Colin Anderson
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June 4, 2014

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-2013-0321 – Ontario Power Generation Inc. 2014-2015 Payment Amounts for OPG's Prescribed Facilities – Evidence and Interrogatory Response Corrections

Attached are corrections to OPG's pre-filed evidence and interrogatory responses in EB-2013-0321.

These corrections do not impact revenue requirement, payment amounts or payment riders.

A detailed list of the corrections is as follows:

Ex. B1-1-2 Corrected page 5
Ex. F4-2-1 Corrected page 13
Ex. F4-3-1 Corrected pages 11, 12, 14, 29, 30, 36 and 37 and Attachment 6
Ex. G2-2-1 Corrected page 20
Ex. H1-1-1 Corrected Table 14
Ex. JT1.5 Refiled Attachment 1
Ex. L-1.0-1 Staff-002 Corrected Table 21
Ex. L-4.5-1 Staff-025 Corrected page 2
Ex. L-4.5-17 SEC-041 Corrected page 2
Ex. L-4.7-17 SEC-047 Corrected Attachment 1
Ex. L-4.9-1 Staff-047 Corrected page 2
Ex. L-6.5-3 CME-008 Corrected page 2
Ex. L-6.8-1 Staff-108 Corrected page 3
Ex. L-6.13-1 Staff-171 Corrected page 2
Ex. L-9.1-17 SEC-131 Corrected page 2
Ex. L-9.1-17 SEC-132 Corrected Tables 1, 6 and 13

Ex. L-9.7-17 SEC-138 Corrected page 1
Ex. N1-1-1 Corrected pages 14 and 23

Best Regards,

[Original signed by]

Colin Anderson
Director, Ontario Regulatory Affairs
Ontario Power Generation

Attach

cc:	Charles Keizer (Torys)	via email
	Crawford Smith (Torys)	via email
	Carlton D. Mathias (OPG)	via email
	Intervenors of Record	

Chart 4
Cash Working Capital - Newly Regulated Hydroelectric Generation
2012

Line No.	Expense Category	Expense Amount ($M) (a)	Revenue Lag Days (b)	Expense Lead Days (c)	Net Lead/Lag Days (d) = (b) - (c)	Cash Working Capital ($M) (e) = (a)*(d)/365
1	GRC	64.9	35.7	(1.1)	36.8	6.6
	OM&A - direct					
2	Labour	116.2	35.7	20.9	14.8	4.7
3	Consultants - Hydroelectric	20.6	35.7	66.0	(30.3)	(1.7)
4	Consultants - Corporate	7.1	35.7	40.4	(4.7)	(0.1)
5	Oustside Services - Corporate	7.1	35.7	6.2	29.5	0.6
6	All other cash expenses	5.2	35.7	10.1	25.6	0.4
	OM&A - Centrally held Costs					
7	Pensions/OPEB Related Costs	23.6	35.7	17.1	18.6	1.2
	Total OM&A					5.1
	Cash Working Capital - Hydroelectric					11.7

5.0 OTHER REVENUE

Other revenue consists of isotope and heavy water sales described in Ex. G2-1-1.[3]

The lead/lag days used to derive the cash working capital in EB-2010-0008 and EB-2007-0905 have been applied to the appropriate 2012 expenses. Chart 5 summarizes the results.

[3] Consistent with the OEB's Decision in EB-2010-0008 that 50% of heavy water sales and related direct costs is to be included as an offset to the nuclear revenue requirement, 50% of OPG's heavy water revenue and direct costs are included in the 2012 cash working capital calculations.

Chart 5
Cash Working Capital - Other Revenue
2012

Line No.	Expense Category	Expense Amount ($M) (a)	Revenue Lag Days (b)	Expense Lead Days (c)	Net Lead/Lag Days (d) = (b) - (c)	Cash Working Capital ($M) (e) = (a)*(d)/365
1	Labour	3.3	58.1	20.9	37.2	0.3
2	All other cash expenses	2.3	58.1	60.1	(2.0)	0.0
	Total Cash Working Capital					0.3

6.0 HARMONIZED SALES TAX

OPG pays HST to suppliers for the purchase of goods and services and remits HST that is collected on revenue to the government. The HST lag is the time between the HST payment date (to the supplier or to the government) and the date the government either refunds the HST to OPG or when OPG receives the input tax credit. OPG also collects HST from the IESO before making the remittance.

The 2012 HST cash working capital is calculated as shown in Chart 6:

Chart 6
Cash Working Capital - HST ($M)
2012

Line No.	Item	Regulated Hydroelectric Previously (a)	Regulated Hydroelectric Newly (b)	Nuclear (c)
1	Generation Revenue	(12.0)	(4.7)	(45.3)
2	Other Revenue			14.1
3	HST Payments - Regulated	4.6	1.3	14.3
4	Total	(7.4)	(3.4)	(16.9)

The regulatory income tax expense calculations for the prescribed facilities for the bridge year and test period are shown in Ex F4-2-1 Table 5. The forecast income tax expense for years 2013 - 2015 was computed using the approach described in section 3.

The forecast tax expense in the test period years of 2014 and 2015 is $220.6M and $152.3M based on taxable incomes of $924.1M and $650.6M, respectively, and SR&ED ITCs of $10.4M per year. The forecast tax recovery for 2013 is $24.6M based on a tax loss of $39.2M and SR&ED ITCs of $14.8M. The annual tax expense for the test period is forecast to be higher than in 2013 primarily due to higher revenue and earnings from operations, and the inclusion of the newly regulated hydroelectric facilities. The forecast nuclear operational loss in 2013 is also the primary reason for the tax recovery in 2013 as compared to a tax expense in 2012.

The forecast income tax expense in 2015 is lower than in 2014 mainly due to higher forecast pension plan contributions and OPEB and supplementary pension plan payments and a higher forecast CCA deduction in 2015.

5.0 COMMODITY TAX

Pursuant to the *Excise Tax Act* (Canada), effective July 1, 2010, OPG is subject to the 13 per cent Harmonized Sales Tax ("HST") on almost all of its purchases of goods and services.[4] The recoverable portion of HST paid by OPG is claimed as input tax credits on returns filed monthly. The recoverable portion of HST forecast to be paid is therefore not included in the revenue requirement. The non-recoverable portion, which results from the restrictions pursuant to the *Excise Tax Act* (Canada) (i.e., restricted input tax credits), forms part of the cost of the underlying item (e.g., OM&A, capital, inventory, etc.) and is included either in the test period forecasts for these items or other centrally held costs presented in Ex. F4-4-1. OPG's purchases of energy (electricity, gas, steam, fuel) for non-production purposes are

[4] Prior to July 1, 2010, OPG was subject to the 8 per cent retail sales (provincial sales tax or "PST") under the *Retail Sales Tax Act* (Ontario) and the 5 per cent goods and services tax ("GST") levied under Part IX of the *Excise Tax Act* (Canada). For expenditures subject to PST, the tax amount formed part of OPG's cost of the underlying item or was recorded as a centrally held cost. The GST paid was recoverable through input tax credits.

examples of items subject to restricted input tax credits. As in EB-2010-0008, the impact of HST is also incorporated into the computation of the cash working capital component of rate base presented in Ex. B1-1-2.

Where applicable, OPG pays duty under the *Customs Act (*Canada) on goods imported into Canada; however, currently most of these imports continue to be either exempt or have duty free status through the North American Free Trade Agreement. For supply and installation contracts, the contractor's price includes duty, if applicable, on the goods imported to perform the work. Any duty paid forms part of the cost of the underlying item.

6.0 PROPERTY TAX EXPENSE

The nature, basis and components of OPG's property tax expense are unchanged from the evidence presented in EB-2010-0008. OPG remains responsible for both the payment of municipal property taxes and a payment in lieu of property tax to the Province of Ontario. The total of these two payments is intended to represent what a commercial generating company would pay as property tax on OPG's assets based on full Current Value Assessment ("CVA") and represents OPG's property tax expense. OPG's property tax expense for the previously regulated hydroelectric facilities, the newly regulated hydroelectric facilities and the nuclear facilities is presented in Ex. F4-2-1 Tables 1, 2 and 3, respectively, for the historical, bridge and test periods. Municipal property taxes paid by OPG for properties that are not directly associated with specific generation business units and are held centrally form part of the asset service fees as discussed in Ex. F3-2-1. Property taxes associated with the Bruce assets are presented separately in Ex. G2-2-1.

6.1 Municipal Property Taxes

Municipal property taxes are regulated under the *Assessment Act, R.S.O. 1990* (the "Act"). Municipal property tax payments are made to about 100 municipalities each year by OPG. For prescribed nuclear and Bruce assets, property tax payments to municipalities continue to be paid based on a statutory assessment rate of $86.11 per square meter for "generating" buildings (e.g., buildings that are used in, or auxiliary to, the generating process, such as a classifications. Some classifications in OPG do not exist at Bruce Power (e.g., Thermal and Hydroelectric classifications).

The following table compares OPG's base wage increases for the PWU since 2001 to the increases in other companies that have collective agreements derived from Ontario Hydro. Cumulative compound 2001-2012 increases are shown for all organizations. Compound increases through 2013 and 2014 are provided where available. OPG negotiated increases have been at or below most of the successor companies in most years since 2001 resulting in cumulative increases that are below most of the successor companies. A comparison of recent (2010-2013) negotiated increases where data is available shows OPG has continued to achieve equal or lower increases. During this period OPG negotiated a simple cumulative increase of 11.5%, which is lower than or equal to Bruce Power (12%), Hydro One (11.5%) and Kinetrics (12%).

Table 3 – PWU Increases Compared Among Successor Companies

	PWU General Wage Increases (%)						
	OPG	Bruce Power	Hydro One	Kinectrics	New Horizons	Inergi	IESO
2001	3.00%	3.00%	3.00%	0.00%	3.00%	3.00%	2.00%
2002	2.00%	3.10%	3.00%	5.00%	3.00%	3.00%	2.00%
2003	3.00%	4.00%	3.00%	3.00%	3.50%	2.00%	3.00%
2004	2.50%	3.00%	3.00%	2.50%	3.25%	4.00%	3.00%
2005	2.50%	3.00%	3.50%	3.00%	3.00%	3.00%	2.50%
2006	3.00%	3.00%	3.50%	3.00%	3.00%	2.75%	3.00%
2007	3.00%	3.25%	3.00%	3.00%	3.00%	3.00%	3.00%
2008	3.00%	3.20%	3.00%	3.00%	3.00%	3.00%	3.00%
2009	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
2010	3.00%	3.00%	3.00%	3.00%	3.70%	3.00%	3.00%
2011	3.00%	2.75%	3.00%	3.00%	2.70%	3.00%	3.00%
2012	2.75%	2.75%	3.00%	3.00%	2.70%	2.60%	2.50%
Cumulative	**39.5%**	**44.0%**	**44.0%**	**40.4%**	**43.8%**	**41.7%**	**38.5%**
2013	2.75%	3.50%	2.50%	3.00%	2.60%	n/a	n/a
Cumulative	**43.3%**	**49.1%**	**47.6%**	**44.6%**	**47.5%**	**n/a**	**n/a**

2014	2.75%	n/a	2.50%	n/a	2.65%	n/a	n/a
Cumulative	**47.3%**	**n/a**	**51.3%**	**n/a**	**51.4%**	**n/a**	**n/a**

4.2.2 Society

The Society of Energy Professionals represents the majority of employees who perform the work of professional engineers, front line managers, and accountants. The current collective agreement with the Society covers the period from January 1, 2013 to December 31, 2015. Pursuant to the Government's direction, OPG attempted to negotiate zero compensation increase in the current collective agreement. When a negotiated agreement was not achieved, the matter was submitted to interest arbitration as the collective agreement requires. The terms of the agreement, including compensation were fixed by binding arbitration conducted within the criteria established by the collective agreement, and the generally established protocol for interest arbitrators (See Attachment 1, "An Assessment of the Industrial Relations Context and Outcomes at OPG" by Professor Richard Chaykowski, which is discussed in Section 4.4).

The collective agreement requires the arbitrator to consider:

a) A balanced assessment of internal relativities, general economic conditions, external relativities
b) OPG's need to retain, motivate and recruit qualified staff
c) The cost of changes and their impact on total compensation
d) The financial soundness of OPG and its ability to pay

Section 4.4 below and Attachment 1 provide additional discussion of the considerations that inform interest arbitration decisions.

The Interest Arbitrator awarded annual increases over 2013, 2014 and 2015 of 0.75, 1.75 and 1.75 per cent, respectively, based on his assessment of the criteria and evidence presented by each side. He also ordered a temporary freeze on pay progression through the established pay grid for employees during the 2nd and 3rd years of the collective agreement (2014 and 2015).

Table 4 below compares OPG's 2013 pay ranges for the various classifications (bands) of Society represented employees to those of Bruce Power. For each band, both the minimum and the maximum weekly salary offered by Bruce Power exceed the corresponding salary offered by OPG. For the highest salary bands (MP5 and MP6), Bruce Power's minimum weekly salary is more than five percent above OPG.

Table 4 - 2013 Wage Comparison between Society Bands for Bruce Power and OPG ($ per week)

Salary Band	OPG (2013)	Bruce Power (2013)
MP6 Max	2509.67	2528
Min	2162.66	2274
MP5 Max	2353.50	2372
Min	2006.49	2133
MP4 Max	2207.26	2224
Min	1286.42	1331
MP3 Max	2070.93	2086
Min	1286.42	1331
MP2 Max	1942.05	1957
Min	1286.42	1331

Table 5 below compares base wage increases for Society represented employees since 2001 to the increases in companies that have collective agreements derived from Ontario Hydro. Cumulative compound 2001-2013 increases are shown for all organizations. Compound increases through 2014 and 2015 are provided where available. As with PWU, OPG's increases have been at or below most of the successor companies in most years since 2001 resulting in compound increases that are below most of the successor companies. A comparison of recent (2010-2013) cumulative increases shows OPG has continued to achieve lower increases. During this period OPG achieved a simple cumulative increase of 9.75%, which is lower than Bruce Power (12%), and all other successor organizations.

Table 5 – Society Wage Increases Compared Among Successor Companies

	Society General Wage Increases (%)						
	OPG	Bruce Power	Hydro One	Kinetrics	New Horizons	Inergi	IESO
2001	3.00%	3.00%	3.00%	1.00%	3.00%	3.00%	4.50%
2002	2.50%	2.50%	2.00%	1.00%	2.50%	2.00%	4.00%
2003	2.00%	2.00%	3.00%	2.00%	2.00%	3.00%	3.00%
2004	3.00%	4.00%	3.00%	2.00%	3.00%	3.00%	3.00%
2005	3.00%	3.25%	4.00%	3.00%	3.00%	2.00%	3.00%
2006	3.00%	3.25%	3.00%	3.00%	3.00%	3.00%	3.00%
2007	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
2008	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
2009	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
2010	3.00%	3.00%	3.00%	3.00%	2.50%	3.00%	2.60%
2011	3.00%	2.75%	2.50%	3.00%	2.75%	3.00%	2.70%
2012	3.00%	2.75%	2.50%	3.00%	2.75%	2.75%	2.85%
2013	0.75%	3.50%	2%	3.00%	3.00%	1.50%	2.00%
Cumulative	**41.6%**	**46.8%**	**44.0%**	**38.5%**	**43.3%**	**41.6%**	**47.8%**
2014	1.75%	2.75%	2.25%	n/a	n/a	1.50%	2.00%
Cumulative	**44.0%**	**50.9%**	**47.2%**	**n/a**	**n/a**	**43.7%**	**50.7%**
2015	1.75%	n/a	2.25%	n/a	n/a	1.50%	n/a
Cumulative	**46.6%**	**n/a**	**50.6%**	**n/a**	**n/a**	**45.9%**	**n/a**

4.3 **Other Relevant Terms of the Collective Agreements**.

As in most unionized environments, OPG's collective agreements with both the PWU and Society restrict the company's ability to reduce compensation costs through contracting out work or reorganizing the workforce. The paragraphs below explain how these limitations are structured in both the PWU and Society agreements.

4.3.1 Contracting Out

With respect to contracting out, both the PWU and Society collective agreements contain clauses that restrict the degree to which OPG can contract out the work of employees who are members of the union. Given the degree of unionization, these clauses capture operations. The 2013 LTD cost projections are less definitive because these costs are calculated using information as of year-end 2013.

For the purpose of projecting pension and OPEB costs, OPG may adjust discount rate assumptions from those provided by its independent actuary by a maximum of 25 basis points. This type of adjustment can occur when bond yields are not indicative of historical trends or are volatile. OPG made no adjustment to the December 31, 2012 discount rates provided by the independent actuary in projecting 2014 and 2015 costs. OPG does not adjust discount rates in determining actual costs.

The long-term inflation assumption used for projecting pension and OPEB costs continues to be based on the Ontario consumer price index. OPG uses the final year in the most recent forecast from an economic report, subject to an adjustment if the rate is outside of the Bank of Canada's target range for inflation. The salary schedule escalation rate assumption used to project the 2013-2015 pension and OPEB costs is equal to the long term inflation assumption plus 0.5 per cent. As in the past, OPG's independent actuary has reviewed and agreed with these assumptions.

The expected long-term rate of return on the pension fund continues to be calculated by an independent actuary. The rate is based on the current and expected asset mix and the expected return, considering long-term historical risks and returns associated with each asset class within the fund portfolio and the impact of active fund management.

Chart 1 below presents the assumptions used to determine OPG's 2010-2012 actual and 2013-2015 projected pension and OPEB costs. The assumptions for 2011-2013 (as well as those used for 2011 and 2012 OEB-approved costs) were previously presented in EB-2012-0002, Ex. H1-1-2, Chart 6.[9]

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[9] As LTD costs are established in accordance with USGAAP using discount rates determined at the end of the year and in accordance with Canadian GAAP using discount rates determined at the beginning of the year, assumptions for the LTD discount rates differ from those presented in EB-2012-0002.

Chart 1

Pension and OPEB Cost Assumptions						
	2010 Actual	**2011 Actual**	**2012 Actual**	**2013 Projection**[10]	**2014 Plan**[10]	**2015 Plan**[10]
Discount rate for pension	6.80% per annum	5.80% per annum	5.10% per annum	4.30% per annum	4.30% per annum	4.30% per annum
Discount rate for other post retirement benefits	6.90% per annum	5.80% per annum	5.20% per annum	4.40% per annum	4.40% per annum	4.40% per annum
Discount rate for long-term disability[11]	5.40% per annum	4.00% per annum	3.50% per annum	3.50% per annum	3.50% per annum	3.50% per annum
Expected long-term rate of return on pension fund assets	7.0% per annum	6.5% per annum	6.5% per annum	6.25% per annum	6.25% per annum	6.25% per annum
Inflation rate	2.0% per annum	2.0% per annum	2.0% per annum	2.0% per annum	2.0% per annum	2.0% per annum
Salary schedule escalation rate	3.0% per annum	3.0% per annum	3.0% per annum	2.5% per annum	2.5% per annum	2.5% per annum
Rate of return used to project year-end pension fund asset values	N/A	N/A	N/A	N/A	6.25% per annum in 2013	6.25% per annum in 2013 and 2014

Projections of rates of return to determine year-end pension fund asset values are not required for the calculation of the 2010-2013 costs because the actual prior year-end asset values are known. The actual returns on pension fund assets were 12.2 per cent in 2010, 6.9

[10] The assumptions for 2013-2015 can also be found at pages 4-5 of Aon Hewitt's report in Attachment 2.

[11] As the costs for 2010 are presented under Canadian GAAP, the discount rate assumption used to determine LTD costs for 2010 represents the rate as at December 31, 2009. In accordance with USGAAP, the discount rates for 2011-2015 are actual (2011-2012) or projected (2013-2015) rates at December 31 of those years.

A portion of OPG's total pension and OPEB costs continues to be charged directly to the business units as part of standard labour rates. The portion of pension and OPEB costs included in standard labour rates is based on an estimate of the current service cost for pension and OPEB. The remainder of pension and OPEB costs, which includes interest costs on the obligations, the expected return on pension plan assets, amounts for past service costs and actuarial gains and losses, and any current service cost variance from the estimate reflected in the standard labour rates, continues to be recorded as a centrally-held cost (presented in Ex. F4-4-1, Section 3.0).

The centrally-held costs for pension and OPEB are directly assigned and allocated to the regulated business units in proportion to the amount of pension and OPEB costs directly charged to the regulated business units plus the costs assigned and allocated from the support services groups. The same methodology was used in EB-2010-0008 and EB-2012-0002. It has been reviewed by HSG Group, Inc. in the cost allocation study presented in Ex. F5-5-1, as well as by Black & Veatch Corporation Inc. in the cost allocation study filed in EB-2010-0008.

The costs associated with plans that provide benefits to OPG's employees during their employment continue to be charged to regulated business units largely via standard labour rates with a small portion included in centrally-held costs.

6.3.5 Comparison of Pension and OPEB Costs

Charts 2, 3 and 4 below present pension and OPEB costs attributed to nuclear, previously regulated hydroelectric and newly regulated hydroelectric operations, respectively, for the 2010-2015 period.[23] The 2011 and 2012 amounts for the nuclear and previously hydroelectric operations were reflected in the December 31, 2012 balances of the Pension and OPEB Cost Variance Account (on a Canadian GAAP basis) and the Impact for USGAAP Deferral Account approved in EB-2012-0002. Actuarial and audit reports in support of the 2011 and

[23] The figures in these Charts differ from those used in Table 1 and Attachment 6 because the amounts here include total pension and OPEB costs (i.e., all components) while Table 1 and Attachment 6 include only the current service cost component of pension and OPEB costs.

2012 costs were filed in EB-2012-0002.[24] As noted above, OPG is providing in Attachment 2 an independent actuarial report in support of the 2013-2015 costs.

Chart 2

Pension and OPEB Costs – Nuclear[25] ($M)						
	2010 Actual	2011 Actual	2012 Actual	2013 Projection	2014 Plan	2015 Plan
Pension – Standard Labour Rate Component	113.8	165.8	163.5	229.7	222.4	220.6
Pension – Centrally Held Component	(21.2)	29.7	110.9	131.5	120.2	110.7
Total Pension Cost	**92.6**	**195.5**	**274.4**	**361.2**	**342.6**	**331.3**
OPEB – Standard Labour Rate Component	45.9	62.9	65.6	79.8	76.9	76.0
OPEB – Centrally Held Component	103.7	139.6	153.1	165.1	172.4	177.7
Total OPEB Cost	**149.6**	**202.5**	**218.7**	**244.9**	**249.3**	**253.7**

Chart 3

Pension and OPEB Costs - Previously Regulated Hydroelectric[25] ($M)						
	2010 Actual	2011 Actual	2012 Actual	2013 Projection	2014 Plan	2015 Plan
Pension – Standard Labour Rate Component	5.3	7.9	8.2	12.4	12.2	12.0
Pension – Centrally Held Component	(1.0)	1.5	5.6	7.1	6.6	6.0
Total Pension Cost	**4.3**	**9.4**	**13.8**	**19.5**	**18.8**	**18.0**

[24] Refer to EB-2012-0002 Ex. H2-1-3, Attachment 2 for an independent actuary's report on the 2011 costs and EB-2012-0002 Ex. H1-1-2, Attachment 3 for the equivalent report on the 2012 costs. The 2011 report should be read in conjunction with EB-2012-0002 Ex. A3-1-2, Attachment 3, which is an independent actuarial report on OPG's transition to USGAAP and provides 2011 LTD costs under USGAAP.

[25] Includes allocations of costs related to support services functions. Supplementary pension plan costs are included in OPEB costs. Amounts for 2010 are presented on the basis of Canadian GAAP. Nuclear pension and OPEB costs include approximately $2M each in 2010 and 2011 and approximately $4M in 2012 related to the costs of the Nuclear Waste Management Organization ("NWMO"), which is consolidated into OPG's financial statements. OPG does not forecast these costs as they are determined by the NWMO.

