PENSION AND OPEB COST VARIANCE ACCOUNT

1.0 OVERVIEW

The OEB established the Pension and OPEB (Other Post Employment Benefits) Cost Variance Account in its EB-2011-0090 Decision and Order on Motion dated June 23, 2011. The additions to the account for 2011 consist of $4.0M for regulated hydroelectric and $91.9M for nuclear. The projected additions to the account in 2012 are $12.6M for regulated hydroelectric and $237.7M for nuclear. The calculations of the account additions are shown in Ex. H1-1-1, Table 5 and 5a. The projected 2012 year-end balances including interest total $16.7M for regulated hydroelectric and $333.1M for nuclear as shown in Ex. H1-1-1, Table 1.

OPG has complied with all of the requirements established for this account by the OEB in the above decision and order, as discussed in Section 2.0 below. Section 3.0 explains the main drivers of the variances between the actual (2011) and projected (2012) amounts and the corresponding EB-2010-0008 forecast amounts.

As noted in Ex. H1-3-1, OPG seeks the extension of the Pension and OPEB Cost Variance Account until the effective date of OPG's next payment amounts order. Section 4.0 sets out OPG's support for this request and presents OPG's proposal to calculate account additions made after 2012 using the same approach that has been used for 2011 and 2012. Section 5.0 presents a forecast of 2013 pension and OPEB amounts and resulting impacts on the variance account.

2.0 REQUIREMENTS FROM EB-2011-0090

The requirements set out in the EB-2011-0090 Decision and Order on Motion (pp. 14-15) for the Pension and OPEB Cost Variance Account are cited below (in bold italicized font), followed by a discussion of how OPG has met each requirement.

- ***OPG shall record the difference between (i) the pension and OPEB costs, plus related income tax PILs, reflected in the Decision and the resulting payment***

amounts order, and (ii) OPG's actual pension and OPEB costs, and associated tax impacts, for the test period for the prescribed generation facilities.

The EB-2010-0008 Decision and Payment Amounts Order reflects forecast pension and OPEB costs, pension plan contributions and OPEB payments for OPG's regulated hydroelectric and nuclear operations as shown in Ex. H1-1-1, Tables 5 and 5a. The calculation of the forecast income tax impacts is provided in Ex. H1-1-1, Table 5a, note 2. The actual (2011) and projected (2012) costs, pension contributions/OPEB payments and tax impacts are discussed in Section 3.0 below. In deriving these amounts, OPG has followed the same accounting standards and actuarial methodologies that were used to derive the EB-2010-0008 forecasts.

- ***The Pension and OPEB Cost Variance Account [shall] be effective as of March 1, 2011.***

Consistent with the standard approach taken with other deferral and variance accounts discussed in Ex. H1-1-1, additions to the Pension and OPEB Cost Variance Account are calculated by comparing monthly actual amounts, starting in March 2011, to reference amounts calculated as 1/12 of the average of the full year forecast amounts for 2011 and 2012. The calculation of the reference amounts is provided in Ex. H1-1-1, Table 5, note 2 for pension and OPEB costs and Ex. H1-1-1, Table 5a, note 2 for income tax impacts. No amounts have been recorded in the account for January and February 2011.

- ***The entries in the variance account for 2011 and 2012 will be determined on the same basis and under the same circumstances as the pre-filed evidence.***

The same accounting standards and actuarial methodology were applied in determining actual (2011) and projected (2012) pension and OPEB costs as those reflected in the EB-2010-0008 payment amounts. OPG has included an unqualified audit opinion from Ernst & Young LLP as Attachment 1, which confirms that the 2011 account balance has been recorded on a CGAAP basis using the methodology reflected in EB-2010-0008 (Attachment 1, page 5).

OPG has also provided an independent actuary's report from Aon Hewitt (Attachment 2) in support of the December 31, 2011 balance in the variance account. This report states:

> "Aon Hewitt confirms that the above OPG-wide costs were determined using the actuarial methodology and accounting standards described below. We furthermore confirm that the methodology is consistent with the methodology as outlined in OPG's application to, and approved by, the OEB under case number EB-2010-0008 and used to determine the forecast pension and OPEB costs reflected in the regulated prices established by the OEB in that proceeding." (Attachment 2, p. 4)

The accounting standards and actuarial methodology are summarized at page 4 of the Aon Hewitt report.

Prior to the finalization of the payment amounts order for this Application, OPG will file documents similar to Attachments 1 and 2 confirming 2012 amounts. OPG proposes that these documents be filed and reviewed at the same time as the proposed auditors' report on the December 31, 2012 balances of all deferral and variance accounts as discussed in Ex. H1-2-1.

- ***There will be no entries in the variance account related to changes in accounting standards, such as IFRS or USGAAP.***

OPG's current payment amounts were established in the EB-2010-0008 Payment Amounts Order on the basis of CGAAP. As noted in Ex. A3-1-1, OPG is recording amounts in all deferral and variance accounts, including the Pension and OPEB Cost Variance Account, on the same basis as was used to establish the payment amounts (i.e., CGAAP). This is confirmed in Attachment 1. OPG is recording the financial impacts on OPG's prescribed assets of the adoption of USGAAP, which relate solely to long-term disability plan costs in the Impact for USGAAP Deferral Account, as discussed in Ex. A3-1-2.

- ***There will be no principal entries posted to the variance account after December 31, 2012. However, the entries for the year 2012 may be adjusted when the year-end accounting and contribution levels are finalized in early 2013.***

OPG's request for approval to continue to record principal entries into the Pension and OPEB Cost Variance Account until the effective date of the next payment amounts order is discussed below in Section 4.0.

- ***The Board expects OPG to provide an independent actuary's report and an audit opinion which will describe the methodology followed, the assumptions made by management, and the amounts recorded in the account, and which will confirm that the evidence is consistent with the CGAAP standards and actuarial methods that were contained or reflected in the evidence for the 2011-2012 payment amounts application.***

As discussed above, OPG has provided an unqualified audit opinion from Ernst & Young LLP (Attachment 1) and an independent actuary's report from Aon Hewitt (Attachment 2) in support of the December 31, 2011 balance in the variance account as well as the 2011 actual pension and OPEB amounts and the underlying methodologies, assumptions and calculations used to derive them. OPG will file similar documents confirming 2012 information by early February 2013.

The projected minimum pension contributions required for 2011 through 2013 are established by the most recent actuarial valuation for funding purposes, which was prepared as at January 1, 2011. This Report on the Actuarial Valuation for Funding Purposes as at January 1, 2011 for OPG ("Funding Valuation Report") is provided in Attachment 3.

3.0 VARIANCE FOR 2011 AND 2012

3.1 Calculation of Pension and OPEB Costs and Variances

Exhibit H1-1-1, Table 5 presents the calculation of additions to the Pension and OPEB Cost Variance Account for 2011 and 2012. This Table also presents the actual 2011 and projected 2012 amounts, as well as the EB-2010-0008 forecast amounts for 2011 and 2012. Differences between the actual/projected amounts and the EB-2010-0008 forecast amounts give rise to the entries in the Pension and OPEB Cost Variance Account.

The 2011 and 2012 OEB-approved costs were projected based on an estimate of the values for the benefit obligations and pension fund assets at the end of each of 2009 to 2011. The process used to develop these estimates was detailed in EB-2010-0008, Ex. F4-T3-S1, Section 6.3. The same process also was used to develop the current projection of 2013 amounts discussed below.[1]

The details of the 2011 variance in pension and OPEB costs are found in the chart on page 5 of Attachment 1 (as well as in Ex. H1-1-1, Table 5). The details of the 2011 variance in associated tax impacts are found in the chart on page 7 of Attachment 1 (as well as in Ex. H1-1-1, Table 5a). The assumptions used for the 2011 costs are provided at page 6 of Attachment 1 in the schedule accompanying the auditors' report and at page 4 of the independent actuary's report (Attachment 2).

Attachment 2 (pages 3 and 5) provides OPG's total pension and OPEB costs for all of 2011. OPG's total actual pension contributions and OPEB payments for 2011 are provided at page 5 of Attachment 2. The entries recorded in the variance account are based on the portion of these costs and contributions/payments attributable to the prescribed assets for the period March through December 2011.

The projected 2012 pension and OPEB costs have been calculated in the same manner as the 2011 costs. OPG's total costs been determined by Aon Hewitt, as outlined in their 2012 report provided in Attachment 4. At this point, these projections closely approximate the final 2012 cost. Therefore, the forecast 2012 additions to the Pension and OPEB Cost Variance Account shown in Ex. H1-1-1, Tables 5 and 5a will be very close to the final amounts at December 31, 2012, absent any significant unexpected changes to legislation or OPG's operations.

[1] The full year forecasts of each of registered pension plan contributions and OPEB payments for the prescribed facilities are also reflected in the EB-2010-0008 Payment Amounts Order at lines 17 and 18, respectively, of Table 5 for 2011 and Table 7 for 2012.

1 The 2012 OPG-wide projected costs were determined using the actual values of the benefit
2 obligations and pension fund assets as at December 31, 2011 and the final assumptions
3 made at that time. These are provided at pages 3 and 4 of the 2012 Aon Hewitt report
4 (Attachment 4). The minimum contributions levels for 2012 have been established in the
5 Funding Valuation Report.
6
7 **3.2 Sources and Amounts of Variance**
8 Chart 1 below presents the assumptions for discount rates and asset returns used to
9 determine the actual (2011) and projected (2012) pension and OPEB costs as well as those
10 used to derive the forecast amounts approved in EB-2010-0008.[2] Both sets of assumptions
11 were derived in the same manner. Lower than forecast discount rates are the primary source
12 of variance recorded in this account. Differences in assets values and returns also contribute
13 to the variance.
14
15 **Chart 1**

Assumption	2011 Actual	2012 Projection	2011 OEB-Approved	2012 OEB-Approved
Discount rate for pension	**5.80% per annum**	**5.10% per annum**	6.80% per annum	6.80% per annum
Discount rate for other post retirement benefits	**5.80% per annum**	**5.20% per annum**	7.00% per annum	7.00% per annum
Discount rate for long-term disability	**4.70% per annum**	**4.00% per annum**	5.25% per annum	5.25% per annum
Expected long-term rate of return on pension fund assets	**6.5% per annum**	**6.5% per annum**	7.0% per annum	7.0% per annum
Rate of return used to project year-end pension fund asset values	**N/A**	**N/A**	9.0% in 2009 and 7.0% per annum in 2010	9.0% in 2009 and 7.0% per annum in each of 2010 and 2011

16

[2] The OEB-approved assumptions were previously presented in EB-2010-0008 Ex. F4-3-1, Section 6.3, Chart 8.

Projections of rates of return used to set year-end pension fund asset values are not required for the calculation of actual (2011) or projected (2012) pension costs because the actual prior year-end asset values are known. The actual returns on pension fund assets were 15.0 per cent in 2009, 12.2 per cent in 2010 and 6.9 per cent in 2011. Over the first six months of 2012 the return on pension fund assets has been 3.41 per cent.

As shown in Ex. H1-1-1, Table 5, the actual pension costs for the ten months ended December 31, 2011 and the projected costs for full year 2012 are higher than the corresponding reference amounts based on EB-2010-0008 approved forecasts by $2.0M and $7.9M, respectively, for regulated hydroelectric and $46.8M and $148.6M, respectively, for nuclear. The higher costs for 2011 and 2012 are primarily due to lower discount rates and expected long-term rate of return on pension fund assets than those underpinning the forecasts as shown in Chart 1. The discount rates were provided by the actuaries and the long-term return rate was developed based on their input; both rates are included in the 2012 Actuarial Report (Attachment 4). The lower-than-forecast discount rates reflect the impact of financial market conditions on long-term bond rates. The lower expected rate of return reflects lower anticipated returns due to global financial market conditions. These impacts are partially offset by higher-than-forecast pension fund asset values at the end of 2010 and 2011 due to higher than forecast fund performance in 2009 and 2010.

The actual OPEB costs for 2011 and the projected costs for 2012 are higher than the corresponding reference amounts based on EB-2010-0008 approved forecasts by $0.9M and $2.9M, respectively, for regulated hydroelectric and by $24.5M and $52.7M, respectively, for nuclear due to lower assumptions for discount rates.

3.3 Income Tax Impacts

The income tax impacts associated with pension and OPEB plans are calculated in accordance with the methodology for the calculation of regulatory income taxes approved by the OEB in EB-2010-0008 and reflected in the EB-2010-0008 Payment Amounts Order in Tables 6 and 7 for 2011 and 2012, respectively. This methodology was discussed in EB-2010-0008, Ex. F4-2-1. As noted in that exhibit, regulatory taxable income is computed by

making additions and deductions to the regulatory earnings before tax for items with different accounting and tax treatment. In Section 3.3.5, that evidence also explains that pension and OPEB accounting costs are added to earnings before tax, as they are not deductible under the *Income Tax Act* (Canada), whereas as pension contributions and OPEB payments are deductible and, therefore, are deducted from earnings before tax. Therefore, the income tax impacts included in the variance account are computed based on the net amount of additions or deductions to earnings before tax based on actual and forecast pension and OPEB costs and related contributions and payments.[3]

The calculations of the tax impacts are provided in Ex. H1-1-1, Table 5a. For the ten-month period ending December 31, 2011, actual regulatory income tax impact is higher than forecast by $1.0M for regulated hydroelectric and $20.5M for nuclear. For 2012, projected regulatory income tax impact is higher than forecast by $1.9M for regulated hydroelectric and $36.4M for nuclear. These variances occur because the increase in taxes associated with the higher actual pension and OPEB costs over the forecast amounts is greater than the decrease in taxes associated with the higher cash amounts for pension contributions and OPEB payments.

4.0 CONTINUATION OF THE VARIANCE ACCOUNT

4.1 Basis for Continuing the Variance Account

OPG is requesting authority to continue recording entries in the Pension and OPEB Cost Variance Account until the effective date of OPG's next payment amounts order. OPG is requesting the extension of this account to provide a mechanism to consider the appropriate level of these costs in a future proceeding. If this request is not decided by December 31, 2012, OPG requests interim authority to continue posting such entries into this account subsequent to December 31, 2012 pending the OEB's decision.

The EB-2011-0090 Decision and Order on Motion concluded that the original 2011-2012 payment amounts decision (EB-2010-0008, Decision with Reasons, March 10, 2011) had

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[3] Forecast income tax impacts for the purposes of the account are calculated using the same approach of averaging over the 2011-2012 period as the reference amounts for pension and OPEB costs (see Section 2.0).

1 erroneously rejected OPG's updated forecast of pension and OPEB costs in the mistaken
2 belief that the updated forecast was less rigorously prepared than the originally filed
3 estimate. The OEB approved the creation of the Pension and OPEB Cost Variance Account
4 as the simplest and most expeditious method of remedying this error and established an end
5 date of December 31, 2012 for this account.
6
7 When the Motion for Review was heard, it was expected that updated forecast pension and
8 OPEB costs would be established when OPG applied for new payment amounts covering
9 2013 and 2014, and the established end-date for the account reflects that expectation.[4]
10 However, given that the current payment amounts will continue beyond December 31, 2012,
11 OPG is seeking to extend this variance account until the effective date of the next payment
12 amounts order.
13
14 Extending the Pension and OPEB Variance Account will allow the OEB to consider the
15 appropriate levels of these costs beyond 2012 and provide a mechanism for OPG to recover
16 those costs that the OEB approves. In contrast, if the account is not extended, after 2012
17 OPG will be limited to recovering the pension and OPEB costs that were set by the original
18 EB-2010-0008 decision, amounts that the OEB has already found to have been set in error.
19
20 Extending the account also would afford symmetric treatment for ratepayers in the event that
21 pension and OPEB costs were to fall due to rising discount rates or other reasons. The OEB
22 noted that symmetrical treatment of OPG and ratepayers was an advantage of establishing a
23 variance account in the EB-2011-0090 Decision and Order on Motion (p. 14).
24
25 **4.2 Variance Account Entries after 2012**

26 OPG proposes that the Pension and OPEB Cost Variance Account will continue to record, on
27 a monthly basis starting in January 2013, the difference between OPG's actual pension and
28 OPEB costs including associated tax impacts determined on a CGAAP basis and the
29 corresponding reference amounts used to calculate the 2011 and 2012 additions (discussed

[4] Discussion of the fact that OPG's next payment amount application was expected to cover 2013-2014 is found in the EB-2010-0008, Decision with Reasons at pages 66, 72, and 135.

