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February 1, 2013

VIA RESS AND COURIER

Ms. Kirsten Walli Board Secretary Ontario Energy Board P.O. Box 2319 2300 Yonge Street, 27th Floor Toronto, ON M4P 1E4

Dear Ms. Walli:

Re: EB-2012-0002 – Responses to Technical Conference Undertakings

Attached please find OPG's responses to undertakings from the January 23, 2013 technical conference.

Included is a non-confidential version of the response to JT1.6, for which OPG is seeking confidential treatment of part of the response in accordance with Rule 10 of the Ontario Energy Board's (OEB) *Rules of Practice and Procedure* and section 5.3 of the Board's *Practice Direction on Confidential Filings*. A confidential version of this response and OPG's reasons for seeking this treatment are transmitted under separate cover.

Two paper copies are provided with this letter, as per Procedural Order #1. OPG is also submitting this document on the Regulatory Electronic Submission System ("RESS"). Intervenors have been sent electronic copies via email.

OPG intends to file an evidence update setting out actual year-end 2012 deferral and variance account balances, including updates to certain interrogatory responses, on February 8, 2013.

Respectfully submitted,

[Original signed by]

Garry M. Hendel

Attach

cc: Charles Keizer (Torys LLP) via email (no attachments)

Carlton Mathias via email (no attachments)

EB-2012-0002 Intervenors via email

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UNDERTAKING JT1.1

Undertaking

For 2009 to 2012, to advise the expected HOEP and the actual number from the IESO.

Response

The chart below provides the expected average HOEP values used in derivation of the actual fair value of the derivative embedded in the Bruce Lease agreement as of each year-end during the period from 2009 to 2011 in accordance with generally accepted accounting principles. These expected HOEP values were determined consistently using the methodology discussed in responses to interrogatories L-1-1 Staff-10 (c) and L-1-7 SEC-05. The chart below also provides the actual annual average of the HOEP for each of 2010 to 2012 as sourced from publicly-available information from the IESO.

\$/MWh	2010 HOEP	2011 HOEP	2012 HOEP
Expected Value at year-end 2009	31.81	33.83	35.37
Expected Value at year-end 2010	n/a	29.28	29.02
Expected Value at year-end 2011	n/a	n/a	23.53
Actual based on IESO data	36.25	30.15	22.80

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Undertaking

To provide back-up for calculation in Exhibit L-3-3, CME 1 (c) (v).

Response

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Interrogatory L-3-3 CME-01, (c), (v), asked for the residential consumer impact of riders calculated as postulated by CME in L-3-3 CME-01, (c), (iii).

UNDERTAKING JT1.2

Interrogatory L-3-3 CME-01, (c), (iii) requested a "what if?" calculation of Regulated Hydroelectric and Nuclear riders based on the proposition that the balances in all deferral and variance accounts be cleared over a period of 12 months. This is in contrast to OPG's proposal to postpone the clearance of the balances in certain accounts until a later application, to clear the balances in most remaining accounts over 24 months and to clear the balances in the Pension and OPEB Cost and Bruce Lease Net Revenues variance accounts over 48 months.

In preparing this undertaking response an error was discovered in the impact calculation that is the subject of this undertaking. Lines 40 to 42 of L-3-3 CME-01should have read:

"(v) As estimated in the same manner as described in Ex. I1-1-2, the resulting increase would be approximately \$6.58 per month, or 5.7 per cent, on a typical monthly residential consumer bill of \$116.30."

A version reflecting updated information will be issued.

The calculations requested in this undertaking can be found in Table 1 and Table 2 of Attachment 1 to this undertaking.

Table 1 shows the calculation of total production-weighted average rate resulting from application of the payment riders presented in L-3-3 CME-01, 1, (c), (iii). Table 1 is in a format similar to Ex. I1-1-2, Table 1.

Table 2 shows the calculation of \$ per month and per cent impact, corrected as noted above, on a typical monthly residential consumer bill of \$116.30 resulting from application of the payment riders presented in L-3-3 CME-01, 1, (c), (iii). Table 2 is in a format similar to L-3-2 AMPCO-14, Attachment 1, Table 2.

