

**ONTARIO ENERGY BOARD**

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15, Schedule. B;

**AND IN THE MATTER OF** an application by Ontario Power Generation Inc. pursuant to section 78.1 of the *Ontario Energy Board Act, 1998* for an order or orders determining payment amounts for the output of certain of its generating facilities;

**AND IN THE MATTER OF** Rule 42 of the Rules of Practice and Procedure of the Ontario Energy Board.

**AFFIDAVIT**

I, Nathan Reeve, of the City of Toronto, in the Province of Ontario, MAKE OATH AND SAY:

1. I am the Vice-President, Financial Services of the Applicant, Ontario Power Generation Inc. (“OPG”), and, as such, have knowledge of the matters to which I depose.
2. My relevant personal background and qualifications are set out in Exhibit “A” attached hereto.
3. As the Vice-President, Financial Services, my responsibilities include OPG’s accounting, financial reporting and financial services functions as well as regulatory financial matters.
4. In its original pre-filed evidence filed on May 26, 2010 (the “Pre-filed Evidence”), OPG sought the recovery of the forecast cost for pension and other post employment benefits (“OPEB”) based upon the assumptions set out in Exhibit F4-T3-S1, section 6.3.2. The amount sought for the test period was \$633M.
5. By way of an update dated September 30, 2010 (Exhibit N-T1-S1) (the “Update”), OPG indicated that its forecast of pension and OPEB costs had increased over the initial test period forecast of \$633M set out in the Pre-filed Evidence by \$251.5M for nuclear and \$12.7M for

regulated hydroelectric, respectively, for a total of \$264.2M. In the Update, OPG stated that the \$633M pension and OPEB cost forecast included in the Pre-filed Evidence was based on discount rates (presented in Chart 8 of Ex. F4-T3-S1) forecast during the 2010-2014 business planning process which was finalized during the fall of 2009. OPG noted that since the beginning of 2010, these discount rates had declined significantly. Pension costs are also based on fund performance and the Update provided updated information on pension fund performance. The decline in discount rates and improved fund performance were the primary factors in the net increase in the forecast pension and OPEB costs for the test period. In addition, the forecast of pension contributions for 2011 and 2012 had changed and the Update reflected changes to forecast contributions.

6. In conjunction with the Update, OPG amended its evidence on variance and deferral accounts (Ex. H1-T3-S1) to request approval of a new variance account to be called the Pension and Other Post Employment Benefits Cost Variance Account. This account would have recorded the difference between the pension and OPEB costs reflected in OPG's approved payment amounts based on the Pre-filed Evidence and the actual pension and OPEB costs for the prescribed facilities and associated tax impacts.

7. OPG requested a variance account rather than an increase in the revenue requirement and payment amounts because the changes in costs were material, outside of management's control and in recognition that the actual amount of pension and OPEB cost would be subject to further changes as set out below. In addition, OPG noted that the Update was introduced when the hearing process was already well advanced and that incorporating the updated costs into payment amounts may have impacted the progress of the hearing (Transcript, Vol. 15, p. 100).

8. In support of its request, OPG filed a projected actuarial accounting assessment of OPG-wide costs for the test period. This assessment was provided by OPG's external actuaries, Mercer (Canada) Limited ("Mercer"), using data as of August 2010. The letter from Mercer (the "Mercer Report") setting out its updated OPG-wide projection was filed as Attachment 1 to Exhibit H1-T3-S1.

9. The Board stated in its Decision with Reasons dated March 10, 2011 (the "Decision") that the forecast pension and OPEB costs included in the Pre-filed Evidence was more rigorous

than the Update because it was based on a set of internally consistent assumptions, while the Update was “based on the AA bond yields which will change”.