1 in Section 2.0). This is the same methodology used to calculate the 2011 and 2012 account
2 additions. This approach also is consistent with the standard methodology that OPG intends
3 to use in calculating additions to other deferral and variance accounts after December 31,
4 2012, as discussed in Ex. H1-3-1.
5
6 On that basis, the monthly reference pension and OPEB cost amounts will be 1/12 of $15.1M
7 ($7.0M for pension and $8.2M for OPEB) for regulated hydroelectric and 1/12 of $301.4M
8 ($138.4M for pension and $163.0M for OPEB) for nuclear.[5] The monthly reference tax impact
9 amounts for regulated hydroelectric and nuclear will be 1/12 of $0.5M and $10.3M,
10 respectively.[6]
11
12 Consistent with the OEB-approved approach for OPG's other deferral and variance
13 accounts, OPG proposes that the variance account would continue to record simple interest
14 as applied to the opening monthly balance of the account using the interest rates set by the
15 OEB from time to time pursuant to the OEB's interest rate policy.
16
17 Based on the above-described methodology, OPG's current projection of the total 2013
18 addition to the Pension and OPEB Cost Variance Account is $367.2M. The details of the
19 projected 2013 additions are provided in Chart 2 below. These projections were developed
20 using current estimates of the 2013 CGAAP pension and OPEB amounts for OPG's
21 regulated hydroelectric and nuclear operations, and the corresponding reference amounts
22 developed above.
23

[5] The calculation of the regulated hydroelectric reference amounts is based on Ex. H1-1-1, Table 5, note 2, line 5a, columns. (a) and (c) for pension and OPEB costs, respectively with slight differences due to rounding in Table 5. The calculation of the nuclear reference amounts is based on Ex. H1-1-1 Table 5, note 2, line 5a, columns. (b) and (d) for pension and OPEB costs, respectively.

[6] The calculation of the regulated hydroelectric and nuclear reference tax impact amounts is based on Ex. H1-1-1 Table 5a, note 2, line 9a and 10a, respectively.

1 **Chart 2**

	2013 Projection		
$M	**Regulated Hydro**	**Nuclear**	**Total**
Pension Costs	10.9	213.6	224.5
OPEB Costs	3.4	63.6	67.0
Tax Impact	3.7	72.2	75.8
Total	17.9	349.4	367.2

2

3 The projected increases in 2013 pension and OPEB costs are primarily due to lower discount
4 rates. For 2013 the lower projected discount rates are: 4.70 per cent for pension, 4.80 per
5 cent for other post retirement benefits and 3.70 per cent for long-term disability benefits.
6 These rates reflect the continuing downward trend in long-term bond rates attributable to
7 current financial market conditions.

LIST OF ATTACHMENTS

Attachment 1:	Independent Auditors' Report on the Pension and OPEB Cost Variance Account as at December 31, 2011
Attachment 2:	"Report on the CICA 3461 (CGAAP) Accounting Cost for Post Employment Benefit Plans in Support of Pension and OPEB Cost Variance Calculations" for Ontario Power Generation Inc.
Attachment 3:	"Report on the Actuarial Valuation for Funding Purposes as at January 1, 2011" for Ontario Power Generation Inc.
Attachment 4:	"Report on the Estimated Accounting Cost for Fiscal Year 2012" for Ontario Power Generation Inc.

INDEPENDENT AUDITORS' REPORT

To the management of Ontario Power Generation Inc.

We have audited the accompanying schedule of the Pension and OPEB Cost Variance Account of Ontario Power Generation Inc. as at December 31, 2011 (the "Schedule"). The Schedule has been prepared by management to present the balance of the regulatory asset of Ontario Power Generation Inc. representing the Pension and OPEB Cost Variance Account established by the decision and order of the Ontario Energy Board under case number EB-2011-0090 using the basis of accounting described in Note 1 to the Schedule.

Management's responsibility for the schedule of the Pension and OPEB Cost Variance Account

Management is responsible for the preparation and fair presentation of this Schedule in accordance with the basis of accounting described in Note 1 to the Schedule; this includes determining that this basis of accounting is an acceptable basis for the preparation of the Schedule in the circumstances, and for such internal control as management determines is necessary to enable the preparation of the Schedule that is free from material misstatement, whether due to fraud or error.

Auditors' responsibility

Our responsibility is to express an opinion on the Schedule based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Schedule is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Schedule. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the Schedule, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the Schedule in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the Schedule.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the Schedule presents fairly, in all material respects, the balance of the regulatory asset of Ontario Power Generation Inc. as at December 31, 2011 representing the Pension and OPEB Cost Variance Account established by the decision and order of the Ontario Energy Board under case number EB-2011-0090 using the basis of accounting described in Note 1 to the Schedule.

Basis of accounting and restriction of use

Without modifying our opinion, we draw attention to Note 1 to the Schedule, which describes the basis of accounting. The Schedule is prepared solely for the use of Ontario Power Generation Inc. and for filing with the Ontario Energy Board. As a result, the Schedule may not be suitable for another purpose. Our report is intended solely for Ontario Power Generation Inc. and for filing with the Ontario Energy Board and should not be used for any other purpose.

[Original Signed By]

Ernst & Young LLP
Chartered Accountants
Licensed Public Accountants

Toronto, Canada,
March 27, 2012.

SCHEDULE OF THE PENSION AND OPEB COST VARIANCE ACCOUNT AS AT DECEMBER 31, 2011

The *Ontario Energy Board Act, 1998* and *Ontario Regulation 53/05* thereunder provide that Ontario Power Generation Inc. ("OPG" or the "Company") receives regulated prices for electricity generated from most of its baseload hydroelectric generation facilities and all of the nuclear generation facilities that it operates (collectively the "Prescribed Facilities"). OPG's regulated prices for the generation from these facilities are determined by the Ontario Energy Board ("OEB").

In March 2011 and April 2011, respectively, under case number EB-2010-0008, the OEB issued its decision and order establishing new regulated prices for OPG's regulated generation effective March 1, 2011. In June 2011, the OEB established the Pension and OPEB Cost Variance Account in its decision and order granting OPG's motion to review and vary the part of the OEB's March 2011 decision related to pension and other post employment benefits ("OPEB") costs, under case number EB-2011-0090. Pursuant to the decision and order on the motion, the variance account records the difference between OPG's actual pension and OPEB costs attributed to the Prescribed Facilities and related tax impacts, and those reflected in the regulated prices established by the OEB's EB-2010-0008 decision and order. The variance account is in effect for the period from March 1, 2011 to December 31, 2012.

For the period from March 1, 2011 to December 31, 2011, OPG recorded additions to the Pension and OPEB Cost Variance Account in accordance with the OEB's June 2011 decision and order. During this period, OPG also recorded interest on the balance of the account at the interest rate of 1.47 percent per annum prescribed by the OEB.

The balance of the variance account is recognized by OPG as a regulatory asset in its consolidated financial statements in accordance with Canadian generally accepted accounting principles ("Canadian GAAP") as determined in Part V of the Canadian Institute of Chartered Accountants Handbook – Accounting ("CICA Handbook"), as disclosed in the summary of significant accounting policies in the notes to OPG's consolidated financial statements as at and for the year ended December 31, 2011.

The regulatory asset representing the balance of the Pension and OPEB Cost Variance Account recorded by OPG as at December 31, 2011 was as follows:

(millions of dollars)	**2011**
Pension and OPEB Cost Variance Account – Nuclear	
Pension and OPEB cost variance *(Note 2)*	**71**
Tax impact variance *(Note 3)*	**20**
Interest	**1**
	92
Pension and OPEB Cost Variance Account – Regulated Hydroelectric	
Pension and OPEB cost variance *(Note 2)*	**3**
Tax impact variance *(Note 3)*	**1**
Interest	**-**
	4
Total Pension and OPEB Cost Variance Account balance	**96**

See accompanying notes to the schedule

This schedule of the Pension and OPEB Cost Variance Account has been prepared solely for the use of OPG's management and filing with the OEB, and is considered by OPG's management to be a fair and reasonable representation of the regulatory asset for the balance of the Pension and OPEB Cost Variance Account as at December 31, 2011. The regulatory asset for the balance of the account has been determined in accordance with the basis of accounting described in Note 1 to this schedule.

On behalf of Ontario Power Generation Inc.

Donn W. J. Hanbidge
Chief Financial Officer

See accompanying notes to the schedule

NOTES TO THE SCHEDULE OF THE PENSION AND OPEB COST VARIANCE ACCOUNT AS AT DECEMBER 31, 2011

1. Basis of Accounting

OPG records regulatory assets and liabilities in accordance with Canadian GAAP. Canadian GAAP recognizes that rate regulation can create economic benefits and obligations that are required by the regulator to be obtained from, or settled with, the ratepayers. When the Company assesses that there is sufficient assurance that incurred costs will be recovered in the future, those costs are deferred and reported as a regulatory asset. When the OEB provides recovery through current rates for costs that have not been incurred and that are required to be refunded to the ratepayers, the Company records a regulatory liability. Certain of the regulatory assets and liabilities recognized by the Company relate to variance and deferral accounts authorized by the OEB. The measurement of regulatory assets and liabilities is subject to certain estimates and assumptions, including assumptions made in the interpretation of the OEB's decisions. The estimates and assumptions made in the interpretation of the OEB's decisions are reviewed as part of the OEB's regulatory process.

Where applicable, the Company recognizes regulatory assets and liabilities in accordance with primary sources of Canadian GAAP that provide specific guidance to the particular circumstances described therein. In the absence of specific guidance under a primary source of Canadian GAAP, in accordance with Section 1100, *Generally Accepted Accounting Principles* of the CICA Handbook, the Company consults other sources, including pronouncements issued by bodies authorized to issue accounting standards in other jurisdictions, in developing accounting policies in accordance with Canadian GAAP. The Company recognizes certain regulatory assets and liabilities, including a regulatory asset for the Pension and OPEB Cost Variance Account, under Canadian GAAP because it has determined that their recognition is consistent with the United States Financial Accounting Standards Board Accounting Standards Codification Topic 980, *Regulated Operations*.

The schedule of the Pension and OPEB Cost Variance Account (the "Schedule") presents the balance of OPG's regulatory asset as at December 31, 2011 for the Pension and OPEB Cost Variance Account established by the OEB's decision and order under case number EB-2011-0090. The Schedule does not include other regulatory assets and liabilities recognized by OPG in accordance with Canadian GAAP in its consolidated financial statements as at and for the year ended December 31, 2011. The consolidated financial statements of OPG as at and for the year ended December 31, 2011 have been prepared and filed with the Ontario Securities Commission.

2. Pension and Other Post Employment Benefits Costs

OPG's post employment benefit programs consist of a contributory defined benefit registered pension plan, a defined benefit supplementary pension plan, other post retirement benefits which include group life insurance and health care benefits, and long-term disability benefits. For the purposes of this Schedule, OPEB includes all post employment benefit plans of OPG with the exception of the registered pension plan. OPG does not maintain separate pension and OPEB plans for the Prescribed Facilities.

The pension and OPEB cost variance component of the balance of the Pension and OPEB Cost Variance Account as at December 31, 2011 was calculated by comparing the portion of OPG's actual pension and OPEB costs attributed to its nuclear and regulated hydroelectric generation facilities for the ten-month period ended December 31, 2011 to the forecast amount of such costs included in the regulated prices established by the OEB's EB-2010-0008 decision and order.

The pension and OPEB cost variance was determined as follows:

	March 1, 2011 to December 31, 2011					
	Nuclear			Regulated Hydroelectric		
(millions of dollars)	**Actual**	**Forecast**	**Variance**	**Actual**	**Forecast**	**Variance**
Registered pension plan costs	**162**	**115**	**47**	**8**	**6**	**2**
Other post employment benefits costs	**160**	**136**	**24**	**8**	**7**	**1**
Total pension and OPEB costs	**322**	**251**	**71**	**16**	**13**	**3**

The actual pension and OPEB costs for the ten-month period ended December 31, 2011 were determined by applying a factor of 10/12 to the actual pension and OPEB costs attributed to the Prescribed Facilities for the year ended December 31, 2011. OPG's pension and OPEB costs were attributed to the Prescribed Facilities using a combination of specific identification and allocation of the applicable total OPG-wide amounts. The methodology used to attribute these amounts to the Prescribed Facilities is as outlined in OPG's application to, and approved in the decision and order of, the OEB under case number EB-2010-0008. The portion of the costs attributed to the Prescribed Facilities for the purposes of calculating the balance of the Pension and OPEB Cost Variance Account did not include amounts related to the post employment benefit plans of the Nuclear Waste Management Organization ("NWMO").

OPG's total pension and OPEB obligations and related costs for the purposes of calculating the balance of the Pension and OPEB Cost Variance Account were determined in accordance with Canadian GAAP using the accounting standards and methodology outlined in OPG's application to, and approved by, the OEB under case number EB-2010-0008.

OPG accrues its obligations for pension and OPEB plans in accordance with Canadian GAAP. The obligations for pension and other post retirement benefits are determined using the projected benefit method pro-rated on service. The obligation for long-term disability benefits is determined using the projected benefit method on a terminal basis. Pension and OPEB obligations are impacted by factors including discount rates, adjustments arising from plan amendments, changes in assumptions, experience gains or losses, salary levels, inflation, and cost escalation. OPG's pension and OPEB costs and obligations are determined annually by an independent actuary using management's best estimate assumptions.

Assumptions are significant inputs to actuarial models used to measure OPG's pension and OPEB obligations and related costs in accordance with Canadian GAAP. Assumptions for discount rates and inflation are two critical elements in the determination of OPG's pension and OPEB costs and obligations. In addition, the assumption for the expected rate of return on pension plan assets is a critical assumption in the determination of OPG's registered pension plan costs. These assumptions, as well as other assumptions involving demographic factors such as retirement age, mortality, and employee turnover, are evaluated periodically by OPG's management in consultation with an independent actuary. During the evaluation process, the assumptions are updated to reflect past experience and expectations for the future. Actual results in any given period will often differ from actuarial assumptions because of economic and other factors and, in accordance with Canadian GAAP, the impact of these differences is accumulated and amortized by OPG over future periods.

In accordance with Canadian GAAP, the discount rates used by OPG in determining the projected benefit obligations and costs for its employee benefit plans are based on representative AA corporate bond yields. The respective discount rates enable OPG to calculate the present value of the expected future cash flows on the measurement date. The expected rate of return on registered pension plan assets is based on current and expected asset allocation of the plan portfolio, as well as the long-term historical risks and returns associated with each asset class within the portfolio. Pension plan assets are valued using market-related values for purposes of determining the amortization of actuarial gains or losses and the expected return on plan assets. The market-related value recognizes gains and losses on equity assets relative to a six percent assumed real return over a five-year period.

OPG's pension and OPEB costs include current service costs, interest costs on the obligations, the expected return on pension plan assets, adjustments for plan amendments and adjustments for actuarial gains or losses, which result from changes in assumptions and experience gains and losses. Past service costs arising from pension and OPEB plan amendments are amortized on a straight-line basis over the expected average remaining service period to full eligibility of employees covered by the plan, and the resulting amortization is included as a component of recognized pension and OPEB costs. For each plan, the excess of the net cumulative unamortized gain or loss over ten percent of the greater of the benefit obligation and the market-related value of the plan assets is amortized over the expected average remaining service life of the employees, as OPG expects to realize the associated economic benefit over that period. The resulting amortization is included as a component of recognized costs for the pension and OPEB plans.

Separate assumptions are not made to derive the Prescribed Facilities' pension and OPEB costs as OPG does not maintain separate benefit plans for these facilities. The main assumptions used to derive OPG's total actual pension and OPEB obligations and costs, and therefore the portion of costs attributed to the Prescribed Facilities, as at and for the year ended December 31, 2011, respectively, are presented below. These assumptions exclude those relating to the post employment benefit plans of the NWMO.

	Registered and Supplementary Pension Plans	**Other Post Retirement Benefits**	**Long-Term Disability Benefits**
Benefit Obligation at Year End			
Rate used to discount future benefits	**5.10%**	**5.20%**	**4.00%**
Inflation rate	**2.00%**	**-**	**2.00%**
Salary schedule escalation rate	**3.00%**	**-**	**-**
Cost for the Year			
Expected long-term rate of return on plan assets	**6.50%**	**-**	**-**
Rate used to discount future benefits	**5.80%**	**5.80%**	**4.70%**
Inflation rate	**2.00%**	**-**	**2.00%**
Salary schedule escalation rate	**3.00%**	**-**	**-**

The disclosure related to OPG's pension and OPEB plans and costs contained in this Schedule is limited to that necessary to describe the information presented in this Schedule. This disclosure does not necessarily include all of the required disclosure under Canadian GAAP pertaining to OPG's pension and OPEB plans and costs. The required disclosure pertaining to OPG's pension and OPEB plans and costs is provided in the consolidated financial statements of OPG as at and for the year ended December 31, 2011.

3. INCOME TAXES

Under the *Electricity Act, 1998*, OPG is required to make payments in lieu of corporate income taxes to the Ontario Electricity Financial Corporation. These payments are calculated in accordance with the *Income Tax Act (Canada)* and the *Taxation Act, 2007* (Ontario), as modified by the regulations made under the *Electricity Act, 1998* and related regulations.

For the purposes of determining the balance of the Pension and OPEB Cost Variance Account as at December 31, 2011, tax impacts were calculated using the methodology for determining regulatory income taxes outlined in OPG's application to, and approved by, the OEB under case number EB-2010-0008. Under this methodology, OPG follows the taxes payable method for the purposes of calculating the amount of regulatory income taxes for the Prescribed Facilities. In determining regulatory income taxes, OPG applies the statutory income tax rate to the regulatory taxable income of the Prescribed Facilities. Pension and OPEB costs are not deductible for the purposes of determining taxable income and are, therefore, added to regulatory earnings before tax. Pension plan contributions and OPEB payments are deductible in determining taxable income and are, therefore, deducted from regulatory earnings before tax.