Numbers may not add due to rounding.

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JT1.2

Attachment 1 - Table 1

Table 1

Computation of Percent Change in Payment Amounts Resulting from L-3-3 CME-01, 1, (c), (iii)

<u>EB-2010-0008 to EB-2012-0002</u>

Line			EB-2010-0008 Board Approved	EB-2012-0002 Payment Amounts Resulting from	Percent Change in
No.	Description	Notes		L-3-3 CME-01, 1, (c), (iii)	Payment Amounts
			(a)	(b)	(c)
	PERCENT CHANGE IN PAYMENT AMOUNTS				
	AVERAGE RATE:				
1	Regulated Hydroelectric Rate Including Rider (\$/MWh)	1	34.13	41.27	21%
2	Nuclear Rate Including Rider (\$/MWh)	2	55.85	75.43	35%
3	Approved 2011-12 Regulated Hydroelectric Production (TWh)	3	39.7	39.7	
4	Approved 2011-12 Nuclear Production (TWh)	3	101.9	101.9	
5	Total Approved 2011-12 Production (TWh) (line 3 + line 4)	1	141.6	141.6	
6	Regulated Hydroelectric Portion of Production-Weighted Average Rate (\$/MWh) (line 1 x line 3 / line 5)		9.57	11.57	
7	Nuclear Portion of Production-Weighted Average Rate (\$/MWh) (line 2 x line 4 / line 5)		40.19	54.28	
8	Total Production-Weighted Average Rate (\$/MWh) (line 6 + line 7)		49.77	65.86	
9	OVERALL CHANGE IN PAYMENT AMOUNTS FROM EB-2010-0008 TO EB-2012-0002				32%
	(((line 8 col. (b) - line 8 col. (a)) / line 8 col. (a))/100)				

Notes:

- 1 EB-2010-0008 amount from EB-2010-0008 Payment Amounts Order, Appendix B, Table 1, line 3 plus line 5. EB-2012-0002 amount is Board approved 2011-2012 payment amount from EB-2010-0008 Payment Amounts Order, Appendix B, Table 1, line 3 plus proposed Regulated Hydroelectric rider of 5.49 \$/MWh from response to L-3-3 CME-01, 1.(c)(iii).
- 2 EB-2010-0008 amount from EB-2010-0008 Payment Amounts Order, Appendix C, Table 1, line 3 plus line 5. EB-2012-0002 amount is Board approved 2011-2012 payment amount from EB-2010-0008 Payment Amounts Order, Appendix C, Table 1, line 3 plus proposed nuclear rider of 23.91 \$/MWh from response to L-3-3 CME-01, 1.(c)(iii).
- 3 From EB-2010-0008 Payment Amounts Order, Appendix A, Table 3, line 1.

Table 2
Typical Consumer Bill Impact Resulting from L-3-3 CME-01, 1, (c), (iii)

Line		
No.	Description	Residential
1	Typical Consumption ¹ (kWh/Month)	842
2	Typical Usage of OPG Generation (kWh/Month) (line 1 x line 12)	409
3	Typical Bill ¹ (\$/Month)	116.30
4	Typical Bill Impact (\$/Month) (line 2 x line 8 /1000)	6.58
	Typical Bill Impact (0/) (line 4 / line 2)	E 70/
5	Typical Bill Impact (%) (line 4 / line 3)	5.7%
6	Current OPG weighted average Hydro & Nuclear Rate (\$/MWh)	49.77
7	Proposed OPG weighted average Hydro & Nuclear Rate per L-3-3 CME-01, 1, (c), (iii) (\$/MWh)	65.86
8	Change in OPG weighted average Hydro & Nuclear Rate (\$/MWh) (line 7 - line 6)	16.09
9	Change in OPG weighted average Hydro & Nuclear Rate (%) (line 8 / line 6)	32%
10	Total Forecast 2013-14 Regulated Production ² (TWh)	138.8
11	Forecast of Provincial Demand ³ (TWh)	285.6
12	OPG Proportion of Consumer Usage (line 10 / line 11)	48.6%