10. This finding by the OEB is factually incorrect.

11. The analysis and methodology employed by OPG with respect to the Pre-filed Evidence was the same as that employed in the preparation of the Update. The Update is derived from the same internally consistent approach applied with the same degree of rigour as that used for the Pre-filed Evidence. In this regard, attached hereto and marked as Exhibit “B” is a table that sets out the assumptions that were the basis of the pension and OPEB cost forecast and demonstrates that each of the assumptions underpinning the Pre-filed Evidence was considered in the preparation of the Update. In fact, the Update is a more accurate forecast because it was based on more current information and was developed closer to the date of the final determination of pension and OPEB costs for the test period.

12. The internal consistency of the analysis is demonstrated by the fact that the Update and the Mercer Report included updated information with respect to discount rates and pension fund returns. In addition to discount rates and pension fund returns, all variables in Exhibit B were reviewed to determine whether they had changed. These variables have relationships to each other, and neither OPG nor Mercer selectively updated only one of these variables while ignoring the others. Where a change was not warranted none was made, but each of the underlying assumptions was considered and a conclusion was made as to the appropriate value.

13. The forecast of pension and OPEB costs in the Update formed the basis of OPG’s 2011-2015 business plan and therefore followed the same rigorous process as that used for the forecast of pension and OPEB costs in the Pre-filed Evidence that was based on the assumptions used for the 2010-2014 business planning process.

14. I note specifically that both the Pre-filed Evidence and the Update were prepared using discount rate assumptions that were based on AA bonds. There was no change in the methodology for determining the discount rates from the Pre-filed Evidence to the Update.

15. The forecasts of pension contributions for the regulated facilities for 2011 and 2012 also changed between the Pre-filed Evidence and the Update. The change in pension contribution

levels impacts the calculation of pension costs. The OPG-wide contribution levels assumed in the Pre-filed Evidence were \$264M in each of 2011 and 2012. The OPG-wide contribution levels assumed in the Update were \$480M in 2011 and \$530M in 2012. The portion of the contributions assumed in the Pre-filed Evidence that is attributable to the prescribed facilities was \$206.1M in each of 2011 and 2012. The portion of the contributions assumed in the Update that is attributable to the prescribed facilities for 2011 and 2012 was \$374.7M and \$413.7M, respectively.

16. Changes in pension and OPEB costs, pension contribution levels and OPEB payment levels have associated tax impacts. The tax impact associated with the change in pension and OPEB costs and pension contribution levels in the Update as compared to the Pre-filed Evidence is a net reduction in tax expense of \$38.1M over the test period. There were no changes to the forecast OPEB payment levels reflected in the Update.

17. Based upon the Update, OPG believes that the appropriate level of additional pension and OPEB costs to be included in the test period revenue requirement is \$264.2M. The opening balance in the deferral account requested as the alternative relief sought by OPG, which considers the change in pension and OPEB costs and the associated tax impacts for the 22 month period from March 1, 2011 to December 31, 2012, should be \$207.3M. Exhibit "C" sets out the calculation of these amounts. This calculation reflects the OEB's Decision that new payment amounts are effective March 1, 2011, while the revenue requirement is for a 24 month test period.

18. I note that, based on OPG's most recent estimates, as of the end of February 2011, pension and OPEB costs for the regulated facilities for the test period are forecast to be \$840.7M, an increase of \$207.7M from the Pre-filed Evidence. The associated tax impacts are forecast to be an increase in tax expense of \$28.5M. These forecasts incorporate the discount rate, inflation and expected return assumptions for 2011 that were established on December 31, 2010, the actual 2010 pension fund return and OPG's current forecast of pension contribution levels. This cost estimate remains subject to the finalization of pension contribution levels for 2011. These contribution levels are currently expected to be finalized in May after the pension funding valuation has been completed. Otherwise, absent any significant changes to OPG's operations or

legislation, OPG does not expect any further significant changes to 2011 pension and OPEB costs. Pension and OPEB costs for 2012 are subject to the finalization of assumptions on December 31, 2011, the actual 2011 pension fund return, and final pension contribution levels for 2012.