The tax impact variance component of the balance of the Pension and OPEB Cost Variance Account as at December 31, 2011 was calculated by comparing the actual regulatory income tax impact associated with the actual pension and OPEB costs, pension plan contributions and OPEB payments attributed to the Prescribed Facilities for the ten-month period ended December 31, 2011 to the forecast income tax impact included in the regulated prices established by the OEB's EB-2010-0008 decision and order.

The actual regulatory income tax impact was calculated by applying the 2011 statutory corporate income tax rate of 26.5 percent to the net amount of additions to regulatory earnings before tax related to actual pension and OPEB costs, pension plan contributions and OPEB payments attributed to the Prescribed Facilities for the ten-month period ended December 31, 2011. Additionally, the actual regulatory income tax impact included an amount, known as the "tax gross-up" and calculated at the income tax rate of 26.5 percent, related to taxes that will be payable by OPG upon recovery of the tax impact variance component of the Pension and OPEB Cost Variance Account. The methodology used to calculate the tax impact component of the Pension and OPEB Cost Variance Account, including the application of the tax gross-up, is as reflected in OPG's Notice of Motion under case number EB-2011-0090.

The tax impact variance was determined as follows:

	March 1, 2011 to December 31, 2011	
(millions of dollars except where noted)	**Nuclear**	**Regulated Hydroelectric**
Additions to regulatory earnings before tax		
Registered pension plan costs *(Note 2)*	**162**	**8**
Other post employment benefits costs *(Note 2)*	**160**	**8**
	322	**16**
Deductions from regulatory earnings before tax		
Registered pension plan contributions	**(187)**	**(9)**
Other post employment benefits payments	**(54)**	**(3)**
	(241)	**(12)**
Actual net addition to regulatory earnings before tax	**81**	**4**
Combined Canadian federal and provincial statutory income tax rate	**26.5%**	**26.5%**
Actual tax impact, including tax gross-up[1]	**29**	**1**
Forecast tax impact, including tax gross-up	**9**	**-**
Tax impact variance	**20**	**1**

[1] The amount is computed by dividing the product of the net addition to regulatory earnings before tax and the statutory income tax rate, by one minus the statutory income tax rate.

The actual pension plan contributions and OPEB payments for the ten-month period ended December 31, 2011 were determined by applying a factor of 10/12 to the actual contributions and payments attributed to the Prescribed Facilities for the year ended December 31, 2011. OPG's registered pension plan contributions and OPEB payments for the year ended December 31, 2011 were attributed to the Prescribed Facilities in proportion to the respective attributed benefits costs, which are discussed in Note 2. This methodology was reflected in OPG's application to the OEB under case number EB-2010-0008. The portion of the pension contributions and OPEB payments attributed to the Prescribed Facilities for the purposes of calculating the balance of the Pension and OPEB Cost Variance Account did not include amounts related to the benefit plans of the NWMO.

OPG made contributions to its registered pension plan during 2011 based on the most recently filed actuarial funding valuation of the plan, which was prepared as of January 1, 2011.

Filed: 2012-09-24
EB-2012-0002
Ex. H2-1-3 Attachment 2

Aon Hewitt

Actuarial Report

Ontario Power Generation Inc.

Report on the CICA 3461 (CGAAP) Accounting Cost for Post Employment Benefit Plans in Support of Pension and OPEB Cost Variance Calculations

January 1, 2011 to December 31, 2011

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Introduction

Aon Hewitt has prepared this report at the request of Ontario Power Generation Inc. (“OPG”) to provide an independent actuary’s confirmation of information for the post employment benefit plans sponsored by OPG in relation to the balance in OPG’s Pension and OPEB Cost Variance Account as at December 31, 2011. We understand this report is expected to be filed with the Ontario Energy Board ("OEB").

This report covers the following plans sponsored by OPG:

- Ontario Power Generation Inc. Pension Plan (“RPP”);
- Ontario Power Generation Inc. Supplementary Pension Plan (“SPP”);
- Non-pension Post-retirement Plan which provides other post-retirement benefits (“OPRB”) including retiree medical, dental, life insurance, and retirement bonus benefits, and
- Post-employment Plan which provides long-term disability benefits (“LTD”) including sick leave benefits before the LTD benefits begin and the continuation of medical, dental and life insurance while on LTD.

Collectively SPP, OPRB and LTD are known as Other Post Employment Benefits (“OPEB”).

The results cover the fiscal year from January 1, 2011 to December 31, 2011. The results have been developed in accordance with Canadian generally accepted accounting principles (“GAAP”) under CICA Handbook–Accounting (Part V), Section 3461 (“CICA 3461”).

The results in this report do not include amounts related to the benefit plans of the Nuclear Waste Management Organization, which are included in OPG’s consolidated financial statements.

This report is intended to be a supplement to the December 31, 2011 disclosure reports (“the Reports”) prepared by Aon Hewitt in accordance with Canadian GAAP under CICA 3461 for the post employment benefit plans sponsored by OPG. These disclosure reports were dated February, 2012 and are titled as follows:

- CICA 3461 Accounting Information Non-pension Post-retirement and Post-employment Benefits Plans; and
- CICA 3461 Accounting Information – Pension Plans.

Unless otherwise stated all assumptions, data elements, methodologies, plan provisions, and information about assets are the same as those underlying and/or contained in the Reports listed above.

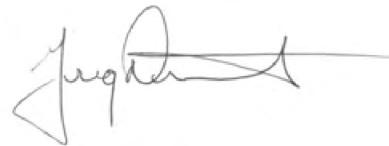
All figures are shown in Canadian $000s.

Sincerely,

Aon Hewitt Inc.

Linda M. Byron
Fellow of the Society of Actuaries
Fellow of the Canadian Institute of Actuaries

Aon Hewitt Inc.



Gregory W. Durant
Fellow of the Society of Actuaries
Fellow of the Canadian Institute of Actuaries

June 2012

Background

In March 2011, OPG filed with the OEB a motion to review and vary the OEB's decision, issued in March 2011 under case number EB-2010-0008, with respect to pension and OPEB costs. In June 2011, under case number EB-2011-0090, the OEB established the Pension and OPEB Cost Variance Account in its decision and order granting OPG's motion. The variance account records the difference between actual pension and OPEB costs under Canadian GAAP for OPG's regulated operations and related tax impacts, and those reflected in the regulated prices established under case number EB-2010-0008. The variance account is in effect for the period from March 1, 2011 to December 31, 2012. The OEB expects OPG to file an independent actuary's report in relation to the amounts recorded in the variance account, including:

1. a description of the methodology followed and the assumptions made by management in determining actual pension and OPEB costs; and
2. a confirmation that this methodology is consistent with that outlined in OPG's application to, and approved by, the OEB under case number EB-2010-0008.

The forecast pension and OPEB costs for the years ending December 31, 2011 and 2012 reflected in the regulated prices established under case number EB-2010-0008 represent the portion of OPG's total forecast pension and OPEB costs for those years attributable to its nuclear and regulated hydroelectric businesses. These forecast costs were based on calculations prepared by the prior actuary, Mercer (Canada) Limited.

Results for Year 2011

This report confirms that OPG's total actual pension and OPEB costs for the year ended December 31, 2011 as determined in accordance with Canadian GAAP are as follows (in $ 000's):

- RPP $ 259,890
- OPEB $ 256,969
- Total $ 516,859

Further details of the above OPG-wide actual costs, by plan, as well as OPG's actual contributions to the RPP fund and benefit payments for OPEB, are provided in Schedule 1 to this report.

The balance of the Pension and OPEB Cost Variance Account calculated and recorded by OPG as at December 31, 2011 is $96 million, as reported in OPG's audited consolidated financial statements as at and for the year ended December 31, 2011 filed with the Ontario Securities Commission.

The pension and OPEB cost variance component of the balance of the Pension and OPEB Cost Variance Account as at December 31, 2011 was calculated by OPG by comparing the portion of the above actual OPG-wide costs attributed to OPG's nuclear and regulated hydroelectric businesses for the ten-month period ended December 31, 2011 to the forecast of such costs included in the regulated prices established under case number EB-2010-0008.

Actuarial Methods and Assumptions

Aon Hewitt confirms that the above OPG-wide costs were determined using the actuarial methodology and accounting standards described below. We furthermore confirm that the methodology is consistent with the methodology as outlined in OPG's application to, and approved by, the OEB under case number EB-2010-0008 and used to determine the forecast pension and OPEB costs reflected in the regulated prices established by the OEB in that proceeding.

- Benefit obligations for RPP, SPP and OPRB are determined using the projected benefit method prorated on service;
- Benefit obligations for LTD are determined using the projected benefit method on a terminal basis such that the total estimated future benefit is attributed to the year of service in which a disability occurs;
- The discount rates have been determined in accordance with CICA 3461; namely, the discount rates have been set with reference to AA corporate bond yields having durations similar to the liabilities of the plans. The discount rates were 5.80% per annum for determining the 2011 RPP, SPP and OPRB costs, and 4.70% per annum for determining the 2011 LTD cost;
- A building block approach was used in determining the expected long-term rate of return on plan assets. Historical markets are studied and long-term historical relationships between equities and fixed-income are preserved consistent with the widely accepted capital market principle that assets with higher volatility generate a greater return over the long run. Current market factors such as inflation and interest rates are evaluated before long-term capital market assumptions are determined. The long-term portfolio return is established using target asset allocations, via a building block approach with proper consideration of diversification and rebalancing. The expected rate of return on assets of 6.50% per annum determined using the above approach was used for determining the 2011 RPP cost;
- Other actuarial assumptions are management's best estimate of future events, as determined in consultation with the actuary and as set out in the Actuarial Assumptions and Methods sections of the Reports. These assumptions include the inflation rate and the salary scale increase rate, which were established at 2.00% per annum and 3.00% per annum (plus Promotion, Progression, Merit), respectively;
- Actuarial gains or losses have been amortized using the 10% corridor method, except where immediate recognition is required under CICA 3461 for non-routine events during the year (none during 2011);
- Past service costs have been amortized on a straight-line basis over the expected average remaining service lifetime at the amendment date, except where immediate recognition is required under CICA 3461 for non-routine events during the year (none during 2011);
- Expected return on assets and amortization of actuarial gains/losses based on market-related value of assets where investment gains and losses on equity assets in excess of an expected return of 6.0%, plus the increase in Consumer Price Index over the year, are smoothed over five years; and,
- Curtailments are recognized before settlements (none during 2011).

Schedule 1—Summary of CICA 3461 Results

This table provides a summary of CICA 3461 results for 2011 for the post employment benefit plans offered by OPG. The balance sheet items at January 1, 2011 are used to derive the 2011 net periodic pension/benefit cost for the period January 1, 2011 to December 31, 2011.

(in Canadian $ 000's)	RPP	SPP	OPRB	LTD
Reconciliation of Funded Status to Accrued Benefit Asset (Liability) as at January 1, 2011				
Excess (Deficit)	$ (1,261,211)	$ (216,514)	$ (2,068,422)	$ (265,671)
Unrecognized Past Service Costs (Credits)	9,577	482	13,734	1,975
Unrecognized Net Actuarial Loss (Gain)	2,388,390	49,849	448,345	37,609
Accrued Benefit Asset (Liability)	$ 1,136,756	$ (166,183)	$ (1,606,343)	$ (226,087)
Components of Net Periodic Pension/Benefit Cost, January 1, 2011 to December 31, 2011				
Employer Current Service Cost	$ 208,385	$ 7,849	$ 55,192	$ 20,119
Interest Cost	601,970	12,800	121,320	11,729
Expected Return on Plan Assets	(625,668)	0	0	0
Amortization of Past Service Cost	9,577	482	1,781	388
Amortization of Net (Gain) Loss	65,626	2,350	21,955	1,004
Total Cost	$ 259,890	$ 23,481	$ 200,248	$ 33,240
2011 Actual Employer Pension Contributions / OPEB Payments	$ 300,000	$ 7,846	$ 53,756	$ 25,652

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EB-2012-0002
Ex. H2-1-3 Attachment 3

June 2011

Ontario Power Generation Inc. Pension Plan

Report on the Actuarial Valuation for Funding Purposes as at January 1, 2011

MERCER

Financial Services Commission of Ontario Registration Number: 1059120
Canada Revenue Agency Registration Number: 1059120

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Note to reader regarding actuarial valuations:

This valuation report may not be relied upon for any purpose other than those explicitly noted in the Introduction, nor may it be relied upon by any party other than the parties noted in the Introduction. Mercer is not responsible for the consequences of any other use. A valuation report is a snapshot of a plan's estimated financial condition at a particular point in time; it does not predict a pension plan's future financial condition or its ability to pay benefits in the future. If maintained indefinitely, a plan's total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits, the amount of plan expenses, and the amount earned on any assets invested to pay the benefits. These amounts and other variables are uncertain and unknowable at the valuation date.

To prepare the results in this report, actuarial assumptions are used to model a single scenario from a range of possibilities for each valuation basis. The results based on that single scenario are included in this report. However, the future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material. Different assumptions or scenarios within the range of possibilities may also be reasonable, and results based on those assumptions would be different. Furthermore, actuarial assumptions may be changed from one valuation to the next because of changes in regulatory and professional requirements, developments in case law, plan experience, changes in expectations about the future and other factors.

The valuation results shown in this report also illustrate the sensitivity to one of the key actuarial assumptions, the discount rate. We note that the results presented herein rely on many assumptions, all of which are subject to uncertainty, with a broad range of possible outcomes and the results are sensitive to all the assumptions used in the valuation.

Should the plan be wound up, the going concern funded status and solvency financial position, if different from the wind-up financial position, become irrelevant. The hypothetical wind-up financial position estimates the financial position of the plan assuming it is wound-up on the valuation date. Emerging experience will affect the wind-up financial position of the plan assuming it is wound-up in the future. In fact, even if the plan were wound-up on the valuation date, the financial position would continue to fluctuate until the benefits are fully settled.

Because actual plan experience will differ from the assumptions used in this valuation, decisions about benefit changes, investment policy, funding amounts, benefit security and/or benefit-related issues should be made only after careful consideration of alternative future financial conditions and scenarios, and not solely on the basis of a valuation report or reports.

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Appendix B: Plan Assets

Appendix C: Methods and Assumptions – Going Concern

Appendix D: Methods and Assumptions – Hypothetical Wind-up and Solvency

Appendix E: Membership Data

Appendix F: Summary of Plan Provisions

Appendix G: Employer Certification

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Summary of Results

($000's)	01.01.2011	01.01.2008
Going-Concern Financial Status		
Market-related value of assets	$9,638,289	$8,915,659
Going-concern funding target	$10,193,314	$9,154,439
Funding excess (shortfall)	($555,025)	($238,780)
Hypothetical Wind-up Financial Position		
Wind-up assets	$9,001,225	$8,855,792
Wind-up liability	$14,664,485	$11,702,024
Wind-up excess (shortfall)	($5,663,260)	($2,846,232)
Transfer Ratio	61.4%	75.7%
Funding Requirements in the Year Following the Valuation [1]		
Total current service cost	$294,417	$270,960
Estimated members' required contributions	($76,796)	($65,641)
Estimated employer's current service cost	$217,621	$205,319
Employer's current service cost as a percentage of members' pensionable earnings	18.1%	19.2%
Minimum special payments	$64,837	$27,726
Estimated minimum employer contribution	$282,458	$233,045
Estimated maximum eligible employer contribution	$5,880,881	$3,051,551
Next required valuation date	January 1, 2014	January 1, 2011

[1] *Provided for reference purposes only. Contributions must be remitted to the Plan in accordance with the Minimum Funding Requirements and Maximum Eligible Contributions sections of this report.*

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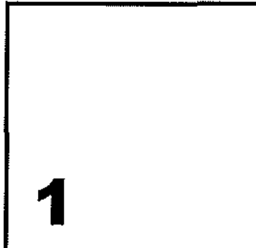

Introduction

To Ontario Power Generation Inc.

At the request of Ontario Power Generation Inc. (the "Company" or "OPG"), we have conducted an actuarial valuation of the Ontario Power Generation Inc. Pension Plan (the "Plan"), sponsored by the Company, as at January 1, 2011 (the "valuation date"). We are pleased to present the results of the valuation.

Purpose

The purpose of this valuation is to determine:

- the funded status of the Plan as at January 1, 2011 on going concern, hypothetical wind-up and solvency bases,
- the minimum required funding contributions from 2011, in accordance with the *Pension Benefits Act (Ontario)*; and
- the maximum permissible funding contributions from 2011, in accordance with the *Income Tax Act*.

The information contained in this report was prepared for the internal use of the Company and for filing with the regulators, in connection with our actuarial valuation of the Plan. This report will be filed with the Financial Services Commission of Ontario and with the Canada Revenue Agency. This report is not intended or suitable for any other purpose.

In accordance with pension benefits legislation, the next actuarial valuation of the Plan will be required as at a date not later than January 1, 2014, or as at the date of an earlier amendment to the Plan.

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Terms of Engagement

In accordance with our terms of engagement with the Company, our actuarial valuation of the Plan is based on the following material terms:

- It has been prepared in accordance with applicable pension legislation and actuarial standards of practice in Canada;
- As instructed by the Company, we have not reflected any margin for adverse deviations in the going-concern valuation; and
- We have reflected the Company decisions for determining the solvency funding requirements. Specifically, this included the decision to exclude indexing from the solvency liabilities, and to smooth the solvency valuation results. Additional details are provided in the Valuation Results – Solvency section of the report.

