm's cost of capital of unregulated operations".
As it is the combination of the allowed capital structure and ROE that is intended to compensate a utility for its business risks, the reasonableness of the capital structure cannot be assessed in the absence of a consideration of the related return on equity for the utility.

While setting a deemed capital structure continues to be appropriate under the OEB's current formula, it is unnecessary if an ATWACC approach is used.

3. Should the approach to setting cost of capital parameter values differ depending on whether a distributor finances its business through the capital markets or through government lending such as Infrastructure Ontario or through bank lending? If so, what would be the implications, if any, of doing so?

No, the approach should not be different. The issue should be whether the cost of the debt or equity is appropriate given the business risks faced by the utility, not the identity of the provider of those funds. This is the Stand-Alone principle of regulation as OPG summarized in its EB-2007-0905 Argument-In-chief, page 14.

"By stand alone, Ms. McShane meant that the cost of capital incurred by ratepayers should be equivalent to that which would be faced by the regulated operations if they were raising capital in the public markets on the strength of their own business and financial parameters. The evidence of Mr. Goulding, of London Economics, retained by Board Staff, was that as an OBCA corporation, OPG should be treated no differently from any other entity that the OEB regulates and that provincial ownership 'should not influence the OEB any more than if OPG was 100 percent owned by a private entity' (Tr. Vol. 12, page 111). Accordingly, Mr. Goulding confirmed that OPG should be viewed on a stand alone basis, disregarding the fact of its ownership by the Province (Ibid, pages 111-112)."

The OEB accepted OPG's proposal that its cost of equity capital should be established pursuant to the Stand-Alone principle, irrespective of the identity of the supplier of equity funds. Similarly, for OPG's debt costs, the OEB determined that OPG's borrowing costs were market based, irrespective of the fact that the majority of OPG's borrowings were sourced from the Ontario Electricity Financing Corporation (OEFC).

4. Does the analysis in the Concentric Report provide a reasonable foundation for satisfying the comparable investment standard?

The Concentric Report provides a reasonable foundation for assessing whether current ROEs for natural gas utilities satisfy the comparable investment standard. It provides sufficient evidence that regulatory and operating environments are not demonstrably different, and capital market conditions are sufficiently similar that U.S. gas utilities are comparable to Canadian gas utilities. The demonstrated parity shown between U.S. and Canadian utility ROEs for the 20-year period from 1977 to 1997 changed such that Canadian natural gas utilities earned 150 to 200 basis points less than their U.S. comparators by 2007, primarily as a function of the annual adjustment formula and the trend in interest rates over that time. In OPG's view, a disparity of this magnitude supports the conclusion that the Canadian ROE formula results are not consistent with the comparable earnings standard.

While the study does not address other energy industry sectors regulated by the OEB, some of the generic conclusions about the comparability of the business and regulatory risks and the capital market similarities would imply that U.S. samples of electric distribution, transmission and generation companies would provide meaningful comparators for other Ontario utilities.

5. If not, what might the Board use as a comparator group?

OPG supports the criteria used by Foster Associates to establish a comparator group for it as described in EB2007-0905, Exhibit C2, Tab 1, Schedule 1, Appendix D. Depending on the sector of the energy industry, the criteria could include bond ratings, business risk profile scores assigned by S&P, safety rankings assigned by Value Line, consistent history of dividend payments, percentage of assets/operating income derived from regulated operations. The sample group should be comprised of companies that:

- are of reasonably similar business and regulatory risk, preferably operating in the same energy industry sector;
- have publicly-traded stock as most cost of equity tests used to establish a fair return are capital market-based;
- have limited unregulated operations to ensure that only the cost of capital for utility operations is being considered;
- not presently being acquired;
- have a consistent history of analyst forecasts;
- are sufficient in number (i.e. result in a sufficient sample size) that the results of various cost of equity results are robust.

These companies would then be used to estimate the cost of equity using the market-based tests, to establish the initial ROE.

The use of an industry specific comparator group would allow the OEB to more accurately estimate and differentiate the overall cost of capital for utilities operating in different sectors and with different business risks, whether the OEB's current approach or alternative approaches such as ATWACC are used to establish the cost of capital.