SWORN BEFORE ME at the City of  
Toronto, in the Province of Ontario  
this 30th.. day of .March, 2011

[Original commissioned by  
Carlton D. Mathias]

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*Commissioner for Taking Affidavits  
(or as may be)*

[Original signed by]

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Nathan Reeve

**Exhibit "A"**

**Personal Background and Qualifications of  
Nathan Reeve**

## CURRICULUM VITAE OF

### NATHAN REEVE

#### VICE PRESIDENT, FINANCIAL SERVICES

##### RESPONSIBILITIES:

As Vice President, Financial Services, Mr. Reeve is responsible for:

- OPG's accounting, financial reporting, and financial processing services functions.
- Overseeing maintenance of the company's accounting policies in compliance with generally accepted accounting principles ("GAAP").
- Financial controls.
- Regulatory finance matters.

##### EDUCATION:

Trinity College, Cambridge University, United Kingdom (1993) – Master of Arts, Economics  
Richard Ivey School of Business, University of Western Ontario (2009) – Executive MBA  
Institute of Chartered Accountants in England and Wales (1998)  
Institute of Chartered Accountants of Ontario (2004)

##### EXPERIENCE:

2003 - Present	Ontario Power Generation Inc.
2009 - Present	Vice President, Financial Services
2005 - 2009	Director of Accounting
2003 - 2005	Manager, External Reporting and Policy
1994 - 2003	Deloitte & Touche (Toronto, Ontario and London, United Kingdom)

##### MEMBERSHIPS:

The Institute of Chartered Accountants in England and Wales  
The Institute of Chartered Accountants of Ontario  
Edison Electric Institute ("EEI"), Washington, D.C., U.S.A  
International Energy Accounting Forum ("IEAF")

**Exhibit "B"**

**Comparison of Assumptions Underpinning Pension and OPEB Cost  
Forecasts in the Pre-filed Evidence and the Update**



**Exhibit “B”**

**Comparison of Assumptions Underpinning pension and OPEB cost forecasts in the Pre-filed Evidence and the Update**

Ex. F4-T3-S1, section 6.3 discusses how pension and OPEB costs were determined for the Pre-filed Evidence and identifies the main assumptions (Chart 8).

There was no change in the Update as to the manner in which the costs are calculated. The updated costs were filed as part of the September 30, 2010 Impact Statement Ex. N-T1-S1 and supported by the actuarial assessment filed on October 8, 2010 as Ex. H1-T3-S1, Attachment 1.

Section 6.3.2 of Ex. F4-T3-S1 deals with the manner in which the specific assumptions underlying the calculations of the costs are established. By examining each of these key assumptions, it is clear that the methodology described in Section 6.3.2 is the same as that used to update pension and OPEB costs and that all parameters relevant to that evaluation were considered in the Update.

Assumption	Prefiled	Update
<b>Discount rates</b>	<ul style="list-style-type: none"> <li>• The discount rates “are determined by the actuary based on the most recent AA corporate bond yields for the appropriate duration of the benefit obligation available at the time that the projection is being prepared.” (Ex. F4-T3-S1, p. 22, lines 1-3).</li> <li>• “the discount rates used in determining projected benefit obligations and costs for pension and OPEB are based on AA corporate bond yields for the appropriate duration of the benefit obligation in accordance with GAAP.” (Ex. F4-T3-S1, p. 20, lines 26-28). Therefore, the Board’s</li> </ul>	<ul style="list-style-type: none"> <li>• Ex. N-T1-S1, p. 2, lines 18-21 states: “The pension and OPEB costs forecasts in OPG’s application for 2011 and 2012 were based on discount rates (presented in Chart 8 of Ex. F4-T3-S1) forecast during the 2010-2014 business planning process. Since the beginning of 2010 these discount rates have declined significantly.”</li> <li>• Tr. Vol. 10, p. 183, lines 15-18, Mr. Reeve also testified explicitly as follows: “What I can tell you is that for purposes of the application, we did not deviate from what we received from our actuaries [for discount</li> </ul>