Events Since the Last Valuation at January 1, 2008

Pension Plan

Nuclear Waste Management Organization (NWMO) Transfer

Effective January 1, 2009, 63 members of the Plan were transferred from OPG to NWMO. In accordance with agreements between OPG and NWMO, assets and liabilities with respect to service accrued under the Plan by these members prior to January 1, 2009 will be transferred to a new registered defined benefit pension plan set up by NWMO, upon approval of the Actuarial Report on the Transfer of Assets and Liabilities to the NWMO Pension Plan as at January 1, 2009. For the purposes of this report, the liabilities in respect of the NWMO members have been excluded from the calculation of the plan liabilities and the market value of assets has been reduced by the estimated amount to be transferred to the NWMO Pension Plan.

Inspection, Maintenance & Commercial Services (IM&CS) Transfer

Effective August 3, 2010, 51 members of the Plan were transferred from OPG to Bruce Power LP ("Bruce Power"). In accordance with agreements between OPG and Bruce Power, assets and liabilities with respect to service accrued under the Plan by these members prior to August 3, 2010 will be transferred to the Bruce Power Pension Plan, upon approval of the Actuarial Report on the Transfer of Assets and Liabilities to the Bruce Power Pension Plan as at August 3, 2010. For the purposes of this report, the liabilities in respect of the IM&CS members have been excluded from the calculation of the plan liabilities and the market value of assets has been reduced by the estimated amount to be transferred to the Bruce Power Pension Plan. An asset transfer report is in the process of being prepared.

Other Amendments

This valuation reflects the provisions of the Plan as at January 1, 2011. In addition to the two asset transfers described above, the Plan has been amended since the date of the previous valuation as follows:

- to increase the required employee contribution rate for members represented by the PWU to 5.0% on base earnings up to the YMPE and 7.0% on base earnings above the YMPE;
- to increase the amount of bonus recognized in pensionable earnings for certain groups of employees; and
- for certain housekeeping issues which did not impact the valuation.

There have been no other changes to the plan provisions that have a material impact on the liabilities. The plan provisions are summarised in Appendix F.

Assumptions

We have used the same going concern valuation assumptions and methods as were used for the previous valuation, except for the following:

	Current valuation	**Previous valuation**
Discount rate:	6.30%	6.00%
Indexation of Deferred Pensions & Pensions in Payment:	2.50%	2.25%
ITA limit / YMPE increases:	3.50%	3.25%
Increases in Pensionable Earnings	3.50%	3.25%
Interest on employee contributions	5.30%	5.00%

The hypothetical wind-up and solvency assumptions have been updated to reflect market conditions at the valuation date.

A summary of the going concern, hypothetical wind-up and solvency methods and assumptions are provided in Appendices C and D.

Regulatory Environment and Actuarial Standards

There have been a number of changes to the Pension Benefits Act (Ontario) (the "Act") and regulations which impact the funding of the Plan.

In August of 2010, the Government of Ontario announced its intentions to make changes to the funding requirements for pension plans registered in Ontario. In December of 2010, Bill 120 received Royal assent; however, the changes to the funding requirements which impact the funding of single-employer pension plans will be contained in regulations which have not yet been published.

A new Canadian actuarial Standard of Practice For Determining Pension Commuted Values ("CIA CV Standard") became effective on April 1, 2009. The new CIA CV Standard changed the assumptions to be used to value the solvency and wind-up liabilities for benefits assumed to be settled through a lump sum transfer. The financial impact of the new CIA CV standard has been reflected in this actuarial valuation. We note that effective February 1, 2011, the CIA CV Standard provides for an updated discount rate and mortality basis, which will be reflected in the next actuarial valuation.

A new Canadian actuarial Standard of Practice – *Practice Specific Standards of Practice for Pension Plans* became effective December 31, 2010 (the "CIA Pension Standards"). The requirements of the CIA Pension Standards have been reflected in this report.

Subsequent Events

OPG and members represented by the Power Workers Union have entered into a collective bargaining agreement in 2009 that outlines the base salary increases for 2009, 2010 and 2011. OPG and members represented by the Society of Energy Professionals have entered into collective bargaining agreements that outline the base salary increases for 2010, 2011 and 2012. The impact of these negotiated base salary increases have been reflected in this valuation.

After checking with representatives of the Company, to the best of our knowledge there have been no other events subsequent to the valuation date which, in our opinion, would have a material impact on the results of the valuation.

Impact of Case Law

On July 29, 2004, the Supreme Court of Canada dismissed the appeal in Monsanto Canada Inc. versus Superintendent of Financial Services ("*Monsanto*"), thereby upholding the requirements to distribute surplus on partial plan wind-up under the *Pension Benefits Act (Ontario).* The decision has retroactive application.

We are not aware of any partial plan wind-up having been declared in respect of the Plan where the Monsanto decision may apply. In preparing this actuarial valuation, we have therefore assumed that all plan assets are available to cover the plan liabilities presented in this report. A subsequent declaration of a partial wind-up of the Plan where *Monsanto* may apply in respect of a past event, or disclosure of an existing past partial wind-up, could cause an additional claim on plan assets, the consequences of which would be addressed in a subsequent report. We note the discretionary nature of the power of the regulatory authorities to declare partial wind-ups and the lack of clarity with respect to the retroactive scope of that power. We are making no representation as to whether the regulatory authorities might declare a partial wind-up in respect of any events in the Plan's history.

2

Valuation Results – Going Concern

Financial Status

A going concern valuation compares the relationship between the value of plan assets and the present value of expected future benefit cash flows in respect of accrued service, assuming the Plan will be maintained indefinitely.

The results of the current valuation, compared with those from the previous valuation, are summarized as follows:

($000's)	01.01.2011	01.01.2008
Assets		
Market value of assets	$9,074,525	$8,914,292
Asset smoothing adjustment	$563,764	$1,367
Market-related value of assets	$9,638,289	$8,915,659
Going concern funding target		
▪ active and disabled members	$5,527,884	$4,772,245
▪ pensioners and survivors	$4,552,033	$4,262,627
▪ deferred pensioners	$113,319	$119,447
▪ voluntary contributions with interest	$78	$120
Total	$10,193,314 [2]	$9,154,439
Funding excess (shortfall)	($555,025)	($238,780)

The going concern funding target as at January 1, 2011 is based on best estimate assumptions and does not include a provision for adverse deviations.

[2] The method used to roll forward the liabilities from January 1, 2010 to January 1, 2011, as described in Appendix C, should provide a reasonable approximation of the total liabilities at January 1, 2011; however, the allocation between liability groups at January 1, 2011 may be different from that shown above.

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Reconciliation of Financial Status (in 000's)

Funding excess (shortfall) as at previous valuation		($238,780)
Interest on funding excess (funding shortfall) at 6.00% per year		($45,611)
Employer's special payments, with interest		$195,175
Expected funding excess (funding shortfall)		($89,216)
Net experience gains (losses)		
▪ Net investment return	($1,188,488)	
▪ Impact of smoothing method	$573,411	
▪ Increases in pensionable earnings	$9,685	
▪ Increase in YMPE & maximum pension	$5,998	
▪ Indexation	$88,092	
▪ Mortality	($1,900)	
▪ Retirement	($32,740)	
▪ Termination	($8,943)	
▪ Disability	($15,267)	
▪ Transfers In/Reinstated Deferreds	($990)	
Total experience gains (losses)		($571,142)
Impact of NWMO divestiture		$1,453
Impact of IMCS divestiture		$396
Impact of change in assumptions		$106,194
Net impact of other elements of gains and losses		($2,710)
Funding excess (shortfall) as at current valuation		($555,025)

Current Service Cost

The current service cost is an estimate of the present value of the additional expected future benefit cash flows in respect of pensionable service that will accrue after the valuation date, assuming the Plan will be maintained indefinitely.

The current service cost during the year following the valuation date compared with the corresponding value determined in the previous valuation, is as follows:

($000's)	2011	2008
Total current service cost	$294,417	$270,960
Estimated members' required contributions	($76,796)	($65,641)
Estimated employer's current service cost	$217,621	$205,319
Estimated members' pensionable earnings (excluding disabled members)	$1,203,279	$1,070,777
Employer's current service cost expressed as a percentage of members' pensionable earnings	18.1%	19.2%

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The key factors that have caused a change in the employer's current service cost since the previous valuation are summarized in the following table:

Employer's current service cost as at previous valuation	19.2%
Demographic changes	(0.4%)
Plan amendments	(0.3%)
Changes in assumptions	(0.4%)
Employer's current service cost as at current valuation	18.1%

Discount Rate Sensitivity

The following table summarises the effect on the going concern funding target and current service cost shown in this report of using a discount rate which is 1.00% lower than that used in the valuation:

Scenario ($000's)	**Valuation Basis**	**Reduce Discount Rate by 1%**	**Dollar Change**	**Percent Change**
Going concern funding target	$10,193,314	$11,919,194	+ $1,725,880	+ 17%
Current Service Cost				
▪ Total current service cost	$294,417	$374,450	+ $80,033	+ 27%
▪ Estimated members' required contributions	($76,796)	($76,796)	n/a	n/a
▪ Estimated employer's current service cost	$217,621	$297,654	+ $80,033	+ 37%

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Valuation Results – Hypothetical Wind-up

Financial Position

When conducting a hypothetical wind-up valuation, we determine the relationship between the respective values of the Plan's assets and its liabilities assuming the Plan is wound up and settled on the valuation date, assuming benefits are settled in accordance with the Act and under circumstances producing the maximum wind-up liabilities on the valuation date.

The hypothetical wind-up financial position as of the valuation date, compared with that at the previous valuation, is as follows:

($000's)	01.01.2011	01.01.2008
Assets		
Market value of assets	$9,074,525	$8,914,292
Termination expense provision	($73,300)	($58,500)
Wind-up assets	$9,001,225	$8,855,792
Present value of accrued benefits for:		
▪ active and disabled members	$8,582,248	$6,622,113
▪ pensioners and survivors	$5,918,309	$4,924,041
▪ deferred pensioners	$163,850	$155,750
▪ voluntary contributions with interest	$78	$120
Total wind-up liability	$14,664,485 [3]	$11,702,024
Wind-up excess (shortfall)	($5,663,260)	($2,846,232)

[3] The method used to roll forward the liabilities from January 1, 2010 to January 1, 2011, as described in Appendix D, should provide a reasonable approximation of the total liabilities at January 1, 2011; however, the allocation between liability groups at January 1, 2011 may be different from that shown above.

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Wind-up Incremental Cost to January 1, 2014

The wind-up incremental cost is an estimate of the present value of the projected change in the hypothetical wind-up liabilities from the valuation date until the next scheduled valuation date, adjusted for the benefit payments expected to be made in that period.

The hypothetical wind-up incremental cost determined in this valuation is as follows:

($000's)	**01.01.2011**
Number of years covered by report	3 years
Total hypothetical wind-up liabilities at the valuation date (A)	$14,664,485
Present value, at January 1, 2011, of projected hypothetical wind-up liability at the next required valuation (including expected new entrants) plus benefit payments until the next required valuation (B)	$16,110,000
Hypothetical wind-up incremental cost over the three-year period until the next required valuation (B – A)	$1,445,515

We note that the incremental cost is not an appropriate measure of the contributions that would be required to maintain the financial position of the Plan on a hypothetical wind-up basis from the valuation date and the next required valuation date if actual experience is exactly in accordance with the going-concern valuation assumptions. This is because it does not reflect the fact that the expected return on plan assets (based on the going-concern assumptions) is greater than the discount rate used to determine the hypothetical wind-up liabilities.

Discount Rate Sensitivity

The following table summarises the effect on the hypothetical wind-up liabilities shown in this report of using a discount rate which is 1.00% lower than that used in the valuation:

Scenario ($000's)	**Valuation Basis**	**Reduce Discount Rate by 1%**	**Dollar Change**	**Percent Change**
Total hypothetical wind-up liability	$14,664,485	$17,417,208	+ $2,752,723	+ 19%

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Valuation Results – Solvency

Overview

The Act also requires the financial position of the Plan to be determined on a solvency basis. The financial position on a solvency basis is determined in a similar manner to the Hypothetical Wind-up Basis, except for the following:

Exceptions	**Reflected in valuation based on the terms of engagement**
The circumstance under which the Plan is assumed to be wound-up could differ for the solvency and hypothetical wind-up valuations.	The same circumstances were assumed for the solvency valuation as were assumed for the hypothetical wind-up.
Certain benefits can be excluded from the solvency financial position. These include: (a) any escalated adjustment (e.g. indexing), (b) certain plant closure benefits, (c) certain permanent layoff benefits, (d) special allowances other than funded special allowances, (e) consent benefits other than funded consent benefits, (f) prospective benefit increases, (g) potential early retirement window benefit values, and (h) pension benefits and ancillary benefits payable under a qualifying annuity contract.	As permitted under the Pension Benefits Act (Ontario) and elected by OPG, the cost of future pre and post retirement indexing is excluded from the solvency liabilities shown in this report.
The financial position on the solvency basis needs to be adjusted for any Prior Year Credit Balance.	Not applicable.
The solvency financial position can be determined by smoothing assets and the solvency discount rate over a period of up to 5 years.	Solvency assets and liabilities were smoothed over 5 years.

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Financial Position

The financial position on a solvency basis, compared with the corresponding figures from the previous valuation, is as follows:

($000's)	01.01.2011	01.01.2008
Assets		
Market value of assets	$9,074,525	$8,914,292
Termination expense provision	($73,300)	($58,500)
Net assets	$9,001,225	$8,855,792
Liabilities		
Total hypothetical wind-up liabilities	$14,664,485	$11,702,024
Difference in circumstances of assumed wind-up	$0	$0
Value of excluded benefits	($5,203,066)	($3,517,915)
Liabilities on a solvency basis	$9,461,419	$8,184,109
Surplus (shortfall) on a market value basis	($460,194)	$671,683
Liability smoothing adjustment	$181,760	$0
Asset smoothing adjustment	$281,727	$0
Surplus (shortfall) on a solvency basis	$3,293	$671,683
Transfer ratio	0.614	0.757

5

Minimum Funding Requirements

The Act prescribes the minimum contributions that OPG must make to the Plan. The minimum contributions in respect of a defined benefit component of a pension plan are comprised of going concern current service cost and special payments to fund any going concern or solvency shortfalls.

On the basis of the assumptions and methods described in this report, the rule for determining the minimum required employer contributions, as well as an estimate of the employer contributions, from the valuation date until the next required valuation are as follows:

($000's)	Employer's contribution rule		Estimated employer's contributions	
Period beginning	Current service cost[4]	Minimum annual special payments	Annual current service cost	Total minimum annual contributions
January 1, 2011	18.1%	$64,837	$217,621	$282,458
January 1, 2012	18.1%	$64,837	$224,864	$289,701
January 1, 2013	18.1%	$64,837	$232,734	$297,571

The estimated contribution amounts shown above are based on members' projected pensionable earnings. Therefore the actual employer's current service cost will be different from the above estimates and, as such, the contribution requirements should be monitored closely to ensure contributions are made in accordance with the Act.

The development of the minimum special payments is summarized in Appendix A.

[4] Expressed as a percentage of members' pensionable earnings.

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Other Considerations

Differences between valuation bases

There is no provision in the minimum funding requirements to fund the difference between the hypothetical wind-up and solvency shortfalls, if any.

In addition, although minimum funding requirements do include a requirement to fund the going concern current service cost, there is no requirement to fund the expected growth in the hypothetical wind-up or solvency liability after the valuation date, which could be greater than the going concern current service cost.

Timing of contributions

Funding contributions are due on a monthly basis. Contributions for current service cost must be made within 30 days following the month to which they apply. Special payment contributions must be made in the month to which they apply.

Retroactive contributions

The Company must contribute the excess, if any, of the minimum contribution recommended in this report over contributions actually made in respect of the period following the valuation date. This contribution, along with an allowance for interest, is due no later than 60 days following the date this report is filed.

Payment of benefits

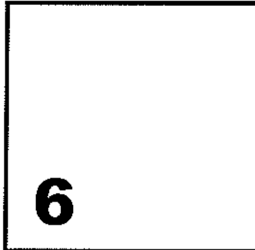
The Act imposes certain restrictions on the payment of lump sums from the Plan when the transfer ratio revealed in an actuarial valuation is less than one. If the transfer ratio shown in this report is less than one, the plan administrator should ensure that the monthly special payments are sufficient to meet the requirements of the Act to allow for the full payment of benefits, and otherwise should take the prescribed actions.

Additional restrictions are imposed when:

- The transfer ratio revealed in the most recently filed actuarial valuation is less than one and the administrator knows or 'ought to know' that the transfer ratio of the Plan has declined by 10% or more since the date the last valuation was filed.

- The transfer ratio revealed in the most recently filed actuarial valuation is greater than or equal to one and the administrator knows or 'ought to know' that the transfer ratio of the Plan has declined to less than 0.9 since the date the last valuation was filed.

As such, the administrator should monitor the transfer ratio of the Plan and, if necessary, take the prescribed actions.



