

CAPITAL STRUCTURE AND RETURN ON EQUITY

1.0 PURPOSE

This evidence describes the methodology that OPG has used to determine its capital structure and return on equity ("ROE") for the test period. This evidence also summarizes the capitalization and cost of capital for 2007 - 2010.

2.0 OVERVIEW

OPG is seeking approval of the test period cost of capital as presented in Ex. C1-T1-S1 Tables 1 and 2. In determining the cost of capital, OPG has applied the capital structure of 47 per cent equity and 53 per cent debt approved by the OEB in EB-2007-0905. OPG 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.

In EB-2007-0905, the OEB directed OPG to examine the issue of separate costs of capital for its nuclear and regulated hydroelectric facilities. To respond to this direction, OPG retained Foster Associates Inc. ("Fosters") to examine potential methodologies for developing technology-specific costs of capital. The Fosters report, found in Ex. C3-T1-S1, concludes that none of the cost of capital methodologies examined yields a robust and analytically sound basis for specifying technology-specific costs of capital.

OPG continues to support the use of a single cost of capital for its prescribed facilities. This is the approach that was used in the last application and this is the approach that is consistent with the manner in which OPG is actually financed. This issue is explored in section 5.0 below.

The debt component of OPG's capital structure is determined using the methodologies approved by the OEB in EB-2007-0905. These are described in Ex. C1-T1-S2 and Ex. C1-T1-S3 for long-term and short-term debt, respectively.

1 OPG has applied this capitalization to the rate base described in Exhibit B. The resulting
2 capitalization and cost of capital for 2007 - 2012 is summarized in Ex. C1-T1-S1 Tables 1 - 6.

3 4 **3.0 CAPITAL STRUCTURE**

5 For the test period, OPG has applied the deemed capital structure of 47 per cent equity and
6 53 per cent debt approved by the OEB in EB-2007-0905.

7
8 There have been changes in OPG's operating and financial risks since EB-2007-0905 as
9 discussed by Fosters in Ex. C3-T1-S1. However, at this time OPG is not proposing any
10 changes to its capital structure to address these risks. The debt component of OPG's capital
11 structure is determined using the methodologies approved by the OEB in EB-2007-0905.
12 OPG's test period capital structure is provided in Ex. C1-T1-S1 Table 1 (2012) and Table 2
13 (2011).

14
15 For the period April 1, 2008 to December 31, 2010, OPG has applied the capital structure
16 approved by the OEB in EB-2007-0905. For the period prior to April 1, 2008 OPG applied the
17 capital structure (45 per cent equity and 55 per cent debt) that was reflected in information
18 provided by OPG to the Province for use in setting the interim period payment amounts.
19 OPG's historical period and bridge year capital structures are provided in Ex. C1-T1-S1
20 Table 3 (2010), Table 4 (2009), Table 5 (2008) and Table 6 (2007). The 2008 capital
21 structure in Table 5 is weighted to reflect the change in capital structure effective April 1,
22 2008. The 2007 capital structure in Table 6 is unchanged from the evidence provided in EB-
23 2007-0905.

24 25 **4.0 RETURN ON COMMON EQUITY**

26 In EB-2007-0905 the OEB determined that OPG's allowed ROE was to be 8.65 per cent
27 effective April 1, 2008. The OEB also determined that "adoption of a formula approach to
28 setting the ROE is appropriate in the circumstances."

29
30 On December 11, 2009, the OEB issued the *Report of the Board on the Cost of Capital for*
31 *Ontario's Regulated Utilities, December 2009, EB-2009-0084* ("Cost of Capital Report"). The

1 Cost of Capital Report establishes a revised base ROE and annual adjustment mechanism
2 for setting ROE for rate-regulated utilities submitting a cost of service rate application for
3 rates effective on or after 2010.

4 5 **4.1 Forecast Return on Equity for the Test Period**

6 For 2011 and 2012 OPG has adopted the results of the OEB's Cost of Capital Report.

7
8 The Cost of Capital Report establishes a revised base ROE and a modified automatic ROE
9 adjustment mechanism. Given that the revised base ROE and the refined automatic ROE
10 adjustment mechanism represent the same concepts that were adopted for OPG's
11 prescribed assets in EB-2007-0905, both are applicable to OPG at the approved capital
12 structure and appropriate to the business risks of the prescribed assets.

13
14 OPG has applied the adjusted ROE of 9.85 per cent as set by the OEB for use in 2010 cost
15 of service applications in the OEB's letter of February 24, 2010. When calculating the final
16 payment amounts, OPG proposes that the ROE be updated using data for the month that is
17 three months prior to the effective date of the new payment amounts as required by the Cost
18 of Capital Report.

19 20 **4.2 Return on Equity: 2007 - 2010**

21 For the 2010 bridge year, OPG has calculated a forecast ROE based on the 2010 - 2014
22 Business Plan. This unadjusted forecast of ROE is \$226.3M¹ or 7.80 per cent². To provide
23 another way of assessing the adequacy of the current payment amounts, OPG's forecast
24 2010 earnings were adjusted to remove the impact of three variance accounts using the
25 same approach described in EB-2007-0905³. These three variance accounts reflect costs
26 that are representative of what OPG will incur in the test period but that are not reflected in
27 the current payment amounts. They are the Hydroelectric Over/Under Recovery, the Income

¹ Ex I1-T1-S1, Table 5: Pre-tax Return on Equity of \$242.8M less income tax of \$16.5M

² Unadjusted ROE of \$226.3M divided by common equity of \$2,900.4M in Ex C1-T1-S1 Table 3, line 5.