	<p>Decision inference on p. 91 that AA bonds were somehow used only for the updated costs is incorrect.</p>	<p>rates], and the same is true of the impact statement.”</p>
<p><b>Inflation rate</b></p>	<ul style="list-style-type: none"> <li>• Ex. F4-T3-S1, p. 22, lines 7-10 states that “the long-term inflation assumption used for projections is based on the Ontario consumer price index for the final year in the most recent forecast from a publicly available economic report, subject to an adjustment if the rate is outside of the Bank of Canada’s target range for inflation.”</li> <li>• Chart 8 shows the inflation rate as 2.00% per annum.</li> </ul>	<ul style="list-style-type: none"> <li>• The Mercer Report presented at Attachment 1 to Ex. H1-T3-S1 (p. 1 of Appendix B) states: “With the exception of the changes outlined below, assumptions, data and methods for projecting the 2011 and 2012 expense are the same as those described in the December 31, 2009 Disclosure Reports.” The December 31, 2009 Disclosure Reports were produced in evidence at Ex. L-1-84. Specifically Attachment 2 to Ex. L-1-84, p. 31 and Attachment 3 to Ex. L-1-84, p. 35 show the rate of 2.00% for inflation.</li> </ul>
<p><b>Salary schedule escalation rate</b></p>	<ul style="list-style-type: none"> <li>• The Pre-filed Evidence at Ex. F4-T3-S1, p. 22, lines 10-11 states: “The salary schedule escalation rate is equal to the long term inflation assumption rate plus 1 per cent.”</li> <li>• Chart 8 shows the Salary Schedule Escalation Rate as 3.00% per annum.</li> </ul>	<ul style="list-style-type: none"> <li>• As noted there was no change in the inflation rate; hence, there was no change in the salary escalation rate assumption required. The assumption remained at 3.00% per cent.</li> <li>• The Mercer Report (p. 1 of Appendix B) states: “With the exception of the</li> </ul>

		<p>changes outlined below, assumptions, data and methods for projecting the 2011 and 2012 expense are the same as those described in the December 31, 2009 Disclosure Reports.” The December 31, 2009 Disclosure Reports were produced in evidence at Ex. L-1-84. Attachment 2 to Ex. L-1-84, p. 31 and Attachment 3 to Ex. L-1-84, p. 35 show the rate of 3.00% for salary escalation.</p>
<p><b>Expected long-term rate of return on pension fund assets</b></p>	<ul style="list-style-type: none"> <li>• Pre-filed Evidence states at Ex. F4-T3-S1, p. 22, lines 13-14: “The expected long-term pension fund rate of return is calculated and updated as required by the actuary.”</li> <li>• Chart 8 of Ex. F4-T3-S1 shows the expected long-term rate of return as 7.0%</li> </ul>	<ul style="list-style-type: none"> <li>• The Mercer Report (p. 2 of Appendix B) specifically refers to the assumption used in the calculation of pension costs as 7.00%.</li> </ul>
<p><b>Actual return on pension fund assets in the prior year(s)</b></p>	<ul style="list-style-type: none"> <li>• Pre-filed Evidence states at Ex. F4-T3-S1, p. 22, lines 19 and 20: “The projected actual return on pension fund assets in the current year is based on the actual return up to the end of the month prior to the date on which the projection is being prepared.” Ex. F4-T3-</li> </ul>	<ul style="list-style-type: none"> <li>• The Mercer Report (p. 2 of Appendix B) states that the actual market value as at August 2010 was incorporated into the projected December 2010 market value.</li> <li>• Ex. N-T1-S1, p. 2 lines 28-30 state: “The actual return for 2009</li> </ul>