Notes:

- 1 For Residential consumers, average monthly consumption (800 kWh) and average monthly bill are based on the OEB "Bill Calculator" for estimating monthly electricity bills. Typical Consumption includes line losses.
- 2 See L-3-5 EP-02
- 3 Based on IESO June 2012 18 Month Outlook. As the 18 Month Outlook did not provide a demand forecast for 2014, OPG used the IESO Energy demand forecast for 2013 (142.8 TWh) and assumed the 2014 forecast to be equal to the 2013 forecast (142.8 TWh + 142.8 TWh = 285.6 TWh).

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Response

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17 18 19

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2 3 4 5 6 7 **Undertaking**

UNDERTAKING JT1.3

To provide an estimate of the weighted payment amount in 2013, including the deferral account clearances, that would clear all of the balances in the deferral accounts over a period of time that would produce rate stability for 2013, '14 and '15.

OPG is unable to provide the requested calculation. Contrary to the assumption implicit in the undertaking, OPG has not yet determined the scope of its next application and the payment amounts that would result. OPG is in the process of making these determinations in order to apply in 2013 for new payment amounts to commence in 2014. Given the scope of work required to develop an application and calculate a proposed revenue requirement however, this information will not be available prior to the scheduled hearing in this matter.

Included in this undertaking is an underlying request to consider actions that will tend to smooth payment amounts rates over the 2013-2015 period. OPG agrees that rate smoothing is generally desirable and will consider this as part of its next application.

: Undertaking

UNDERTAKING JT1.4

To provide calculation of amortization of net actual gain/loss amounts in the chart at page 2 of Exhibit L, Tab 2, Schedule 1, Staff 23.

Response

The attached tables provide the requested calculation.

Table 1 shows the calculation of the variance between the actual (2011) and projected (2012) amounts of amortization of net actuarial loss (gain) for each of pension and OPEB for the regulated operations and the reference amounts based on the forecast reflected in the EB-2010-0008 approved payment amounts. Table 2 shows the calculation of the underlying actual (2011) and projected (2012) OPG-wide amortization amounts for each of pension and OPEB based on OPG-wide information provided by independent actuaries. Table 3 provides an equivalent calculation for the corresponding EB-2010-0008 OPG-wide forecast amounts, also based on OPG-wide information provided by independent actuaries. The above OPG-wide amounts were attributed to the regulated operations using the same methodology as that applied in calculating the total pension and OPEB cost variance for 2011 and 2012 presented at Ex. H1-1-1 Table 5 and reflected in the EB-2010-0008 approved payment amounts.

¹ As noted in Ex. H2-1-3, Attachment 1, p. 4, section 2 and Ex. H2-1-3, Attachment 2, p. 2 OPEB is comprised of the supplementary pension plan, other post retirement benefits, and long-term disability benefits. The calculations in attached Tables 1-3 are presented separately for each of the three plans in order to derive the total OPEB amounts.

Table 1

Pension and OPEB Cost Variance Account

Calculation of Variance Amounts for Amortization of Net Actuarial Loss (Gain) - March to December 2011 and 2012 (\$M)¹

Line No.	Particulars	Actual Mar - Dec 2011	Projected 2012
		(a)	(b)
1	Forecast Amortization for Registered Pension Plan - EB-2010-0008 ²	19.4	23.3
2	Forecast Amoritzation for Supplementary Pension Plan - EB-2010-0008 ²	0.2	0.2
3	Forecast Amoritzation for Other Post Retirement Benefits - EB-2010-0008 ²	0.0	0.0
4	Forecast Amoritzation for Long-Term Disability Benefits - EB-2010-0008 ²	0.0	0.0
5	Total Amortization for OPEB Costs - EB-2010-0008 ²	0.2	0.2
6	Actual/Projected Amortization for Registered Pension Plan ³	42.9	124.1
7	Actual/Projected Amortization for Supplementary Pension Plan ³	1.5	3.4
8	Actual/Projected Amortization for Other Post Retirement Benefits ³	14.4	25.2
9	Actual/Projected Amortization for Long-Term Disability Benefits ³	0.7	1.6
10	Total Actual/Projected Amortization for OPEB Costs (line 7 + line 8 + line 9)	16.6	30.1
11	Variance Amount - Amortization for Pension (line 6 - line 1)	23.5	100.8
12	Variance Amount - Amortization for OPEB (line 10 - line 5)	16.4	29.9