OPEB – Standard Labour Rate Component	2.1	3.0	3.2	4.3	4.2	4.1
OPEB – Centrally Held Component	4.9	6.7	7.7	8.9	9.4	9.7
Total OPEB Cost	**7.0**	**9.7**	**10.9**	**13.2**	**13.6**	**13.8**

Chart 4

Pension and OPEB Costs – Newly Regulated Hydroelectric[25] ($M)

	2010 Actual	2011 Actual	2012 Actual	2013 Projection	2014 Plan	2015 Plan
Pension – Standard Labour Rate Component	8.8	14.2	14.5	21.4	21.7	21.0
Pension – Centrally Held Component	(1.7)	2.5	9.9	12.3	11.7	10.6
Total Pension Cost	**7.1**	**16.7**	**24.4**	**33.7**	**33.4**	**31.6**
OPEB – Standard Labour Rate Component	3.5	5.3	5.7	7.4	7.5	7.3
OPEB – Centrally Held Component	8.1	12.0	13.7	15.4	16.8	17.0
Total OPEB Cost	**11.6**	**17.3**	**19.4**	**22.8**	**24.3**	**24.3**

Pension and OPEB costs increase significantly over the 2010 to 2013 period. The increase is not due to changes in benefit levels or plan provisions. Instead, the primary driver of the increase over the period is a declining trend in discount rates, as shown in Chart 1. In addition, a decline in the expected rate of return on the pension fund assets as shown in Chart 1 and the expected net growth in the cost components during the period also contribute to the increase in the costs. The expected net growth (change) in the cost components includes impacts of changes in current service costs in the normal course, higher interest costs on a higher benefit obligation due to the passage of time, and expected changes in the pension asset values. The increases in 2011 and 2012 were partly offset by the impact of gains on pension fund assets in 2010 and 2011. The increase in 2013 was offset in part by the impact of changes in staffing levels. In the projection for 2014 and 2015, pension costs decrease reflecting negative expected net growth, primarily due to projected increases in pension asset values. The projection of OPEB costs increases slightly over the same period, reflecting expected net growth.

Pension and OPEB costs charged to regulated business units directly via payroll burden increased in 2011-2012, as compared to 2010, chiefly due to lower discount rates. The costs charged via payroll burden increase further in 2013 mainly due to lower discount rates, partly offset by the impact of lower staff levels. The projection for payroll burden pension and OPEB amounts is relatively stable in 2014 and 2015, as compared to 2013.

The declining trend in discount rates over 2010-2013 reflects the impact of financial market conditions on long-term bond rates. Decreases in expected rates of return over the same period reflect lower anticipated returns due to global financial market conditions.

Chart 5 below presents the OEB-approved (2011 and 2012) and budgeted (2010) pension and OPEB costs, which were determined in accordance with Canadian GAAP.

Chart 5

Pension and OPEB Costs[26] ($M)						
	Nuclear			Previously Regulated Hydroelectric		
	2010 Budget	2011 Plan	2012 Plan	2010 Budget	2011 Plan	2012 Plan
Pension – Burden Component	112.9	117.7	121.6	5.7	6.0	6.0
Pension – Centrally Held Component	(18.8)	(3.7)	41.2	(1.0)	(0.2)	2.1
Total Pension Cost	**94.1**	**114.0**	**162.8**	**4.7**	**5.8**	**8.1**
OPEB – Burden Component	45.2	47.5	49.6	2.2	2.4	2.4
OPEB – Centrally Held Component	106.8	111.8	117.1	5.4	5.6	5.9

[26] Includes allocations of costs related to support services functions. Supplementary pension plan costs are included in OPEB costs.

FTE, Compensation and Benefit Information for OPG's Regulated Facilities ("Appendix 2k")

Numbers may not add due to rounding

Line No.		2010 Actual	2011 Actual	2012 Actual	2013 Budget	2014 Plan	2015 Plan
		(a)	(b)	(c)	(d)	(e)	(f)
1	**Total Staff**	FTEs	FTEs	FTEs	FTEs	FTEs	FTEs
2	**Nuclear**						
3	Management	673.8	662.3	561.1	583.5	570.8	569.1
4	Society	2,631.6	2,604.7	2,112.9	2,142.2	2,051.1	1,994.1
5	PWU	5,042.8	4,868.3	4,018.5	4,040.4	3,919.7	3,915.3
6	EPSCA, Chestnut Park and Appendix A	97.2	79.8	69.3	41.1	38.1	41.4
7	Subtotal	8,445.4	8,215.1	6,761.8	6,807.2	6,579.7	6,519.9
8							
9	**Previously Regulated Hydroelectric (Includes Allocated Hydroelectric Central Groups)**						
10	Management	29.4	34.3	26.5	27.6	27.1	26.6
11	Society	82.4	92.9	80.3	80.6	79.3	77.9
12	PWU	247.9	242.2	237.1	238.7	236.7	236.4
13	Subtotal	359.7	369.4	343.8	346.8	343.1	340.9
14							
15	**Newly Regulated Hydroelectric (Includes Allocated Hydroelectric Central Groups)**						
16	Management	47.2	49.2	42.4	43.6	44.7	44.9
17	Society	154.8	165.5	154.8	152.5	155.5	154.2
18	PWU	382.2	402.7	403.7	400.7	399.4	383.0
19	Subtotal	584.3	617.4	600.9	596.8	599.5	582.2
20							
21	**Allocated Corporate Support to Nuclear**						
22	Management	280.3	288.4	391.0	394.9	379.7	361.0
23	Society	302.4	304.0	642.1	657.6	634.3	622.7
24	PWU	292.3	283.7	987.1	836.7	764.6	718.4
25	EPSCA, Chestnut Park and Appendix A	0.0	0.0	17.0	14.0	12.0	12.0
26	Subtotal	875.0	876.1	2,037.2	1,903.2	1,790.6	1,714.1
27							
28							
29	**Allocated Corporate Support to Previously Regulated Hydroelectric**						
30	Management	29.0	25.7	31.0	32.6	31.8	29.6
31	Society	40.8	37.5	52.6	51.3	52.2	49.1
32	PWU	18.9	17.6	25.3	20.8	20.6	19.1
33	Subtotal	88.7	80.8	108.9	104.7	104.6	97.8
34							
35	**Allocated Corporate Support to Newly Regulated Hydroelectric**						
36	Management	42.0	39.4	43.6	42.3	47.0	45.1
37	Society	57.0	50.0	69.9	62.8	70.9	67.6
38	PWU	28.7	26.2	39.3	27.4	30.7	28.1
39	Subtotal	127.7	115.6	152.8	132.5	148.6	140.8
40	Total OPG Regulated	10,480.8	10,274.4	10,005.5	9,891.2	9,566.1	9,395.6

FTE, Compensation and Benefit Information for OPG's Regulated Facilities ("Appendix 2k")

Numbers may not add due to rounding

Line No.		2010 Actual	2011 Actual	2012 Actual	2013 Budget	2014 Plan	2015 Plan
		(a)	(b)	(c)	(d)	(e)	(f)
41	**Total Salary & Wages (including Overtime, Incentive Pay and Fiscal Year Adjustment)**	$M	$M	$M	$M	$M	$M
42	**Nuclear**						
43	Management	111.8	109.6	98.6	93.4	92.2	91.8
44	Society	348.7	339.0	278.4	280.4	267.7	263.7
45	PWU	581.8	561.9	487.0	516.0	504.3	526.5
46	EPSCA, Chestnut Park and Appendix A	13.8	10.7	9.9	5.8	4.9	5.4
47	Subtotal	1,056.1	1,021.3	873.9	895.5	869.2	887.5
48							
49	**Previously Regulated Hydroelectric (Includes Allocated Hydrolectric Central Groups)**						
50	Management	4.6	5.0	4.3	4.6	4.5	4.5
51	Society	9.0	10.7	9.1	9.6	9.5	9.5
52	PWU	26.5	25.8	24.1	26.3	27.0	27.4
53	Subtotal	40.1	41.5	37.6	40.5	41.1	41.4
54							
55	**Newly Regulated Hydroelectric (Includes Allocated Hydrolectric Central Groups)**						
56	Management	7.4	7.4	7.0	7.3	7.5	7.5
57	Society	18.2	19.0	18.0	19.2	19.7	19.7
58	PWU	36.7	39.3	40.8	45.4	46.8	45.6
59	Subtotal	62.2	65.7	65.6	71.9	74.0	72.8
60							
61	**Allocated Corporate Support to Nuclear**						
62	Management	44.8	44.8	45.4	53.9	53.1	50.3
63	Society	32.0	31.2	75.6	77.2	74.9	74.8
64	PWU	20.3	19.7	76.9	74.6	70.8	66.8
65	EPSCA, Chestnut Park and Appendix A	0.0	0.0	1.4	1.4	1.3	1.3
66	Subtotal	97.1	95.7	199.3	207.0	200.1	193.2
67							
68	**Allocated Corporate Support to Previously Regulated Hydroelectric**						
69	Management	4.8	4.7	3.9	4.8	4.8	4.4
70	Society	4.4	4.2	5.9	5.8	6.0	5.7
71	PWU	1.3	1.3	1.7	1.7	1.8	1.7
72	Subtotal	10.4	10.1	11.5	12.4	12.5	11.8
73							
74	**Allocated Corporate Support to Newly Regulated Hydroelectric**						
75	Management	6.8	6.3	5.5	6.3	7.0	6.7
76	Society	6.2	5.0	7.9	7.3	8.2	8.0
77	PWU	2.0	1.8	2.7	2.3	2.8	2.5
78	Subtotal	15.0	13.2	16.0	15.9	17.9	17.2
79	Total OPG Regulated	1,281.0	1,247.5	1,204.1	1,243.2	1,214.8	1,223.8

FTE, Compensation and Benefit Information for OPG's Regulated Facilities ("Appendix 2k")

Numbers may not add due to rounding

Line No.		2010 Actual	2011 Actual	2012 Actual	2013 Budget	2014 Plan	2015 Plan
		(a)	(b)	(c)	(d)	(e)	(f)
80	**Total Benefits (Current Benefits and Pension & OPEB)**	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**
81	**Nuclear**						
82	Management	27.1	32.1	31.8	35.1	35.4	36.1
83	Society	85.6	106.2	105.7	114.9	114.0	114.3
84	PWU	128.3	157.7	161.5	169.8	176.9	181.0
85	EPSCA, Chestnut Park and Appendix A	0.6	0.6	0.5	0.3	0.3	0.3
86	Subtotal	241.6	296.5	299.4	320.1	326.6	331.7
87							
88	**Previously Regulated Hydroelectric (Includes Allocated Hydroelectric Central Groups)**						
89	Management	1.2	1.6	1.3	1.7	1.7	1.8
90	Society	2.5	3.6	3.5	4.2	4.3	4.0
91	PWU	6.7	7.7	9.5	10.7	11.3	11.7
92	Subtotal	10.4	12.9	14.2	16.7	17.3	17.6
93							
94	**Newly Regulated Hydroelectric (Includes Allocated Hydroelectric Central Groups)**						
95	Management	1.7	2.1	2.2	3.1	3.2	3.4
96	Society	4.1	5.5	6.4	8.7	9.3	8.8
97	PWU	11.1	14.5	17.0	18.3	19.3	19.2
98	Subtotal	17.0	22.1	25.7	30.2	31.8	31.4
99							
100	**Allocated Corporate Support to Nuclear**						
101	Management	10.2	13.7	17.8	24.6	24.7	23.4
102	Society	9.8	13.0	28.1	37.4	37.2	37.2
103	PWU	5.2	6.7	23.0	28.7	28.0	26.7
104	EPSCA, Chestnut Park and Appendix A	0.0	0.0	0.1	0.1	0.1	0.1
105	Subtotal	25.3	33.4	68.9	90.7	90.0	87.3
106							
107	**Allocated Corporate Support to Previously Regulated Hydroelectric**						
108	Management	0.9	1.3	1.2	1.5	1.5	1.4
109	Society	0.9	1.2	1.9	2.3	2.3	2.2
110	PWU	0.4	0.6	1.3	1.5	1.5	1.4
111	Subtotal	2.2	3.1	4.4	5.3	5.4	5.0
112							
113	**Allocated Corporate Support to Newly Regulated Hydroelectric**						
114	Management	1.5	2.3	1.9	2.2	2.4	2.3
115	Society	1.5	2.2	2.9	3.2	3.6	3.5
116	PWU	0.7	1.0	2.1	2.2	2.4	2.3
117	Subtotal	3.6	5.6	6.9	7.7	8.5	8.1
118	Total OPG Regulated	300.0	373.6	419.5	470.6	479.6	481.0

FTE, Compensation and Benefit Information for OPG's Regulated Facilities ("Appendix 2k")

Numbers may not add due to rounding

Line No.		2010 Actual	2011 Actual	2012 Actual	2013 Budget	2014 Plan	2015 Plan
		(a)	(b)	(c)	(d)	(e)	(f)
119	**Total of Base Salary & Wages, Overtime, Incentive Pay, Fiscal Year Adjustment and Total Benefits**	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**
120	**Nuclear**						
121	Management	138.9	141.7	130.3	128.5	127.7	127.9
122	Society	434.3	445.2	384.1	395.3	381.7	378.0
123	PWU	710.1	719.6	648.5	685.8	681.2	707.6
124	EPSCA, Chestnut Park and Appendix A	14.4	11.3	10.4	6.1	5.2	5.7
125	Subtotal	1,297.7	1,317.8	1,173.3	1,215.6	1,195.8	1,219.1
126							
127	**Previously Regulated Hydroelectric (Includes Allocated Hydroelectric Central Groups)**						
128	Management	5.7	6.6	5.6	6.3	6.3	6.3
129	Society	11.5	14.4	12.6	13.8	13.9	13.5
130	PWU	33.2	33.5	33.6	37.0	38.3	39.2
131	Subtotal	50.4	54.5	51.8	57.1	58.4	59.0
132							
133	**Newly Regulated Hydroelectric (Includes Allocated Hydroelectric Central Groups)**						
134	Management	9.1	9.5	9.2	10.4	10.7	10.8
135	Society	22.3	24.5	24.4	27.9	29.0	28.5
136	PWU	47.8	53.8	57.9	63.8	66.1	64.7
137	Subtotal	79.2	87.9	91.5	102.1	105.8	104.1
138							
139	**Allocated Corporate Support to Nuclear**						
140	Management	55.1	58.5	63.2	78.5	77.8	73.7
141	Society	41.9	44.2	103.6	114.5	112.1	112.0
142	PWU	25.5	26.4	99.8	103.2	98.8	93.5
143	EPSCA, Chestnut Park and Appendix A	0.0	0.0	1.5	1.5	1.3	1.3
144	Subtotal	122.4	129.1	268.2	297.8	290.1	280.5
145							
146	**Allocated Corporate Support to Previously Regulated Hydroelectric**						
147	Management	5.7	5.9	5.1	6.3	6.3	5.8
148	Society	5.3	5.4	7.7	8.1	8.3	7.9
149	PWU	1.7	1.8	3.0	3.3	3.3	3.1
150	Subtotal	12.7	13.1	15.9	17.7	17.9	16.8
151							
152	**Allocated Corporate Support to Newly Regulated Hydroelectric**						
153	Management	8.3	8.6	7.4	8.5	9.4	9.0
154	Society	7.7	7.2	10.8	10.5	11.8	11.5
155	PWU	2.6	2.8	4.8	4.5	5.2	4.8
156	Subtotal	18.6	18.7	23.0	23.6	26.4	25.3
157	Total OPG Regulated	1,581.0	1,621.0	1,623.7	1,713.8	1,694.4	1,704.9

OPG is forecasting a deferred income tax credit of approximately $19.1M in 2013, $48.6M in 2014 and $50.3M in 2015. The forecast deferred income tax credit in 2013 as compared to the 2012 deferred tax expense is due mainly to lower deductible net temporary differences in 2013. Deferred income taxes are forecast to decrease in 2014 and 2015, as compared to 2013, primarily as a result of lower segregated fund contributions in 2014 and 2015.

5.10.10 Income Taxes – Derivative Portion

The derivative portion of deferred income taxes fluctuates over the 2010 - 2015 period primarily as a result of changes in the fair value of the Bruce Derivative and the incidence of the rebate being payable to Bruce Power for the year. The rebate becoming payable also gives rise to the derivative portion of the current income tax expense.

6.0 PROJECTED IMPACT OF THE CURRENT APPROVED ONFA REFERENCE PLAN

Section 6(8) of O. Reg. 53/05 provides that the OEB "ensure that OPG recovers the revenue requirement impact of its nuclear decommissioning liability arising from the current approved reference plan."[6]

In EB-2007-0905, the OEB determined that the cost impact of any changes in the nuclear decommissioning and waste management liabilities related to the Bruce stations should be recorded in the Bruce Lease Net Revenues Variance Account rather than in the Nuclear Liability Deferral Account.

The current approved ONFA Reference Plan was effective as of January 1, 2012. Associated impacts on Bruce Lease net revenues for 2012 were in the areas of depreciation, accretion expense, variable expenses and income taxes, as discussed in EB-2012-0002 Ex. H2-1-1 and reflected in the approved December 31, 2012 balance of the Bruce Lease Net Revenue Variance Account. The projected impacts for 2013 - 2015 are similarly determined and reflect the actual 2011 and 2012 increases to the Bruce ARO and ARC and related changes in the used fuel and L&ILW variable cost rates associated with the accounting implementation of

[6] The "nuclear decommissioning liability" is defined in O. Reg. 53/05 (section 0.1) as "the liability of Ontario Power Generation Inc. for decommissioning its nuclear generation facilities and the management of its nuclear waste and nuclear fuel."

the current approved ONFA Reference Plan. As detailed below, the projected impacts on Bruce Lease net revenues are estimated at $110M for 2013, $112M for 2014 and $117M for 2015. The 2013 impact is being recorded in the Bruce Lease Net Revenues Variance Account. The accounting for the current approved ONFA Reference Plan is also discussed in Ex. C2-1-1 and the associated estimated impacts for 2014 - 2015 are also detailed in Ex. C2-1-1 Table 5.

Chart 1: Forecast Impacts of Current Approved ONFA Reference Plan ($M)

Cost Item	**2013**	**2014**	**2015**
Increased Depreciation Expense	74	74	74
Increased Accretion Expense	44	45	47
Lower / (Higher) Segregated Fund Earnings	1	2	5
Increased Used Fuel and Waste Management Variable Expenses	28	29	30
(Lower) / Higher Income Tax Expense[7]	(37)	(38)	(39)
Total	**110**	**112**	**117**

[7] The income tax impact relates to changes in temporary differences due to higher depreciation, accretion and variable expenses and lower segregated fund earnings, which are not deductible/taxable for income tax purposes. The impact is computed by applying the tax rate of 25 per cent to the increase in these expenses.

Table 14
Nuclear Deferral and Variance Over/Under Recovery Variance Account
Summary of Account Transactions - Projected 2013

Line No.	Particulars	Note	Projected 2013
			(a)
1	**Nuclear Rider 2013-A ($/MWh)**	1	6.27
2	**Nuclear Rider 2013-B ($/MWh)**	2	0.41
3	**Interim Nuclear Rider ($/MWh)**	3	4.33
4	**Interim Period Production Forecast (TWh)**	4	9.0
5	**Nuclear Projected Production for Jan-Feb 2013 (TWh)**		8.0
6	**Production Variance (TWh)** (line 4 - line 5)		1.0
7	**Under Recovery Due to Difference in Interim Period Production ($M)** (line 3 x line 6)		4.4
8	**Full Year Nuclear Forecast Production Used to Set Rider 2013-A (TWh)**	5	51.0
9	**Nuclear Production Forecast Used to Set Rider 2013-A for Mar-Dec 2013 (TWh)** (line 8 - line 4)		42.0
10	**Projected Nuclear Mar-Dec 2013 Production (TWh)**		39.8
11	**Projected Mar-Dec 2013 Production Variance (TWh)** (line 9 - line 10)		2.2
12	**Under Recovery Due to Difference in Mar-Dec 2013 Production ($M)** (line 11 x (line 1 + line 2)		14.8
13	**Addition to Variance Account ($M)** (line 7 + line 12)		19.2

Notes:
1 From EB-2012-0002 Payment Amounts Order, App. A, Table 2, col. (g), line 13.
2 From EB-2012-0002 Payment Amounts Order, App. A, Table 3, col. (b), line 7.
3 From EB-2012-0002 Payment Amounts Order, App. A, Table 3, col. (b), line 2.
4 From EB-2012-0002 Payment Amounts Order, App. A, Table 3, col. (b), line 5.
5 From EB-2012-0002 Payment Amounts Order, App. A, Table 2, col. (g), line 12.

UNDERTAKING JT1.5

Undertaking

To provide CV of Richard Ilsley.

Response

Please see Attachment 1.

R I GEOTECHNICAL, INC.

ROGER C. ILSLEY
TUNNEL & GEOTEOCHNICAL CONSULTANT

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Education

M.Sc., Engineering Rock Mechanics, Imperial College, University of London, England
B.Sc., Engineering Geology, Newcastle University, England
Assoc. Deg., Civil Engineering, Mid-Essex College, England

Registration

Professional Geologist—Wisconsin, Indiana, Illinois

Experience and Background

Mr. Ilsley's educational background and his broad construction and consulting experience have allowed a synthesis of the related fields of rock and soil mechanics, engineering geology, hydrogeology, and construction methodologies in both soil and rock. He has more than 40 years experience in the field of design and construction of underground construction projects; 12 years working for construction companies and the remaining years in the consulting engineering field. He can provide leadership and technical input to projects that require multi-disciplinary expertise and the ability to combine the qualitative and quantitative aspects of geotechnical engineering with the practical aspects of design and construction.

Representative Underground Excavation Project Experience

- Member of Peer Review Board for the Washington DC Water and Sewer Authority for the Anacostia CSO Control Plan Design. The project entails the design of 13 miles of CSO conveyance and storage tunnels up to 26 feet in excavated diameter in soil and 17 shafts ranging up to 132 feet in diameter. Over 150 borings, including about 50% sonic, have been completed. He has provided peer constructability and geotechnical review of the preliminary engineering plans including exploration plans, field and laboratory testing and data interpretations and the GBR. The majority of the initial 35,000 foot long Blue Plains Tunnel Contract is being constructed beneath the Potomac and Anacostia Rivers and a Design Build project delivery has been used. The tunnels will be excavated using EPB TBM's and supported with a one pass, bolted and gasketed, SFR concrete segment lining system, with water pressure heads up to about 4 bars. He participated in preparation of the completed 30, 60 and 100% project documents; in the preparation of the SOQ and the Design Build RFP issued July 1, 2010; in workshops on Design Build project delivery; in identification of Risk Register construction activities and their potential cost and schedule impacts. Conducted peer review of plans and specifications. Served on the committee for the selection of the DB team for the Blue Plains Tunnel and Anacostia River Tunnel segments; the former is under construction. Currently participating in the design review of the third phase of the work, the Northern Boundary Tunnel and review of the conceptual phase of the Potomac rock tunnels.

- Member of Design Review Board for Northeast Ohio Regional Sewer District's Dugway Storage Tunnel which consists of a 26 ft mined diameter, 6.25 miles long rock tunnel with six drop shafts and near surface ancillary work. Tunnel support and lining will be provided by FRC segments. The 30 and 60% level design review have been completed. Consultant to the Bouyges and Jacobs Engineering Design Build team for the Port of Miami Tunnels contract consisting of twin, 42 foot diameter finished highway tunnels, about 8,000 feet total length beneath the main shipping channel, with gasketed bolted SFR concrete segments for support. The tunnel was excavated using an EPB TBM through ground consisting of very weak to moderately strong limestone with sand layers. He participated in the evaluation of the supplementary geotechnical investigations including sonic and SPT borings and CPT explorations; also a comprehensive laboratory testing program to further characterize the ground conditions, lithology and stratigraphy for design and construction purposes.

Provided peer review of the resulting geotechnical reports for the approach works and the channel tunnel crossing.

- Consultant to the Federal Transit Authority for design readiness review for the Los Angeles Metro West Extension. Reviewed conceptual and later preliminary design drawings, specifications, tunnel alignment, station locations and geotechnical reports for the Purple Line, regarding constructability and design level, in order to release federal funds to the project.

- Consultant to the design team (Parsons Brinckherhoff, et. al.) for the Los Angeles Metro System. Duties included resolution of constructability issues arising during construction of the twin, 21-foot diameter Lankershim Blvd. Tunnels (Contract 331) which were constructed in alluvial soils and the Puente Formation using digger shields and the twin Hollywood Hills Tunnels (Contract 311) in rock, using Tunnel Boring Machines (TBMs). Also participated in the design of the Eastside Extension tunnels that examined the use of Earth Pressure Balance TBM's and evaluations of the potential settlement to buildings and its mitigation. Contract 331 required extensive soil modification using silica based chemical grouts to control ground settlement. Compaction grouting was used as the shield passed beneath existing buildings to minimize settlement. Contract 311 required a 400-foot long fault zone to be grouted with micro-fine cement to reduce permeability and strengthen the rock.

- Member of Board of Consultants for the Metropolitan Water District of Southern California's Inland Feeder Project consisting of 90,000 feet of 17-foot diameter tunnel in rock and soil; participated in a comprehensive review of the re-design of the Arrowhead and Badlands Tunnels. A pre-excavation grouting program using ultrafine and regular OPC cement grouts was implemented. A very strict inflow criterion was met as part of a U.S. Forest Service's permit. Gasketed, bolted segments were designed for 900-foot heads.