In addition to a sample of utilities, the OEB should consider samples of unregulated companies with a comparable overall level of risk selected using the same criteria discussed above. One specific sample that the OEB may consider was selected by Foster Associates in conducting its comparable earnings test to establish ROE in its evidence in EB-2007-0905. Foster Associates uses a sample of unregulated companies with higher business risk but lower financial risk than utilities. The overall level of risk in this sample is comparable to that of the regulated utility; however the specific risks are not directly comparable. To be most effective in meeting the comparable investment standard, the comparable sample selected should reflect the risks of the specific energy industry sector to the extent possible.

6. Were the Board to only consider the use of Canadian utilities as a comparator group, is there an issue with circularity, given that the ROEs of these utilities are, and have been established by a mechanism similar to that currently used by the Board?

Yes, there is an issue of circularity if the comparison is to the utilities' allowed returns. With regard to the application of cost of equity tests, at the time that OPG's cost of capital study was performed by Foster Associates (2007) there were only 8 diverse Canadian companies with regulated operations considered to be utilities. This universe is too small and the individual companies too diverse to make a robust determination that the results are consistent with the fair return standard.

7. Should the ERP approach be reset given that when the formula was first established the reference bond rate was 8.75%?

Yes, it is time to reset the initial return on equity. It has been a decade since the values of the formula were established by the OEB and, as concluded in the Concentric Report for the natural gas industry, during that decade the ROEs for Canadian utilities have fallen faster than comparative U.S. utilities as interest rates have fallen dramatically since the ERP was first established.

If the OEB proceeds with a process to reset the ROE; then and only then should the 75% adjustment factor reflected in the annual adjustment formula be revisited to determine if there is less sensitivity of ROE to Long-Canada bond yields than implied by the current formula. There should also be consideration of whether long-Canada bonds or corporate bonds would (or both) should continue as the basis for adjustment.

8. Should the ERP approach be reset on a regular basis (e.g., every 4 or 5 years) to mitigate the issues described in the 1997 Compendium?

It should not automatically be reset; however OPG believes there is value in asking stakeholders to provide comments on the necessity for a review on a scheduled basis (e.g. every 4 to 5 years). A periodic request for comments should be used regardless of whether the OEB approves a trigger mechanism. The fact that the trigger is not activated does not necessarily imply that the formula is producing fair returns; therefore a periodic assessment is useful.

9. How might the Board address the potential issues arising from the application of the current methodology as a single, point-in-time calculation?

In the Initial Consultation, OPG proposed a market adjustment mechanism (“MAM”) to reflect differences in the spread between the point-in-time calculation and average spreads between corporate and long-Canada bonds. The proposed MAM would directionally maintain the relationship between the utility cost of long-term debt and the return on equity; thereby addressing the counter-intuitive results whereby the return on equity produced by the formula and the spread between it and the long-term debt cost decreases when both equity and credit risks are increasing. Addition of a Market Adjustment Mechanism would alleviate the concern that a single, point-in-time calculation could result in cost of capital parameters that don’t reflect prevailing economic and financial market conditions. The adjustment is intended to ensure the resulting ROE reflects prevailing, not typical financial market conditions.

OPG’s proposed market adjustment mechanism:

- is consistent with the current formula;
- uses information to adjust the result that has been accepted by the OEB;
- uses a relatively simple and transparent approach to determine the adjustment;
- produces results that are more intuitive than the current formula result, as they recognize changes in equity risk, balancing the existing formula outcome with the impact of other factors impacting the required return on equity; and
- is required to provide utilities the opportunity to earn a rate of return consistent with the Fair Return Standard.

The adjustment mechanism should be incorporated into the annual adjustment formula until the OEB has either: 1) reset the ROE for each energy industry sector and completed a review of the annual adjustment mechanism; or 2) accepted an alternative method to establishing cost of capital such as ATWACC.