	<p>S1 at p. 22, lines 25-26 states: “The projected actual return on pension fund assets in subsequent years is equal to the expected long term rate of return on these assets.”</p> <ul style="list-style-type: none"> <li>• For the Pre-filed Evidence, 2009 was the “current year” since the forecast was prepared as part of the business planning process in the fall of 2009. Chart 8 of Ex. F4-T3-S1 shows the assumed return for 2009 to be 9%. In subsequent years (2010-2011), Chart 8 shows the assumed rate to be 7%, i.e., the expected long term rate of return.</li> </ul>	<p>was approximately 15% and the 2010 actual return as of the end of August 2010 is approximately 2.5%.” Since 2010 became the “current year” at the time of the update, consistent with the policy in the Pre-filed Evidence, the 2010 actual return to August month-end was used.</p> <ul style="list-style-type: none"> <li>• Year 2011 became the “subsequent year” at the time of the update, and hence the expected long-term rate of return was assumed for that year (i.e., 7%), as stated in Appendix B, p. 2 of the Mercer Report: “From January 1, 2011 to December 31, 2012 the fund is assumed to earn, on a market value basis, 7.0% per annum net of expenses.”</li> </ul>
<p><b>Pension and OPEB cost distribution</b></p>	<ul style="list-style-type: none"> <li>• The Pre-filed Evidence at Ex. F4-T3-S1, p. 24, lines 4-27 sets out the allocation methodology used to attribute OPG-wide costs for pension and OPEB.</li> </ul>	<ul style="list-style-type: none"> <li>• Ex. H1-T3-S1, p. 9, lines 28-29 (continuing onto p. 10) states in reference to the OPG-wide updated costs: “This OPG-wide projection is then assigned to the prescribed facilities using the same methodology as was used in EB-2007-0905 and in this application.”</li> </ul>

**Exhibit "C"**

**Calculation of Opening Deferral Account Balance (\$M)**

**Exhibit “C”**

**Calculation of Opening Deferral Account Balance (\$M)**

	<u>2011</u>	<u>2012</u>	<u>Total</u>
<b><u>Calculation of Unrecovered Pension and OPEB Costs</u></b>			
1 Updated Pension and OPEB Costs per Ex. N-T1-S1	427.2	470.0	897.2
2 Pension and OPEB Costs per Ex. F4-T3-S1, Chart 9	<u>287.1</u>	<u>345.9</u>	<u>633.0</u>
3 Unrecovered Pension and OPEB Costs	140.1	124.1	264.2
<b><u>Calculation of Income Tax Impacts</u></b>			
4 Additions for Regulatory Tax Purposes for Updated Pension and OPEB/SPP Accrual per Line 1	427.2	470.0	897.2
5 Additions for Regulatory Tax Purposes for Pension and OPEB/SPP Accrual per Ex. F4-T2-S1, Table 5, Line 5	<u>287.1</u>	<u>345.9</u>	<u>633.0</u>
6 Increase in Additions for Regulatory Tax Purposes for Pension and OPEB/SPP Accrual	140.1	124.1	264.2
7 Deduction for Regulatory Tax Purposes for Updated Pension Plan Contributions (EB-2010-0008 OPG Reply Argument, p. 128, footnote 39)	374.7	413.7	788.4
8 Deduction for Regulatory Tax Purposes for Pension Plan Contributions per Ex. F4-T2-S1, Table 5, Line 17	<u>206.1</u>	<u>206.1</u>	<u>412.2</u>
9 Increase in Deductions for Regulatory Tax Purposes for Pension Plan Contributions	168.6	207.6	376.2
10 Net Change to Regulatory Taxable Income (Line 6 - Line 9)	(28.5)	(83.5)	(112.0)
11 Net Change to Regulatory Income Taxes, including gross-up (Line 10 x tax rate / (1 - tax rate))*	(10.3)	(27.8)	(38.1)
<b><u>Calculation of Opening Deferral Account Balance</u></b>			
12 Net Revenue Requirement Impact for the 24-month period January 1, 2011 to December 31, 2012 (Line 3 + Line 11)	129.8	96.3	226.1
13 Opening Deferral Account Balance (Line 12 x 22/24 months)			<u>207.3</u>

\*Tax rates are 26.5% for 2011 and 25.0% for 2012 as per Ex. F4-T2-S1, Table 5, Line 31