- Member of Design Review Board for Hatch Mott/ CDM on the Staten Island Subsea Siphon Crossing consisting of about 10,000 feet of 13 foot excavated diameter tunnel. The tunnel is being excavated using an EPB TBM through a varied geology including fresh and extremely weathered rock; glacial soils including sands and gravels with occasional cobble and boulder zones and recent marine sediments including fine and coarse grained soils. Conducted constructability review at 90% design level of GDR, Geotechnical Design Report, GBR, specifications and drawings.

- Consultant to Fugro West Inc. who is providing geotechnical engineering services for the LA County Sewerage Districts Tunnel and Ocean Outfall. The tunnel length is about 7 miles long and up to 20 feet in diameter. He has participated in setting up the GIS data base for existing and new data, exploration plans for onshore exploration and an extensive field and laboratory testing program to provide index and engineering properties for tunnel corridor evaluation and preliminary design. Also assisted with initial project stratigraphy assessments and fault relations. The Outfall Tunnel will be constructed in Quaternary soil deposits and very weak to weak rock of Miocene/Pliocene age.

- Participated with a group of experts in a series of workshops for the NYCDEP in order to evaluate alternative construction methods for the proposed Bypass Tunnel beneath the Hudson River on the Rondout-West Branch Tunnel of the NYC aqueduct. Prepared report describing his suggested approach consisting of a new diversion tunnel beneath the existing tunnel with a lake-tap type connection in order to control inflows and allow subsequent permanent connections; this alternative was adopted by the current designer for the project.

- Project Manager and Engineer for numerous geotechnical engineering studies for tunnels in soil and rock for the Milwaukee Water Pollution Abatement Program. The Program included approximately 35 miles of 6- to 15 foot diameter tunnels in generally poor soil conditions below the water table. Also constructed were approximately 17 miles of 12- to 32-foot diameter TBM tunnels in rock up to 300 feet deep. The deepest shafts had up to 135 feet of variable soil conditions with the groundwater level five feet below the ground surface. As Project Manager he supervised 26 geotechnical engineers and engineering geologists tasked with exploration planning and field inspection of over 400 borings, field and laboratory testing, installation of piezometers and recording of water level data, interpretation and summaries of all data and preparation of Geotechnical Data Reports. Studies included evaluations of settlement and effects upon buildings and utilities; design of instrumentation and construction monitoring program; constructability reports. Also responsible for the preparation of numerous Geotechnical Design Summary Reports.

Among the pressure faced soil TBMs used were Lovat, Hitachi EPB, and Mitsubishi Slurry Shield. The tunnel support systems included ribs and lagging, jacked pipe, gasketed and bolted concrete segments. During construction, he evaluated contractor's temporary support designs for excavations and control of water in soil and rock. Support and water control systems included slurry diaphragm walls, frozen soil, soldier pile and lagging, steel sheet piling, soil and rock anchors, rock reinforcement and cementitious and chemical grouting of rock.

- Consultant to Lake Forest Park Water District, Seattle regarding excavation of the Brightwater Central Contract tunnel beneath their aquifer. Reviewed Slurry and EPB performance data and results of laboratory analysis of tunnel spoil in order to assess criteria for identifying soil types and thereby evaluating if the aquifer has been breached. Recently conducted inspection of the completed tunnel beneath the aquifer.

- Member of a two person Design Review Board for Black and Veatch on the Las Vegas SCOP project. The project consists of 44,000 feet of 16 foot diameter mined tunnel under the River Mountains with a hydro-power station at the Lake Mead end. The geology is comprised primarily of lava flows, dykes, pyroclastic deposits, with vesicular and weathered surfaces, flanked with Tertiary sedimentary rock and Quaternary alluvium.

- Consultant to Brown and Caldwell and responsible for the geological engineering aspects of the final design and authorship of the GBR for the North 27th Street ISS Tunnel, Milwaukee, WI. The 10,800 foot long, 23-foot mined diameter rock tunnel is for conveyance and storage of combined storm and sewerage overflow. Supervised geological mapping of the shafts and tunnels.

- Consultant to Jacobs Engineering for the design of the Detroit Upper Rouge CSO tunnels consisting of about 10 miles of 32 foot diameter tunnel, ten drop shafts and a 60 foot finished diameter pump station shaft. The alignment geology generally consists of shale with limestone and dolomite. Identified fissility of shales as a controlling ground behavior characteristic requiring the immediate placement of ground support.

- Member of the tunnel Design Review Board for Black and Veatch on the Ashley River Tunnel Project in Charleston, South Carolina. The seven-foot finished diameter tunnels are 12,500 feet long, about 120 feet deep and will initially be supported by ribs and lagging. The upper 65 feet of soils includes significant thickness of very weak, organic clays with zero blow counts. Of the six planned deep shafts, varying in diameter from 12 to 30 feet, five were constructed using the sinking caisson method and one was a drilled shaft with casing. Five micro-tunneled sections totaling about 2,300 feet, mostly located within the organic clays, were completed. The proximity of historic buildings adjacent to shaft and tunnel excavation was a particular concern.

- As a member of the Technical Review Board for MWH on the Brightwater Project in Seattle, participated in peer review of the East Tunnel 90% design contract documents and Central Tunnel 30% design contract documents. The 15-foot diameter tunnels are about 50,000 feet long in soil conditions, including peat, glacial outwash and boulder tills. The tunnels were constructed using both EPB and Slurry pressure faced TBMs.

- Project Engineer for contractor for six years on rock and soil tunnels and station construction for Washington DC Metro System. Designed tunnel blasting diagrams for 22-foot high by 30-foot wide, twin-track tunnel and associated shafts and portal. Designed and detailed shaft excavation support, concrete formwork, drill jumbo and shotcrete equipment. Other duties included evaluations of contract modifications, preparation of claims, and estimating for bids on Metro System construction projects.

- Project Engineer for contractor for two years on urban storm drainage project, including a six-foot diameter tunnel in silt requiring compressed air, jacked pipe interceptors and culverts in open cuts, pumping station and an earth embankment. Duties included line and grade in tunnel; job planning for materials procurement, sequence of work, equipment selection and design, progress payments and bonus payments to crews.
  I contributed to the preliminary drafting of the ASCE Publication, "Geotechnical Baseline Reports for Underground Construction, Guidelines and Practices," (edited by R.J. Essex and published by ASCE, see acknowledgements) in which the groundwork for the GBR content was laid out. Subsequently, I have participated in the preparation of GBRs and interpreted them for the purpose of presenting geotechnical issues to Dispute Resolution Boards and in expert testimony in litigation.

- I contributed to the preliminary drafting of the ASCE Publication, "Geotechnical Baseline Reports for Underground Construction, Guidelines and Practices," (edited by R.J. Essex and published by ASCE, see acknowledgements) in which the groundwork for the GBR content was laid out. Subsequently, I have participated in the preparation of GBRs and interpreted them for the purpose of presenting geotechnical issues to Dispute Resolution Boards and in expert testimony in litigation.

SUMMARY OF DISPUTE RESOLUTION BOARD (DRB) EXPERIENCE

DRB Experience

- I am currently serving on a DRB for the San Francisco PUC, New Irvington Tunnel and the completed Bay Division Pipeline #5 as chairman; also two DRBs for the Toronto Spadina Subway Extension. I have served on 16 DRBs and was the chairman of three of these boards. I was selected as the third person by the two appointed members in five instances to provide tunnel design and geotechnical expertise. This has allowed me the opportunity to carefully review and evaluate Differing Site Condition claims using the GBR and other contract documents.

- Currently serving on the DRB for the Vaughan Station of the North Extension Toronto-Spadina Subway. The contract is valued at $200 million and consist of a 1,200 foot long station, crossover and tail tunnel structure complete, excavated in glacial soils with a slurry cut-off wall all round and tied – back secant pile and soldier pile with lagging support.

- Currently serving on the DRB for the Northern Tunnels of the North Extension of the Toronto-Spadina Subway. The contract is valued at $400 million and consists of 4.7 kms of twin track 6.4 m diameter tunnel constructed using Earth Pressure Balance (EPB) TBMs (with one-pass bolted gasketed segments for support); the Highway 407 and York Stations; a 200 m Sequential Excavation Method (SEM) tunnel section in soil.

- Served as a member of the DRB for the Seymour-Capilano Twin Water Supply Tunnels consisting of twin, 24,000-feet long, 12 feet diameter rock tunnels with two shafts of 590 and 880 feet depth. The client was the Greater Vancouver Water District, B.C., Canada.

- DRB Chairman for the underground construction for the Stanford Linear Accelerator Center in Menlo Park, CA, consisting of about 1,700 feet of tunnel and caverns up to 50 feet wide in weak rock.

Sequential methods of excavation with road headers were used and the support consisted of dowels and shotcrete.

- Served as a member of five DRBs for the LNWI project for the Sacramento Regional County Sanitation District. These projects included 144-inch diameter gravity sewers and 60-inch diameter force mains constructed in open cut with extensive dewatering and two 15-foot diameter 2,000-foot long EPB TBM tunnel crossings of the Sacramento River with bolted, gasketed segments for support. Also a 3-foot diameter directional drilled crossing of the Sacramento River.

- Third person nominated to serve on DRB for Washington D.C. Metro Contract IE-0032 Greenbelt and Park Road tunnels consisting of 7,000 feet of approximately 21-foot mined diameter tunnels in soil using digger shields. Ground modification using silicate grouts was required for the total length of the tunnels.

- Third person and Chairman nominated to serve on DRB for Sacramento Regional County Sanitation District Contract 3114, Bradshaw Interceptor, Section 5A tunnel consisting of approximately 10,000 feet of 13-foot mined diameter tunnel in soil with ribs and lagging using Lovat TBM. Final lining consisted of RCP with T-lock lining.

- DRB member for the Sacramento Regional District County Sanitation District Contract No. 3908, Upper Northwest Interceptor 3 & 4 Project consisting of about 18,500 feet of tunnel construction methods including 11,000 feet of Slurry TBM micro-tunnel; 6,000 feet of two-pass tunnel with ribs and lagging using a Lovat TBM and 1,500 feet of pipe jack.

- DRB member for Corps of Engineers, Cadey Marsh Flood Relief Tunnel, Griffith, Indiana, consisting of 6,500 feet of 13 foot excavated diameter tunnel with ribs and lagging for initial support and CIP final lining. Extensive dewatering was required.

DRB member for the Santa Clara Valley Water District Lenihan Dam Outlet Modifications Contract No. 91904005 consisting of about 2,500 feet of horseshoe tunnel, 16 feet wide by 13 feet high excavated using drill and blast and a road header through the San Franciscan Formation and supported with ribs and shotcrete. The tunnel traverses a dam abutment from the downstream side and connects to a new intake/dropshaft within the reservoir. An intake structure constructed on the reservoir bank connects to the dropshaft.

Presentation of Position Papers to DRB

- Presented position papers to the DRBs for LA Metro Contract C331 consisting of 10,000 feet of 21-foot diameter tunnel in soil with temporary segments for primary support and an extensive chemical grouting program conducted from the surface. Six major hearings were held.

- Presented position papers to the DRB during hearings of claims on LA Metro Contract C311 which consisted of 15,000 feet of 21-foot diameter tunnel in weak rock with ribs and steel mat lagging for primary support. Two major hearings were held.

- Assisted with presenting geotechnical issues to the DRB on the MWD Southern California, Badlands Tunnel and Arrowhead Tunnels of the Inland Feeder Project in San Bernadino.

- Presented position papers to the DRB for the 9.5 mile long, 26-foot diameter MWDRC Boston Outfall Tunnel. Three separate hearings were held, each of one week duration. I also participated in the information exchange/negotiation sessions between the parties prior to the commencement of the DRB hearings.

LITIGATION AND ALTERNATIVE DISPUTES RESOLUTION EXPERIENCE

Project Name and Description: Contract 331, Los Angeles Metro
Twin, 21-foot diameter tunnels, 10,000 feet long in alluvial soils and weak rock. Excavated with digger shields using temporary concrete segments for support with an extensive chemical grouting program.

Date: 1996 to 2002

Client: Los Angeles Metropolitan Transit Authority Claim Amount: $24,000,000
At Issue: Differing site conditions regarding soils encountered and their behavior; defective specifications and failure to implement the contract.

My Role: Presented position papers to the DRB on soil conditions and behavior, constructability issues arising out of tunnel machine performance and the use of chemical grout.

Dispute Resolution Method: Dispute Review Board/Litigation

Outcome: There were four separate hearings on these related issues over a period of one year. No merit was found on three issues and partial merit on one issue. I was retained as an expert witness by the LA-MTA when they were subsequently sued. The case settled for $6,000,000.

Project Name and Description: Washington, DC Metro, Section E-2c
12,000 feet of 21-foot diameter tunnel in soil excavated with digger shields and extensive chemical grouting and dewatering.

Date: 2001

Client: Washington Metropolitan Transit Authority Claim Amount: $37,000,000

At Issue: The owner and designer misled the contractor in that the design was defective; the selected tunneling method was inappropriate and there was a differing site condition in regard to the soils and their behavior.

My Role: Expert Witness. Selection of the tunneling method and tunnel design was appropriate. The soil and groundwater conditions and soil behavior was not different to that which could have been anticipated.

Dispute Resolution Method: Litigation; jury in Federal Court, Washington D.C.

Outcome: $0 awarded to contractor. The issue went to the Appeals Court with the same result.

Project Name and Description: East Side Reservoir
800,000 acre feet with two rock fill dams. East dam was 6,000 feet long. West dam was 4,000 feet long.

Date: 2000

Client: Metropolitan Water District of Southern California

Claim Amount: $29,000,000

At Issue: Rock Borrow hill was excessively faulted and sheared which severely impacted blasting and excavation efficiency.

My Role: Engineering geological mapping of hillside benches, preparation of report and graphics to portray actual conditions regarding shears and faults and to demonstrate encountered conditions were as portrayed in contract documents.

Dispute Resolution Method: Mediation

Outcome: Awarded $9,000,000
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Project Name and Description: Boston Outfall Tunnel
50,000 feet of sub-ocean rock tunnel, 26.5 feet in diameter, lined with pre-cast segments secured with dowels but without gaskets.

Date: 1995 to 1998

Client: Massachusetts Water Resource Authority

Claim Amount: $70,000,000

At Issue: Rock conditions were different for the entire tunnel length which caused the TBM to have a reduced penetration rate.

My Role: Attended meetings between selected groups from contractor, owner and engineer to attempt resolution. Prepared expert report and presented position papers at three separate one-week long DRB hearings on rock conditions and impact on TBM performance.

Dispute Resolution Method: Dispute Review Board

Outcome: Partial merit contractor awarded $20,000,000, which was accepted.

Project Name and Description: NS-8 Dropshaft and Ancillary Structures
20-foot finished diameter shaft, 285 feet deep in soil and rock. The soil portion was frozen and the rock grouted with cement and chemical grouts.

Date: 1993

Client: Milwaukee Metropolitan Sewerage District

Claim Amount: $1,900,000

At Issue: Grouting designed by owner was ineffective causing excessive inflows into the rock portion of the shaft and led to windows in the freeze wall because of increased hydraulic gradients.

My Role: Expert witness on issues of grouting design for rock portions of shafts and hydrogeology issues relating to groundwater movement in the rock and overlying soil.

Dispute Resolution Method: Litigation; jury in Federal Court.
Outcome: Contractor awarded $1,900,000

Project Name and Description: Contract 311 Los Angeles Metro
Twin, 21-foot diameter tunnels 16,000 feet long in weak rock (under Santa Monica Mountains). Excavated simultaneously with two TBMs.

Date: 1997

Client: Los Angeles Metropolitan Transit Authority

Claim Amount: $9,000,000

At Issue: Squeezing ground caused tunnel support to collapse behind shield, trapping TBM.

My Role: Presented position paper showing ground movement was predictable and that contractor initial support selection was at fault.

Dispute Resolution Method: Disputes Review Board

Outcome: Awarded $7,000,000 by DRB accepted by contractor.

Project Name and Description: Root River Interceptor
Four miles of two to four feet diameter pipe in open-cut adjacent to river.

Date: 1991

Client: Milwaukee Sanitary District

Claim Amount: $750,000 (against Touche-Ross Accountants)

At Issue: Negligent audit and reporting of contractor's financial condition to the owner in bid documents. Contractor was unable to capitalize the necessary "up front" dewatering work necessary.

My Role: Expert Witness: Geotechnical, dewatering, constructability, blasting

Dispute Resolution Method: Litigation in Wisconsin State Court, jury trial

Result: Client awarded $750,000

Publications

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Ilsley, R.C., 1994. Engineering Geological Mapping of Rock Slopes Using a Laser Transit. International Congress of I.A.E.G., Lisbon, Portugal.

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Halim,I.S., Chen,N., Ilsley R.C., 2008. Initial Support design for Tunnels in Horizontally Bedded Sedimentary Rock, North American Tunneling Proceedings, San Francisco, CA.

Ponti, M.A., Fradkin, S.B., Wone, M. Wang, X, Bizzari, R.E., Cording, E.J., Ilsley, R.C., 2009. Subsurface Characterization for CSO Tunnels in Washington, D.C.; R.E.T.C. Proceedings, Las Vegas, NV.

Table 21
Project OM&A Summary - Nuclear ($M)

Line No.	Category	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Plan	2015 Plan
		(a)	(b)	(c)	(d)	(e)	(f)
	Portfolio Projects (Allocated)						
1	**Darlington NGS**	39.6	16.7	6.7	7.2	2.4	10.6
2	**Pickering NGS**	33.0	13.0	37.4	11.4	9.9	5.4
3	**Nuclear Support Divisions**	20.0	20.6	20.8	31.1	8.4	4.8
4	**Subtotal Portfolio Projects (Allocated)**	92.6	50.3	64.9	49.7	20.8	20.8
5	**Facility Projects to be Released**	0.0	0.0	0.0	0.0	0.0	0.0
6	**Infrastructure**	32.2	50.2	31.9	37.6	28.2	29.7
7	**Portfolio Projects (Unallocated)**	0.0	0.0	0.0	0.0	52.1	55.2
8	**Subtotal Project OM&A (Portfolio)**	124.8	100.5	96.8	87.3	101.1	105.8
9	**P2/P3 Isolation Project**	10.5	0.0	0.0	0.0	0.0	0.0
10	**Pickering Continued Operations**	1.7	1.0	3.5	9.2	6.0	0.0
11	**Fuel Channel Life Cycle Mgmt Project**	5.7	10.1	11.3	9.2	6.8	0.6
12	**Total Project OM&A**	142.7	111.6	111.5	105.7	113.9	106.4

Board Staff Interrogatory #025

Ref: Exh D1-2-1

Issue Number: 4.5
Issue: Capital Projects - Regulated Hydroelectric
Are the proposed test period in-service additions for the Niagara Tunnel Project appropriate?

Interrogatory

OPG currently estimates that the cost of the Niagara Tunnel Project will be $1.5B and notes that capital costs totaling $1.424M were placed in-service in March 2013.

Please complete the following table. The purpose of the table is to summarize at a high level the cost history and regulatory accounting treatment of the project.

Niagara Tunnel Project

(in millions$)	Pre-2008 actual	2008 actual	2009 actual	2010 actual	2011 actual	2012 actual	2013 budget	2014 Test Year	2015 Test Year	Total 2008-2015
Project Budget Approved/Revised by OPG Board										
Capital Expenditures (actuals)										
Running total accumulated Capital Expenditures										
Gross Plant in-service (o/b)										
Gross Plant additions/deletions										
Gross Plant in-service (c/b)										
Accumulated Depreciation (o/b)										
Accumulated Depreciation (c/b)										
Net Plant in-service (o/b)										
Net Plant in-service (c/b)										
Operating Costs Expensed										
Operating Costs recorded in variance account *										
Rate Base related costs recorded in variance account*										
Variance account Total Balance (o/b)										
Variance account amount cleared										
Variance account Total Balance (c/b)										

Note: * Capacity Refurbishment Variance Account or equivalent
o/b= opening balance, c/b = closing balance

Response

Chart 1 below provides the information requested in respect of the Niagara Tunnel Project. Actual amounts have been provided for 2013 in place of the budget amounts.

For greater clarity, OPG added a column to summarize the estimated project costs at completion ("Estimate at Completion"). OPG also added the "Interest Improvement on Variance Account Balance" line in the variance account section of the chart, such that all components of the variance account additions sum to the “Variance Account Total Balance (c/b)” line. All variance account amounts were recorded in the Capacity Refurbishment Variance Account.

OPG currently estimates that the total cost of the Niagara Tunnel Project will be $1,476.6M ($1,472.0M in capital expenditures with an additional $4.6M in removal costs). In 2013, a total of $1,439.2M in capital costs was brought into service. This consisted of $1,424.9M placed in-service in March 2013 and an additional $14.3M placed in-service at the end of November 2013.

Chart 1

Numbers may not add due to rounding

Niagara Tunnel Project

(in millions$)	Pre-2008 actual	2008 actual	2009 actual	2010 actual	2011 actual	2012 actual	2013 actual	2014 Test Year	2015 Test Year	Total 2008-2015	Estimate at Completion
Project Budget Approved/Revised by OPG Board[1]	985.0	985.0	1,600.0	1,600.0	1,600.0	1,600.0	1,600.0	1,600.0	1,600.0	1,600.0	1,600.0
Capital Expenditures	300.2	131.3	213.5	231.8	264.2	231.2	86.6	13.0	0.4	1,171.8	1,472.0
Running Total Accumulated Capital Expenditures	300.2	431.6	645.0	876.8	1,140.9	1,372.1	1,458.7	1,471.7	1,472.0	1,171.8	1,472.0
Gross Plant In-service (o/b)	19.2	19.2	19.2	19.2	19.2	19.2	19.2	1,458.4	1,471.5	19.2	-
Gross Plant Additions	-	-	-	-	-	-	1,439.2	13.0	0.4	1,452.8	1,472.0
Gross Plant in-service (c/b)	19.2	19.2	19.2	19.2	19.2	19.2	1,458.4	1,471.5	1,472.0	1,472.0	1,472.0
Accumulated Depreciation (o/b)	-	0.3	0.5	0.8	1.0	1.3	1.5	15.8	29.8	0.3	0.3
Accumulated Depreciation (c/b)	0.3	0.5	0.8	1.0	1.3	1.5	14.5	29.8	45.6	45.6	45.6
Net Plant In-service (o/b)	19.2	18.9	18.7	18.4	18.2	17.9	17.7	1,442.6	1,441.7	18.9	-
Net Plant In-service (c/b)	18.9	18.7	18.4	18.2	17.9	17.7	1,443.9	1,441.7	1,426.4	1,426.4	1,426.4
Operating Costs Expensed (Removal Costs[2])	3.0	-	-	-	1.4	0.2	-	-	-	1.6	4.6
Operating Costs Recorded in Variance Account *[2]	-	-	-	-	1.4	0.2	-	-	-	1.6	1.6
Rate Base Related Costs Recorded in Variance Account*[3]	-	-	-	-	(2.3)	1.8	115.4	-	-	114.9	114.9
Interest Improvement on Variance Account Balance	-	-	-	-	-	-	0.6	1.7	1.3	3.6	3.6
Variance Account Total Balance (o/b)	-	-	-	-	-	(0.9)	1.0	117.1	118.8	120.1	120.1
Variance Account Amount Cleared[4]	-	-	-	-	-	-	-	-	58.5	58.5	58.5
Variance Account Total Balance (c/b)	-	-	-	-	(0.9)	1.0	117.1	118.8	61.6	61.6	61.6

Note: * Capacity Refurbishment Variance Account or equivalent

o/b= opening balance, c/b = closing balance

Notes:
1 Project Budget Approved is as per Superseding Business Case Summary in Ex. D1-2-1, Attachment 8a.
2 Per Ex. D1-2-1 page 4, lines 11-16.
3 Includes income tax impacts as shown in Ex. L-9-1 Schedule 17, SEC-132, Attachment 1, Table 7, line 10.
4 Represents 12/24 of the actual 2013 balance consistent with OPG's proposal to recover the balance over 24-months ending December 31, 2016.

SEC Interrogatory #041

Ref: D1/2/1/p.119-2013

Issue Number: 4.5
Issue: Are the proposed test period in-service additions for the Niagara Tunnel Project appropriate?

Interrogatory

Please provide copies of the 2009, 2010, 2011 and 2012 Audit Reports. Please also provide any other audit (internal or external) undertaken regarding the Niagara Tunnel Project.