Maximum Eligible Contributions

The *Income Tax Act* (the "ITA") limits the amount of employer contributions that can be remitted to the defined benefit component of a registered pension plan. However, notwithstanding the limit imposed by the ITA, in general, the minimum required contributions under the Act can be remitted.

In accordance with Section 147.2 of the ITA and *Income Tax Regulation* 8516, for a plan which is underfunded on either a going concern or on a hypothetical wind-up basis the maximum permitted contributions are equal to the employer's current service cost, including the explicit expense allowance if applicable, plus the greater of the going concern funding shortfall and hypothetical wind-up shortfall.

For a plan which is fully funded on both going concern and hypothetical wind-up bases, the employer can remit a contribution equal to the employer's current service cost, including the explicit expense allowance if applicable, as long as the surplus in the plan does not exceed a prescribed threshold. Specifically, in accordance with Section 147.2 of the ITA, for a plan which is fully funded on both going concern and hypothetical wind-up bases, the plan may not retain its registered status if the employer makes a contribution while the going concern funding excess exceeds 25% of the going concern funding target.

Schedule of Maximum Contributions

Based on the results of this valuation, OPG is permitted to fully fund the greater of the going concern and hypothetical wind-up shortfalls (i.e. $5,663,260,000) as well as make current service cost contributions. The portion of this contribution representing the payment of the wind-up deficiency can be increased with interest at 4.35% per year from the valuation date to the date the payment is made, and must be reduced by the amount of any deficit funding made from the valuation date to the date the payment is made.

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If the Company had contributed the greater of the going concern and hypothetical wind-up shortfall of $5,663,260,000 as of the valuation date, the rule for determining the estimated maximum eligible annual contributions, as well as an estimate of the maximum eligible contributions until the next valuation are as follows:

($000's)	Employer's contribution rule		Estimated employer's contributions
Period beginning	**Current service cost[5]**	**Deficit Funding**	**Annual current service cost**
January 1, 2011	18.1%	n/a	$217,621
January 1, 2012	18.1%	n/a	$224,864
January 1, 2013	18.1%	n/a	$232,734

The employer's current service cost in the above table was estimated based on projected members' pensionable earnings. The actual employer's current service cost will be different from these estimates and, as such, the contribution requirements should be monitored closely to ensure compliance with the ITA.

[5] Expressed as a percentage of members' pensionable earnings.

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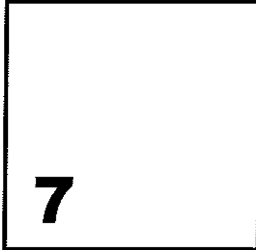

Actuarial Opinion

In our opinion, for the purposes of the valuations,

- the membership data on which the valuation is based are sufficient and reliable,
- the assumptions are appropriate, and
- the methods employed in the valuation are appropriate.

This report has been prepared, and our opinions given, in accordance with accepted actuarial practice in Canada. It has also been prepared in accordance with the funding and solvency standards set by the Pension Benefits Act (Ontario).

Malcolm P. Hamilton
Fellow of the Society of Actuaries
Fellow of the Canadian Institute of Actuaries

22 June 2011

Date

Hrvoje Lakota
Fellow of the Society of Actuaries
Fellow of the Canadian Institute of Actuaries

22 June 2011

Date

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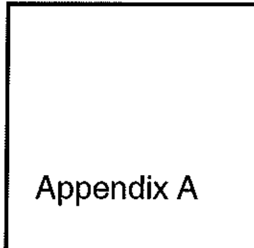

Prescribed Disclosure

The Act defines a number of terms as follows:

Defined Term	Description	Result ($000s)
Transfer Ratio	The ratio of solvency assets to the sum of the solvency liabilities and liabilities for benefits, other than benefits payable under qualifying annuity contracts, that were excluded in calculating the solvency liabilities.	0.614
Solvency Assets	Market value of assets including accrued or receivable income and excluding the value of any qualifying annuity contracts[6].	$9,001,225

[6] For purposes of determining the financial position, the market value of plan assets was adjusted by a provision for estimated termination expenses payable from the Plan's assets that may reasonably be expected to be incurred in terminating the Plan and to be charged to the Plan.

Defined Term	Description	Result ($000s)
Solvency Asset Adjustment	The sum of:	
	(a) the difference between smoothed value of assets and the market value of assets;	$281,727
	(b) the present value of any going concern special payments (including those identified in this report) within 5 years following the valuation date;	$290,389
	(c) the present value of any previously scheduled solvency special payments (excluding those identified in this report)	$0
		$572,116
Solvency Liabilities	Liabilities determined as if the Plan had been wound up on the valuation date, including liabilities for plant closure benefits or permanent layoff benefits that would be immediately payable if the employer's business were discontinued on the valuation date of the report, but, if elected by the plan sponsor, excluding liabilities for,	$9,461,419 [7]
	(a) any escalated adjustment,	
	(b) excluded plant closure benefits,	
	(c) excluded permanent layoff benefits,	
	(d) special allowances other than funded special allowances,	
	(e) consent benefits other than funded consent benefits,	
	(f) prospective benefit increases,	
	(g) potential early retirement window benefit values, and	
	(h) pension benefits and ancillary benefits payable under a qualifying annuity contract.	
Solvency Liability Adjustment	The amount by which solvency liabilities are adjusted as a result of using a solvency valuation interest rate that is the average of market interest rates calculated over the period of time used in the determination of the smoothed value of assets.	($181,760)
Solvency Deficiency	The amount, if any, by which the sum of:	
	(a) the solvency liabilities	$9,461,419
	(b) the solvency liability adjustment	($181,760)
	(c) the prior year credit balance	$0
		$9,279,659
	Exceeds the sum of	
	(d) the solvency assets	$9,001,225
	(e) the solvency asset adjustment	$572,116
		$9,573,341
	Solvency deficiency	$0

[7] Excludes the liabilities for future pre and post retirement indexing. If these liabilities were included, the solvency liabilities at January 1, 2011 would have been increased to $14,664,485,000.

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Timing of Next Required Valuation

In accordance with the *Act* the next valuation of the Plan would be required at an effective date within one year of the current valuation date if:

- The ratio of solvency assets to solvency liabilities is less than 80%;
- The ratio of solvency assets to solvency liabilities is less than 90% and solvency liabilities exceed solvency assets by $5 million or more; or,
- The employer elected to exclude plant closure or permanent lay-off benefits under Section 5(18) of the regulations, and has not rescinded that election.

Otherwise, the next valuation of the Plan would be required at an effective date no later than three years after the current valuation date.

At January 1, 2011, the ratio of Solvency Assets to Solvency Liabilities is 0.951 (i.e. $9,001,225,000 ÷ $9,461,419,000) and, as such the next valuation of the Plan will be required as of January 1, 2014 or at the date of an earlier amendment to the Plan.

Special Payments

Based on the results of this valuation, the Plan is not fully funded. In accordance with the Act, any going concern deficits must be amortized over a period not exceeding 15 years and any solvency deficits must be amortized over a period not exceeding 5 years.

The present value of going concern special payments scheduled in the previous valuation is lower than the going concern shortfall resulting in a going concern unfunded liability of $363,564,000. As a result, a new going concern special payment schedule had to be established.

As such, special payments must be made as follows:

				Present Value	
Type of payment	**Start date**	**End date**	**Monthly Special Payment**	**Going Concern Basis [8]**	**Solvency Basis [9]**
Going concern	01.01.2005	12.31.2019	$2,310,500	$191,461,000	$124,178,000
New going concern	01.01.2011	12.31.2025	$3,092,580	$363,564,000	$166,211,000
Total			$5,403,080	$555,025,000	$290,389,000

[8] Calculation only considers going concern special payments and is based on a going concern discount rate.

[9] Calculation considers both solvency and going concern special payments (five years only) and is based on the average solvency discount rate.

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Pension Benefit Guarantee Fund (PBGF) Assessment

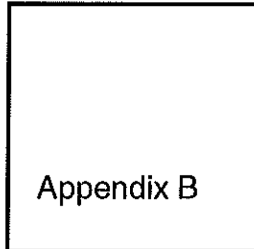
The PBGF assessment base and liabilities are derived as follows:

Solvency assets[10]	$9,074,525,000	(a)
PBGF liabilities	$9,461,419,000	(b)
Solvency liabilities	$9,461,419,000	(c)
Ontario asset ratio	100%	(d) = (b) ÷ (c)
Ontario portion of the fund	$9,074,525,000	(e) = (a) x (d)
PBGF assessment base	$386,894,000	(f) = (b) – (e)
Amount of additional liability for plant closure and/or permanent layoff benefits which is not funded and subject to the 2% assessment pursuant to s.37(4)(a)(ii)	$0	(g)

The PBGF assessment is calculated as follows:

$1 for each Ontario member	$22,504	(h)
0.5% of PBGF assessment base up to 10% of PBGF liabilities	$1,934,470	(i)
1.0% of PBGF assessment base between 10% and 20% of PBGF liabilities	$0	(j)
1.5% of PBGF assessment base over 20% of PBGF liabilities	$0	(k)
Sum of (h), (i), (j) and (k)	$1,956,974	(l)
$100 for each Ontario member	$2,250,400	(m)
Lesser of (l) and (m)	$1,956,974	(n)
2.0% of additional liabilities ((g) x 2%)	$0	(o)
Total Guarantee Fund Assessment ((n) + (o), limited to $4,000,000)	$1,956,974	(p)
8% RST ((p) x 8%)	$156,558	(q)
Total Guarantee Fund Assessment with tax ((p)+(q))	$2,113,532	(r)

[10] Before provision for termination expenses.



Plan Assets

The pension fund is held by CIBC Mellon Trust Company.

In preparing this report, we have relied upon the auditors' reports prepared by Ernst & Young, for the period from January 1, 2008 to December 31, 2010.

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Reconciliation of Market Value of Plan Assets

The pension fund transactions since the last valuation are summarized in the following table:

	2008	2009	2010
January 1	$8,916,228	$7,256,193	$8,187,474
PLUS			
Members' contributions	$68,210	$71,779	$74,520
Purchase of service/ transfer in	$5,151	$11,122	$7,406
Company's contributions	$253,000	$269,064 [11]	$270,000
Investment income including net capital gains (losses)	($1,531,431)	$1,084,083	$1,005,652
	($1,205,070)	$1,436,048	$1,357,578
LESS			
Pensions paid	$324,505	$345,679	$360,276
Lump-sums refunds and transfers to other plans	$99,867	$99,766	$61,552
Administration and investment fees	$30,593	$32,105	$34,610
Pending asset transfers[12]	$0	$27,217	$14,089
	$454,965	$504,767	$470,527
December 31	$7,256,193	$8,187,474	$9,074,525

We have tested the pensions paid, the lump-sums paid and the contributions for consistency with the membership data for the plan members who have received benefits or made contributions. The results of these tests were satisfactory.

Investment Policy

The plan administrator adopted a statement of investment policy and procedures. This policy is intended to provide guidelines for the manager(s) as to the level of risk which is commensurate with the Plan's investment objectives. A significant component of this investment policy is the asset mix.

The constraints on the asset mix and the actual asset mix at the valuation date, as provided to us by OPG, are provided below for information purposes:

[11] This amount includes $5,064,000 contributed by OPG to the Plan in accordance with the NWMO pension transfer agreement.

[12] These amounts are included on an accrual basis rather than when the money actually leaves the Fund.

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	Investment Policy			Actual Asset Mix as at January 1, 2011
	Minimum	**Target**	**Maximum**	
Fixed Income (Physical)				
Cash and cash equivalents	0.0%	1.0%	5.0%	3.0%
Canadian Structured & Corporate Fixed Income	13.0%	20.0%	28.0%	18.5%
Real Return Bonds	10.0%	15.0%	25.0%	16.8%
Equities				
Canadian equities	14.0%	18.0%	22.0%	23.5%
US equities	8.0%	12.0%	18.0%	15.9%
Non US foreign equities	16.0%	24.0%	36.0%	20.1%
Alternative Assets				
Global infrastructure	0.0%	6.0%	10.0%	0.4%
Canadian Real Estate	0.0%	4.0%	10.0%	0.1%
Hedge Funds	0.0%	0.0%	0.0%	1.7%[13]
		100.0%		100.0%
Fixed Income (Synthetic)				
Fixed Income Overlay[14]	5.0%	20.0%	30.0%	12.0%

[13] The previous asset mix policy included a target allocation of 2.0% of plan assets to hedge funds which was redeemed December 31, 2010, however this redemption will not become effective until March 31, 2011.

[14] The Fixed Income Overlay is a derivative based strategy that is intended to increase the duration of the Plan assets. As a result of this strategy, the sum of the target allocation exceeds 100%.

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Investment Performance

The performance of Fund assets, net of expenses, from January 1, 2008 to December 31, 2010 as per our calculations (which assume that the next cash flow occurred in the middle of each year) is shown below:

Year	Annualised Rate of Return on Market-Related Value of Assets (net of expenses)	Annualised Rate of Return on Market Value of Assets (net of expenses)
2008	1.5%	(17.6%)
2009	3.2%	14.6%
2010	6.7%	11.9%
Average	3.8%	1.9%

The average return on the market-related value of assets, net of expenses, since the last valuation at January 1, 2008 was 3.8% per year. This rate is less than the assumed investment return of 6.0% by 2.2% per year.

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Appendix C

Methods and Assumptions – Going Concern

Determining the January 1, 2011 Liabilities

The effective date of the membership data used for this valuation is January 1, 2010 (one year prior to the valuation date). In determining the actuarial liabilities as at January 1, 2011, we first calculated the actuarial liabilities as at January 1, 2010, and then projected the liabilities to January 1, 2011. The one year projection reflected any known experience during 2010 with respect to benefit payments, contributions, transfers, base salary growth, and indexation provided as at January 1, 2011. We have also compared the actual termination and retirement experience with what was expected based on our decrement rates, and made the following adjustments to the decrement rates during 2010:

- the assumed termination decrement for 2010 was adjusted by multiplying the termination rates by a factor of 1.8;
- the assumed retirement decrement for 2010 was adjusted by multiplying the retirement rates by a factor of 0.9; and
- assumed pensionable earnings increases for 2010 were adjusted to reflect the known base increases by representation, as indicated in the Pensionable Earnings section below.

For purposes of this valuation, we believe that this projection process produces results that are within acceptable tolerances from the results that would have been determined using actual membership data (at January 1, 2011).

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Valuation of Assets

For this valuation, we have used an adjusted market-value method to determine the market-related value of assets. The market-related value of assets is determined as follows:

Fixed Income

The fixed income assets are valued at market value.

Canadian, U.S. and Non-U.S. Foreign Equities

To value Canadian, U.S. and non-U.S. foreign equities, we have adjusted the values to smooth market fluctuations over 5 years. This has been accomplished by calculating, for each equity asset class and for each of the past 5 years, the gain/(loss) measured based on the actual index return versus an expected return of 6.0% plus the increase in Consumer Price Index (CPI) over the year. For the actual index return, we rely on the total return indices for the S&P/TSX Composite, the S&P 500, and the MSCI EAFE (expressed in Canadian dollars).

The following table shows the total equity gain (or loss) in each of the last 5 years as well as the amount unrecognized as at December 31, 2010.

Market-Related Value of Assets as at December 31, 2010 (in 000s)

Market value of assets including net amount in transit				$9,074,525 (a)
Year	Total Equity Gain/(Loss)	Gain/(Loss) not recognized at December 31, 2010 (%)	($)	
2006	$596,229	0%	$0	
2007	($563,838)	20%	($112,768)	
2008	($2,053,363)	40%	($821,345)	
2009	$508,800	60%	$305,280	
2010	$81,336	80%	$65,069	
			($563,764)	$563,764 (b)
Market-related value of assets (a) + (b)				$9,638,289

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The historical returns (in Canadian dollars) for the indices used in these calculations as well as the annual increase in CPI for each year are as follows:

	2006	2007	2008	2009	2010
Canadian equities	17.3%	9.83%	(33.00%)	35.05%	17.61%
US equities	15.5%	(10.53%)	(21.20%)	7.39%	9.06%
Non-US equities	26.6%	(5.32%)	(28.78%)	12.49%	2.56%
CPI [15]	1.4%	2.5%	2.0%	1.0%	2.0%

Going Concern Funding Target

Over time, the real cost to the employer of a pension plan is the excess of benefits and expenses over member contributions and investment earnings. The actuarial cost method allocates this cost to annual time periods.

For purposes of the going concern valuation, we have continued to use the projected unit credit actuarial cost method. Under this method, we determine the present value of benefit cash flows expected to be paid in respect of service accrued prior to the valuation date, based on projected final average earnings. This is referred to as the funding target. For each individual plan member, accumulated contributions with interest are established as a minimum actuarial liability.

The funding excess or funding shortfall, as the case may be, is the difference between the market or market-related value of assets and the funding target. A funding excess on a market value basis indicates that the current market value of assets and expected investment earnings are expected to be sufficient to meet the cash flows in respect of benefits accrued to the valuation date as well as expected expenses – assuming the Plan is maintained indefinitely. A funding shortfall on a market value basis indicates the opposite – that, absent additional contributions, the current market value of the assets is not expected to meet the Plan's cash flow requirements in respect of accrued benefits.

As required under the Act, a funding shortfall must be amortized over no more than 15 years through special payments. A funding excess may, from an actuarial standpoint, be applied immediately to reduce required employer current service contributions unless precluded by the terms of the Plan or by legislation.