Notes:

1 Calculation is provided for the amortization of net actuarial loss (gain) components of pension and OPEB variance amounts presented in the chart at page 2 of L-2-1 Staff-23.

2 March 2011 to December 2012 forecasts have been determined based on amortization amounts reflected in the payment amounts approved in EB-2010-0008, as follows:

Table	to Note 2 - Proration of Forecast Amortization Amounts (\$M)				•	•
				Other Post	Long-Term	(b)+(c)+(d)
Line		Registered	Supplementary	Retirement	Disability	Total
No.		Pension Plan	Pension Plan	Benefits	Benefits	OPEB
		(a)	(b)	(c)	(d)	(e)
1a	2011 Full Year Amortization Amounts - EB-2010-0008#	7.0	0.2	0.0	0.0	0.3
2a	2012 Full Year Amortization Amounts - EB-2010-0008#	39.7	0.1	0.0	0.0	0.2
За	Total Forecast Amortization Amounts from EB-2010-0008	46.7	0.4	0.0	0.1	0.5
4a	Mar-Dec 2011 Amortization Amount ((line 3a / 24 months) x 10 months)	19.4	0.2	0.0	0.0	0.2
5a	2012 Amortization Amount ((line 3a / 24 months) x 12 months)	23.3	0.2	0.0	0.0	0.2

Amounts represent the portion of OPG-wide forecast amortization amounts for the respective years attributed to regulated operations using the methodology reflected in determining total forecast pension and OPEB costs for regulated operations provided in EB-2010-0008, Ex. F4-3-1, Chart 9.

The calculation of the OPG-wide forecast amortization amounts is provided in Table 3 provided with this undertaking response.

3 Actual amounts for 2011 represent 10/12 of the following actual full year 2011 amounts: \$51.5M for the registered pension plan, \$1.8M for the supplementary pension plan, \$17.2M for for other post retirement benefits, and \$0.8M for long-term disability benefits.

These amounts represent the portion of OPG's total actual amortization amounts for each of the four benefit plans attributed to regulated operations using the same methodology as reflected in Ex. H1-1-1 Table 5 and payment amounts approved in EB-2010-0008. Projected 2012 amounts represent the portion of OPG's total projected amortization for each of the four plans attributed to the regulated operations using the same methodology. The calculation of the OPG-wide amortization amounts for 2011 (actual) and 2012 (projected) is provided in Table 2 provided with this undertaking response.

Table 2
Pension and OPEB Cost Variance Account
Calculation of Total OPG Actual/Projected Forecast Amortization of Net Actuarial Loss (Gain)