Response

The requested OPG Internal Audit reports are attached as follows:

1. May 2010 – Reports on 2009 audit of Strabag costs invoiced to OPG in 2009.

2. June 2010 – Reports on 2010 audit of OPG's project management and controls.

3. October 2011 – Reports on 2011 audit of OPG's compliance with the Amended Design Build Agreement (ADBA) and effectiveness of OPG's contract management and controls.

4. October 2012 – Reports on 2012 audit of project processes and controls for management of risk, cost and schedule.

Additional internal and external audits are attached as follows:

5. September 7, 2006 – Reports on OPG Internal Audit of the safety management processes utilized by the Owner's Representative during the INCW Part Project.

6. May 2007 – Reports on an audit of Strabag's quality management processes for construction work at the intake area.

7. November 16, 2007 – Reports on OPG Internal Audit of environmental management processes.

8. September 15, 2008 – Reports on an external audit of the geotechnical records being captured by the Owner's Representative during the tunnel excavation.

9. November 2009 – Reports on OPG Internal Audit of Strabag costs during the period from November 26, 2008 to May 25, 2009 (transition from DBA to ADBA).

10. April 2010 - Reports on an audit of Strabag's quality management processes for installation of the tunnel concrete lining and impermeable membrane.

11. October 21, 2010 – Reports on the 2010Q3 internal audit of Strabag's environmental management system.

12. March 1, 2011 - Reports on the 2010Q4 internal audit of Strabag's environmental management system.

13. September 27, 2012 – Reports on audit of Strabag's Austrian payroll conducted by PKF.

14. April 7, 2009 – Report of OPG Internal Audit validating claimed losses of Strabag up to November 11, 2008.

15. April 20, 2009 – Strabag Loss Evaluation.

16. June 9, 2009 – Resolution Notice 001.

17. June 9, 2009 – Steering Committee Decision on Resolution Notice 001.

18. March 13, 2014 – PKF Report on Payroll Check – Invoice Comparison.

19. March 2014 – PKF Audit of Expatriate Costs – Memo to File.

ONTARIOPOWER GENERATION

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ron.hart@opg.com

MEMORANDUM

April 7, 2009

John Murphy
EVP, Hydro
H19 A15

Re: Strabag Inc. – Niagara Tunnel Project Audit

Contract Audit has completed its audit of the financial records of Strabag Inc in order to validate the claimed losses of Strabag Inc. up to November 30, 2008 as required by the Principles of Agreement between OPG and Strabag Inc dated November 11, 2008.

The objective of this audit was to verify Strabag's claim that their total revenue for the period September 1, 2005 to November 30, 2008 exceeded OPG payments by $90 million Cdn. The amount would be considered "losses" for the purpose of this audit and current negotiations. The scope of this audit was comprehensive and would include all costs incurred during this period.

As identified in section 3.0 of the report the audit was able to validate $63.7 million of actual losses and $4 million of acceptable adjusting entries for the period. The audit questions $26.9 million (net) in adjusting entries for the period ending November 30, 2008.

Please review the attached report. If you have any questions or require additional information please contact me at 416-592-4092.

Curtis Duncan for Ron Hart

Ron Hart
Manager, Contract Audit

Attachment

Cc Donn Hanbidge
Lloyd Komori
Carlo Crozzoli
Donald Brazier
Rick Everdell
Ed Over
Stephanie Gordon
Ron Hart

OPG CONFIDENTIAL

ONTARIO POWER GENERATION

Contract Audit – Internal Audit

Strabag Inc. – Niagara Tunnel Project

March 2009

1.0 Background

On August 18, 2005, Strabag AG ("Strabag") was awarded a Design-Build Agreement ("DBA") for the Niagara Tunnel Project (the "Project"). When completed, the 10.4 kilometer water diversion tunnel will increase the amount of water flowing to existing turbines at OPG's Sir Adam Beck Generating Stations, allowing the stations to utilize available water more effectively. The initial forecast completion date was late 2009 and the contract was set at a fixed price.

Since excavation has begun Strabag has encountered significant delays and higher costs and in early 2008, Strabag initiated actions to resolve an increasing number of outstanding claims. These actions were guided by a dispute resolution process where a committee of experts would review submissions and hear arguments and who would subsequently provide non-binding recommendations to OPG and Strabag. This process was completed in the fall of 2008 and the committee's recommendations resulted in an acknowledgement between OPG and Strabag to work towards a settlement of all outstanding claims from the commencement of the Project to November 30, 2008. As part of this settlement, OPG agreed to defray a percentage of the higher actual costs once the total costs were verified.

The agreement to pay Strabag a percentage of their higher costs was formalized in an agreement dated November 11, 2008. In the agreement, Strabag asserted that its overall costs (including overheads) had exceeded OPG payments (i.e. Strabag's "revenue") by CAN$90.0 million and this translated into an OPG percentage settlement payment of $40 million. However, the final amount to be paid by OPG would be subject to OPG validating the substance of overall costs during the Project through a detailed audit. Shortly thereafter, the Project management team contracted OPG's internal audit group to undertake an audit of Strabag's books and records beginning in January 2009.

2.0 Audit Objectives and Scope

The objective of this audit was to verify Strabag's claim that their total revenue for the period September 1, 2005 to November 30, 2008 exceeded OPG payments. The amount would be considered "losses" for the purpose of this audit and current negotiations. The scope of this audit was comprehensive and would include all costs incurred during this period.

3.0 Audit Strategy and Summarized Results

In light of the impact that the results of this audit would have on the final settlement between OPG and Strabag, internal audit pursued a different audit strategy. This strategy did not use a sample testing but instead employed more substantive examination of all financial books and records. **Using this approach, internal audit validated $63.7 million of claimed "losses" as defined above**.

The audit strategy included a review of the following expense categories and confirmed that the amounts paid were supported by appropriate documentary evidence.

- Labour charges
- Material charges
- Subcontractor invoices
- Some inter-company transfers (e.g. Strabag Inc. --- Strabag AG)
- Other third party expenses

As of the date of this report, issues relating to two specific expense categories remained unresolved. The first revolves around Strabag's agreements with three of its major sub-contractors and the second revolves around the costs associated with the Tunnel Boring Machine. Both of these issues can be characterized as unclear going forward and will require the attention of OPG project management personnel. However, taken collectively, these issues are not financially material to the accurate summation of Strabag's losses for the period ending November 30, 2008.

In late February, Strabag provided a high level schedule that attempted to breakdown their view of their losses. This schedule indicated that according to their information, the losses for the period ending November 30, 2008 totalled $94.6 million (as opposed to the earlier estimation of $90 million) and included a number of summary adjusting entries that were made in their calendar year end statements.

Internal audit reviewed the information relating to these various entries and characterized them according to the nature of their adjustments as follows:

1. There are a number of balance sheet related adjusting entries that involve the reversal of an expense incurred followed by a corresponding entry into inventory or fixed assets. The effect of a number of these entries (see Appendix 1, Item 1) was to reduce current expenses by $13.8 million and increase assets by the same amount.

2. There are a number of income statement related adjusting entries that decrease revenues received by Strabag and accrue expenses not included in the original DBA. These entries totalled $18.9 million (see Appendix 1, Item 2).

3. There are a number of transfer payments involving inter-company transfers between Strabag AG and Strabag Inc. not included in the original DBA. These entries totalled $4.2 million (see Appendix 1, Item 3).

4. There is one large accrual representing a fixed overhead charge to be paid by Strabag Inc. to Strabag AG, and two lesser amounts. These amounts totalled $17.6 million and it is unclear as to whether this amount should be included in direct costs to date and therefore should be part of subsequent negotiations (see Appendix 1, Item 4).

The net effect of these adjusting entries adds an additional $26.9 million as an incremental amount to the overall loss total currently validated. The audit validated $63.7 million of actual losses and $4.0 million of acceptable adjusting entries for the period ending November 30, 2008.

Submitted by:

Curtis Duncan for Ron Hart

Ron Hart,
Manager, Contract Audit/Internal Audit

Reviewed by:

Lloyd Komori
Chief Risk Officer

Appendix 1 – Details of Adjusting Entries

Detailed descriptions of each of the adjusting entries that comprise the four groups characterized above are presented as follows:

1. **Balance sheet related entries resulting in decreased expenses of $13.8 million**

- Strabag incurred wages and associated expenses of $1.0M during the years 2006 to 2008 related to the assembly of formwork. This adjusting entry is now decreasing expenses and allocating this $1.0M to assets to be recovered in future periods. Strabag contends that such costs should be deferred because the first milestone was not met prior to November 30, 2008. Audit recommends that while material purchased for future installation, may be inventoried, labour costs incurred during the 2006 to 2008 periods should remain an expense in the period incurred.
- Similarly, costs incurred by the Waterproofing Department in the period 2006 to 2008 amounting to $3.0M were transferred from expenses and set up as an asset, on the premise they relate to future periods. Strabag contends that pre-operational expenditures should be deferred since no waterproofing production had started prior to November 30, 2008. Audit recommends such costs remain an expense in the period incurred.
- Costs incurred in 2005 to 2006 related to "pre-construction costs" amounting to $0.6M were transferred from expenses and set up as an asset to be amortized over the remaining life of the Project. Strabag contends these "pre-contract expenditures" should be amortized over the full contract value. Audit recommends such costs remain an expense in the period incurred.
- Costs amounting to $9.2M previously expensed were transferred to inventory. Physical inventory listings, in Excel, have been provided to support some of these entries. Audit recognizes that inventories existed at November 30, 2008. However, in the absence of any physical count of inventories, audit cannot assess the value charged to inventory.

2. **Income statement related entries resulting in an increase in expenses of $18.9 million**

- Strabag accrued $10.5M as inter-company interest charges related to project funding from December 2008 to December 2013. Although no costs have been incurred, Strabag states this entry is for future interest related to the Strabag loss incurred to November 30, 2008.
- Revenue was decreased by $6.0M. Strabag is claiming this revenue should be deferred to future periods. Strabag acknowledges billing prior to November 30, 2008, but for cash flow purposes only. Since the billings occurred prior to November 30, 2008, the audit finds no basis for this adjustment.
- Strabag has accrued an expense of $2.3M related to withholding taxes for Strabag AG employees working in Canada during the 2005 to 2008 period. Strabag states this entry represents the potential liability for 15% withholding taxes that should have been deducted from payments for salaries and wages to Strabag AG employees. The accrued expense, which has not been incurred, does not include any fines and/or penalties. The gross costs of the wages/salaries for Austrian based staff working in Canada were included in the Project costs as they were incurred. The failure to withhold appropriate taxes should not be considered a Project cost and should not be recoverable from OPG.
- Strabag accrued $0.1M identified only as CEO Fees. Strabag accrued this charge based on an estimate of $5K per month. However, Strabag agrees such costs are part of the 5%

overhead factor, and therefore this entry results in double-counting. Strabag has agreed to remove this charge.

3. **Transfer payments resulting in an increase in expenses of $4.2 million**

- Strabag accrued $2.4M in inter-company interest charges related to equity funding of the Project from inception to November 30, 2008. Interest on the cash flow (working capital) of Strabag has been included in Project costs. Thus interest on the equity funding could also be considered a Project cost. If this is an appropriate cost, the calculation and interest rate used should be reviewed to assess their appropriateness. Strabag agrees this entry has not been paid, and the calculation is for the period September 2005 to November 2008.
- Strabag accrued $1.0M identified as additional invoicing for Tunnel design work. No invoice or supplier was identified. Strabag has indicated that the vendor is ILF and that Strabag has prevented ILF from invoicing further amounts pending the resolution of contract negotiations with OPG. Additional information on the timing and the amount of this liability would be required to assess the appropriateness of this as a Project cost prior to November 30, 2008.
- Strabag has accrued an expense of $0.4M for the Employers' Health Tax (EHT) and Workplace Safety & Insurance Board (WSIB) costs related to those Strabag AG employees working in Canada for the period 2006 to 2008. Such costs are usually paid as incurred. Strabag states it has been assessed by the WSIB for $174K (copies of the assessment and any subsequent payment have not been provided). Strabag has also provided for a potential EHT assessment, although there has not been any communication with the Ontario Ministry of Finance concerning a potential liability. This accrual attempts to record costs previously omitted. Further evidence in support of this liability would be required to support whether this qualifies as a Project cost up to November 30, 2008.
- Strabag has accrued $0.4M as at November 30, 2008 for overtime costs of salaried Strabag AG employees. This accrual recognizes that a number of individuals have worked an excessive number of hours since the inception of the Project. However, Strabag states compensation for overtime by salaried personnel is not Strabag's standard policy and that compensation for overtime is dealt with on a case-by-case basis. Strabag has not provided any detail on the calculation and acknowledges that such costs were not incurred prior to November 30, 2008. The audit finds no basis for this adjustment due to the discretionary nature of the expense.

4. **Inter-company payments resulting in an increase in expenses of $17.6 million**

- Strabag accrued $16.8M as a corporate overhead charge based on 5% of incurred costs from Project inception to November 30, 2008. The audit is unable to determine whether this charge duplicates other potential overhead costs included in direct costs, whether such a charge should be considered part of Project costs prior to November 30, 2008, or whether the percentage and the project costs included in the calculation are appropriate. Strabag states that if a cost can be directly attributable to a project, then it is considered a project cost. The 5% represents a combination of corporate and divisional overheads.
- Strabag accrued $0.5M identified as Employers' cost on wages. Additional documentation indicates the accrual relates to payroll burdens associated with the November 2008 unionized labour payrolls.
- Strabag accrued $0.4M for internal bonding costs. This was calculated as an annual percentage of the estimated Project value. The audit was unable to determine whether this is a valid Project cost, or should have been included in overhead. Per Strabag, this cost is

for Strabag AG's provision of a parental company indemnity. The cost is accrued during the execution of the project, and billable at the end of the project. It has not been paid.

Appendix 2 – Details of supported expenses

Contract Audit requested and obtained Strabag documentation supporting Project costs processed for the period of the audit. The specific information that was received is characterized below.

- Labour charges included payroll registers, timesheets, remittance advices, personnel files, employment agreements, etc.
- Materials costs included supplier invoices, purchase orders, receiving reports, bills of lading and/or packing slips, etc.
- Subcontractor's charges included subcontractor invoices, subcontract agreements, subcontractor time sheets, etc.
- Inter-company transfers from Strabag AG to Strabag Inc. included invoices for labour, materials, subcontractors, and other administrative expenses.
- Other Expenses included third party invoices for tool and equipment rentals, and such other records as necessary to substantiate any expense charges.

The records reviewed supported Strabag's expenses for the period ending November 30, 2008 of $63.7M.

Appendix 3 – Other considerations

The major subcontractors on the Project, up to November 2008, included Dufferin Construction, Dufferin Concrete, and a European subcontractor, ILF.

Dufferin Construction was awarded a fixed price subcontract by Strabag Inc. to provide the bulk of the civil work at the intake and the outlet. However, due to scheduling delays, Strabag Inc. has assumed a portion of Dufferin Construction's work without a corresponding reduction in the subcontract value. Strabag Inc. back charged Dufferin Construction a total of $271K in 2008. If Strabag Inc.'s intent is to leave the fixed price subcontract in place, then the value of the subcontract must be adjusted to reflect the value of the work actually done.

Dufferin Concrete was awarded a subcontract to supply concrete to the Project on a cost per cubic meter basis. Strabag Inc. advanced to Dufferin Concrete the sum of $4.0M for the purchase and installation of a batch plant at the site. Dufferin repays this advance based on the cubic meters of concrete supplied from the plant. The loan is non-interest bearing and the balance of the loan outstanding is maintained in a balance sheet account in the books of record for Strabag Inc.

ILF was awarded a subcontract for tunnel design engineering. This European subcontract is administered by Strabag AG. The value of the subcontract is not known and the supplier's invoices are approved by Strabag AG and forwarded to Strabag Inc. for payment.

The TBM was billed to OPG at a value of $78.2M, an estimate at the time of tender. The TBM represents a collection of equipment associated with tunneling activity. No detailed schedule of costs was provided, not at the time of tender or at the time of payment by OPG.

A review of the fixed assets sub-ledger questioned a number of assets that appeared to be essential to the operation of the TBM and whether they should be included in the costs of the TBM or remain on the list of fixed assets.

Strabag Inc. Evaluation Tool

	Values per Audit Report	Values Accepted	Comment
Validated Costs	**63.7**	**63.7**	
Acceptable Adjusting entries	**4.1**	**4.1**	
Questioned Adjustments:			*Per Audit report issued by Contract Audit/Internal Audit.*
1 Balance Sheet Related entries resulting in decreased expenses:			
Deferred Assembly Formwork Costs	*(1.00)*	*-*	*part of pre Dec 1 cost*
Deferred Cost for Waterproofing	*(3.00)*	*(3.00)*	*ok.*
Deferred Preconstruction Costs	*(0.60)*	*-*	*part of pre Dec 1 cost*
Costs Transferred to Inventory	*(9.20)*	*(3.90)*	*support materials and waterproof material only*
Sub Total	**(13.80)**	**(6.90)**	
2 Income Statement related entries resulting in an increase in expenses:			
Accrued interest for future periods	*10.50*	*-*	*disallowed cost*
Accrued expense related to withholding tax	*2.30*	*-*	*disallowed cost*
Reduction in Revenue	*6.00*	*(0.86)*	*net increase in revenue after shutter payment retained*
Accrued CEO Fees	*0.10*	*-*	*Strabag agreed to remove*
Sub Total	**18.90**	**(0.86)**	
3 Transfer payments resulting in an increase in expenses:			
Accrued interest on Equity Balances	*2.40*	*2.40*	*ok.*
Accrued Expenss relating to Tunnel Design	*1.00*	*1.00*	*ok. but require backup to substantiate*
Accrued EHT and WSIB Expenses	*0.40*	*0.40*	*ok. But exclude penalties, require backup*
Accrued OT for Strabag AG Empl.	*0.40*	*-*	*recognise if and when incurred*
Sub Total	**4.20**	**3.80**	
4 Intercompany payments resluting in increased expenses:			
Accrued Expenses for O/H @5%	*16.80*	*13.10*	*O/H based on turnover prior to payment of $40 million.* **[changed formula]**
Accrued Expenses for Employers costs	*0.40*	*0.50*	*0.4 does not appear correct?*
Accrued Expenses for Internal Bonding costs	*0.40*	*-*	*disallowed cost*
Sub Total	**17.60**	**13.60**	
Total Questioned Adjustments	**26.90**	**9.64**	
Total Losses	**94.70**	**77.44**	**34.42 Settlement**
Claimed	*90.00*		

Inventory paid in Feb 2008

Support Materials	*Invert Shutter*	*Waterproof Material*	*Total*
3.3	*5.3*	*0.6*	*9.2*

INTENT TO COMMENCE INFORMAL RESOLUTION

To: Niagara Tunnel Facility Project Steering Committee.

Contract: Amended Design/Build Agreement (the "**Agreement**") dated as of December 1, 2008 between Ontario Power Generation Inc. ("**OPG**") and Strabag Inc. (the "**Contractor**")

Resolution Notice No. 001

Date: June 9, 2009

Defined terms used in this Notice have the same meanings given to those terms in the Agreement. In accordance with Section 11.1(b) of the Agreement, the undersigned hereby gives notice to the Steering Committee that the undersigned wish to have the Dispute related to the following matter resolved by the Steering Committee in accordance with Section 11.1 of the Agreement:

Determination of Final Settlement Amount:

1. OPG has made a payment of $40,000,000.00 as the Settlement Payment to the Contractor on account of its claimed Pre-Effective Date Loss of $90,000,000.00.
2. The Contractor claims that this amount is substantiated by its Financial Statements for the period prior to the Effective Date.
3. OPG has audited the Contractor's financial statements for the same period and has verified $77,440,000.00 as the Pre-Effective Date Loss.
4. The disputed difference between the Parties in the Pre-Effective Date Loss is $12,560,000.00
5. It is OPG's view that, in accordance with Section 2.1(j) of the Agreement it is entitled to reimbursement by the Contractor of 4/9ths of this disputed difference, namely $5,582,222.22.
6. The Contractor believes that based on its quantification of the Pre-Effective Date Loss that no reimbursement is required.
7. The Parties have used good faith and best efforts to resolve the amount of the final Settlement Payment.

OPG
By:
Name: H. Charalambu
Title: Project Manager

Contractor
By:
Name: E. Gschnitzer
Title: Project Manager

NOTICE OF DECISION BY STEERING COMMITTEE

To: Strabag Inc.
2520 Stanley Avenue, Suite 1
Niagara Falls, ON, L2E 6S4
Attn. Dr. Ernst Gschnitzer

To: Ontario Power Generation Inc.
2520 Stanley Avenue, Suite 2
Niagara Falls, ON, L2E 6S4
Attn. Harry Charalambu

Contract: Amended Design/Build Agreement (the "**Agreement**") dated as of December 1, 2008 between Ontario Power Generation Inc. ("**OPG**") and Strabag Inc. (the "**Contractor**")

Decision on Resolution Notice No. 001

Date: June 9, 2009

Defined terms used in this Notice have the same meanings given to those terms in the Agreement. In accordance with Section 11.1(b) of the Agreement, the undersigned hereby give notice to the Parties having brought the Dispute, of the Steering Committee's decision in the matter.

The Decision:

The Contractor will reimburse OPG 4/9ths of the disputed difference in the Pre-Effective Date Loss (namely, 4/9ths of $12,560,000 = $5,582,222.22), provided that if the Contractor has achieved the Substantial Completion Date as set out in the Contract Schedule in Appendix 1.1(k) of the Agreement as amended from time to time and the Contractor has not exceeded the Target Cost as amended from time to time, the Contractor will not be required to reimburse OPG any portion of the $40,000,000.00 already paid by OPG on account of the Contractor's claimed Pre-Effective Date Loss, and the final Settlement Payment shall be deemed to be $40,000,000.00 without the reimbursement contemplated above.

Any such reimbursement that is ultimately required based on the proceeding paragraph shall be made by a direct payment from the Contractor within [30] days of achieving Substantial Completion or by way of credit to OPG from the next applicable Application for Payment after Contractor achieves Substantial Completion.

This Decision on Resolution Notice No. 001 will become binding on both Parties after execution of a Project Change Directive adopted as an Amendment in accordance with Section 5.1(d) of the Agreement. This Decision is made without prejudice to either Party, and does not represent an admission or acceptance of the other Party's position with respect to the other Party's quantification of the Pre-Effective Date Loss.

Steering Committee Member for OPG

John Murphy

Steering Committee Member for Contractor

Oskar Roittner

Document Transmittal

Hatch Mott MacDonald
in association with HATCH ACRES

From	Hatch Mott MacDonald/ Hatch Acres 4342 Queen Street, Suite 500 Niagara Falls, ON L2E 7J7	**Date**	March 13, 2014
		Project No.	NAW130-00400.05-T5
		Transmittal No.	DT2564-R00
To	Ontario Power Generation Attn: G. Larivee 800 Kipling Avenue, Unit 1 (KR215) Toronto, ON M8Z 5G5	**Project Title/ Subject**	Niagara Tunnel Project

Code:
A - Reviewed as Submitted
B - Revised as Noted – Do Not Resubmit
C - Revise and Resubmit
D - Review not Required
E - For Information Only
F - Final Submission
G - As Requested
H - For Execution
I - Returned
J -

Type:
O - Original
P - Print
C - CD
E - Electronic/FTP

Description/Title	Document No.	Rev	Type	Code
Final PKF Report 2013 Payroll Check – Invoice Comparison			1 E	F

An original signed hard copy will follow from Austria.

Transmitted by

kja

J. Tait, Project Manager
Owner's Representative

cc: M. DelFrari, OPG

Acknowledgment
Please sign, date and return second copy
[via fax (905) 374-1157 or email pdf to kjarvis@hatch.ca]

Signature

Date

Filed: 2014-06-04
EB-2013-0321
Exhibit L
Tab 4.5
Schedule 17 SEC-041
Attachment 18

PKF Revisionstreuhand
Wirtschaftsprüfungsgesellschaft m.b.H.

Reichenhallerstraße 7 I A – 5020 Salzburg
Tel. +43 (662) 84 22 90 I Fax +43 (662) 84 99 37
www.pkf.at I salzburg@pkf.at

Wirtschaftsprüfung &
Steuerberatung

Ontario Power Generation Ltd

Ontario

and

BRVZ Bau- Rechen- und Verwaltungszentrum Gesellschaft m.b.H.

Spittal an der Drau

Niagara Tunnel Project

Report on the
Payroll Check – Invoice comparison

PKF Revisionstreuhand Wirtschaftsprüfungsgesellschaft m.b.H.

Table of Contents

To Durward Jones Barkwell & Company: Attn.: Mr. Michael Root, C.A.