The actuarial cost method used for the purposes of this valuation produces a reasonable matching of contributions with accruing benefits. Because benefits are recognized as they accrue, the actuarial cost method provides an effective funding target for a plan that is maintained indefinitely.

[15] CPI is for the 12 months ending November 30, in the year.

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Current Service Cost

The current service cost is the present value of projected benefits to be paid under the Plan with respect to service expected to accrue during the year following the valuation date.

The employer's current service cost is the total current service cost reduced by the members' required contributions.

The employer's current service cost has been expressed as a percentage of the members' pensionable earnings to provide an automatic adjustment in the event of fluctuations in membership and/or pensionable earnings.

Under the projected unit credit actuarial cost method, the current service cost for an individual member will increase each year as the member approaches retirement. However, the current service cost of the entire group, expressed as a percentage of the members' pensionable earnings, can be expected to remain stable as long as the average age of the group remains constant.

Actuarial Assumptions – Going Concern Basis

The present value of future benefit payment cash flows is based on economic and demographic assumptions. At each valuation we determine whether, in our opinion, the actuarial assumptions are still appropriate for the purposes of the valuation, and we revise them, if necessary. Emerging experience will result in gains or losses that will be revealed and considered in future actuarial valuations.

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The table below shows the various assumptions used in the current valuation in comparison with those used in the previous valuation.

Assumption	Current valuation	Previous valuation
Discount rate:	6.30%	6.00%
Inflation:	2.50%	2.25%
Expenses	Implicit provision reflected in the discount rate	Implicit provision reflected in the discount rate
ITA limit / YMPE increases:	3.50%	3.25%
Pensionable earnings increases:	3.50% [16] plus PPM	3.25% plus PPM
Movement within the salary structure (PPM)	Age and service related table	Age and service related table
Indexation of deferred pensions and pensions in payment	2.50%	2.25%
Interest on employee contributions:	5.30%	5.00%
Retirement rates:	Age related table	Age related table
Termination rates:	Age related table	Age related table
Mortality rates:	85% of the rates of the 1994 Uninsured Pensioner Mortality Table	85% of the rates of the 1994 Uninsured Pensioner Mortality Table
Mortality improvements:	Fully generational using Scale AA	Fully generational using Scale AA
Disability rates:	Age related table	Age related table
Eligible spouse at retirement:	90%	90%
Spousal age difference:	Male 4 years older	Male 4 years older
Commencement of deferred pensions	For members eligible for unreduced pension or who have 25 yrs of continuous service, assume to retire at earliest possible date. For all other members, assume age 65.	For members eligible for unreduced pension or who have 25 yrs of continuous service, assume to retire at earliest possible date. For all other members, assume age 65.
Retirement date for disabled members	Age 65	Age 65
Service accrual after 35 years	Assume members contribute past 35 years of pensionable service, unless members already have 35 years and have elected not to contribute.	Assume members contribute past 35 years of pensionable service, unless members already have 35 years and have elected not to contribute.

The assumptions are best-estimates and do not include a margin for adverse deviations.

[16] With adjustments in 2010, 2011, and 2012 as outlined below.

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Age Related Tables

Sample rates from the age related tables are summarized in the following table:

Age	Termination		Disability	Retirement		
			Rate per 1000 Employee Members	If Eligible for Reduced Pension		If Eligible for Unreduced Pension
	Males	Females		Males	Females	
20	2.9%	4.4%	1.00	0.0%	0.0%	n/a
25	2.2%	3.3%	1.00	0.0%	0.0%	n/a
30	1.6%	2.4%	1.05	0.0%	0.0%	n/a
35	1.1%	1.7%	1.10	0.0%	0.0%	n/a
40	0.8%	1.2%	1.15	0.0%	0.0%	n/a
45	0.7%	1.1%	1.20	0.0%	0.0%	n/a
50	0.7%	1.1%	2.95	0.0%	0.0%	20.0%
55	0.0%	0.0%	10.00	2.0%	5.0%	20.0%
56	0.0%	0.0%	12.00	2.0%	5.0%	20.0%
57	0.0%	0.0%	13.00	2.0%	5.0%	20.0%
58	0.0%	0.0%	14.75	2.0%	5.0%	20.0%
59	0.0%	0.0%	16.37	2.0%	5.0%	20.0%
60	0.0%	0.0%	18.78	2.0%	5.0%	20.0%
61	0.0%	0.0%	21.14	7.0%	10.0%	25.0%
62	0.0%	0.0%	24.70	7.0%	10.0%	25.0%
63	0.0%	0.0%	28.40	7.0%	10.0%	25.0%
64	0.0%	0.0%	30.62	7.0%	10.0%	25.0%
65	0.0%	0.0%	0.00	100.0%	100.0%	100.0%

Pensionable Earnings

The benefits ultimately paid will depend on each member's final average earnings. To calculate the pension benefits payable upon retirement, death or termination of employment, we have taken 2009 earnings and assumed that such pensionable earnings will increase at the assumed rates shown in the table below, plus increases due to movement within the salary structure:

	Management	PWU	Society
2010	0.00%	3.00%	3.00%
2011	3.50%	3.00%	3.00%
2012	3.50%	3.50%	3.00%
thereafter	3.50%	3.50%	3.50%

Even if the salary structure doesn't change from year to year, members' salaries increase due to promotions, the accumulation of seniority and movement within and between salary bands. The following table summarizes the assumed salary increases due to these movements within the salary structure.

Salary Increases Due to Movement Within the Salary Structure[17]

Age	First 4 Years of Employment	Subsequent Years
Under 25	9.0%	2.5%
25 – 29	6.5%	2.5%
30 – 34	5.0%	2.0%
35 – 39	4.5%	1.5%
40 – 44	4.0%	1.0%
45 – 49	3.0%	1.0%
50 – 54	2.0%	1.0%
55 – 59	2.0%	0.6%
60 & over	1.5%	0.6%

Rationale for Assumptions

A rationale for each of the assumptions used in the current valuation is provided below.

Discount Rate

We have discounted the expected benefit payment cash flows using the expected investment return on the market value of the fund. Other bases for discounting the expected benefit payment cash flows may be appropriate, particularly for purposes other than those specifically identified in this valuation report.

The discount rate is comprised of the following:

- Estimated returns for each major asset class consistent with market conditions on the valuation date and the target asset mix specified in the Plan's investment policy.
- Implicit provision for investment and administrative expenses determined as the average rate of investment and administrative expenses paid from the fund over the last 3 years.

The discount rate was developed as follows:

Assumed investment return	6.60%
Investment and administrative expenses provision	(0.30%)
Margin for adverse deviation	0.00%
Net discount rate	6.30%

[17] Over and above any increase in salaries due to adjustments to the salary structure itself.

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Inflation

The inflation assumption is based on the spread between the yields on nominal and real return bonds at the valuation date of 2.50%.

Income Tax Act Pension Limit and Year's Maximum Pensionable Earnings

The assumption is based on historical real economic growth and the underlying inflation assumption.

Pensionable Earnings

The assumption is based on general wage growth assumptions.

The increase in pensionable earnings assumption is adjusted to include increases due to movement within the salary structure based on an experience study considering pay adjustments over the years 1989 to 1995.

Post retirement pension increases

The assumption is based on a formula related to the increases in the Consumer Price Index (CPI). We have assumed that CPI will increase at the inflation assumption above.

Retirement rates

Because early retirement pensions are reduced in accordance with a formula, the retirement age of plan members has an impact on the cost of the Plan. The assumed retirement rates used in this valuation are based on a study of the Plan's retirement experience between 2004 and 2007 (inclusive).

Termination rates

The assumption is based on experience over the years 2004 to 2007.

Mortality rates

The assumption is based on experience from 2004 to 2007. Based on the results of this study, mortality rates were approximately 85% of those expected based on the generational UP94 table.

Interest on employee contributions

The assumption is based on plan terms and the underlying investment return assumption.

Disability rates

The assumption is based on experience of plans with similar benefits. Disabled employees are assumed to remain disabled until age 65, as few recoveries have been recorded.

Eligible spouse

The assumption is based on plan experience for non-retired members (actual status used for retirees).

Spousal age difference

The assumption is based on plan experience showing males are typically 4 years older than their spouse.

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Methods and Assumptions – Hypothetical Wind-up and Solvency

The hypothetical wind-up and solvency liabilities at January 1, 2011 were determined based on a projection of a valuation performed using membership data as of January 1, 2010. Specifically, the hypothetical wind-up and solvency liabilities were calculated as at January 1, 2010 using January 1, 2010 membership data and assumptions applicable at January 1, 2011 and rolled forward to January 1, 2011 assuming that they would remain at a constant percentage of the going concern liabilities. Given the relatively stable population of the Plan over the recent years, we believe that this produces a reasonable approximation of the hypothetical wind-up and solvency liabilities at January 1, 2011.

Hypothetical Wind-up Basis

The Canadian Institute of Actuaries requires actuaries to report the financial position of a pension plan on the assumption that the plan is wound-up on the effective date of the valuation, with benefits determined on the assumption that the pension plan has neither a surplus nor a deficit. For the purposes of the hypothetical wind-up valuation, the plan wind-up is assumed to occur in circumstances that maximize the actuarial liability.

To determine the actuarial liability on the hypothetical wind-up basis, we have valued those benefits that would have been paid had the employer's business and the Plan been wound up on the valuation date, including benefits that would be immediately payable if the employer's business were discontinued on the valuation date, with all members fully vested in their accrued benefits.

Upon plan wind-up members are given options for the method of settling their benefit entitlements. The options vary by eligibility and by province of employment, but in general, involve either a lump sum transfer or an immediate or deferred pension.

The value of benefits assumed to be settled through a lump sum transfer is based on the assumptions described in Section 3500 – *Pension Commuted Values* of the Canadian Institute of Actuaries' Standards of Practice applicable for January 1, 2011.

Benefits provided as an immediate or deferred pension are assumed to be settled through the purchase of annuities based on an estimate of the cost of purchasing annuities.

We note that, due to an absence of an active market for indexed annuities, if the Ontario Power Generation Inc. Pension Plan was wound up, it is highly likely that indexed annuities could not be purchased at any reasonable price, if they could be purchased at all. This is a shared problem with virtually all large indexed pension plans in Ontario.

In accordance with the *Canadian Institute of Actuaries Educational Note: Assumptions for Hypothetical Wind-up and Solvency Valuations with Effective Dates Between December 31, 2010 and December 30, 2011*, we have assumed that an appropriate proxy for estimating the cost of such purchase is using the yield on the long-term Government of Canada Real Return bonds.

We have not included a margin for adverse deviation in the solvency and hypothetical wind-up valuations.

To determine the hypothetical wind-up position of the Plan, a provision has been made for estimated termination expenses payable from the Plan's assets in respect of actuarial, administration and legal expenses that may reasonably be expected to be incurred in terminating the Plan and to be charged to the Plan. Also included in the provision are transaction fees related to the liquidation of the Plan's assets and any reduction in the value of the Plan's equity assets resulting from this liquidation

Because the settlement of all benefits on wind-up is assumed to occur on the valuation date and is assumed to be uncontested, the provision for termination expenses does not include custodial, investment management, auditing, consulting and legal expenses that would be incurred between the wind-up date and the settlement date or due to the terms of a wind-up being contested. Expenses associated with the distribution of any surplus assets that might arise on an actual wind-up are also not included in the estimated termination expense provisions.

We have also assumed, without analysis, that the Plan's terms as well as applicable legislation and court decisions would permit the relevant expenses to be paid from the Plan.

Actual fees incurred on an actual plan wind-up may differ materially from the estimates disclosed in this report.

Incremental Cost

In order to determine the incremental cost, we estimate the hypothetical wind-up liabilities at the next scheduled valuation date which, for the Plan, is January 1, 2014. For this purpose, we have assumed that the cost of settling benefits by way of a lump sum or purchasing annuities remains consistent with the assumptions described above.

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Since the projected hypothetical wind-up liabilities will depend on the membership in the Plan at the next valuation date, we must make assumptions about how the plan membership will evolve over the period until the next valuation. For this purpose, we have assumed that the plan membership will evolve in a manner consistent with the going-concern assumptions as follows:

- Members terminate, retire and die consistent with the termination, retirement and mortality rates used for the going-concern valuation;
- Pensionable earnings, the Income Tax Act pension limit and the Year's Maximum Pensionable Earnings increase in accordance with the related going-concern assumptions;
- Active members accrue pensionable service in accordance with the terms of the Plan; and
- Cost of living adjustments are consistent with the inflation assumption used for the going-concern valuation.

To accommodate for new entrants to the Plan, we have included in the projected liability, an amount equal to the liability of new entrants that have joined the Plan over the three years preceding January 1, 2010.

Solvency Basis

In determining the financial position of the Plan on the solvency basis, we have used the same assumptions and methodology as were used for determining the financial position of the Plan on the hypothetical wind-up basis, except for the following:

- as permitted under the *Pension Benefits Act (Ontario)* and elected by OPG, when determining the solvency actuarial liability, we have excluded the cost of future pre and post retirement indexing; and
- we have used an adjusted market value method to determine the smoothed value of plan assets.

The solvency position is determined in accordance with the requirements of the Act.

The derivation of the adjusted market value of assets is shown in the following table. Under the method used, the differences between the actual investment returns during a given year and the expected investment returns, before margins and provision for expenses, used in the January 1, 2008 funding valuation of the Plan are spread on a straight line basis over five years. As a result, the adjusted market value of assets produced as at December 31, 2010 recognizes the following percentages (indicated in column e) of excess investment income that arose in those prior years.

The adjusted market value of assets produced by this method is related to the market value of assets, with the advantage that, over time, the smoothed asset value will tend to be more stable than market values.

Adjusted Market Value of Assets as at December 31, 2010 (in 000s)

Market value of assets including net amount in transit						$9,074,525 (a)
Year	Investment Returns	Expected Investment Return	Investment Gains/ (Losses)	Investment Gains / (Losses) excluded at December 31, 2010		
	(b)	(c)	(d) = (b) – (c)	(e)	(d) * (e)	
2007	$178,289	$632,492	($454,203)	20%	($90,841)	
2008	($1,531,431)	$637,339	($2,168,770)	40%	($867,508)	
2009	$1,084,083	$516,945	$567,138	60%	$340,283	
2010	$1,005,652	$585,228	$420,424	80%	$336,339	
					($281,727)	$281,727 (f)
Adjusted market value of assets (a) + (f)						$9,356,252

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The hypothetical wind-up and solvency assumptions are as follows:

Form of benefit settlement elected by member	
Lump sum	50% of active and deferred vested members not eligible to retire and 20% of active and deferred vested members eligible to retire elect to receive their benefit entitlement in a lump sum
Annuity purchase	All remaining members are assumed to elect to receive their benefit entitlement in the form of a deferred or immediate pension. These benefits are assumed to be settled through the purchase of deferred or immediate annuities from a life insurance company.
Mortality rates:	UP94 projected to 2020
Interest rates for benefits assumed to be settled through a lump sum	
Hypothetical wind-up:	1.90% per year for 10 years, 2.40% per year thereafter (after adjustment for inflation)
Unsmoothed solvency:	3.70% per year for 10 years, 5.00% per year thereafter
Smoothed solvency:	4.18% per year for 10 years, 5.22% per year thereafter
Interest rates for benefits assumed to be settled through the purchase of an annuity	
Hypothetical wind-up:	1.10% per year (after adjustment for inflation)
Unsmoothed solvency:	4.50% per year
Smoothed solvency:	4.59% per year
Inflation Rate	
Hypothetical wind-up:	1.76% per year for 10 years, 2.61% per year thereafter
Unsmoothed solvency:	1.76% per year for 10 years, 2.61% per year thereafter
Smoothed solvency:	1.70% per year for 10 years, 2.23% per year thereafter
Retirement age	
Maximum value:	Members are assumed to retire at the age which maximizes the value of their entitlement from the Plan based on the eligibility requirements which have been met at the valuation date
Grow-in:	The benefit entitlement and assumed retirement age of Ontario members whose age plus service equals at least 55 at the valuation date reflect their entitlement to grow into early retirement subsidies
Other assumptions	
Special payments	Discounted at the average smoothed interest rate of 4.51% per year
Final average earnings:	Based on actual pensionable earnings over the averaging period
Family composition:	90% of plan members will have an eligible spouse and the male spouse will be 4 years older than the female spouse
Maximum pension limit:	$2,494.44 in 2010, $2,552.22 in 2011 and increasing at a rate of inflation plus 1% per year thereafter
Termination expenses:	$73,400,000

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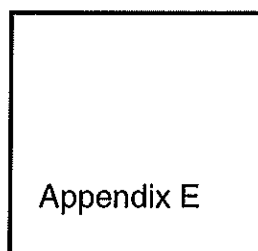

Membership Data

Analysis of Membership Data

The actuarial valuation is based on membership data as at January 1, 2010, provided by Ontario Power Generation Inc.

We have applied tests for internal consistency, as well as for consistency with the data used for the previous valuation. These tests were applied to membership reconciliation, basic information (date of birth, date of hire, date of membership, gender, etc.), pensionable earnings, credited service, contributions accumulated with interest and pensions to retirees and other members entitled to a deferred pension. Contributions, lump sum payments and pensions to retirees were compared with corresponding amounts reported in financial statements. The results of these tests were satisfactory.