³ EB-2007-0905 Ex C1-T2-S1 Section 3.2.3: An adjustment was made to 2007 return on equity as OPG would incur significantly higher expenses on an on-going basis as a result of the 2006 increase in the Asset Retirement Obligations which were not reflected in approved payment amounts and which are representative of the costs OPG would incur in the EB-2007-0905 test period.

1 and Other Taxes and the Tax Loss Variance Accounts. This adjusted forecast ROE is
2 \$61.9M as shown in Ex. I1-T1-S1 Table 5 or 2.13 per cent as shown in Ex. C1-T1-S1-Table
3 3.

4
5 OPG determines its achieved ROE for the historical period using a reconciliation approach
6 as described in EB-2007-0905 (see Ex. C1-T2-S1 in EB-2007-0905). OPG does not
7 determine a stand-alone ROE for its regulated operations for the purposes of operating its
8 business, financial accounting or filing its taxes. The derivation of an achieved ROE for the
9 regulated operations in 2008 and 2009 is provided solely to support the stand-alone income
10 tax evidence provided in Ex. F4-T2-S1 Table 6.

11
12 For the 2008 and 2009 fiscal years, OPG has prepared audited financial statements for its
13 prescribed assets (Ex. A2-T1-S1 Attachment 3). The reconciliation between accounting
14 earnings for OPG's prescribed assets and the achieved ROE for OPG's regulated operations
15 is provided in Ex. C1-T1-S1 Table 7. The ROE has been adjusted to remove certain variance
16 account amounts related to the 2008 and 2009 period as described in the adjustment to the
17 2010 ROE. The adjustment for Hydroelectric Over/Under Recovery variances was not made
18 as it relates only to 2010.

19
20 OPG's audited financial statements have been prepared in accordance with Canadian
21 Generally Accepted Accounting Principles ("GAAP"). For 2008 and 2009, accounting
22 earnings amounts are adjusted to reflect differences between accounting earnings for
23 prescribed assets and regulatory earnings. To the extent that OPG's accounting treatment
24 and regulatory treatment differ, the accounting numbers are removed, and the regulatory
25 amounts are included. This provides a consistent basis for comparing historic and forecast
26 regulatory earnings. The footnotes to Ex. C1-T1-S1 Table 7 (found in Ex. C1-T1-S1 Table
27 7b) explain the derivation of the specific adjustments included in the reconciliation.

28 For the 2007 fiscal year OPG presented a reconciliation between accounting earnings for
29 OPG's segmented financial results in its consolidated financial statements in EB-2007-0905,
30 Ex. C1-1-1 Table 1.

1 **5.0 TECHNOLOGY-SPECIFIC COST OF CAPITAL**

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

- 4 • shall be established based on the stand-alone principal (pages 140 to 142)
- 5 • shall be established using a 47 per cent common equity ratio (page 149)
- 6 • shall reflect the adoption of the formula approach to setting the ROE (page 162),
7 consistent with the OEB's expectation that risk differences in the regulated businesses
8 are appropriately addressed through the capital structure rather than the ROE (page 162)
- 9 • shall reflect the OEB's views that "OPG's regulated nuclear business is riskier than
10 regulated distribution and transmission utilities in terms of operational and production
11 risk, but is less risky than merchant generation" (page 149)

12
13 These findings govern the cost of capital for OPG's combined nuclear and regulated
14 hydroelectric operations. The Decision also provided that "there *may* be merit in establishing
15 separate capital structures for the two businesses as it would enhance transparency and
16 more accurately match costs with the payment amounts" (emphasis added - page 162). The
17 OEB concluded that separate capital structures should be further explored in OPG's next
18 proceeding.

19
20 OPG engaged Fosters through a competitive request for proposal ("RFP") process to
21 conduct the analysis requested by the OEB. The results of Fosters' analysis are presented in
22 Ex. C3-T1-S1. The analysis considered five different potential quantitative methodologies for
23 isolating the cost of capital for OPG's regulated hydroelectric and nuclear generation
24 operations. None of the five methodologies proved to be sufficiently robust to serve as a
25 basis for estimating technology-specific costs of capital and technology-specific capital
26 structures for OPG's regulated hydroelectric and nuclear prescribed assets.

27
28 The analysis also considered a non-quantitative method based on the Standard & Poor's
29 debt ratio guideline matrix for different debt ratings and business risk categories for regulated
30 electric utility and power companies. Here again, Fosters found that this approach did not

1 provide sufficiently robust information to serve as a basis for estimating technology-specific
2 costs of capital.

3

4 OPG continues to support the use of a single cost of capital for its prescribed facilities. OPG
5 is financed as one company with hydroelectric, nuclear and other generating facilities.
6 Moving away from a single cost of capital would add unnecessary complexity and, given the
7 absence of a robust and analytically sound method for calculating technology-specific costs
8 of capital, would not improve the accuracy in the matching of costs. Therefore, OPG
9 proposes a single cost of capital for its prescribed facilities.

10

11 The capital structure of 47 per cent common equity and 53 per cent debt is applied to the
12 total rate base and subsequently allocated to nuclear and regulated hydroelectric based on
13 the relative size of the rate base for these two segments. A rate base allocation factor was
14 used given the capital invested in both the nuclear and regulated hydroelectric operations
15 create the need for financing and therefore drive the need for, timing of and cost of capital.
16 This approach was approved by the OEB in EB-2007-0905 and continues to be appropriate
17 for setting rates in the 2011 - 2012 test period.