We have completed a random sample audit and stipulated audit procedure of the wage and salary statements, together with reconciliation of the compiled outgoing invoices, to Ontario Power Generation, Limited (abb.: OPG) for the period from Dezember 2008 to August 2013, by

BRVZ Bau- Rechen- und Verwaltungszentrum Gesellschaft m.b.H.
Spittal an der Drau
(hereinafter called "BRVZ")

and present herewith this review with the following report:

A. Audit Assignment, Implementation and Result

The management of Durward Jones Barkwell & Company assigned to PKF Revisionstreuhand Wirtschaftsprüfungsgesellschaft m.b.H. the contract to perform a random sample audit and stipulated audit procedure of the wage and salary statements, together with reconciliation of the compiled outgoing invoices pertinent to the accounts of HWXA, XFCB, JEDO and XFCE for the period 1 December 2008 to 30 August 2013. The basis for this assignment was the stipulated audit process with Durward Jones Barkwell & Company.

BRVZ provides the salary accounting for most of the companies of the Strabag Group and is thereby an internal service provider for the Group. Strabag AG charged the outgoing invoices to Strabag, Inc., Toronto, Canada. Strabag, Inc., then charged the costs further to Ontario Power Generation Inc., Weston, Canada (abb.: OPG).

The work took place from 28 February until 2 March 2011, as well as on 27 July 2011 and was continued from 25 April 2012 until 27 April 2012 in the offices of BRVZ. The audit respective the period July 2011 to August 2013 took place from 2 October 2013 until 4 October 2013 in the offices of BRVZ. The audit was continued and finished in the offices of the contractor.

The requested clarifications and documentation were given to us by Mr. Albert Waltl, CEO of BRVZ as well as by the members of his staff whom he contracted for the work.

We were additionally supported by Mr Alexander Böhnke, who is in charge of the management of the project in Canada.

Documentation for the work consisted of organization charts, Internal Control System workflow descriptions, the applicable collective agreement, the labor-management agreement, monthly payroll reports per cost center, annual payroll accounts, employment contracts, payroll reports from Strabag's non-Austrian subsidiaries, monthly activity reports per employee and outgoing invoices. The necessary additional clarifications and disclosures were given to us by the above-named contact person.

B. Evaluation

1. Introduction

As shown in Annotation Section C we have compared the amount of the annualized salary costs per cost center with the outgoing invoices.

The preparation of the salary accounts and outgoing invoices are the responsibility of BRVZ and the other companies of the Strabag Group.

It is our task to provide a conclusive assessment of the accuracy of the salary accounts as well as of the outgoing invoices based on our random sampling and stipulated audit process.

Our responsibility and liability for proven economic loss on grounds of gross negligent breach of duty is limited to EUR 2,000,000.00 pursuant to § 275 Abs 2 UGB. Our liability for minor negligence is excluded through the Allgemeinen Auftragsbedingungen für Wirtschaftstreuhandberufe (AAB) (General Conditions of Contract for the Public Accounting Professions) which pertain to this contract. Inasmuch as our report is produced exclusively by contract with and in the interest of the contractor, it provides no basis for any third-party dependence on its content. Therefore no third-party claim can be inferred from it.

2. Scope of the Random Sampling and Stipulated Audit Process

We have performed the random sampling and stipulated audit process of the salary accounts together with their invoices to OPG in the manner customary to the standards of the auditing profession.

The random sampling and stipulated audit process includes interviews with personnel having primary responsibility for wage and salary issues as well as analytical assessments and other inquiries. Random sampling and stipulated audit processes are of relatively minor scope and include less proof than a statutory balance sheet audit and therefore do not permit comparable certainty as a statutory balance sheet audit, in which all substantial facts are stated. For this reason we do not provide an audit certificate.

3. Summary Assessment

Legality of the Salary Statement:

With one exception, we know of no underlying issues to our random sampling and stipulated audit process which would lead us to the conclusion that the salary accounting as such would not conform to Austrian law.

That exception arises from the Social Security regulations between Canada and Austria. This provides that an expatriate employment is allowed for a period of only 5 years without changing the status of the Social Security. Essentially the employees remain in the Austrian system of Social Security. Meanwhile the 5-year limit was exceeded in the case of some employees. We are not able to verify the withholdings for the Canadian employment taxes.

Transition between the salary accounting and the outgoing invoices:

Values in EUR

Cost center name
HWXA

HWXA Final Comparison	invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
2008	202.750,08	207.569,16	-4.819,08
2009	3.327.957,13	3.301.699,80	26.257,33
2010	3.818.943,14	3.877.710,90	-58.767,76
2011	3.758.456,59	3.752.941,55	5.515,04
2012	2.928.721,75	2.915.072,88	13.648,87
1-8/2013	572.939,24	510.249,36	62.689,88
	14.609.767,93	14.565.243,65	44.524,28

XFCB

XFCB Final Comparison	invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
2008	29.902,70	9.786,17	20.116,53
2009	378.478,19	314.567,86	63.910,33
2010	524.616,01	503.627,50	20.988,51
2011	1.445.124,43	1.467.110,18	-21.985,75
2012	1.422.015,11	1.505.757,70	-83.742,59
1-8/2013	98.537,46	99.684,29	-1.146,83
	3.898.673,90	3.900.533,69	-1.859,79

total Sum	18.508.441,83	18.465.777,35	**EUR 42.664,48**
			0,23%
		exch. Rate EUR - CAD	1,4272
		25.11.2013	**CAD 60.890,75**

Note:
Several non-payroll sections as well as two incorrect positions were removed from the Strabag invoices.

Note:
Based on the explanations of Strabag, personnel cost of JEDO was invoiced via XFCB.

Note:
Strabag is obligated to make severance payments for some employees in the future. Provisions must be accrued for this purpose.
In order for this payment to be required, the employment must have begun before 2003.
Since it is a provision only, it is not included in the payroll accounting.
The cost accounting values for these future payments were construed as a value in the payroll accounting.

Note:
The vacation accrual was recalculated according to the actual days stated on the payroll printouts with the salary details.

In our view a sum of EUR 42,664.48 represents 0.23% difference from the recalculated payroll sum. The differences change annually.

There exist continually changing differences between payroll accounting and cost accounting.

These differences are related to such events as personnel transferring from one cost center to another within a month. Such transfers are not recorded in the payroll accounting system but are recorded in the cost accounting system. Payroll accounting does not reflect which project an employee is assigned to during the period. For payroll purposes a person represents a monthly payroll check to process. For review purposes the salary printouts, as received, include all persons who were initially assigned to that cost center. Due to system limitations payroll checks may be omitted but nevertheless included in the cost center calculation.

The holiday accrual which we recalculated reflects the same procedure. An employee's holiday accrual is accounted for in the cost center to which he is initally assigned for the period.

In both cases, when the employee leaves the cost center again, the differences are offset. In our opinion these effects should balance each other out and approximate to zero.

In 2009 Strabag transmitted invoices in the amount of EUR 3,420,195.43 on behalf of HWXA. This amount includes a credit note of EUR 115,357.00 for bonus payments pertaining to the old bonus regime – prior to December 2008. On the other hand, a faulty debit note was issued in 2009 in the amount of EUR 7,650.00 concerning Mr Hoiser. It is our opinion that Strabag must issue an invoice for EUR 107,707.00.

Filed: 2014-06-04
EB-2013-0321
Exhibit L
Tab 4.5
Schedule 17 SEC-041
Attachment 18

After this correction there remains as of 31 August 2013 a difference in the amount of the above-mentioned EUR 42,664.48 for the period from 12/2008 to 8/2013. Such amounts will vary from time to time because the cost center based control system, using imputed costs, differs from the payroll system which does not allocate exact day by day cost to a cost center. These systems run parallel and will lead over time to an essentially equal value.

Salzburg, 29. November 2013

PKF Revisionstreuhand Wirtschaftsprüfungsgesellschaft m.b.H.
Wirtschaftsprüfungs- und Steuerberatungsgesellschaft

PKF Revisionstreuhand
Wirtschaftsprüfungsgesellschaft m.b.H. - 5020 Salzburg -

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C. Annotation

1. Brief General Information on the Austrian Payroll System

Overview

As in other countries Austrian payroll management generally includes activities in two major areas, payroll accounting and payroll administration.

Payroll accounting consists of:

- calculating the earnings of employees and the related withholding for taxes and other deductions.

  The Austrian employer has specific payroll responsibilities that are required by the federal government and local agencies. Some of these responsibilities include, but are not limited to, withholding amounts from the employees' compensation to cover income tax, social security, Medicare and other payments.

- recording the results of payroll activities

Payroll administration deals with the managerial aspects of maintaining a payroll, which includes payroll information as well as compliance with employment laws.

A distinctive feature of the Austrian payroll system is the existence of 14 salary payments per year. The so-called vacation pay is mostly disbursed as an additional sum in June and the Christmas pay in November. These two disbursements are only taxed at reduced income tax rate of 6%. For the purposes of cost accounting these two special disbursements are allocated equally across the entire year.

A further distinctive feature is the system of severance pay by the employer upon the conclusion employment for employees who entered the work force up to the end of 2002. The longer the employee remains with the company, the higher is his entitlement to severance pay. Within the balance sheet the firm must provide for this future demand through a provision. The actual accounting of the salary statement comes first into play upon the termination of the employment. For those who entered employment after 2002, there is a compulsory surcharge of 1.53% added regularly to the salary for this purpose. A reserve set aside for these new employees is no longer necessary.

Social Insurance

Prior to the commencement of work, employers are obliged to enroll their employees for insurance programs (health, accident, pension and unemployment) according to the General Social Insurance Act.

Social security rates for 2013:

23.36% for employers on up to € 4,440 monthly salary
(specific rules apply for specific payments like the 13th and 14th salary – the so called Christmas bonus and the vacation allowance):

- 3% for unemployment insurance
- 3.83% for health insurance
- 12.55% for pension insurance
- 1.4% for accident insurance
- 0.55% for insolvency insurance
- 0.5% for a housing fund
- 1.53% for the employees future fund

18.07% for employees on up to € 4,440 monthly salary:

- 3% for unemployment insurance
- 3.82% for health insurance
- 10.25% for pension insurance
- 0.5% for a housing fund
- 0.5% contribution for the Chamber of Employees

The payroll steps

The employer must open a payroll account for every employee. Monthly he must calculate the contributions, premiums and income tax deductions based on the amount he pays his employees.

The salaries of the employees are due and payable at the end of the month. The salary-dependent payroll deductions are to be reported and paid on the fifteenth of the following month, whereupon the employer conveys both his portion and that withheld from his employees. At the end of each year special year end reports are required.

2. General Remarks

2.1. Internal structure

The payroll accounting for the staff members assigned to this project is performed in Spittal an der Drau by BRVZ Bau- Rechen- u. Verwaltungszentrum Gesellschaft m.b.H.

BRVZ pays about 55,000 staff members each month who are assigned to projects around the world. For the purpose of payroll accounting a proprietary payroll accounting program is applied. In order to ensure accurate accounting, no special payments are arranged for the staff members. A fixed salary is agreed upon, which is subject to payment. Thereby the salary accounting is substantially simplified and programmable for numerous countries.

In the Austrian construction sector there is a collective agreement which fixes the minimum compensation. On the basis of special demands on the staff members in their special projects, the salary level is substantially higher and is freely negotiated.

2.2. Internal control system concerning payroll agenda

The basis for the salary accounting for the staff members are the individually negotiated employment contracts, in which are established, inter alia, gross monthly salary, work location, travel allowance, as well as the duties of the employee. In addition, for employees assigned to foreign countries, there is an agreed deployment model which covers in more detail the supplementary allowance for foreign service, frequency of return flights, accompaniment of family, lodging, ticketing and taxes.

There are no fixed guidelines for bonus payments. These are negotiated freely and paid once each year. Those costs are again charged to the cost center.

The staff members are required to complete a monthly activity report, from which is determined on which days they worked on site or when vacation time was used. These are reviewed and initialed by the responsible supervisors.

Travel expenses are not administrated via the payroll system. There are internal guidelines and control systems established by the company in regard to travel expenses which apply to the staff members. Generally, travel to and from the work location will be booked by the employer.

The charging of personnel expenses to OPG is based on cost center accounting. Each month the actual salaries, premiums, bonuses and travel expenses (cash outlays of the staff member himself) for each cost center are recorded and to which are added the appropriate Social Security contributions. Subsequently, projected costs are added, whose terms are set percentage-wise by internal policies of the firm. Finally, costs are compiled as follows:

- Projected vacation
- Projected holidays
- Projected severance pay
- Projected performance bonus
- Projected occupational safety
- Projected disability compensation
- Projected special payments (13 + 14 month salary)

- Projected costs of Social Security
- Projected Employer's contribution and municipal levies
- Projected contributions to staff members' pension plan

These projected indirect costs may have been calculated to high in this case, which produces the variation between salary accounting and cost calculation.

For staff members working in Canada social insurance contributions are paid in Austria, income taxes – according to the Convention between the Republic of Austria and Canada for the avoidance of double taxation and the prevention of fiscal evasion with respect to taxes on income and on capital - in Canada.

Based on the random samples we drew, it is apparent that the payroll policies and procedures did not change substantially during the period of the review.

2.3. Recalculation method

The random samples we drew per cost center from the salary accounting were recalculated in view of the correctness of the Social Security contributions. No discrepancies were found. The BMD salary accounting program was used to show the Analysis.

The following items from BRVZ per cost center were used as the basis:

- Cost center report per month for the salary costs along with projected costs and staff member names for the period from Dezember 2008 to August 2013
- Annual salary account per staff member for all staff from Dezember 2008 to August 2013
- Outgoing invoices per cost center Dezember 2008 to August 2013 in reference to the salary costs

Item used as provided by Ontario Power Generation:

- List of invoices from Strabag including all details

We checked all periods nearly completely. The following facts had to be systematically corrected:

- Change in accruals for severance pay:

  The severance pay system to the end of 2002 justifies low indirect costs charged to the monthly salary costs. Because there are very few long-term employees who still have a right to this severance pay (employment beginning before 1 January 2003), the imputed costs approach can be accepted as accurate. The cost will be incurred in the future. For three persons the severance pay had to be paid. These costs were excluded from the payroll slip.

- Change in accruals for holidays:
  The number of available vacation days was checked closely and recalculated. Accruals were considered for this factor on the basis of the monthly payroll data and our recalculations.

- Aggregation of bonus payments:
  The bonus, which will be paid out in the following period for the previous year, is charged to the monthly invoices. In order to assign all the payments and reductions of payments to the same period, we aggregated the deduction for the charged bonus to that same period. In addition, we removed the costs for paying the bonus from the period when it is paid out and added them to the period to which they pertain. In the end, the charged bonus amount is equivalent to the amount which was paid out per the payroll slip. All of these transactions are placed into the same period.

  Because the bonus is not yet allocated for the year 2013, we accepted the calculated bonus amounts as valid without further adjustment.

- Non-Strabag Austria personnel costs:
  We have just received the personnel payroll costs for Strabag Austria. There are certain personnel employed which belong primarily to other Strabag subsidiaries outside of Austria. They belong to Züblin, Germany, Baystag, Germany and Strabag d.o.o., Croatia.

  The payroll costs for these employees had to be eliminated as they are not on the Austrian payroll slip.

See appendix 1 for detailed corrections made for HWXA and appendix 2 for XFCB.

We also randomly compared the monthly activity reports with the cost center report. The effective presence of the employees in Canada was verified for a sample of eleven employees by DJB Solutions Inc.

3. Special remarks for cost center XFCB

Some staff members of the cost center XFCE worked occasionally for cost center XFCB. Because the costs of cost center XFCE were not calculated on the basis of salary costs, but rather other agreements applied, these activities for XFCB were included in the monthly cost center report of XFCB. We used the personnel costs charged to the cost center XFCB rather than a proportional amount of the monthly payroll sum.

The cost center JEDO was newly begun in April 2011. According to the statement of Mr. Waltl, the costs for the staff members at this cost center were included in the invoices pertaining to personnel costs of cost center XFCB. The staff members of cost center JEDO were only partially active for the cost center JEDO from April 2011 to June 2011, wherefore the monthly salary account cannot be properly used for a comparison since the respective hours are to be registered to other projects. However, the salary accounting includes one entire month without reference to a division of the working hours. The costs of these staff members were combined with the costs per the cost center report JEDO in the calculation. In the years 2012 and 2013 the employees worked nearly 100% for JEDO, so that for these periods the salary accounting was appropriate for the comparison.

4. Special remarks for cost center JEDO

The cost center JEDO was reviewed, in terms of cost, together with XFCB. The costs of the cost center XFCB were charged together with the costs of cost center XFCB.

5. Special remarks for cost center XFCE

The cost center exists only since February 2009.

The cost center is billed not for salary costs but on the basis of other agreements. Because of this the working hours of the staff members who have worked partly for XFCB were recorded in the cost center reports of XFCB. We used the personnel costs charged to the cost center XFCB and not a proportional amount of the monthly payroll sum. However, it is not possible to show these hours on the basis of salary accounts.

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Comparison between Strabag invoices and payroll accounting of Strabag

Cost center HWXA - all Values in EURO

HWXA Final Comparison		invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
	2008	202.750,08	207.569,16	-4.819,08
	2009	3.327.957,13	3.301.699,80	26.257,33
	2010	3.818.943,14	3.877.710,90	-58.767,76
	2011	3.758.456,59	3.752.941,55	5.515,04
	2012	2.928.721,75	2.915.072,88	13.648,87
	1-8/2013	572.939,24	510.249,36	62.689,88
		14.609.767,93	14.565.243,65	44.524,28

Detailed explanation report

	invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
2008	**202.750,08**	**226.048,12**	**-23.298,04**
change in accruals:			
accrual for severance pay in the future	0,00	1.229,00	**-1.229,00**
accrual for holidays (to be taken in the future)	0,00	-19.707,96	**19.707,96**
remaining difference	**202.750,08**	**207.569,16**	**-4.819,08**

	invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference	
2009	**3.420.195,43**	**3.327.881,28**	**92.314,15**	
costs related to old agreement:				
employee Hoiser, faulty invoice	-7.650,00	0,00	**-7.650,00**	*)
faulty credit note 2009 for bonus 2008	115.357,00	0,00	**115.357,00**	*)
Correction bonus payment 2009 for 2008	0,00	-85.674,97	**85.674,97**	
costs invoiced within the personell cost but without belonging to the personell:				
invoiced material costs	-6.915,76	0,00	**-6.915,76**	
aggregation of bonus payments - interperiod changes:				
costs bonus payment 2009 payed in 2010	0,00	73.175,16	**-73.175,16**	
credit note bonus payment in 2010 concerning 2009	-193.029,54	0,00	**-193.029,54**	
change in accruals:				
accrual for severance pay in the future	0,00	19.502,00	**-19.502,00**	
accrual for holidays (to be taken in the future)	0,00	-33.183,67	**33.183,67**	
remaining difference	**3.327.957,13**	**3.301.699,80**	**26.257,33**	

***) not corrected yet**

	invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
2010	**3.710.397,92**	**3.686.995,55**	**23.402,37**
costs invoiced within the personell cost but without belonging to the personell:			
invoiced material costs	-13.313,29	0,00	**-13.313,29**
aggregation of bonus payments - interperiod changes:			
costs bonus payment 2009 payed in 2010	0,00	-73.175,16	**73.175,16**
credit note bonus payment in 2010 concerning 2009	193.029,54	0,00	**193.029,54**
costs bonus payment 2010 payed in 2011	0,00	140.434,00	**-140.434,00**
credit note bonus payment in 2011 concerning 2010	-71.171,03	0,00	**-71.171,03**
change in accruals:			
accrual for severance pay in the future	0,00	18.882,00	**-18.882,00**
accrual for holidays (to be taken in the future)	0,00	104.574,51	**-104.574,51**
remaining difference	**3.818.943,14**	**3.877.710,90**	**-58.767,76**

	invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
2011	**3.786.922,56**	**3.611.747,06**	**175.175,50**
aggregation of bonus payments - interperiod changes:			
costs bonus payment 2010 payed in 2011	0,00	-140.434,00	**140.434,00**
credit note bonus payment in 2011 concerning 2010	71.171,03	0,00	**71.171,03**
costs bonus payment 2011 payed in 2012	0,00	163.991,60	**-163.991,60**
credit note bonus payment in 2012 concerning 2011	-99.637,00	0,00	**-99.637,00**
change in accruals:			
accrual for severance pay in the future	0,00	24.215,00	**-24.215,00**
accrual for holidays (to be taken in the future)	0,00	93.421,89	**-93.421,89**
remaining difference	**3.758.456,59**	**3.752.941,55**	**5.515,04**

	invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
2012	**2.829.084,75**	**3.116.285,87**	**-287.201,12**
aggregation of bonus payments - interperiod changes:			
costs bonus payment 2011 payed in 2012	0,00	-163.991,60	**163.991,60**
credit note bonus payment in 2012 concerning 2011	99.637,00	0,00	**99.637,00**
costs bonus payment 2012 payed in 2013	0,00	95.497,20	**-95.497,20**
credit note bonus payment in 2013 concerning 2012	0,00	0,00	**0,00**
change in accruals:			
accrual for severance pay in the future	0,00	7.729,28	**-7.729,28**
accrual for holidays (to be taken in the future)	0,00	-140.447,87	**140.447,87**
remaining difference	**2.928.721,75**	**2.915.072,88**	**13.648,87**

	Invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
1-8/2013	**572.939,24**	**685.494,80**	**-112.555,56**
aggregation of bonus payments - interperiod changes:			
costs bonus payment 2012 payed in 2013	0,00	-95.497,20	**95.497,20**
credit note bonus payment in 2013 concerning 2012	0,00	0,00	**0,00**
imputed costs bonus payment for 1-8/2013	0,00	40.414,00	**-40.414,00**
change in accruals:			
accrual for severance pay in the future	0,00	2.146,00	**-2.146,00**
accrual for holidays (to be taken in the future)	0,00	-122.308,24	**122.308,24**
remaining difference	**572.939,24**	**510.249,36**	**62.689,88**

***) not corrected yet**

Comparison between Strabag invoices and payroll accounting of Strabag

Cost center XFCB - all Values in EURO

XFCB Final Comparison		invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
	2008	29.902,70	9.786,17	20.116,53
	2009	378.478,19	314.567,86	63.910,33
	2010	524.616,01	503.627,50	20.988,51
	2011	1.445.124,43	1.467.110,18	-21.985,75
	2012	1.422.015,11	1.505.757,70	-83.742,59
	1-8/2013	98.537,46	99.684,29	-1.146,83
		3.898.673,90	3.900.533,69	-1.859,79

Detailed explanation report

	invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
2008	37.235,24	9.994,10	27.241,14
costs invoiced within the personell cost but without belonging to the personell:			
invoiced material costs	-7.332,54	0,00	-7.332,54
change in accruals:			
accrual for severance pay in the future	0,00	0,00	0,00
accrual for holidays (to be taken in the future)	0,00	-207,93	207,93
remaining difference	29.902,70	9.786,17	20.116,53

	invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
2009	381.955,26	317.678,07	64.277,19
costs invoiced within the personell cost but without belonging to the personell:			
invoiced material costs	-3.457,07	0,00	-3.457,07
change in accruals:			
accrual for severance pay in the future	-20,00	0,00	-20,00
accrual for holidays (to be taken in the future)	0,00	-3.110,21	3.110,21
remaining difference	378.478,19	314.567,86	63.910,33

	invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
2010	525.888,01	493.855,15	32.032,86
costs invoiced within the personell cost but without belonging to the personell:			
invoiced material costs	0,00	0,00	0,00
change in accruals:			
accrual for severance pay in the future	-1.272,00	0,00	-1.272,00
accrual for holidays (to be taken in the future)	0,00	9.772,35	-9.772,35
remaining difference	524.616,01	503.627,50	20.988,51

	invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
2011 incl. JEDO	**1.778.217,69**	**1.395.620,13**	**382.597,56**
Non Strabag Austria personell costs:			
invoiced personell costs of other Strabag firms	-333.093,26	0,00	-333.093,26
bonus payments			
costs bonus payment 2011 payed in 2012	0,00	25.382,70	-25.382,70
change in accruals:			
accrual for severance pay in the future	0,00	3.936,68	-3.936,68
accrual for holidays (to be taken in the future)	0,00	42.170,67	-42.170,67
remaining difference	**1.445.124,43**	**1.467.110,18**	**-21.985,75**

	invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
2012 incl. JEDO	**1.612.272,09**	**1.518.647,76**	**93.624,33**
Non Strabag Austria personell costs:			
invoiced personell costs of other Strabag firms	-190.256,98	0,00	-190.256,98
bonus payments			
costs bonus payment 2011 payed in 2012	0,00	-25.382,70	25.382,70
costs bonus payment 2012 payed in 2013	0,00	12.183,90	-12.183,90
change in accruals:			
accrual for severance pay in the future	0,00	4.054,78	-4.054,78
accrual for holidays (to be taken in the future)	0,00	-3.746,04	3.746,04
remaining difference	**1.422.015,11**	**1.505.757,70**	**-83.742,59**

	invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
1-8/2013 incl. JEDO	**114.404,22**	**126.781,26**	-12.377,04
Non Strabag Austria personell costs:			
invoiced personell costs of other Strabag firms	-15.866,76	0,00	-15.866,76
bonus payments			
costs bonus payment 2012 payed in 2013	0,00	-12.183,90	12.183,90
change in accruals:			
accrual for severance pay in the future	0,00	1.351,79	-1.351,79
accrual for holidays (to be taken in the future)	0,00	-16.264,86	16.264,86
remaining difference	**98.537,46**	**99.684,29**	**-1.146,83**

KAMMER DER WIRTSCHAFTSTREUHÄNDER

General Conditions of Contract for the Public Accounting Professions (AAB 2011)

Laid down by the Working Group for Fees and Conditions of Contract of the Chamber of Public Accountants and Tax Advisors, recommended for use by the Board of the Chamber of Public Accountants and Tax Advisors in its decision of March 8, 2000, and revised by the Working Group for Fees and Conditions of Contract on May 23, 2002, on October 21, 2004, on December 18, 2006, on August 31, 2007, on February 26, 2008, on June 30, 2009, on March 22, 2010, as well as on February 21, 2011

Preamble and General Points

(1) The General Conditions of Contract for the professions in the field of public accounting are divided into four sections: Section I deals with contracts for services, excluding contracts concerning bookkeeping, payroll accounting and administration and assessment of payroll-related taxes and contributions; Section II deals with contracts for rendering services in the field of bookkeeping, payroll accounting and administration and assessment of taxes and contributions; Section III covers contracts not regarded as contracts for the rendering of services, while Section IV is devoted to consumer business covered by the Austrian Consumer Act.