		Actual Full Year 2011				Projected Full Year 2012				
Line		Registered Pension	Supplementary Pension	Other Post Retirement	Long Term Disability	Registered Pension	Supplementary Pension	Other Post Retirement	Long Term Disability	
No.	ltem	Plan	Plan	Benefits	Benefits	Plan	Plan	Benefits	Benefits	
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	
1	Fair Value of Plan Assets at End of Prior Year	9,082.9	0.0	0.0	0.0	9,563.3	0.0	0.0	0.0	
2	Market Related Value of Plan Assets at End of Prior Year	9,649.4	0.0	0.0	0.0	10,277.2	0.0	0.0	0.0	
3	Accrued Benefit Obligations at End of Prior Year	10,344.2	216.5	2,068.4	265.7	12,155.3	258.0	2,415.1	285.1	
4	Unamortized Net Actuarial Loss (Gain) at End of Prior Year at Market Value	2,388.4	49.8	448.3	37.6	3,768.9	76.1	649.5	49.8	
5	Difference Between Market Value and Market Related Value (line 1 - line 2)	(566.5)	0.0	0.0	0.0	(713.9)	0.0	0.0	0.0	
6	Unamortized Net Actuarial Loss (Gain) Subject to Corridor Threshold (line 4 + line 5)	1,821.9	49.8	448.3	37.6	3,055.0	76.1	649.5	49.8	
7	10% Corridor Threshold (10% x greater of line 2 and line 3)	1,034.4	21.7	206.8	26.6	1,215.5	25.8	241.5	28.5	
8	Unamortized Actuarial Loss (Gain) Subject to Amortization (line 6 - line 7; 0 if negative)	787.5	28.2	241.5	11.0	1,839.4	50.4	408.0	21.3	
9	Expected Average Remaining Service Life (EARSL)	12	12	11	11	12	12	13	11	
10	Total OPG Forecast Amortization of Net Actuarial Loss (Gain)(line 8 / line 9)	65.6	2.3	22.0	1.0	154.6	4.2	31.4	1.9	

Table 3
Pension and OPEB Cost Variance Account
Calculation of Total OPG EB-2010-0008 Forecast Amortization of Net Actuarial Loss (Gain)

		Full Year 2011				Full Year 2012				
		Registered	Supplementary	Other Post	Long Term	Registered	Supplementary	Other Post	Long Term	
Line		Pension	Pension	Retirement	Disability	Pension	Pension	Retirement	Disability	
No.	ltem	Plan	Plan	Benefits	Benefits	Plan	Plan	Benefits	Benefits	
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	
1	Fair Value of Plan Assets at End of Prior Year	8,205.8	0.0	0.0	0.0	8,644.1	0.0	0.0	0.0	
2	Market Related Value of Plan Assets at End of Prior Year	9,010.3	0.0	0.0	0.0	8,968.3	0.0	0.0	0.0	
3	Accrued Benefit Obligations at End of Prior Year	8,900.9	189.2	1,717.7	268.7	9,266.4	201.6	1,815.5	273.1	
4	Unamortized Net Actuarial Loss (Gain) at End of Prior Year at Market Value	1,813.1	22.7	107.3	27.6	1,860.5	22.4	107.3	27.5	
5	Difference Between Market Value and Market Related Value (line 1 - line 2)	(804.5)	0.0	0.0	0.0	(324.3)	0.0	0.0	0.0	
6	Unamortized Net Actuarial Loss (Gain) Subject to Corridor Threshold (line 4 + line 5)	1,008.7	22.7	107.3	27.6	1,536.2	22.4	107.3	27.5	
7	10% Corridor Threshold (10% x greater of line 2 and line 3)	901.0	18.9	171.8	26.9	926.6	20.2	181.6	27.3	
8	Unamortized Actuarial Loss (Gain) Subject to Amortization (line 6 - line 7; 0 if negative)	107.6	3.8	0.0	0.7	609.6	2.3	0.0	0.2	
9	Expected Average Remaining Service Life (EARSL)	12	12	11	12	12	12	12	12	
10	Total OPG Forecast Amortization of Net Actuarial Loss (Gain) (line 8 / line 9)	9.0	0.3	0.0	0.1	50.8	0.2	0.0	0.0	

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Undertaking

<u>Unidertaking</u>

To provide breakdown of incremental costs as per Exhibit L-1-7, SEC interrogatory 17.

Response

All the costs shown in Ex. L-1-7, SEC-17 are incremental to the revenue requirement approved in EB-2010-0008 as stated in the response. At the Technical Conference SEC's counsel stated that "The people who did this were all employed by you prior to -- and their salaries were included in the payment amounts." (Technical Conference Tr. page 121, lines 10-11). While the first part of this statement is correct, the second part is incorrect.

UNDERTAKING JT1.5

SEC's counsel assumed that if New Nuclear at Darlington ("NND") work was done by preexisting staff, then cost of the staff and related resources that OPG used to perform NND work activities during 2011 and 2012 must have been included in the EB-2010-0008 approved revenue requirement. That assumption is incorrect as explained below.