Plan membership data are summarized below. For comparison, we have also summarized corresponding data from the previous valuation.

	01.01.2010	01.01.2008
Active Members[18]		
Number	11,990	11,603
Total pensionable earnings for the following year	$1,167,415,667	$1,025,572,678
Average pensionable earnings for the following year	$97,366	$88,389
Average years of pensionable service	14.8	15.3
Average age	45.6	45.6
Accumulated contributions with interest	$848,294,113	$780,958,499

[18] Excludes the 63 members transferred to NWMO and 51 members transferred to Bruce Power.

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	01.01.2010	01.01.2008
Members on Long Term Disability		
Number	416	411
Total pensionable earnings for the following year[19]	$30,461,399	$28,540,032
Average pensionable earnings for the following year[19]	$73,225	$69,440
Average years of pensionable service	23.6	23.0
Average age	54.2	53.2
Accumulated contributions with interest	$24,902,540	$22,944,938
Deferred Pensioners		
Number	854	882
Total annual lifetime pension[19]	$7,872,043	$8,743,351
Average annual lifetime pension[19]	$9,218	$9,913
Average age	51.0	50.0
Pensioners		
Number	7,315	6,975
Total annual lifetime pension[19]	$274,998,345	$246,152,308
Total annual temporary pension[19]	$37,969,432	$37,298,488
Average annual lifetime pension[19]	$37,594	$35,291
Average age	69.0	68.6
Survivors (excluding children)		
Number	1,899	1,805
Total annual lifetime pension[19]	$37,667,329	$33,833,036
Total annual temporary pension[19]	$954,848	$1,007,553
Average annual lifetime pension[19]	$19,835	$18,744
Average age	75.7	74.8
Children		
Number	30	29
Total annual temporary pension[19]	$379,117	$369,346
Average annual temporary pension[19]	$12,637	$12,736
Average age	24.1	20.8

[19] Includes increases effective January 1, 2010 and January 1, 2008 respectively, of 100% of the increase in the Consumer Price Index

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Breakdown of Active Members at January 1, 2010 by Representation

	Management	PWU	Society	Total
Number	1,284	6,971	3,735	11,990
Total pensionable earnings	$168,136,012	$598,283,053	$400,996,602	$1,167,415,667
Average pensionable earnings	$130,947	$85,825	$107,362	$97,336
Average years of pensionable service	18.4	14.2	14.7	14.8
Average age	49.2	45.0	45.3	45.6
Accumulated contributions with interest	$154,305,383	$394,901,114	$299,087,616	$848,294,113

The membership movement for all categories of membership since the previous actuarial valuation is as follows:

	Actives	LTD	Deferred	Pensioners	Survivors (incl. Children)	Total
Total at 01.01.2008	11,603	411	882	6,975	1,834	21,705
New entrants	1,425					1,425
Change in status:						
▪ to active	22	(22)				-
▪ to LTD	(78)	78				-
▪ reinstated from deferred	23		(23)			-
Terminations:						
▪ no further benefits	(133)	(1)	(71)			(205)
▪ deferred pensions	(126)		126			-
Deaths	(17)	(21)	(8)	(356)	(144)	(546)
Retirements	(615)	(29)	(52)	696		-
New Beneficiaries					239	239
NWMO Transfers	(63)					(63)
IMCS Transfers	(51)					(51)
Total at 01.01.2010	11,990	416	854	7,315	1,929	22,504

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The distribution of the active members and their average annualised pensionable earnings[20] by age and pensionable service as at January 1, 2010 is summarized as follows:

	Years of Pensionable Service								
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35+**	**Total**
Under 20									
20 to 24	297								297
	$65,640								
25 to 29	789	164	2						955
	$71,004	$85,534	*						
30 to 34	485	513	53						1,051
	$77,259	$91,707	$100,816						
35 to 39	388	408	108	72	6				982
	$84,615	$93,328	$104,297	$104,592	$99,448				
40 to 44	381	383	119	497	318	1			1,699
	$86,331	$94,335	$106,169	$104,606	$100,503	*			
45 to 49	340	346	148	501	744	380	19		2,478
	$85,806	$93,215	$104,627	$105,658	$105,847	$109,397	$97,550		
50 to 54	200	263	89	354	412	597	399	10	2,324
	$92,569	$95,899	$102,644	$103,464	$102,242	$120,165	$118,172	$109,209	
55 to 59	87	133	101	261	284	266	331	74	1,537
	$96,814	$97,134	$99,284	$98,764	$96,941	$112,643	$115,873	$107,764	
60 to 64	22	66	44	107	114	101	97	36	587
	$102,201	$96,135	$99,273	$98,630	$95,173	$102,695	$107,099	$115,228	
65 +	4	12	7	20	15	11	8	3	80
	$120,032	$97,467	$102,761	$95,011	$97,231	$103,459	$104,475	$92,529	
Total	**2,993**	**2,288**	**671**	**1,812**	**1,893**	**1,356**	**854**	**123**	**11,990**
									$97,366

[20] Earnings are not shown for cells with less than 3 members for confidentiality purposes.

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Ex. H2-1-3 Attachment 3

The distribution of the disabled members and their annualised pensionable earnings[21] by age and pensionable service as at January 1, 2010 is summarized as follows:

	Years of Pensionable Service								
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35+**	**Total**
Under 20									
20 to 24	1								1
	*								
25 to 29	1								1
	*								
30 to 34	1	1							2
	*	*							
35 to 39	3	3	2						8
	$62,559	$77,375	*						
40 to 44	2	7		11	6				26
	*	$66,426		$77,370	$81,168				
45 to 49	1	12	1	13	31	12	1		71
	*	$70,953	*	$77,612	$74,843	$75,884	*		
50 to 54		13	3	16	23	24	27	1	107
		$78,332	$72,679	$77,628	$68,730	$73,443	$68,740	*	
55 to 59	1	2	5	10	21	17	30	13	99
	*	*	$83,148	$72,960	$63,658	$73,141	$77,156	$66,550	
60 to 64		5	2	13	21	18	25	17	101
		$71,775	*	$69,428	$64,510	$85,919	$79,056	$72,714	
65 +									
Total	**10**	**43**	**13**	**63**	**102**	**71**	**83**	**31**	**416**
									$73,225

[21] Earnings are not shown for cells with less than 3 members for confidentiality purposes.

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EB-2012-0002
Ex. H2-1-3 Attachment 3

The distribution of the deferred pensioners, pensioners and survivors and their average lifetime pension by age as at January 1, 2010 is summarized as follows:

Age	Deferred Pensioners		Pensioners		Survivors (incl. Children)	
Age	**Number**	**Average Lifetime Pension**	**Number**	**Average Lifetime Pension**	**Number**	**Average Lifetime Pension**
< 25	2	*			26	$9,751
25 – 29	22	$1,751				
30 – 34	25	$2,953			1	*
35 – 39	36	$3,679			3	*
40 – 44	83	$5,175			7	$11,792
45 – 49	176	$5,523			25	$12,280
50 – 54	211	$11,469	189	$48,681	53	$17,807
55 – 59	202	$14,240	891	$45,886	105	$17,497
60 – 64	89	$9,999	1,767	$41,556	189	$21,684
65 – 69	4	$3,965	1,549	$37,251	189	$19,526
70 – 74	1	*	1,103	$33,067	218	$21,463
75 – 79	3	$6,135	773	$32,615	324	$20,928
80 – 84			576	$31,935	369	$20,567
85 – 89			375	$29,248	286	$18,825
90 – 94			81	$30,425	107	$18,144
95 +			11	$24,712	27	$16,042
Total	**854**	**$9,218**	**7,315**	**$37,594**	**1,929**	**$19,723**

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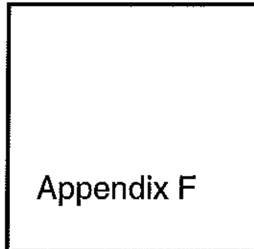

Summary of Plan Provisions

Introduction

The following is a summary of the main provisions of the Ontario Power Generation Inc. Pension Plan (the "Plan") in effect on January 1, 2011. It is not intended as a complete description of the Plan.

The Plan has been amended since the date of the previous valuation, as at January 1, 2008 as follows:

- to increase the required employee contribution rate for members represented by the PWU to 5.0% on base earnings up to the YMPE and 7.0% on base earnings above the YMPE;
- to increase the amount of bonus recognized in pensionable earnings for certain groups of employees; and
- for certain housekeeping issues which did not impact the valuation.

All the terms of the Plan are set out exclusively in the plan text, as amended and filed with the Financial Services Commission of Ontario. While this Report summarizes certain terms of the Plan, this Report does not change or supplement the Plan text in any manner whatsoever. Accordingly, the plan text will govern exclusively in all cases should any questions or differences arise.

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Eligibility for Membership

The following categories of employees are members of the Plan:

- All regular and probationary employees;
- Employees for whom the Office and Professional Employees International Union was the bargaining agent prior to July 30, 1982; and,
- Employees who became continuing construction clerical employees after July 29, 1982 and before August 8, 1984.

Any other employee, with the exception of construction trades, machinists, and hotel and restaurant employees, who has completed twenty-four months of continuous employment and who has at least 700 hours of employment or earnings of 35% of the YMPE in each of the two previous calendar years, may elect to become a member of the Plan.

Other members include pensioners, terminated employees with deferred pensions, and employees receiving long term disability benefits.

Employee Contributions

The PWU members contribute at the following rates until they complete 35 years of credited service:

- 5.0% of base annual earnings up to the YMPE, and
- 7.0% of base annual earnings in excess of the YMPE.

The Society and Management members contribute at the following rate until they complete 35 years of credited service:

- 7.0% of base annual earnings.

Members may elect to contribute after they have completed 35 years credited service.

Normal Retirement Date

The normal retirement date for a female member whose continuous employment commenced prior to January 1, 1976 is the day on which she attains age 60 or any subsequent day when she in fact retires which is not later than her sixty-fifth birthday.

The normal retirement date for all other members is the day the member attains age 65.

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Normal Retirement Pension

The amount of lifetime pension payable commencing on a member's normal retirement date is equal to:

- 2% of the member's "high three-year average" (see note below) for each year of credited service subject to a maximum of 35 years. Members may elect to contribute beyond 35 years and earn credited service.

  LESS

- 0.5% of the member's "high five-year average" up to the "average YMPE" (see note below) for each year of credited service subsequent to December 31, 1965.

In addition, the member is entitled to a bridge pension of 0.625% of the member's "high five-year average" up to the "average YMPE" (see note below) for each year of credited service subject to a maximum of 30 years, multiplied by 35 years, and divided by 30, plus the number of years that the member contributed beyond 35 years. This bridge pension is generally payable until the end of the month in which the member attains age 65.

The "*high three-year average*" is the average of the member's base annual earnings during the thirty-six consecutive months when the base earnings were highest. Base annual earnings include bonuses up to:

- a maximum of 5% of a member's base annual earnings for Management Group employees in Bands A to M;
- a maximum of 28% of a member's base annual earnings for Authorized Nuclear Operators;
- a maximum of 25.2% of a member's base annual earnings for Certified Unit 0 Control Room Operators;
- a monthly maximum of 28% of a member's base annual earnings divided by 12 for Society-represented Control Room Shift Supervisors and Control Room Shift Operating Supervisors;
- a maximum of 21% of a member's base annual earnings for Society-represented Authorization Training Supervisors; and
- a maximum of 18.9% of a member's base annual earnings for Unit 0 Training Specialists who were formerly Certified Unit 0 Control Room Operators.

The "*average YMPE*" is the average of the Year's Maximum Pensionable Earnings, as defined for purposes of the Canada Pension Plan, during the sixty consecutive months when the base earnings were highest.

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Early Retirement Pension

Unreduced Pension

An employee may retire prior to the normal retirement date without any reduction in the accrued pension if the sum of the employee's age plus years of continuous employment is equal to or greater than 84 (82 for employees represented by the PWU or the Society).

Formula Reduction

A female employee whose continuous employment commenced prior to 1976 with at least 15 years of continuous employment, or any other employee with 15 or more years of continuous employment but less than 25 years of continuous employment, who does not qualify for unreduced early retirement may retire within 10 years of normal retirement date. In such a case, the employee's accrued pension is reduced by 2% for each year up to five years and 3% for each additional year by which the early retirement date precedes the employee's normal retirement date.

Otherwise, an employee who does not qualify for unreduced early retirement may retire prior to age 60 with 25 or more years of continuous employment, but within 10 years of normal retirement date. In such a case, the employee's accrued pension is reduced by 3% for each year by which early retirement precedes age 60.

Actuarial Reduction

An employee, who does not qualify under any of the previously mentioned early retirement provisions and who has at least two years of plan membership, may retire within 10 years of normal retirement date. In such a case, the pension is the actuarial equivalent of the member's deferred pension.

Retirement from Deferred Status

A terminated employee with a deferred pension may retire under any provision for early retirement without reduction provided that such provision was in effect on the date of termination.

A terminated employee with a deferred pension, who terminated after March 31, 1986, with 25 or more years of continuous employment, or who terminated between May 3 and October 29, 1993, inclusive, under the Voluntary Separation Program with 15 or more years of continuous employment, or who terminated after October 31, 2003 with 15 or more years of continuous employment and was within ten years of normal retirement and was not represented by the PWU has the same early retirement provisions as those in effect for active employees at the date of termination.

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Otherwise, a terminated employee with a deferred pension, who terminated with 15 or more years of continuous employment, or who terminated with 2 or more years of plan membership after 1987, may receive a pension within 10 years of normal retirement in accordance with the rules in effect on the date of termination. In such a case, the pension is the actuarial equivalent of the member's deferred pension.

Maximum Pension

The benefits in respect of continuous employment after 1991 are limited to the maximum allowable under the *Income Tax Act*.

Pension Increases

Pension increases of 100% of the increase in the CPI (Ontario), subject to a maximum of 8%, will be given every January 1 to pensioners, beneficiaries and terminated employees with deferred pensions. Increases in CPI in excess of 8% and decreases in CPI are carried forward to subsequent years.

Disability

A totally disabled employee receives benefits from an income replacement plan and ceases to contribute to the Pension Fund, but continues to accrue credited service. For this member, the base annual earnings for pension purposes are deemed to be increased by the same percentage increases described for pensions above.

Survivor Benefits

Death Before Retirement

The following is a summary of death benefits payable to a member who dies before the pension payments have begun:

1. Benefits in respect of Continuous Employment Prior to 1987 for Members Represented by the PWU

   A. If the member has completed 10 years of continuous employment, the surviving spouse or dependent child is entitled to a survivor's pension. The survivor's pension is of an amount equal to 66.67% of the pension to which the member would have been entitled had the member retired on the date of death with no reduction for early retirement. The survivor's pension is payable to the surviving spouse until death or, if there is no eligible spouse, to the dependent children until age 18 (longer if disabled or in full-time attendance at a school or university). The total benefits paid are subject to a minimum of the member's contributions with interest.

   B. Otherwise, a payment of the member's contributions with interest is made to the beneficiary or estate.

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2. Benefits in respect of all Continuous Employment for Members not Represented by the PWU and in respect of Continuous Employment After 1986 for Members Represented by the PWU

   A. If the member has less than 2 years of plan membership and has not completed 10 years of continuous employment, a payment of the member's contributions with interest is made to the beneficiary or estate.

   B. If the member has less than 2 years of plan membership, but has completed 10 years of continuous employment, the surviving spouse is entitled to a survivor's pension as described in (1)(A) above. If there is no surviving spouse, a payment of the member's contributions with interest is made to the beneficiary or estate.

   C. If the member has at least 2 years of plan membership, but has not completed 10 years of continuous employment, the surviving spouse is entitled to receive the commuted value of the member's deferred pension. In lieu of such payment, the surviving spouse may elect to receive an immediate or deferred pension of equivalent commuted value. If there is no surviving spouse, a payment of the commuted value of the member's deferred pension is made to the beneficiary or estate.

   D. If the member has at least 2 years of plan membership and has completed 10 years of continuous employment, the surviving spouse is entitled to the greater of an immediate pension of 66.67% of the pension to which the member would have been entitled had the member retired on the date of death with no reduction for early retirement, or an immediate pension with commuted value equivalent to the commuted value of the member's deferred pension. In lieu of this pension, the surviving spouse may elect to receive the commuted value of the member's deferred pension or a deferred pension of equivalent commuted value. If there is no surviving spouse, the dependent children are entitled to a pension of 66.67% of the pension to which the member would have been entitled had the member retired on the date of death with no reduction for early retirement, payable to age 18 (longer if disabled or in full-time attendance at a school or university). If there is no surviving spouse, a payment of the commuted value of the member's deferred pension less the commuted value of the pension payable to any dependent children is made to the beneficiary or estate.

Death After Retirement

A survivor's pension, an amount equal to 66.67% of the pension to which the member would have been entitled, is payable on death after retirement to the surviving spouse or dependent children, subject to other options chosen at the time of retirement.

If the member does not have a spouse at the time of pension commencement, the normal form is a life annuity guaranteed 5 years.