(2) In the event that individual provisions of these General Conditions of Contract are void, this shall not affect the validity of the remaining provisions. The invalid provision shall be replaced by a valid provision that is as close as possible to the desired objective.

(3) The person entitled to exercise profession in the field of public accounting shall be obliged to render the services negotiated in accordance with the principles of due professional care and conduct. He/she shall have the right to engage suitable staff for the execution of the contract. This shall apply to all sections of The General Conditions of Contract.

(4) Finally, foreign law shall only be taken into account by the person entitled to exercise the profession, if this has been explicitly agreed upon in writing. This shall apply to all sections of the General Conditions of Contract.

(5) The work prepared in the offices of the person entitled to exercise the profession may, at the discretion of the person entitled to exercise the profession, be carried out with or without using electronic data processing. In case electronic data processing is used, the client – not the person entitled to exercise the profession – is obliged to effect the registrations or notifications required under the relevant provisions of the Data Protection Act.

(6) The client undertakes not to employ staff of the person entitled to exercise the profession during and within one year after termination of the contractual relationship, either in his/her company or in an associated company, failing which he/she shall be obliged to pay the person entitled to exercise the profession the amount of the annual salary of the employee taken over.

SECTION I

1. Scope

(1) The General Conditions of Contract in Section I shall apply to contracts concerning (statutory and voluntary) audits with or without auditor's certificate, expert opinions, court expert opinions, preparation of annual financial statements and other financial statements, tax consultancy and other services to be rendered within the framework of a contract for the rendering of services, excluding bookkeeping, payroll accounting and the administration and assessment of payroll-related taxes and contributions.

(2) The General Conditions of Contract shall apply, if their use has been explicitly or tacitly agreed upon. Furthermore, in the absence of another agreement, they shall be used for reference to facilitate interpretation.

(3) Point 8 shall also apply to third parties whose services, in certain cases, may be enlisted by the contractor for the execution of the contract.

2. Scope and Execution of Contract

(1) Reference shall be made to Items 3 and 4 of the Preamble.

(2) Should the legal situation change subsequent to delivering a final professional statement passed on by the client orally or in writing, the person entitled to exercise the profession shall not be obliged to inform the client of changes or of the consequences thereof. This shall also apply to the completed parts of a contract.

(3) An application submitted by the person entitled to exercise the profession to an authority (e.g. tax office, social security institution) by electronic means, shall be regarded as neither signed by the person entitled to exercise the profession nor by the person authorized to submit such an application.

3. Client's Obligation to Provide Information and Submit Complete Set of Documents

(1) The client shall make sure that all documents required for the execution of the contract be placed in good time and without special request at the disposal of the person entitled to exercise the profession and that he/she be informed of all events and circumstances which may be of significance for the execution of the contract. This shall also apply to documents, events and circumstances which become known only after the person entitled to exercise the profession has commenced his/her work.

(2) The client shall confirm in writing that all documents submitted, all information provided and explanations given in the context of audits, expert opinions and expert services are complete. This statement may be made on the forms specifically designed for this purpose.

(3) If the client fails to disclose considerable risks in connection with the preparation of annual financial statements and other statements, the contractor shall not be obliged to render any compensation in this respect.

4. Maintenance of Independence

(1) The client shall be obliged to take all measures to make sure that the independence of the employees of the person entitled to exercise the profession be maintained and shall refrain from jeopardizing their independence in any way. In particular, this shall apply to offers of employment and to offers to accept contracts on their own account.

(2) The client consents that their personal details, meaning their name and the type and scope of the services, including the performance period, agreed between the professional practitioner and the client (both audit and non-audit services), shall be handled within the information network (network), to which the professional practitioner belongs, and for this purpose transferred to the other members of the information network (network) including abroad (a list of all recipients of communications shall be sent to the client at their request by the commissioned professional practitioner) for the purpose of examination of the existence of grounds of bias or grounds for exclusion within the meaning of Sections 271 et seq. of the Company Code (UGB). For this purpose the client expressly releases the professional practitioner in accordance with the Data Protection Act and in accordance with Section 91 Subsection 4 Clause 2 of the Auditing, Tax Advising and Related Professions Act (WTBG) from their obligation to maintain secrecy. Moreover, the client acknowledges in this regard that in states which are not EU members a lower level of data protection than in the EU may prevail. The client can revoke this consent at any time in writing to the professional practitioner.

5. Reporting Requirements

(1) In the absence of an agreement to the contrary, a written report shall be drawn up in the case of audits and expert opinions.

(2) All information and opinions of the person entitled to exercise the profession and his employees shall only be binding provided they are set down or confirmed in writing. Written opinions shall only be those on which there is a company signature. Written opinions shall in no circumstances be information sent electronically, specifically not via e–mail.

(3) Transmission errors cannot be excluded when information and data is transmitted electronically. The person entitled to exercise the profession and his employees shall not be liable for losses which arise as a result of electronic transmission. Electronic transmission shall be exclusively at the client's risk. The client is aware that confidentiality is not guaranteed when the Internet is used. Furthermore, amendments or supplements to documents transmitted shall only be permissible subject to explicit approval.

(4) Receipt and forwarding of information to the person entitled to exercise the profession and his employees are not always guaranteed when the telephone is used, in particular in conjunction with automatic telephone answering systems, fax, e-mail and other electronic means of communication. As a result, instructions and important information shall only be deemed to have been received by the person entitled to exercise the profession provided they are also received in writing, unless explicit confirmation of receipt is provided in individual instances. Automatic confirmation that items have been transmitted and read shall not as such constitute explicit confirmations of receipt. This shall apply in particular to the transmission of decisions and other information relating to deadlines. As a result, critical and important notifications must be sent to the person entitled to exercise the profession by post or courier. Delivery of documents to employees outside the firm's offices shall not count as delivery.

(5) The client agrees to being sent recurrent general tax law and general commercial law information by the person entitled to exercise the profession via electronic means. This shall not apply to unsolicited information in accordance with § 107 of the Austrian Telecommunications Act (TKG).

6. Protection of Intellectual Property of the Person Entitled to Exercise the Profession

(1) The client shall be obliged to ensure that reports, expert opinions, organizational plans, drafts, drawings, calculations and the like, issued by the person entitled to exercise the profession, be used only for the purpose specified in the contract (e.g. pursuant to Section 44 Para. 3 Austrian Income Tax Act 1988). Furthermore, professional statements passed on by the client orally or in writing made by the person entitled to exercise the profession may be passed on to a third party for use only with the written consent of the person entitled to exercise the profession.

(2) The use of professional statements passed on by the client orally or in writing made by the person entitled to exercise the profession for promotional purposes shall not be permitted; a violation of this provision shall give the person entitled to exercise the profession the right to terminate without notice to the client all contracts not yet executed.

(3) The person entitled to exercise the profession shall retain the copyright on his/her work. Permission to use the work shall be subject to the written consent by the person entitled to exercise the profession.

7. Correction of Errors

(1) The person entitled to exercise the profession shall have the right and shall be obliged to correct all errors and inaccuracies in his/her professional statement passed on by the client orally or in writing which subsequently come to light and shall be obliged to inform the client thereof without delay. He/she shall also have the right to inform a third party acquainted with the original statement of the change.

(2) The client has the right to have all errors corrected free of charge, if the contractor can be held responsible for them; this right will expire six months after completion of the services rendered by the person entitled to exercise the profession and/or – in cases where a written statement has not been delivered – six months after the person entitled to exercise the profession has completed the work that gives cause to complaint.

(3) If the contractor fails to correct errors which have come to light, the client shall have the right to demand a reduction in price. The extent to which additional claims for damages can be asserted is stipulated under Point 8.

8. Liability

(1) The person entitled to exercise the profession shall only be liable for violating intentionally or by gross negligence the contractual duties and obligations entered into.

(2) In cases of gross negligence, the maximum liability for damages due from the appointed person entitled to exercise the profession is tenfold the minimum insurance sum of the professional liability insurance according to Section 11 of the Act on Professions in the Field of Public Accounting (WTBG) in the currently valid version.

(3) Any action for damages may only be brought within six months after those entitled to assert a claim have gained knowledge of the damage, but not later than three years after the occurrence of the (primary) loss following the incident upon which the claim is based, unless other statutory limitation periods are laid down in other legal provisions.

(4) Should Section 275 of the Austrian Business Enterprise Code (Commercial Code, UGB) be mandatorily applicable, the liability provisions pursuant to Section 275 shall apply where these represent mandatory law, even in cases where several persons have participated in the execution of the contract or where several activities requiring compensation have taken place, irrespective of whether other participants have acted with intent.

(5) In cases where a formal audit certificate is issued, the applicable limitation period shall commence at the latest at the time of issue of said audit certificate.

(6) If activities are carried out by enlisting the services of a third party, e.g. a data-processing company, and the client is informed thereof, any warranty claims and claims for damages which arise against the third party according to law and in accordance with the conditions of the third party, shall be deemed as having been passed on to the client. The person entitled to exercise the profession shall only be liable for fault in choosing the third party.

(7) The person entitled to exercise the profession shall not be liable to a third party, if his/her professional statements are passed on by the client orally or in writing without the approval or knowledge of the person entitled to exercise the profession.

(8) The above provisions shall apply not only vis-à-vis the client but also vis-à-vis third parties, if the person entitled to exercise the profession, in exceptional cases, should be liable for his/her work. In any case, a third party cannot raise any claims that go beyond any claim raised by the client. The maximum sum of liability shall be valid only once for all parties injured, including the compensation claims of the client, even if several persons (the client and a third party or several third parties) have been wronged; the claims of the aggrieved parties shall be satisfied in the order in which the claims have been raised.

9. Secrecy, Data Protection

(1) According to Section 91 WTBG the person entitled to exercise the profession shall be obliged to maintain secrecy in all matters that become known to him/her in connection with his work for the client, unless the client releases him/her from this duty or he/she is bound by law to deliver a statement.

(2) The person entitled to exercise the profession shall be permitted to hand on reports, expert opinions and other written statements pertaining to the results of his/her services to third parties only with the permission of the client, unless he/she is required to do so by law.

(3) The person entitled to exercise the profession is authorized to process personal data entrusted to him/her within the framework of the purpose of the contract or to have them processed by a third party according to Point 8 Item 5. The person entitled to exercise the profession shall guarantee that according to Section 15 of the Data Protection Act secrecy be maintained. According to Section 11 of the Data Protection Act the material made available to the person entitled to exercise the profession (data carrier, data, control numbers, analyses and programs) as well as all results obtained as a result of the work provided shall be returned to the client, unless the client has requested in writing that the material and/or results be transferred to a third party. The person entitled to exercise the profession shall be obliged to take measures to ensure that the client can meet his/her obligation to provide information according to Section 26 of the Data Protection Act. The client's instructions required for this purpose shall be given in writing to the person entitled to exercise the profession. Unless a fee has been negotiated for providing such information, the client shall be charged only the actual efforts undertaken. The client shall meet his/her obligation to provide information to those concerned and/or to register in the data processing register, unless the contrary has been explicitly agreed in writing.

10. Termination

(1) Unless otherwise agreed in writing or stipulated by force of law, either contractual partner shall have the right to terminate the contract at any time with immediate effect. The fee shall be calculated according to Point 12.

(2) However, a continuing agreement (even with a flat fee)– always to be presumed in case of doubt –may, without good reason (cf. Section 88 Item 4 WTBG), only be terminated at the end of the calendar month by observing a period of notice of three months, unless otherwise agreed in writing.

(3) Except for cases listed in Item 5, in case of termination of a continuing agreement only those tasks shall be part of the list of jobs to be completed and finished that can be completed fully or to the largest part within the period of notice, with financial statements and annual income tax returns being deemed to be subject to successful completion within two months calculated from the balance sheet date. In this case the above-mentioned jobs actually have to be completed within a reasonable period of time, if all documents and records required are provided without delay and if no good reason within the meaning of Section 88 Paragraph 4 WTBG is cited.

(4) In case of a termination according to Item 2 the client shall be informed in writing within one month which assignments at the time of termination are considered to be part of the work to be completed.

(5) If the client is not informed within this period about the assignments still to be carried out, the continuing agreement shall be deemed terminated upon completion of the tasks under way at the date when the notice of termination is served.

(6) Should it happen that in case of a continuing agreement as defined under Items 2 and 3 – for whatever reason – more than two similar jobs which are usually completed only once a year (e.g. financial statements or annual tax returns etc.) are to be completed, any such jobs exceeding this number shall be regarded as assignments to be completed only with the client's explicit consent. If applicable, the client shall be informed of this explicitly in the statement pursuant to Item 4.

11. Default in Acceptance and Failure to Cooperate on the part of the Client

If the client defaults on acceptance of the services rendered by the person entitled to exercise the profession or fails to carry out a task incumbent on him/her either according to Point 3 or imposed on him/her in another way, the person entitled to exercise the profession shall have the right to terminate the contract without prior notice. His/her fees shall be calculated according to Point 12. Default in acceptance or failure to cooperate on the part of the client shall also justify a claim for compensation made by the person entitled to exercise the profession for the extra time and labor hereby expended as well as for the damage caused, if the person entitled to exercise the profession does not invoke his/her right to terminate the contract.

12. Entitlement to Fee

(1) If the contract fails to be executed (e.g. due to termination), the person entitled to exercise the profession shall be entitled to the negotiated fee, provided he/she was prepared to render the services and was prevented from so doing by circumstances caused by the client (Section 1168 of the Civil Code (ABGB)); in this case the person entitled to exercise the profession need not deduct the amount he/she obtained or could have obtained through alternative use of his/her own professional services or those of his/her employees.

(2) If the client fails to cooperate and the assignment cannot be carried out because of lack of cooperation, person entitled to exercise the profession shall also have the right to set a reasonable grace period on the understanding that, if this grace period expires without results, the contract shall be deemed cancelled and the consequences indicated in Item 1) shall apply.

(3) If the person entitled to exercise the profession terminates the contract without good reason and at an inopportune moment, he/she shall compensate the client for the damage caused according to Point 8.

(4) If the client – having been made aware of the legal situation – agrees that the person entitled to exercise the profession duly completes the task, the work shall be completed accordingly.

13. Fee

(1) Unless the parties agreed that the services would be rendered free of charge or unless explicitly stipulated otherwise, an appropriate remuneration in accordance with Sections 1004 and 1152 of the Austrian Civil Code (ABGB) is due. Unless a different agreement has demonstrably been reached, payments by the client shall in all cases be credited against the oldest debt. The claim for remuneration by the person entitled to exercise the profession is based upon an agreement concluded between him/her and the principal involved.

(2) Proper understanding between the person entitled to exercise the profession and their principals is most effectively achieved by clearly expressed remuneration agreements.

(3) The smallest service unit which may be charged is a quarter of an hour.

(4) Travel time to the extent required is also charged in most cases.

(5) Study of documents which, in terms of their nature and extent, may prove necessary for preparation of the person entitled to exercise the profession in his/her own office may also be charged as a special item

(6) Should a remuneration already agreed upon prove inadequate as a result of the subsequent occurrence of special circumstances or special requirements of the principal, additional negotiations for the agreement of a more suitable remuneration are usual. This also usually applies where inadequate fixed sum remunerations are concerned.

(7) Persons entitled to exercise the profession also include charges for supplementary costs and value-added (turnover) tax in addition to the above.

(8) Supplementary costs also include documented or flatrate cash expenses, travelling expenses (first class for train journeys, sleeping car (wagon lits) if necessary, dietary requirements, mileage allowance, photocopy costs and similar supplementary costs.

(9) Should particular third party liabilities be involved, the necessary insurance premiums also count as supplementary costs.

(10) Personnel and material expenses for the preparation of reports, expertises and similar documents are also viewed as supplementary costs.

(11) For the execution of a commission wherein mutual conclusion involves several persons entitled to exercise the profession, each of the latter will charge his/her own remuneration.

(12) Remunerations and advance payments required are due immediately after receipt of their written claim should no other agreements exist. Where payments of remuneration are made later than 14 days after the due date, default interest may be charged. Where mutual business transactions are concerned, a default interest rate of 8% above the base rate is agreed upon (Cf. Section 352 of the Austrian Business Enterprise Code (Commercial Code, UGB)).

(13) Time limitation is in accordance with Section 1486 of the Austrian Civil Code (ABGB), starting at the time of conclusion of the service involved or a later rendering of accounts after an appropriate time-limit.

(14) An objection may be raised in writing against bills presented by the appointed trustee up to 4 weeks after the date of presentation. Otherwise the bill is considered as accepted. Filing of a bill in the accounting system of the recipient is also considered as acceptance.

(15) Application of § 934 ABGB (Austrian Civil Code) within the meaning of § 351 Austrian Business Enterprise Code (Commercial Code, UGB), i.e. rescission for laesio enormis (lesion beyond moiety) among entrepreneurs, is hereby renounced.

14. Other Provisions

(1) In addition to the reasonable rate or fee charged, the person entitled to exercise the profession shall have the right to claim reimbursement of expenses. He/she can ask for advance payments and can make delivery of the results of his/her (continued) work dependent on satisfactory fulfillment of his/her demands. In this context reference shall be made to the legal right of retention (Section 471 of the Civil Code (ABGB), Section 369 of the Austrian Business Enterprise Code (Commercial Code, UGB)). If the right of retention is wrongfully exercised, the person entitled to exercise the profession shall be liable only in case of gross negligence up to the outstanding amount of his/her fee. As regards standing orders, the provision of further services may be denied until payment of previous services has been effected. This shall analogously apply if services are rendered in installments and fee installments are outstanding.

(2) After all the data to be archived, which has been prepared by the public accountant and tax advisor, has been delivered to the client or to the succeeding public accountant and tax advisor, the person entitled to exercise the profession shall be entitled to delete the data in question.

(3) With the exception of obvious essential errors, a complaint concerning the work of the person entitled to exercise the profession shall not justify the retention of remuneration owed in accordance with Item 1.

(4) Offsetting the remuneration claims made by the person entitled to exercise the profession in accordance with Item 1 shall only be permitted, if the demands are uncontested and legally valid.

(5) At the request and expense of the client, the person entitled to exercise the profession shall hand over all documents received from the client within the scope of his/her activities. However, this shall not apply to correspondence between the person entitled to exercise the profession and his/her client, to original documents in his/her possession or to

documents which have to be kept in accordance with the directive on money laundering. The person entitled to exercise the profession may make or retain copies or duplicates of the documents to be returned to the client. The client shall be obliged to bear these expenses in so far as these copies or duplicates may be required as a proof of the orderly execution of all professional duties by the person entitled to exercise the profession.

(6) In the event of termination of the contract, the contractor shall be entitled to charge an appropriate fee for further queries after termination of the contract and for granting access to the relevant information about the audited company.

(7) The client shall fetch the documents handed over to the person entitled to exercise the profession within three months after the work has been completed. If the client fails to do so, the person entitled to exercise the profession shall have the right to return them to the client at the cost of the client or to charge safe custody charges, if the person entitled to exercise the profession can prove that he/she has asked the client twice to pick up the documents handed over.

(8) The person entitled to exercise the profession shall have the right to compensation of any fees that are due by use of any available deposited funds, clearing balances, trust funds or other liquid resources at his/her disposal even if these funds are explicitly intended for safe keeping, if the client had to reckon with a counterclaim of the person entitled to exercise the profession.

(9) To safeguard an existing or future fee payable, the person entitled to exercise the profession shall have the right to transfer a balance held by the client with the tax office or another balance held by the client in connection with charges and contributions, to a trust account. In this case the client shall be informed about the transfer. Subsequently, the amount secured may be collected either after agreement has been reached with the client or after enforceability by execution has been declared.

15. Applicable Law, Place of Performance, Jurisdiction

(1) The contract, its execution and the claims resulting from it shall be exclusively governed by Austrian law.

(2) The place of performance shall be the place of business of the person entitled to exercise the profession.

(3) In case of disputes, the court of the place of performance shall be the competent court.

16. Supplementary Provisions for Audits

(1) For statutory audits of financial statements which are carried out in order to issue a formal audit certificate (e.g. Section 268 and the following sections of the Company Code), the purpose of the contract, unless otherwise agreed to in writing, shall not be to investigate whether regulations concerning tax laws or specific regulations, e.g. price fixing, restriction of competition and foreign exchange regulations have been adhered to. Neither shall the purpose of the statutory audit of financial statements be to investigate whether the business is run in an economical, efficient and expedient manner. Within the framework of a statutory audit of a financial statement there shall be no obligation to detect the falsification of accounts or other irregularities.

(2) When a qualified or unqualified audit certificate is issued within the scope of a statutory audit of the annual financial statement, the audit certificate issued shall be appropriate for the respective type of business organization.

(3) If financial statements are published together with the audit certificate, they shall only be published in the form confirmed or explicitly permitted by the auditor.

(4) If the auditor revokes his/her audit certificate, the further use thereof shall no longer be permitted. If the financial statements have been published with the audit certificate, the revocation thereof shall also be published.

(5) For other statutory and voluntary audits of financial statements as well as for other audits, the above principles shall apply accordingly.

17. Supplementary Provisions concerning the Preparation of Annual Financial Statements and Other Financial Statements, Consultation and Other Services to be Provided within the Framework of a Contract for the Rendering of Services

(1) The person entitled to exercise the profession, when performing the aforementioned activities, shall be justified in accepting information provided by the client, in particular figures, as correct. However, he/she is obliged to inform the client of any errors identified by him/her. The client shall present the person entitled to exercise the profession with all important documents required for keeping deadlines, in particular tax assessment notices, in good time so as to ensure that the person entitled to exercise the profession has a reasonable amount of time, but not less than one week, to process the information.

(2) In the absence of written agreements to the contrary, consultation shall consist of the following activities:

a) preparing annual tax returns for income tax and corporate tax as well as value-added tax (VAT) on the basis of the financial statements and other documents and papers required for taxation purposes and to be submitted by the client or prepared by the contractor.
b) examining the tax assessment notices for the tax returns mentioned under a).
c) negotiating with the fiscal authorities in connection with the tax returns and notices mentioned under a) and b).
d) participating in external tax audits and assessing the results of external tax audits with regard to the taxes mentioned under a).
e) participating in appeal procedures with regard to the taxes mentioned under a). If the person entitled to exercise the profession receives a flat fee for regular tax consultation, in the absence of written agreements to the contrary, the activities mentioned under d) and e) shall be invoiced separately.