10. How should the Board establish the initial ROE for the purposes of resetting the methodology?

As set out in response to question 1, the OEB should use multiple tests to establish/reset the initial ROE, including a formal consideration of a comparable earnings test. The annual adjustment formula should be independent of the resetting of the ROE. The fact that the annual adjustment formula uses changes in long-Canada bond rates only does not limit the setting of the ROE to tests that apply the long-Canada bond rate (e.g. CAPM), to the exclusion of other tests (e.g. DCF, CET) that do not use the long Canada bond rate.

Alternative methods such as an ATWACC approach could be used as a check on the reasonableness of the resulting ROE and capital structure in satisfying the comparable investment standard.

OPG has noted in its prior comments that that the NEB has recently adopted an ATWACC approach to establish the cost of capital for TQM and has issued a request for comment to determine whether it should revisit its formula-based approach to adjusting the return on equity for utilities subject to its jurisdiction. The NEB said in its TQM Decision that ATWACC "is more aligned with the way capital budgeting decision making takes place in the business world as compared to an approach by component that would include a stand-alone cost of equity estimate." (National Energy Board, Reasons for Decision, Trans Québec and Maritimes Pipelines Inc., RH-1-2008, March 19, 2009, page 18.)

OPG notes the OEB's letter to Mr. Warren of August 20, 2009 which stated that "while the issues list refers to the consultation as one addressing the cost of capital for electricity distributors, that does not necessarily preclude the results of this review, which is on the application and derivation of the equity risk premium approach (ERP), from being applicable to other rate-regulated sectors." While these results aren't precluded from application to other energy industry sectors, they should similarly not automatically be applied by default. Individual utilities are free to propose a different methodology, and have the Board assess that application on its merits.

11. Is the government (of Canada) bond yield the appropriate base upon which to begin the return on equity calculation?

The long Canada bond yield is essential to one market-based test, the CAPM; however other methods of establishing ROE widely accepted by other regulators (e.g. DCF, premiums over corporate bond yield, etc.) that do not require long-term Government of Canada bond yields to be used as a base.

As indicated in OPG's response to question 10, the OEB should use multiple tests as the appropriate base for resetting the ROE. The OEB should recalibrate the initial ROE and re-establish the initial premium at a level which meets the three requirements of the Fair Return Standard.

The annual adjustment mechanism is an independent consideration. It is effectively a regression whereby the dependent variable (the resulting ROE) is established based on its relationship (the adjustment factor currently 75%) to one or more independent variables (currently only the long-term Government of Canada bond yield). The independent variable(s) could be long-term Canada Bond yields, corporate bond yields, or another factor that can be logically related to the dependent variable. The coefficient of correlation (adjustment factor) would then be determined for each variable or set of variables and the statistical significance of the relationship assessed.

If the OEB determines that it is appropriate to continue to annually adjust ROE using only long-term government of Canada bond yields pursuant to the current formula, OPG submits that the MAM as proposed by OPG should be added to the formula to address changes in economic and financial market conditions.

Corporate bonds can equally be used as a base for annually adjusting the ROE value. If corporate bonds are used, a market adjustment mechanism would no longer be necessary.

If the OEB does not revisit the ROE based on first principles using multiple tests, then fairness would require the adjustment factor of 75% should remain in place until the long-Canada bond yield reaches the 5.50% yield reflected in the OEB's current formula.

12. What is the relationship between corporate bond yields and the corporate cost of equity? Is this relationship sustainable?

The yields of corporate bonds and corporate cost of equity move together. Long-term corporate bond yields are currently 25 basis points lower than the yields prevailing in 1999 while the underlying Government of Canada long bond yield has dropped by 150 basis points over the same period. The differential or spread between these yields is the market cost of credit which increased significantly in mid-2008 due to concerns arising in the financial markets at that time. As equity has greater risk than debt then a greater spread is required in order to attract equity capital that would necessitate an increased cost of equity. However, the ROE specified by the OEB has dropped from 9.35% to 8.01% as the adjustment to ROE specified in the formula only considers the change in the Government of Canada bond yield and ignores the change in the cost of credit and corresponding cost of equity. OPG proposed a market adjustment mechanism that would capture this cost of credit impact.