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Termination Benefits

The benefits payable on termination of employment are as follows:

1. Benefits in respect of Continuous Employment Prior to 1987

   A. The member is entitled to a refund of all of the member's pre-1987 contributions with interest, subject to (D) and (E) below.

   B. A member, who has at least one year of plan membership, may elect to receive, in lieu of (A) above, the pension accrued prior to 1987 commencing at normal or early retirement age ascertained in accordance with the rules pertaining to terminated employees with deferred pensions in effect upon termination of employment.

   C. A member, who has at least 10 years of plan membership, may elect to receive, in lieu of (A) or (B) above, a cash payment of 25% of the commuted value of the pension accrued prior to 1987, with 75% of such pension being paid at normal or early retirement age ascertained in accordance with the rules pertaining to terminated employees with deferred pensions in effect upon termination of employment.

   D. A member, who was represented by the PWU and has both attained age 45 and completed 10 or more years of continuous employment, may not elect to receive a refund of contributions in respect of service between January 1, 1965 and December 31, 1986. The member may, however, elect to receive, in lieu of (B) or (C) above, a refund of the member's contributions to the Fund prior to 1965 together with credited interest plus 25% of the commuted value of the pension accrued after 1964 but prior to 1987, with entitlement to 75% of such pension being paid commencing on the normal or early retirement date ascertained in accordance with the rules pertaining to terminated employees with deferred pensions in effect upon termination of employment. The member may elect to transfer (see note below) the greater of the commuted value of the 75% pension or 75% of the member's contributions with interest made after 1964 but prior to 1987.

   E. A member, who was not represented by the PWU and has both attained age 45 and completed 10 or more years of continuous employment, may not elect to receive a refund of contributions in respect of service between January 1, 1965 and December 31, 1986. The member may, however, elect to receive, in lieu of (B) or (C) above, a cash payment of 25% of the commuted value of the pension accrued prior to 1987, with entitlement to 75% of such pension being paid commencing on the normal or early retirement date ascertained in accordance with the rules pertaining to terminated employees with deferred pensions in effect upon termination of employment. The member may elect to transfer (see note below) the commuted value of the 75% pension.

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2. Benefits in respect of Continuous Employment After 1986

   A. A member is entitled to a refund of the member's post-1986 contributions with interest, subject to (C) below.

   B. A member, who has at least one year of plan membership, may elect to receive, in lieu of (A) above, the pension accrued after 1986 commencing at normal or early retirement age ascertained in accordance with the rules pertaining to terminated employees with deferred pensions in effect upon termination of employment.

   C. A member, who has at least two years of plan membership, may not elect to receive a refund under (A) above. The member may, however, elect, in lieu of (B) above, to transfer (see note below) the commuted value of the deferred pension.

Note: Amounts must be transferred to a pension fund related to another pension plan, a prescribed retirement savings arrangement, or a life annuity which does not commence before the earliest date on which the member would have been entitled to retire.

Excess Contributions

Upon the earliest of termination of employment, death or retirement, the amount by which the member's post-1986 contributions with interest exceed 50% of the commuted value of the deferred pension accrued after 1986 (the "Excess Contributions") is refunded to the member (to the spouse, beneficiary or estate, in the case of death).

Upon termination of employment, if a member who was represented by the PWU has attained age 45 and completed 10 or more years of continuous employment elects to fully divest the pension accrued prior to 1987, the member is entitled to receive the amount by which the contributions with interest made after 1964 but prior to 1987 exceeds the commuted value of the pension accrued after 1964 but prior to 1987.

Upon the earliest of termination of employment, death or retirement of a member who was not represented by the PWU, the amount by which the member's contributions with interest made prior to 1987 exceed the commuted value of the deferred pension accrued prior to 1987 is refunded to the member (to the spouse, beneficiary or estate in the case of death).

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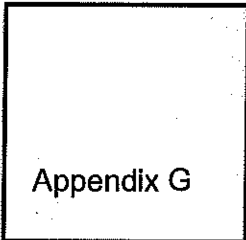
Ex. H2-1-3 Attachment 3

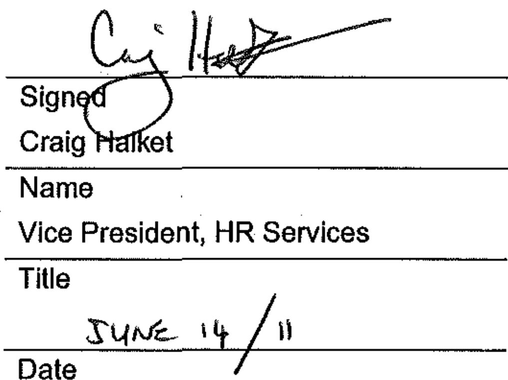


Appendix G

Employer Certification

With respect to the report on the actuarial valuation of the Ontario Power Generation Inc. Pension Plan, as at January 1, 2011, I hereby certify that, to the best of my knowledge and belief:

- the valuation reflects the terms of the Company's engagement with the actuary, particularly the requirement to not reflect a margin for adverse deviations in the going-concem valuation,
- the valuation reflects the Company's decisions in regards to determining the solvency funding requirements,
- a copy of the official plan documents and of all amendments made up to January 1, 2011, were provided to the actuary and is reflected appropriately in the summary of plan provisions contained herein,
- the asset information summarised in Appendix B is reflective of the Plan's assets,
- the membership data provided to the actuary included a complete and accurate description of every person who is entitled to benefits under the terms of the Plan for service up to January 1, 2010, and
- all events subsequent to January 1, 2011 that may have an impact on the Plan have been communicated to the actuary.



Signed

Craig Halket

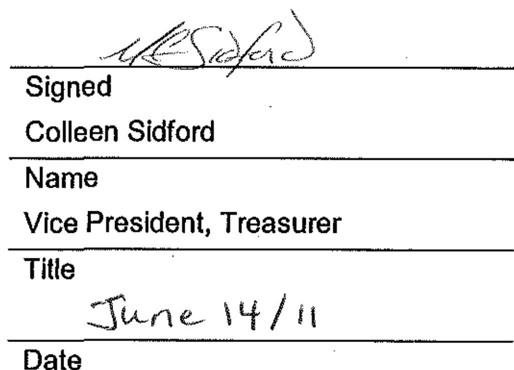
Name

Vice President, HR Services

Title

JUNE 14/11

Date



Signed

Colleen Sidford

Name

Vice President, Treasurer

Title

June 14/11

Date

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Attachment 4

Actuarial Report

Ontario Power Generation Inc.

Report on the Estimated Accounting Cost for Fiscal Year 2012

January 1, 2012 to December 31, 2012

Contents

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Schedule 2—Summary of US GAAP Results 6

Introduction

This report summarizes the estimated accounting costs for fiscal year 2012 for the post employment benefit plans sponsored by Ontario Power Generation Inc. ("OPG").

This report covers the following plans sponsored by OPG:

- Ontario Power Generation Inc. Pension Plan ("RPP");
- Ontario Power Generation Inc. Supplementary Pension Plan ("SPP") ;
- Non-pension Post-retirement Plan which provides other post-retirement benefits ("OPRB") including retiree medical, dental, life insurance, and retirement bonus benefits, and
- Post-employment Plan which provides long-term disability benefits ("LTD") including sick leave benefits before the LTD benefits begin and the continuation of medical, dental and life insurance while on LTD.

Collectively SPP, OPRB and LTD are known as Other Post Employment Benefits ("OPEB").

The results cover the fiscal year from January 1, 2012 to December 31, 2012. The results have been developed in accordance with Canadian generally accepted accounting principles ("Canadian GAAP") under CICA Handbook–Accounting (Part V), Section 3461 ("CICA 3461") and US generally accepted accounting principles ("US GAAP") under ASC 715, 712 and 710.

The results in this report do not include amounts related to the benefit plans of the Nuclear Waste Management Organization, which are included in OPG's consolidated financial statements.

This report is intended to be a supplement to the December 31, 2011 disclosure reports in accordance with Canadian GAAP and the supplemental report for US GAAP transition prepared by Aon Hewitt for the post employment benefit plans sponsored by OPG (collectively "the Reports").

The Canadian GAAP disclosure reports were dated February, 2012 and are titled as follows:

- CICA 3461 Accounting Information Non-pension Post-retirement and Post-employment Benefits Plans; and
- CICA 3461 Accounting Information – Pension Plans.

Introduction (continued)

The US GAAP transition report was dated April, 2012 and is titled as follows:

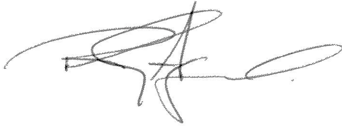
■ Transition Report for US GAAP from Canadian GAAP for Pension, Non-Pension Post Retirement and Post-Employment Benefits Plans.

Unless otherwise stated all assumptions, data elements, methodologies, plan provisions, and information about assets are the same as those underlying and/or contained in the Reports listed above.

All figures are shown in Canadian $000s.

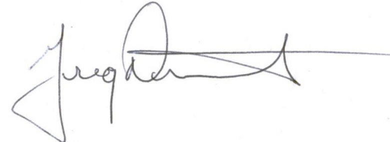
Sincerely,

Aon Hewitt Inc.



Rakesh Aggarwal
Fellow of the Society of Actuaries
Fellow of the Canadian Institute of Actuaries

Aon Hewitt Inc.



Gregory W. Durant
Fellow of the Society of Actuaries
Fellow of the Canadian Institute of Actuaries

July 2012

Actuarial Report

Results for Year 2012

OPG's total estimated pension and OPEB costs for the year ended December 31, 2012 as determined in accordance with Canadian GAAP and US GAAP are as follows:

(in Canadian $ 000's)	Canadian GAAP	US GAAP
RPP	$ 375,986	$ 375,986
SPP	$ 25,995	$ 25,995
OPRB	$ 227,269	$ 227,269
LTD	$ 29,306	$ 33,280
Total	$ 658,556	$ 662,530

Further details of the above OPG-wide costs, by plan, as well as OPG's contributions to the RPP fund and benefit payments for OPEB, are provided in Schedules 1 and 2 to this report.

The 2012 costs for the RPP, SPP and OPRB plans under both Canadian GAAP and US GAAP are not expected to change, unless a significant event, such as a curtailment or settlement or any other unexpected changes to OPG's operations, were to take place prior to December 31, 2012. The final 2012 cost under Canadian GAAP and US GAAP for the LTD plan will be determined at December 31, 2012 based on applicable information and assumptions at that date.

Actuarial Methods and Assumptions

The actuarial methodology and accounting policies used in the development of the estimated 2012 Canadian GAAP and US GAAP accounting costs are summarized below.

- Benefit obligations for RPP, SPP and OPRB are determined using the projected benefit method prorated on service;
- Benefit obligations for LTD are determined using the projected benefit method on a terminal basis such that the total estimated future benefit is attributed to the year of service in which a disability occurs;

Actuarial Report (continued)

- The discount rates have been determined in accordance with Canadian GAAP and US GAAP; namely, the discount rates have been set with reference to AA corporate bond yields having a duration similar to the liabilities of the plans. The December 31, 2011 discount rates were 5.10% per annum for determining the 2012 RPP and SPP costs, 5.20% per annum for determining the 2012 OPRB cost, and 4.00% per annum for determining the 2012 LTD cost. The estimated 2012 LTD cost under US GAAP is also based on a discount rate of 3.70% per annum as at June 30, 2012 used to project the LTD benefit obligation as at December 31, 2012. The actual discount rate at December 31, 2012 will be used to establish the final 2012 LTD cost under US GAAP;

- A building block approach was used in determining the expected long-term rate of return on plan assets. Historical markets are studied and long-term historical relationships between equities and fixed-income are preserved consistent with the widely accepted capital market principle that assets with higher volatility generate a greater return over the long run. Current market factors such as inflation and interest rates are evaluated before long-term capital market assumptions are determined. The long-term portfolio return is established using target asset allocations, via a building block approach with proper consideration of diversification and rebalancing. The expected rate of return on assets of 6.50% per annum determined using the above approach was used for determining the 2012 RPP cost;

- Other actuarial assumptions are management's best estimate of future events, as determined in consultation with the actuary and as set out in the Actuarial Assumptions and Methods sections of the Reports. These assumptions include the inflation rate and the salary scale increase rate, which were established at 2.00% per annum and 3.00% per annum (plus Promotion, Progression, Merit), respectively;

- Actuarial gains or losses for RPP, SPP and OPRB have been amortized using the 10% corridor method, except where immediate recognition is required under Canadian GAAP and US GAAP for non-routine events during the year (none expected during 2012);

- Past service costs for RPP, SPP and OPRB have been amortized on a straight-line basis over the expected average remaining service lifetime at the amendment date, except where immediate recognition is required under Canadian GAAP and US GAAP for non-routine events during the year (none expected during 2012);

- For LTD, under the current approach, the change in obligation due to changes in economic assumptions is deferred and amortized, and the sum of the change in obligation at the end of the year compared to the obligation at the beginning of the year on the same economic basis and actual benefit payments is immediately recognized. In addition, past service costs are also deferred and amortized. Under US GAAP, all actuarial gains and losses and past service costs are required to be recognized immediately in the cost. Therefore, the cost is equal to the change in obligation plus benefit payments; and,

- Expected return on assets and amortization of actuarial gains/losses are based on market-related value of assets where investment gains and losses on equity assets in excess of an expected return of 6.00% per annum plus the increase in Consumer Price Index are smoothed over five years.

Schedule 1—Summary of Canadian GAAP Results

This table provides a summary of the estimated Canadian GAAP costs for 2012 for the post employment benefit plans offered by OPG. The balance sheet items at January 1, 2012 are used to derive the estimated 2012 net periodic pension/benefit cost for the period January 1, 2012 to December 31, 2012.

(in Canadian $ 000's)	RPP	SPP	OPRB	LTD
Accrued Benefit Asset (Liability) as at January 1, 2012				
Accrued Benefit Obligation	$ (12,155,303)	$ (257,968)	$ (2,415,132)	$ (285,074)
Fair Value of Plan Assets	9,563,300	0	0	0
Excess (Deficit)	$ (2,592,003)	$ (257,968)	$ (2,415,132)	$ (285,074)
Unrecognized Past Service Costs (Credits)	0	0	12,791	1,587
Unrecognized Net Actuarial Loss (Gain)	3,768,869	76,149	649,506	49,812
Accrued Benefit Asset (Liability)	$ 1,176,866	$ (181,819)	$ (1,752,835)	$ (233,675)
Components of Estimated Net Periodic Pension/Benefit Cost, January 1, 2012 to December 31, 2012				
Employer Current Service Cost	$ 263,276	$ 8,368	$ 66,626	$ 16,222
Interest Cost	623,211	13,396	127,402	10,759
Expected Return on Plan Assets	(665,076)	0	0	0
Amortization of Past Service Cost	0	0	1,857	388
Amortization of Net (Gain) Loss	154,575	4,231	31,384	1,937
Total Cost	$ 375,986	$ 25,995	$ 227,269	$ 29,306
2012 Estimated Employer Pension Contributions / Benefit Payments				
Amounts used for developing estimated 2012 net periodic pension/benefit cost	$ 307,000	$ 7,342	$ 63,388	$ 27,947
Amounts based on information at June 30, 2012	$ 370,000	$ 13,601	$ 63,388	$ 27,947

Schedule 2—Summary of US GAAP Results

This table provides a summary of the estimated US GAAP costs for 2012 for the post employment benefit plans offered by OPG. The balance sheet items at January 1, 2012 are used to derive the estimated 2012 net periodic pension/benefit cost for the period January 1, 2012 to December 31, 2012.

(in Canadian $ 000's)	RPP	SPP	OPRB	LTD
Net Asset (Liability) Recognized as at January 1, 2012				
Projected Benefit Obligation	$ (12,155,303)	$ (257,968)	$ (2,415,132)	$ (285,074)
Fair Value of Plan Assets	9,563,300	0	0	0
Net Asset (Liability) Recognized	$ (2,592,003)	$ (257,968)	$ (2,415,132)	$ (285,074)
Amounts Recognized in Accumulated Other Comprehensive Income as at January 1, 2012				
Unrecognized Past Service Costs (Credits)	$ 0	$ 0	$ 12,791	$ 0
Unrecognized Net Actuarial Loss (Gain)	3,768,869	76,149	649,506	0
Unrecognized Transition Obligation (Asset)	0	0	0	0
Total Accumulated Other Comprehensive Loss (Income)	$ 3,768,869	$ 76,149	$ 662,297	$ 0
Components of Estimated Net Periodic Pension/Benefit Cost, January 1, 2012 to December 31, 2012				
Employer Current Service Cost	$ 263,276	$ 8,368	$ 66,626	$ 16,222
Interest Cost	623,211	13,396	127,402	10,759
Expected Return on Plan Assets	(665,076)	0	0	0
Amortization of Past Service Cost	0	0	1,857	0
Amortization of Net (Gain) Loss	154,575	4,231	31,384	6,299
Total Cost	$ 375,986	$ 25,995	$ 227,269	$ 33,280
2012 Estimated Employer Pension Contributions / Benefit Payments				
Amounts used for developing estimated 2012 net periodic pension/benefit cost	$ 307,000	$ 7,342	$ 63,388	$ 27,947
Amounts based on information at June 30, 2012	$ 370,000	$ 13,601	$ 63,388	$ 27,947