(3) Particular matters pertaining to income tax, corporate tax and ratable value tax return as well as all matters relating to value-added tax, withholding tax on salaries and wages and other taxes and duties shall only be prepared on the basis of a specific contract. This shall also apply to

a) processing non-recurring matters pertaining to tax, e.g. inheritance tax, capital transfer tax, land transfer tax,
b) the defense and consultation in penal procedures relating to the taxes mentioned,
c) providing consultation and expert opinions in matters pertaining to the foundation, restructuring, merger, capital increase and decrease, and reorganization of a company, entry and retirement of a shareholder or partner, sale of a business, winding up, management consultancy and other activities according to Sections 3 to 5 of the Act on Professions in the Field of Public Accounting (WTBG).
d) the preparation of applications to the Register of Companies in connection with annual financial statements, including the keeping of records required.

(4) Provided the preparation of the annual value added tax return is part of the contract accepted, this shall not include the examination of any particular accounting conditions nor the examination of whether all relevant value added tax concessions have been utilized, unless the person entitled to exercise the profession can prove that he/she has been commissioned accordingly.

(5) The aforementioned paragraphs shall not apply to services requiring particular expertise provided by an expert.

SECTION II
18. Scope

The General Conditions of Contract in Section II shall apply to contracts for the rendering of services in the field of bookkeeping, payroll accounting and the administration and assessment of payroll-related taxes and contributions.

19. Scope and Execution of Contract

(1) Reference shall be made to Items 3 and 4 of the Preamble.

(2) The person entitled to exercise the profession shall be justified in regarding information and documents presented to him/her by the client, in particular figures, as correct and complete and in using them as a basis for accounting. The person entitled to exercise the profession shall not be obliged to identify errors, unless he/she has been specifically instructed to do so in writing. However, if errors are identified, he/she shall inform the client thereof.

(3) If a flat fee has been negotiated for the activities mentioned in Point 18, in the absence of written agreements to the contrary, representation in matters concerning all types of tax audits and audits of payroll-related taxes and social security contributions including settlements concerning tax assessments and the basis for contributions, preparation of reports, appeals and the like shall be invoiced separately.

(4) Particular individual services in connection with the services mentioned in Point 18, in particular ascertaining whether the requirements for statutory social security contributions are met, shall be dealt with only

on the basis of a specific contract and shall be treated according to Section I or Section III of the General Conditions of Contract.
(5) Any application submitted to authorities (e.g. tax office, social insurance institution) electronically, shall be regarded as neither signed by the person entitled to exercise the profession nor by the person authorized to transmit the application.

20. Client's Duty to Cooperate

The client shall make sure that all information and documents required for bookkeeping, payroll accounting and administration and assessment of payroll-related taxes and contributions be placed at the disposal of the person entitled to exercise the profession on an agreed date without his/her specific request.

21. Termination

(1) Unless otherwise agreed to in writing, either contractual partner may terminate the contract at the end of each month with three months' notice without giving a particular reason.

(2) If the client repeatedly fails to fulfill his/her duties according to Point 20, the person entitled to exercise the profession shall have the right to terminate the contract immediately without prior notice.

(3) If the person entitled to exercise the profession delays in rendering services due to reasons for which he/she is solely responsible, the client shall have the right to terminate the contract immediately without prior notice.

(4) In case of a termination of the contractual relationship only those assignments shall be considered part of the contract which the contractor is already working on or major parts of which can be completed within the period of notice and which are notified to the client within one month.

22. Fee and Entitlement to Fee

(1) Unless otherwise agreed to in writing, the fee shall be considered agreed upon for one year at a time.

(2) If the contract is terminated pursuant to Point 21 Item 2 the person entitled to exercise the profession shall have the right to the full fee negotiated for three months. This shall also apply if the client fails to observe the period of notice.

(3) If the contract is terminated pursuant to Point 21 Item 3, the person entitled to exercise the profession shall only have the right to the fee corresponding to the services rendered up to this point, provided they are of value to the client.

(4) If a flat fee has not been negotiated, the fee shall be calculated pursuant to Item 2 according to the monthly average of the current year of contract until termination.

(5) Unless the parties agreed that the services would be rendered free of charge or unless explicitly stipulated otherwise, an appropriate remuneration in accordance with Sections 1004 and 1152 of the Austrian Civil Code (ABGB) is due. Unless a different agreement has demonstrably been reached, payments by the client shall in all cases be credited against the oldest debt. The claim for remuneration by the person entitled to exercise the profession is based upon an agreement concluded between him/her and the principal involved. Furthermore, the basics standardized under section 13 apply.

(6) Application of § 934 ABGB (Austrian Civil Code) within the meaning of § 351 Austrian Business Enterprise Code (Commercial Code, UGB), i.e. rescission for laesio enormis (lesion beyond moiety) among entrepreneurs, is hereby renounced.

23. Other Provisions

In all other cases, the provisions of Section I of the General Conditions of Contract shall apply accordingly.

SECTION III

24. Scope

(1) The General Conditions of Contract in Section III shall apply to all contracts not mentioned in the previous sections, which are not to be regarded as contracts for rendering services and are not related to the contracts mentioned in the previous sections.

(2) In particular, Section III of the General Conditions of Contract shall apply to contracts concerning the non-recurring participation in negotiations, to services as an agent in matters pertaining to insolvency, to contracts concerning non-recurring interventions and the handling of the individual matters mentioned in Point 17 Item 3 in the absence of a continuing agreement.

25. Scope and Execution of Contract

(1) Reference shall be made to Items 3 and 4 of the Preamble.

(2) The person entitled to exercise the profession shall be justified in regarding and obliged to regard information and documents presented to him/her by the client, in particular figures, as correct and complete. In case of penal procedures he/she shall protect the rights of the client.

(3) The person entitled to exercise the profession shall not be obliged to identify errors, unless he/she has been specifically instructed to so in writing. However, if he/she identifies errors, the client shall be informed accordingly.

26. Client's Duty to Cooperate

The client shall make sure that all the necessary information and documents be placed at the disposal of the person entitled to exercise the profession in good time and without his/her special request.

27. Termination

Unless otherwise agreed to in writing or stipulated by force of law, either contractual party shall have the right to terminate the contract at any time with immediate effect (Section 1020 of the Civil Code (ABGB)).

28. Fee and Entitlement to Fee

(1) Unless the parties agreed that the services would be rendered free of charge or unless explicitly stipulated otherwise, an appropriate remuneration in accordance with Sections 1004 and 1152 of the Austrian Civil Code (ABGB) is due. Unless a different agreement has demonstrably been reached, payments by the client shall in all cases be credited against the oldest debt. The claim for remuneration by the person entitled to exercise the profession is based upon an agreement concluded between him/her and the principal involved. Furthermore, the basics standardized under section 13 apply.

(2) In the event of termination the fee shall be calculated according to the services rendered up to this point, provided they are of value to the client.

(3) Application of § 934 ABGB (Austrian Civil Code) within the meaning of § 351 Austrian Business Enterprise Code (Commercial Code, UGB), i.e. rescission for laesio enormis (lesion beyond moiety) among entrepreneurs, is hereby renounced.

29. Other Provisions

The reference in Point 23 to provisions in Section I shall apply accordingly.

SECTION IV

30. Scope

The Conditions of Contract of Section IV shall only apply to consumer business in accordance with the Consumer Act (Federal Law of March 8, 1979/Federal Law Gazette No. 140 as amended).

31. Supplementary Provisions for Consumer Transactions

(1) Contracts between persons entitled to exercise the profession and consumers shall fall under the obligatory provisions of the Consumer Act.

(2) The person entitled to exercise the profession shall only be liable for the deliberate and gross negligent violation of the obligations assumed.

(3) Contrary to the limitation laid down in Point 8 Item 2 of the General Conditions of Contract, the duty to compensate on the part of the person entitled to exercise the profession shall not be limited in case of gross negligence.

(4) Point 8 Item 3 of the General Conditions of Contract (asserting claims for damages within a certain period) shall not apply.

(5) Right of Withdrawal according to Section 3 of the Consumer Protection Act

If the consumer has not made his/her contract statement in the office usually used by the person entitled to exercise his/her profession, he/she may withdraw from the contract application or the contract proper. This withdrawal may be declared until the contract has been concluded or within one week after its conclusion; the period commences as soon as a document has been handed over to the consumer which contains at least the name and the address of the person entitled to exercise the profession as well as instructions on the right to revoke the contract, but no earlier than the conclusion of the contract.

The consumer shall not have the right to withdraw from the contract,

1. if the consumer himself/herself established the business relationship concerning the conclusion of this contract with the person entitled to exercise the profession or his/her agent,

2. if the conclusion of the contract has not been preceded by any talks between the parties involved or their agents or

3. in case of contracts where the mutual services have to be provided immediately, if the contracts are usually concluded outside the offices of the persons entitled to exercise the profession, and the fee agreed upon does not exceed €15.

In order to become legally effective, the revocation shall be declared in writing. It is sufficient if the consumer returns a document that contains his/her contract declaration or that of the person entitled to exercise the profession to the person entitled to exercise the profession with a note which reveals that the consumer rejects the conclusion or the maintenance of the contract. It is sufficient if this declaration is dispatched within a week.

If the consumer withdraws from the contract according to Section 3 of the Consumer Act,

1. the person entitled to exercise the profession shall return all benefits received, including all statutory interest, calculated from the day of receipt, and to compensate the consumer for all necessary and useful expenses incurred in this matter,

2. the consumer shall pay for the value of the services rendered by the person entitled to exercise the profession as far as they are of a clear and predominant benefit to him/her.

According to Section 4 Paragraph 3 of the Consumer Act claims for damages shall remain unaffected.

(6) Cost Estimates according to Section 5 of the Consumer Act

The consumer shall pay for the preparation of a cost estimate in accordance with Section 1170a of the Austrian Civil Code by the person entitled to exercise the profession only, if this payment obligation has been notified to the consumer beforehand.

If the contract is based on a cost estimate prepared by the person entitled to exercise the profession, its correctness shall be deemed warranted as long as the opposite has not been explicitly declared.

(7) Correction of Errors: Supplement to Point 7

If the person entitled to exercise the profession is obliged according to Section 932 of the Austrian Civil Code to improve or complement his/her services, he/she shall execute this duty at the place where the matter was transferred to him/her. If it is in the interest of the consumer to have the work and the documents returned by the person entitled to exercise the profession, the consumer may carry out this transfer at his/her own risk and expense.

(8) Jurisdiction: Instead of Point 15 Item 3:

If the domicile or the usual residence of the consumer is within the country or if he/she is employed within the country, in case of an action against him/her according to Sections 88, 89, 93 Paragraph 2 and 104 Paragraph 1 JN the jurisdiction of a court shall depend on the district where the consumer has his domicile, usual residence or place of employment.

(9) Contracts on Recurring Services

(a) Contracts which oblige the person entitled to exercise the profession to render services and the consumer to effect repeated payments and which have been concluded for an indefinite period or a period exceeding one year, may be terminated by the consumer at the end of the first year, and after the first year at the end of every six months, by adhering to a two-month period of notice.

(b) If the total work is regarded as a service that cannot be divided on account of its character, the extent and price of which is determined already at the conclusion of the contract, the first date of termination may be postponed until the second year has expired. In case of such contracts the period of notice may be extended to a maximum of six months.

(c) If the execution of a certain contract indicated in lit.a) 1 requires considerable expenses on the part of the person entitled to exercise the profession and if he/she informed the consumer about this not later than when the contract was concluded, reasonable dates of termination and periods of notice which deviate from lit.a) and b) and which fit the respective circumstances may be agreed.

(d) If the consumer terminates the contract without complying with the period of notice, the termination shall become effective at the next termination date which follows the expiry of the period of notice.

Niagara Tunnel Project-PKF Audit of Expatriate Costs-Memo to File

PKF Revisionstreuhand Wirtschaftsprufungsgesellschaft m.b.H. **(PKF)** is an Austrian accounting firm hired to perform an audit of the wages and salary of Strabag's expatriate staff charged to Ontario Power Generation's Niagara Tunnel Project. The audit compares invoiced amounts to the actual payroll costs from Dec 1, 2008 to August 30, 2013 which are under a target price contract. Prior to December 1, 2008 the contract was a fixed price contract and all costs were the responsibility of Strabag Inc.

BRVZ an internal service provider for the Strabag Group provides the salary accounting for the companies of the Strabag Group. Strabag AG charges the outgoing invoices to Strabag Inc., the Canadian Company. Strabag Inc then charges these costs to Ontario Power Generation **(OPG)** by way of a monthly invoice.

The results of the audit showed an estimated net difference of 42,664.48€ between the adjusted invoiced amount and the payroll accounting system, which represents an estimated error rate of 0.23%. This result assumes that OPG reimburses Strabag for two adjustments identified by PKF. (Appendix A).

The first adjustment related to the August 31, 2009 invoice from Strabag AG to Strabag Inc for 160,763.34€ relating to salary cost. This amount included a credit of -115,357.68€ for bonus payments pertaining to the old bonus regime i.e. prior to December 1, 2008. Durward Jones Barkwell & Company LLP (DJB), the Canadian auditor, has also confirmed that OPG was billed the 160,763.34€. (Appendix B).

The second item relates to the salary of Sven Hoiser. In January 2009, 7,650€ was invoiced concerning Sven Hoiser's salary from April 2007. The target price agreement started in December 2008 so this cost has to be eliminated. Strabag charged this cost to OPG. (Appendix C)

If OPG does not reimburse Strabag for the net amount, then the total estimated under-invoiced position is 65,038€ or approximately $92,822 CAD.

	Invoices of Strabag to OPG	Payroll Actg Strabag Austria	Difference	% of Billing	Exchange € to CAD 1.4272
Total sum per Audit (Including Unbilled Errror)	€ 18,508,441.83	€ 18,465,773.35	€ 42,668.48	0.23%	60,896.45
Deduct errors	€ (107,707.00)		€ (107,707.00)		(153,719.43)
Amount billed	€ 18,400,734.83	€ 18,465,773.35	€ (65,038.52)	-0.35%	(92,822.98)

Recommendation

It is our recommendation to accept the audit as filed and to accept that these two items will not clear, as the overall net error amount is immaterial in the context of the contract and is an estimate based on sampling.

Recommended By	Finance Approval	Line Approval
3/25/14	3/17/2014	
Dick Jessop	Jay Scrinko	Mike Martelli
Director, HTO Projects	VP Hydro Thermal Finance	SVP, Hydro-Thermal Operations

Appendix A

Cost center name

HWXA

HWXA Final Comparison	invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
2008	202.750,08	207.569,16	-4.819,08
2009	3.327.957,13	3.301.699,80	26.257,33
2010	3.818.943,14	3.877.710,90	-58.767,76
2011	3.758.456,59	3.752.941,55	5.515,04
2012	2.928.721,75	2.915.072,88	13.648,87
1-8/2013	572.939,24	510.249,36	62.689,88
	14.609.767,93	14.565.243,65	44.524,28

XFCB

XFCB Final Comparison	invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
2008	29.902,70	9.786,17	20.116,53
2009	378.478,19	314.567,86	63.910,33
2010	524.616,01	503.627,50	20.988,51
2011	1.445.124,43	1.467.110,18	-21.985,75
2012	1.422.015,11	1.505.757,70	-83.742,59
1-8/2013	98.537,46	99.684,29	-1.146,83
	3.898.673,90	3.900.533,69	-1.859,79

total Sum	18.508.441,83	18.465.777,35	EUR 42.664,48
			0,23%
		exch. Rate EUR - CAD	1,4272
		25.11.2013	CAD 60.890,75

PKF noted adjustments are:.

	invoices of Strabag to OPG	Payroll Accounting, Strabag Austria	Difference
2009	3.420.195,43	3.327.881,28	92.314,15
costs related to old agreement:			
employee Hoiser, faulty invoice	-7.650,00	0,00	-7.650,00
faulty credit note 2009 for bonus 2008	115.357,00	0,00	115.357,00
Correction bonus payment 2009 for 2008	0,00	-85.674,97	85.674,97
costs invoiced within the personell cost but without belonging to the personell:			
invoiced material costs	-6.915,76	0,00	-6.915,76
aggregation of bonus payments - interperiod changes:			
costs bonus payment 2009 payed in 2010	0,00	73.175,16	-73.175,16
credit note bonus payment in 2010 concerning 2009	-193.029,54	0,00	-193.029,54
change in accruals:			
accrual for severance pay in the future	0,00	19.502,00	-19.502,00
accrual for holidays (to be taken in the future)	0,00	-33.183,67	33.183,67
remaining difference	3.327.957,13	3.301.699,80	26.257,33

Appendix B

Billing to Strabag Inc

STRABAG AG
DIREKTION IT - HOHLRAUMBAU
DONAU-CITY-STRASSE 9
A-1220 WIEN
TEL: 01/22422-0 FAX: 01/22422-2226
UID: ATU14487107
Firmenbuch: FN 61689w
Dienstgebernummer: 800427774

D11/HW/HWXA RADLINGER

STRABAG INC.
NIAGARA TUNNEL FACILITY PROJECT

2520 STANLEY AVENUE
CDN L2E-6S4 NIAGARA FALLS, ONTARIO

Kunden-Nr 0223002
Blatt 1
Zeichen ZWEIBRDT

Kopie
R E C H N U N G

per 08/2009
Nummer HW09100024
Datum 31.08.2009

ıtum/Ls	Menge / EH	Text	Einh Preis	Gesamtbetrag	C
		08/2009			
31.08.09	1,00 ps	Salaries (gross)	160.763,34	160.763,34	
		Nettobetrag (Kto:82783)		160.763,34	
		0,00% Mehrwertsteuer		0,00	
		Rechnungsbetrag	EUR	**160.763,34**	

Zahlung innerhalb von 30 Tagen netto ohne Abzug

1 x Strabag Inc. Ontario
1 x Strabag Wien, Dir.IT
1 x FG Verrechnungsstelle

IBAN: AT731200010814000500 BIC:BKAUATWW
Bankverbindung: Blz: 12000 Konto-Nr: 10814000500 UniCredit Bank Austria AG
Gerichtsstand: A-9800 SPITTAL/DRAU

Appendix A cont.

Breakout of billing

Invoice number:	HW09100024
Invoice amount:	160,763.34

Details according cost center report

Account No.	Amount
Salary	
71105	197,605.34
71198	-115,357.68
71397	78,115.53
11293	68.19
61193	138.45
61194	105.00
72191	18.51
73800	70.00
Subtotal	**160,763.34**

Billing in Strabag Inc's books as per DJB

	Memo	Class	Amount	Balance
Total 1230 · Employer cost on salaries			-32,678.67	-32,678.67
1250 · Salaries charged by group com.				
	160,763.34 Eur@ rate 1.5741		-253,057.58	-253,057.58
Total 1250 · Salaries charged by group com.			-253,057.58	-253,057.58

Filed: 2014-06-04
EB-2013-0321
Exhibit L
Tab 4.5
Schedule 17 SEC-041
Attachment 19

Appendix C

011 0000000 STRABAG AG   XP09500005 20090220 XFCB

V02
STRABAG AG
DIREKTION IP - ABDICHTUNG
DONAU-CITY-STRASSE 9
A-1220 WIEN
TEL: 01/22422-0   FAX: 01/22422-2226

011/XP/XFCB SCHELBERG.

STRABAG AG
DIREKTION IT - HOHLRAUMBAU

DONAU-CITY-STRASSE 9
A-1220 WIEN

Blatt 1
Zeichen SCHELBERGE

011/ENXA NIAGARA TUNNEL / GSCHNITZER

Kopie
I N T E R N - R E C H N U N G

per 02/2009
Nummer XP09500005
Datum 20.02.2009

Nachverrechnung Gehaltskosten Sven HOISER aus
April 2007

A	Datum/Ls	Menge / EH	Text	Einh.Preis	Gesamtbetrag VA
			Nachverrechnung Gehalt		
T			Sven Hoiser aus April 2007		
-	20.02.09	1,00 PA	Gehaltskosten	7.650,00	7.650,00 GK
-			Summe GK (71194/81794)		7.650,00
			Rechnungsbetrag	**EUR**	**7.650,00**

→ gehört bei OPG
Faktura zurück.

Diese Rechnung wird automatisch mit dem vollen Betrag gebucht.
Korrekturen sind dem Absender am Prüfexemplar umgehend bekanntzugeben

Corrected: 2014-06-04
EB-2013-0321
Exhibit L
Tab 4.7
Schedule 17 SEC-047
Attachment 1

Numbers may not add due to rounding.

Table 1
Capital Project Listing - Nuclear Operations Facility Projects
Projects ≥ $20M Total Project Cost

Line No.	Facility	Project Name	Project Number	Projected In-Service Date[1]	Final In-Service Date[2]	Original Project Cost[1] (M$)	Total Project Cost[2] (M$)	Forecast In-Service 2010[3] (M$)	Actual In-Service 2010 (M$)	Forecast In-Service 2011[3] (M$)	Actual In-Service 2011 (M$)	Forecast In-Service 2012[3] (M$)	Actual In-Service 2012 (M$)	Forecast In-Service 2013[4] (M$)	Actual In-Service 2013 (M$)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
		ONGOING PROJECTS FROM EB-2010-0008													
1	SEC	Physical Barrier System	25609	Jun-10	Dec-13	49.4	57.6	1.1	2.5	0.0	8.5	0.0	0.0	0.0	7.2
2	DN	Improve Maintenance Facilities at Darlington	31717	Dec-11	Oct-13	57.7	35.8	0.0	0.0	0.0	0.0	39.9	0.0	31.4	32.2
3	DN	Chiller Replacement to Reduce CFC Emissions	33631	Dec-11	Jun-16	14.9	26.0	4.0	8.9	8.0	4.2	1.3	5.6	4.1	2.9
4	DN	Standby Generator Controls Replacement	33973	May-12	Jun-16	22.3	25.1	0.0	0.0	2.8	0.0	5.6	0.0	8.9	0.0
5	DN	DCC Replacement / Refurbishment / Upgrades	33977	Dec-10	Sep-14	82.2	23.5	14.0	0.0	0.0	13.2	2.9	2.7	0.8	3.3
6	PN	Standby Generator Governor Upgrade	49109	Aug-08	Oct-14	22.3	22.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7		**Subtotal**				248.8	190.8	19.6	11.4	10.7	26.0	49.7	8.3	45.2	45.6
		COMPLETED/DEFERRED/CANCELLED FROM EB-2010-0008													
8	SEC	Security Monitoring Room	25905	Nov-10	Dec-12	20.4	19.2	2.4	0.0	0.3	0.0	0.0	2.2	0.0	0.0
9	SEC	Security Project F	25909	Oct-11	Apr-13	30.5	39.9	2.9	24.0	1.2	4.7	0.0	10.8	0.0	0.9
10	DN	New Change Room Facility	31718	Jun-10	Jul-10	23.8	23.8	5.2	3.9	0.0	0.4	0.0	0.0	0.0	0.0
11	PN	Reactor Structures-Calandria Vault Inspection	46537	Apr-10	Aug-10	26.4	23.6	13.5	10.9	2.3	1.2	0.0	0.0	0.0	0.0
12	PN	Site - D2O Storage Facility	49251	Deferred	Cancelled	17.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0		0.0
13	PN	ISTB Cabling Permanent Modification [5]	49270	Jun-10	May-10	19.4	40.3	15.2	34.8	0.7	0.0	0.0	0.0	0.0	4.0
14	ENG	Feeder Repair by Weld Overlay	62568	Jun-11	Deferred	53.2	0.0	0.0	0.0	40.3	0.0	0.0	0.0	0.0	0.0
15		**Subtotal**				191.1	147.2	39.2	73.6	44.8	6.3	0.0	13.1	0.0	4.9
		PROJECTS NOT IN EB-2010-0008													
16	PN	PA Mod/Replace FRP Components During 2010 VBO	49285	May-10	Jun-10	12.8	17.8	0.0	16.5	0.0	0.7	0.0	0.0	0.0	0.0
17	PN	Fuel Handling Single Point of Vulnerability Equipment Reliability Improvement	46634	Dec-13	Dec-14	27.3	20.8	0.0	0.0	0.0	0.0	0.0	0.0	8.8	13.5
18		**Subtotal**				40.1	38.5	0.0	16.5	0.0	0.7	0.0	0.0	8.8	13.5
19		**Total**				479.9	376.5	58.9	101.5	55.5	33.0	49.7	21.4	54.0	64.0

Notes:
1 As reported in EB-2010-0008 or in the BCS
2 Final in-service dates and costs are actual values or the forecasted values if project is not yet completed.
3 Forecast in-service values as detailed in EB-2010-0008
4 Forecast in-service values as detailed in EB-2013-0321
5 ISTB Cabling Permanent Modification was declared in-service May 2010. Two minor deficiencys were subsequently identified and the 2013 expenditure expenditure in 2013 is related to completing work to address these deficiencies

Board Staff Interrogatory #047

Ref: Exh D2-2-1 & Exh N1-1-1 Updated D2-2-1 Attachment 5 & Feb 6, 2014 Cover Letter from OPG.