As an alternative, the annual ROE could be adjusted based on changes in corporate bond yields rather than changes in long-term Government of Canada bond yields reflected in the current calculation.

OPG is of the view that, as long as the spreads between corporate costs of equity and debt are reflected in the adjustment model, it does not matter whether it is reflected directly into the formula or indirectly through a market adjustment mechanism.

13. Does the current approach used by the Board to calculate the ERP remain appropriate? If not, how should the ERP be calculated?

As discussed in responses to the issues listed above, OPG is of the view that the current ERP should be re-set, (see responses to questions 7, 8, 9, 10, 11) and the adjustment mechanism should also be reviewed (see responses to questions 7, 9, 12).

14. Should the Board adopt a dead band? If so, what should the range of the dead band be?

OPG interprets a dead band to be a threshold prior to adjustment. If the formula ROE result was within a dead band, the OEB would not change rates to reflect the updated ROE. OPG submits that, if rates determined based on a cost of service approach are being adjusted for other reasons, then it is not unreasonable to adjust rates to reflect the then current formula based ROE. Otherwise the ROE established in approved rates should continue until new rates are authorized by the OEB.

OPG does not support adoption of a dead band under cost of service regulation as it needlessly creates winners and losers and as a result is not appropriate. OPG understands that the rate escalation mechanism in a PBR rate setting methodology may, at least partially, encompass changes in the cost of capital. OPG is not regulated under a PBR approach, and has not studied the issue in sufficient depth to make an informed submission on the applicability of a dead band in a PBR rate-setting approach.

15. Should the Board adopt trigger mechanism(s)? If so, how often should the Board review the methodology?

OPG generally supports trigger mechanisms. However, it can be difficult to establish an effective one. OPG's cost of capital expert in EB-2007-0905 indicated that the ROE should be reconsidered if the long Canada bond yield was outside a specified range. The long-Canada bond range of 3% to 8% proposed for OPG would not have been triggered even in the recent depressed economic and financial market conditions. OPG notes that the +/- 200 basis point measure did not trigger the Alberta generic proceeding either, rather the Alberta proceeding follows from the periodic review of the ROE and annual adjustment formula.

16. What is the appropriate test(s) to ensure the FRS is met (e.g. corroborating results for reasonableness relative to other benchmarks or through other methods)?

OPG has addressed this issue in responses to previous questions (see responses to questions 1 to 6, 9 and 10). OPG agrees with the position of Foster Associates that ROE should be established using multiple tests, rather than placing reliance on a single approach. A comparable earnings test should be used in setting the ROE, and an ATWACC approach and/or the comparison of the ROE to the ROEs of utilities of comparable risk (provided their ROEs aren't set pursuant to a formula) could be used to assess the reasonableness of the results, combined with the allowed capital structures.

17. What information might the Board need to definitively determine that market conditions are having an effect on the variables used by the Board's cost of capital methodology?

OPG has proposed a number of changes to the OEB's current methodology that will go a long way towards addressing the concern that the resulting ROEs are not consistent with the Fair Return Standard. These proposals include:

- resetting the current ROE using multiple tests including formal consideration of a comparable earnings test;
- possibly using an ATWACC analysis and/or comparison of ROE of regulated utilities not subject to a formula ROE to check if the resulting ROE is reasonable;
- revisiting the annual adjustment formula to determine if the relationship between the base (long Canada bonds, corporate bonds or both) should be updated;
- establishing a formal periodic consideration (e.g. every 4 to 5 years) of whether the formula should be reviewed; and

- incorporating a market adjustment mechanism into the formula that automatically and directly incorporates changes in capital market conditions.

18. Should the Board consider monitoring indicators like these on an on-going basis to test the reasonableness of the results of its cost of capital methodology?

If the OEB incorporates the measures proposed by OPG in response to question 17, OPG is of the view that on-going monitoring is unnecessary.

19. What other key metrics used by financial market participants to determine whether financial markets conditions are or are not "normal" might the Board consider?

See response to questions 17 and 18.