OPG has been actively undertaking planning and preparation for NND since 2007. OPG has a NND business unit (EB-2010-0008, Ex A1-4-3, page 2, line 20) with dedicated staffing, resources and associated budgets. OPG included budgeted expenditures of \$75.3M in 2008 and \$67.2M in 2009 for planning and preparation work by the NND business unit in its EB-2007-0905 revenue requirement and the requested amount was approved (EB-2007-0905 Ex D2-1-3, page 11; EB-2007-0905, Decision with Reasons, pages 36-37). Actual expenditures on NND in 2008, 2009 (and 2010) were lower than forecast and the resulting variance of \$110.8M was credited back to ratepayers when the 2010 year- end balance in the Nuclear Development Variance Account ("NDVA") was cleared in EB-2010-0008 (EB-2010-0008 Payment Order, Appendix F, Page 1 of 9, Table F2).

OPG's EB-2010-0008 payment amounts application assumed that the staff working on NND would continue this work in 2011 and 2012 (EB-2010-0008, Ex. D2-2-1, page 15). However, unlike in the EB-2007-0905 filing, OPG decided not to include <u>any</u> costs for NND in its EB-2010-0008 test period revenue requirement because of uncertainty around the timing of a new build decision and the possibility that a new cost recovery mechanism would be developed. OPG's EB-2010-0008 evidence stated this and also explicitly stated that if costs for planning and preparation for new nuclear arose and no new cost recovery mechanism was developed by the Province, then OPG intended to recover these costs through the NDVA (EB-2010-0008, Ex. D2-2-1, page 16). No new cost recovery mechanism was developed and, as a result, OPG has included these costs in the NDVA for recovery in the current Application.

Undertaking

UNDERTAKING JT1.6 (NON-CONFIDENTIAL VERSION)

To provide cash flow analysis, if helpful or if not helpful or not able to provide, explain why.

Response

As indicated at the Technical Conference (Tr. pp. 132 - 136), OPG's cash flow analysis is prepared on a corporate-wide basis. OPG does not separately track cash flow from regulated and unregulated businesses. Provided below is OPG's corporate-wide analysis for 2013, which is comprised of projected cash inflows and outflows in Chart 1 and a calculation of the projected Funds From Operations ("FFO") Interest Coverage ratio in Chart 2. These charts represent projections at a particular point in time and thus will change as assumptions about the scope and timing of the underlying activities, which produce cash inflows and outflows, change.

In accordance with Rule 10 of the Ontario Energy Board's *Rules of Practice and Procedure* and section 5.3 of the Board's *Practice Direction on Confidential Filings* (the "Practice Direction"), OPG requests confidential treatment of certain of its information that has been requested by way of this undertaking. As the forward-looking information contained herein is presented on a corporate-wide basis and is commercially sensitive, it is being provided confidentially. Confidential treatment of this type of information is specifically contemplated at Appendix B, subsection 6 of the Practice Direction.

The projections below are based on cash inflows that reflect the recovery of the 2012 deferral and variance account balances as proposed by OPG in its Application. As noted in response to interrogatory L-3-7 SEC-31, the total projected annual recovery of the account balances is approximately \$480M based on the pre-filed evidence, over \$200M of which relates to the Pension and OPEB Cost Variance Account, the Bruce Lease Net Revenues Variance Account and the Impact for USGAAP Deferral Account. Delays in the recovery of these amounts would substantially decrease OPG's projected cash positions in 2013.

Assuming recovery as proposed by OPG, the FFO Interest Coverage ratio for twelve months ending December 31, 2013 is projected at explained in response to interrogatory L-3-7 SEC-31 at p. 2, lines 2-6, a ratio of below 3.0 times is considered to be unfavourable.

OPG is concerned about the potential for further deterioration of the ratio if there is any delay or reduction in the proposed recovery. Such deterioration would have negative implications to OPG's credit rating, which would lead to increased borrowing costs.

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Chart 1 Projected 2013 OPG Cash Flow¹