Issue Number: 4.9
Issue: Are the proposed test period in-service additions for the Darlington Refurbishment Project appropriate?

Interrogatory

OPG notes at page 13 of Exh D2-2-1, that "In November 2013, Management will update the overall Business Case for the DRP and present it to OPG's Board of Directors for approval. Management will also request a release of funds to complete the Definition Phase, projected in the amount of $857M in 2014 and $650M in 2015." On December 6, 2013 OPG filed its 2014-2016 Corporate Business Plan, dated November 14, 2013, which it had presented to its Board of Directors. On February 6, 2014 OPG filed an updated Business Case Summary for the DRP, including a cover letter which stated that the Updated Business Case Summary was approved by OPG's Board of Directors in November 2013.

a) Did the Board of Directors approve without qualification the Corporate Business Plan dated November 14, 2013?

b) Are the elements (e.g. costs, schedule) in the DRP Updated Business Case, exactly the same as those presented in the 2014-2016 Corporate Business Plan regarding the DRP? If not, please list and explain the differences.

c) Please list the material differences between the Updated Business Case Summary filed on Feb 6, 2014 and the Recommendation For Submission to the Board of Directors (dated November 15, 2012) it replaced.

d) Are there any differences between the Updated Business Case Summary approved by the Board of Directors in November 2013 and the one filed with the Board on February 6, 2014?
    i. If the two versions are the same, please identify and explain the cause for the delay in filing the Updated Business Case Summary with the OEB. In your response please address OPG's stated commitment that it would be filing its DRP Updated Business Case in late 2013.
    ii. If the Updated Business Case Summary approved by the OPG's Board of Directors is not the same as the one filed on February 6, 2014, please identify and explain the differences.

Response

a) Yes.

b) The elements in the DRP Updated Business are aligned with those in the 2014 -2 016 Corporate Business Plan regarding the DRP. For differences, see part c) below.

c) The updated Business Case Summary (Ex. D2-2-1, Attachment 5) filed on Feb. 6, 2014 incorporated the following changes from the Economic Update approved on November 15, 2012.

   I. An update on project progress including revised annual cash flows for 2014 and 2015 within the Definition phase.
   II. An update of the project estimate from $10.8B ($2012) to $10.0B ($2013).
   III. A revised schedule, for planning purposes, which includes a decision to un-lap the first refurbishment unit from the subsequent units resulting in a 108 month refurbishment execution phase schedule.

d) The updated Business Case Summary submitted on Feb. 6, 2014, is the same as the basis for OPG approval on November 14, 2013. OPG intended to file the updated Business Case Summary in time for OEB Staff and Intervenors to review it prior to submission of interrogatories, which is what happened.

CME Interrogatory #008

Ref: Exhibit F5-2-1, pages 28-29

Issue Number: 6.5
Issue: Is the forecast of nuclear fuel costs appropriate? Has OPG responded appropriately to the suggestions and recommendations in the Uranium Procurement Program Assessment report?

Interrogatory

CME wishes to better understand the extent to which OPG has optimized its existing inventory of uranium in accordance with the Longenecker & Associates' recommendations.

CME has reviewed Board Staff Interrogatory 90 which has already requested that OPG set out how much it has reduced inventory levels to date and what level OPG is now targeting taking into account all of the stages of its nuclear supply chain, as well as whether the reduction in nuclear fuel inventory is being implemented for the 2014 to 2015 test years. In addition the information sought from Board Staff, CME requests that OPG provide the following additional information:

(a) How much of OPG's annual inventory is purchased through long-term contracts?

(b) If OPG elected to, could it reduce its inventory to the levels recommended by Longenecker & Associates without breaching its long-term contracts?

(c) Please set out the annual cost savings from 2011 to date associated with OPG reducing its inventory levels. In setting out the annual savings, please identify how much of the savings are a one-time saving and how much of the savings are continuous.

(d) For the 2014 to 2015 test years, please set out the one-time and continuous savings that OPG expects to achieve by reducing its inventory.

(e) Had OPG immediately reduced its inventory to 30% of its annual requirements, how much would the annual savings total from 2012 to date?

(f) If OPG' s inventory levels were reduced to 30% of its annual requirements at the commencement of 2014, please set out the estimated savings for 2014 and 2015.

Response

a) OPG estimates that long term contracts represent approximately 80 - 90% of test period inventory based on the long term contracts entered into to-date.

b) No. Existing contracts do not have termination for convenience provisions and therefore, OPG would be in breach of contract if it failed to take delivery of uranium in accordance with the contract provisions. However, since 2012 contracted volumes have been declining as part of the plan to reduce inventory levels to 750k pounds.

c) Cumulative carrying cost savings over the 2011 and 2015 period are estimated to be $9.2M associated with uranium inventory reductions from 2011 - 2013, per Table 1 below.

Table 1

	($M unless noted)	2011	2012	2013	2014	2015	Total
		Actual	Actual	Budget	Plan	Plan	
Row #		(a)	(b)	(c)	(d)	(e)	(f)
1	Opening inventory	$97.3	$95.5	$70.4	$55.6	$45.3	
2	Closing inventory	$95.6	$70.4	$55.6	$45.3	$44.9	
3	First year continuous rate base impact in 2011	$0.9					
4	Continuous rate base impact from reduction in 2011		$1.7	$1.7	$1.7	$1.7	
5	First year continuous rate base impact in 2012		$12.6				
6	Continuous rate base impact from reduction in 2012			$25.1	$25.1	$25.1	
7	First year continuous rate base impact in 2013			$7.4			
8	Continuous rate base impact from reduction in 2013				$14.8	$14.8	
9	First year continuous rate base impact in 2014						
10	Continuous rate base impact from reduction in 2014						
11	First year continuous rate base impact in 2015						
12	Continuous rate base impact from reduction in 2015						
13	Annual rate base impact	$0.9	$14.3	$34.2	$41.6	$41.6	
14	Pre-tax weighted average cost of capital (%)	5.57%	5.74%	4.48%	8.18%	8.20%	
15	Cost savings	$0.0	$0.8	$1.5	$3.4	$3.4	$9.2

As the expectation is that future inventory levels will remain below 2013 levels, these carrying cost savings are expected to continue into the future.

d) Cumulative carry cost savings are estimated to be $1.3M associated with OPG reducing uranium inventory from 2014 - 2015 per Table 2 below.

Table 2

	($M unless noted)	2011	2012	2013	2014	2015	Total
		Actual	Actual	Budget	Plan	Plan	
Row #		(a)	(b)	(c)	(d)	(e)	(f)
1	Opening inventory	$97.3	$95.5	$70.4	$55.6	$45.3	
2	Closing inventory	$95.6	$70.4	$55.6	$45.3	$44.9	
3	First year continuous rate base impact in 2011						
4	Continuous rate base impact from reduction in 2011						
5	First year continuous rate base impact in 2012						
6	Continuous rate base impact from reduction in 2012						
7	First year continuous rate base impact in 2013						
8	Continuous rate base impact from reduction in 2013						
9	First year continuous rate base impact in 2014				$5.2		
10	Continuous rate base impact from reduction in 2014					$10.3	
11	First year continuous rate base impact in 2015					$0.2	
12	Continuous rate base impact from reduction in 2015						
13	Annual rate base impact	$0.0	$0.0	$0.0	$5.2	$10.5	
14	Pre-tax weighted average cost of capital (%)	5.57%	5.74%	4.48%	8.18%	8.20%	
15	Cost savings	$0.00	$0.00	$0.00	$0.4	$0.9	$1.3

As the expectation is that future inventory levels will remain below 2015 levels, these carrying cost savings are expected to continue into the future.

e) If OPG had immediately reduced its inventory to 30% of its 2015 annual requirement at the start of 2012[1], OPG would have recognized savings of approximately $18M per Table 3 below. However, drastically reducing inventory levels was not possible given the existing contractual commitments and would not be consistent with a prudent inventory management approach as other variables, such as financial and physical risk coverage limits, need to be considered.

Table 3

	($M unless noted)	2011	2012	2013	2014	2015	Total
		Actual	30% of annual requirement	30% of annual requirement			
Row #		(a)	(b)	(c)	(d)	(e)	(f)
1	Opening inventory	$97.3	$28.0	$28.0			
2	Closing inventory	$95.6	$28.0	$28.0			
3	First year continuous rate base impact in 2011						
4	Continuous rate base impact from reduction in 2011						
5	First year continuous rate base impact in 2012		$67.6				
6	Continuous rate base impact from reduction in 2012			$67.6	$67.6	$67.6	
7	First year continuous rate base impact in 2013						
8	Continuous rate base impact from reduction in 2013						
9	First year continuous rate base impact in 2014						
10	Continuous rate base impact from reduction in 2014						
11	First year continuous rate base impact in 2015						
12	Continuous rate base impact from reduction in 2015						
13	Annual rate base impact	$0.0	$67.6	$67.6	$67.6	$67.6	
14	Pre-tax weighted average cost of capital (%)	5.57%	5.74%	4.48%	8.18%	8.20%	
15	Cost savings	$0.0	$3.9	$3.0	$5.5	$5.5	$18.0

[1] 30% of 2015 annual requirement is calculated based on the following:

	Units	2012	2013	2014	2015
Uranium concentrate		(a)	(b)	(c)	(d)
Selected data from Ex. B1-1-1 p.9	K$	70,402	55,634	45,370	44,957
	MgU	435	344	288	288
	$/KgU	162.03	161.85	157.28	155.85
Prorated to 30% of 2015 annual requirement	K$	27,999	27,968	27,178	26,931
	MgU	172.8	172.8	172.8	172.8
	$/KgU	162.03	161.85	157.28	155.85

f) If OPG reduced inventory to 30% of its 2015 annual requirement at the commencement of 2014[2] the estimated carrying cost savings would be approximately $4.7M as per Table 4 below. However, drastically reducing inventory levels is an unreasonable approach to inventory management as other variables, such as contractual obligations as well as financial and physical risk coverage limits, need to be considered.

Table 4

	($M unless noted)	2011	2012	2013	2014	2015	Total
		Actual	Actual	Budget	30% of annual requirement	30% of annual requirement	
Row #		(a)	(b)	(c)	(d)	(e)	(f)
1	Opening inventory	$97.3	$95.5	$70.4	$27.2	$26.9	
2	Closing inventory	$95.6	$70.4	$55.6	$26.9	$26.9	
3	First year continuous rate base impact in 2011						
4	Continuous rate base impact from reduction in 2011						
5	First year continuous rate base impact in 2012						
6	Continuous rate base impact from reduction in 2012						
7	First year continuous rate base impact in 2013						
8	Continuous rate base impact from reduction in 2013						
9	First year continuous rate base impact in 2014				$28.4		
10	Continuous rate base impact from reduction in 2014					$28.4	
11	First year continuous rate base impact in 2015					$0.2	
12	Continuous rate base impact from reduction in 2015						
13	Annual rate base impact	$0.0	$0.0	$0.0	$28.4	$28.7	
14	Pre-tax weighted average cost of capital (%)	5.57%	5.74%	4.48%	8.18%	8.20%	
15	Cost savings	$0.0	$0.0	$0.0	$2.3	$2.4	$4.7

[2] 30% of 2015 annual requirement is calculated based on the following:

	Units	2012	2013	2014	2015
Uranium concentrate		(a)	(b)	(c)	(d)
Selected data from Ex. B1-1-1 p.9	K$	70,402	55,634	45,370	44,957
	MgU	435	344	288	288
	$/KgU	162.03	161.85	157.28	155.85
Prorated to 30% of 2015 annual requirement	K$	27,999	27,968	27,178	26,931
	MgU	172.8	172.8	172.8	172.8
	$/KgU	162.03	161.85	157.28	155.85

Board Staff Interrogatory #108

Ref: Exh F5-4-1, Decision EB-2010-0008 page 85

Issue Number: 6.8
Issue: Are the 2014 and 2015 human resource related costs (wages, salaries, benefits, incentive payments, FTEs and pension costs) appropriate?

Interrogatory

In the Board's previous payment amounts decision (p.85), the Board directed OPG to conduct an independent compensation study to be filed with the next application. The Board found that the compensation benchmark should be set at the 50th percentile as it is consistent with the Agency Review Panel recommendations.

OPG, in response, retained Aon Hewitt and they prepared the National Utility Survey report with comparisons for PWU, Society and Management staff based on three industry groups; Group 2 is a subset of Group 1. The results of that report are presented on numerous pages in the form of a slide deck. Board staff has summarized those results associated with the 50th percentile in the table below for "Total Cash Compensation". Aon Hewitt notes, if it's within +/- 10%, it is "at market" or competitive to the external market. It has now been almost 15 years since the break-up of Ontario Hydro. Please explain why it is necessary to pay PWU staff 20% more than comparator utilities (based on the first two groups that focus on the electricity sector) while Society staff are paid at market.

***Group 1:* Power Generation, Electric Utilities, and Nuclear, Research, Development and Engineering (NRDE)**	
PWU	+20.5%
Society	–2.9%
Management	+3.0%
***Group 2:* Nuclear Power Generation and Electric Utilities**	
PWU	+19.1%
Society	–3.8%
Management	–3.4%
***Group 3:* General Industry**	
PWU	+29.4%
Society	+23.3%
Management	+20.9%

Response

The National Utility Survey provides one data point for comparison of OPG compensation against benchmark peer groups. This survey identified that the PWU is about 20 per cent higher than Group one and Group two. However, as noted in Tables 2 and 3 of Ex. F4-3-1 (copied below), OPG's negotiated wage increases with the PWU have consistently been at or below those of the majority of the other OPG successor companies and below those of our closest comparator, Bruce Power.

As noted in Ex F4-3-1 Attachment 1, actual compensation levels are the result of negotiated settlements and depend on relative bargaining power and historically tend to build on previously negotiated settlements. Benchmark information is only one of many inputs to negotiations.

Ultimately the determinative factor on wages is what management and the union can agree upon when faced with the consequences of not agreeing.

Table 2 - 2013 Wage Comparison of PWU Positions between OPG and Bruce Power

PWU Job Category (2013)	OPG	Bruce Power	Difference ($/Hr)	Difference (%)
Civil Maintainer I	$38.95	$52.36	-$13.41	34.43%
Emergency Response Maintainer	$38.95	$47.19	-$8.24	21.16%
Civil Maintainer II	$38.95	$49.04	-$10.09	25.91%
Nuclear Operator	$50.08	$58.32	$-8.24	16.45%
Shift Control Technician	$50.08	$57.27	-$7.19	14.36%
Mechanical Maintainer	$50.08	$57.10	-$7.02	14.02%
Nuclear Security Officer	$38.95	$40.87	-$1.92	4.93%
Business Support Representative (OPG - Office Support Representative II)	$38.95	$46.02	-$7.07	18.15%
Project Tech II – E&C (OPG - Project Technician - E&C)	$50.08	$51.34	-$1.26	2.52%
Chemical Technician	$50.08	$51.99	-$1.91	3.81%
Cost & Scheduling Technician (OPG - Planning $ Cost Control Technician)	$50.08	$52.63	-$2.55	5.09%
Finance Clerk (OPG- Finance & Payroll Representative)	$38.95	$48.74	-$9.79	25.13%

***** Wage comparisons for PWU positions are based on top step of the OPG salary bands and top step of the Bruce Power competency based scales or multi-trade scales (if applicable).

1 **Table 3 – PWU Increases Compared Among Successor Companies**

2

	PWU General Wage Increases (%)						
	OPG	Bruce Power	Hydro One	Kinectrics	New Horizons	Inergi	IESO
2001	3.00%	3.00%	3.00%	0.00%	3.00%	3.00%	2.00%
2002	2.00%	3.10%	3.00%	5.00%	3.00%	3.00%	2.00%
2003	3.00%	4.00%	3.00%	3.00%	3.50%	2.00%	3.00%
2004	2.50%	3.00%	3.00%	2.50%	3.25%	4.00%	3.00%
2005	2.50%	3.00%	3.50%	3.00%	3.00%	3.00%	2.50%
2006	3.00%	3.00%	3.50%	3.00%	3.00%	2.75%	3.00%
2007	3.00%	3.25%	3.00%	3.00%	3.00%	3.00%	3.00%
2008	3.00%	3.20%	3.00%	3.00%	3.00%	3.00%	3.00%
2009	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
2010	3.00%	3.00%	3.00%	3.00%	3.70%	3.00%	3.00%
2011	3.00%	2.75%	3.00%	3.00%	2.70%	3.00%	3.00%
2012	2.75%	2.75%	3.00%	3.00%	2.70%	2.60%	2.50%
Cumulative	**39.5%**	**44.0%**	**44.0%**	**40.4%**	**43.8%**	**41.7%**	**38.5%**
2013	2.75%	3.50%	2.50%	3.00%	2.60%	n/a	n/a
Cumulative	**43.3%**	**49.1%**	**47.6%**	**44.6%**	**47.5%**	**n/a**	**n/a**
2014	2.75%	n/a	2.50%	n/a	2.65%	n/a	n/a
Cumulative	**47.3%**	**n/a**	**51.3%**	**n/a**	**51.4%**	**n/a**	**n/a**

3

Board Staff Interrogatory #171

Ref: Exh. F4-2-1 Table 9, Exh. A2-1-1 Attachment 1, Exh. B2-2-1 Table 1

Issue Number: 6.13
Issue: Are the amounts proposed to be included in the test period revenue requirement for income and property taxes appropriate?

Interrogatory

The 2012 Annual Report, Note 15 Business Segment (page 134), shows an amount of $3,310M for the "unregulated hydroelectric" segment property, plant and equipment in-service, net.

a) Please confirm whether the $3,310M amount represents the equivalent of "newly" regulated hydroelectric facilities in 2012, and if not, please provide this amount.

b) In March 2013, OPG would have released its 2013 financial results including its 2013 consolidated financial statements which will also provide the 2013 amount for the "unregulated hydroelectric" segment property, plant and equipment in-service, net. Please confirm whether the 2013 amount represents the equivalent of "newly" regulated hydroelectric facilities in 2013, and if not, please provide this amount.

c) Table 9 (col. c) of Exh. F4-2-1 includes $1,227.8M under Net Adjustment which represents the inclusion of the Undepreciated Capital Cost for the newly regulated hydroelectric facilities effective in 2014. Please provide a reconciliation of the $3,310M for the 2012 "unregulated hydroelectric" segment reported, or as adjusted, and the $1,227.8M for the 2014 Undepreciated Capital Cost. However, if the information requested in b) above is available, please provide a reconciliation of the 2013 "unregulated hydroelectric" segment reported, or as adjusted, and the $1,227.8M for the 2014 Undepreciated Capital Cost, instead.

d) Table 9 (col. c) of Exh. F4-2-1 shows $1,227.8M under Net Adjustment as an inclusion to the Undepreciated Capital Cost (UCC) for the newly regulated hydroelectric facilities effective in 2014. Table 1 (col. g) of Exh B2-2-1 shows rate base of $2,511.5M for the newly regulated hydroelectric. Please provide a reconciliation of the $2,511.5M rate base for the newly regulated hydroelectric in 2014 and the $1,227.8M UCC for 2014.

Response

a) Not confirmed.

Net property, plant and equipment in-service of $3,310M shown for the unregulated hydroelectric business segment in note 15 of OPG's 2012 audited consolidated financial statements represents all of OPG's unregulated hydroelectric facilities prior to 2014, including those facilities that will remain unregulated effective July 1, 2014. Ex. L-2.1-1 Staff-

008, Attachment 1, Table 1 provides a breakdown of the unregulated hydroelectric business segment information in OPG's 2012 audited consolidated financial statements and indicates that the amount of $3,310M includes net property, plant and equipment ("PP&E") in-service of $2,512M for the newly regulated facilities, as at December 31, 2012.

b) Not confirmed, for the same reasons as indicated in part (a) above.

Of the total net property, plant and equipment in-service of $3,312M as at December 31, 2013 shown for the unregulated hydroelectric segment in note 16 to OPG's 2013 audited consolidated financial statements (Ex. L-2.1-6 ED-003, Attachment 1), $2,525M represents in-serviced PP&E of the newly regulated hydroelectric facilities, as also noted in Ex. L-2.1-1 Staff-010(b) and Ex. L-2.1-6 ED-003 b).

c) & d)
Section 6(2)11 of O. Reg. 53/05 requires the OEB to accept the values for the assets and liabilities of the newly regulated hydroelectric facilities as set out in OPG's most recently audited financial statements approved by OPG's Board of Directors before the making of the OEB's first payment amounts order in respect of these facilities (which are OPG's audited financial statements as of December 31, 2013). That section applies to income tax effects of timing differences and the revenue requirement impact of accounting and tax policy decision reflected in the above noted financial statements. As the values of the fixed and intangible assets ("PP&E") of the newly regulated hydroelectric facilities and the associated timing differences with respect to the Undepreciated Capital Cost ("UCC") of these assets are reflected in OPG's 2013 audited financial statements, the OEB must accept these values. As noted Ex. L-2.1-6 ED-003t b), the net book value of in-service PP&E of the newly regulated hydroelectric facilities reflected in OPG's 2013 audited consolidated financial statements is $2,525M and the associated UCC as at December 31, 2013 is $1,391M, resulting in a PP&E timing difference of 1,123M[1].

[1] Amounts represent income tax effects of temporary differences using 2013 tax rate of 25%, as shown in Ex. L-1.0-1 Staff 2, Table 29, line 28, col. (a). For this calculation, PPE excludes amounts related to land, which is not depreciable. These income tax impacts are as reflected in the calculation of OPG's total deferred (future) income tax liability reported in its 2013 audited consolidated financial statements.

SEC Interrogatory #131

Ref: H1-1-1/Table 7

Issue Number: 9.1
Issue: Is the nature or type of costs recorded in the deferral and variance accounts appropriate?

Interrogatory

Please provide the full calculation of the rate base amount on line 1, including the amounts of additions, the month each addition became used and useful, and all related calculations.

Response

Chart 1 below presents the full calculation of the actual 2013 Net Plant Rate Base amount of $1,140.4M related to the Niagara Tunnel Project shown at Ex. L-9.1-17 SEC-132, Attachment 1, Table 7, line 1.

Chart 1

Numbers may not calculate due to rounding

Niagara Tunnel Project

(in millions$)	Pre-2013	2013 In-Service Additions		Total
	(a)	(b)	(c)	(d)
2013 In-service Additions	-	1,424.9	14.3	1,439.2
In-Service Dates		Mar-13	Dec-13	
Months In-service in 2013	12.0	9.5	1.0	
Gross Plant In-service (o/b)	19.2	-	-	19.2
Gross Plant In-service Additions	-	1,424.9	14.3	1,439.2
Gross Plant In-service (c/b)	19.2	1,424.9	14.3	1,458.4
Gross Plant Rate Base[1]	19.2	1,128.0	1.2	1,148.4
Accumulated Depreciation (o/b)	1.5	-	-	1.5
Depreciation	0.3	12.7	0.0	13.0
Accumulated Depreciation (c/b)	1.8	12.7	0.0	14.5
Rate Base Accumulated Depreciation[2]	1.7	6.4	0.0	8.0
Total Actual Net Plant Rate Base Amount[3]	**17.5**	**1,121.7**	**1.2**	**1,140.4**

o/b= opening balance, c/b = closing balance

Notes:
1 In calculating the Gross Plant Rate Base amount, the 2013 in-service additions were assigned weighting of 9.5/12 and 1/12, respectively, as discussed in Ex. B1-1-1 and shown in L-1.0-01 Staff-002, Att 1, T2, line 2.
2 Represents the average of the opening and closing accumulated depreciation as shown in L-1.0-01 Staff-002, Att 1, T3, line 2.
3 Calculated as the net of Gross Plant Rate Base and the Rate Base Accumulated Depreciation.

Numbers may not add due to rounding.

Corrected: 2014-06-04
EB-2013-0321
Exhibit L
Tab 9.1
Schedule 17 SEC-132
Attachment 1
Table 1

Table 1
(Updated version of Ex. H1-1-1 Table 1)
Deferral and Variance Accounts
Continuity of Account Balances - 2012 to 2013 ($M)

Line No.	Account	Audited Year End Balance 2012[1]	EB-2012-0002 Negotiated Reductions[2]	(a)+(b) EB-2012-0002 Year End Balance 2012[3]	Actual 2013 Transactions	Actual 2013 Amortization[4]	Actual 2013 Interest[5]	Actual 2013 Transfers	(c)+(d)+(e)+(f)+(g) Actual Year End Balance 2013	Projected Year End Balance 2013[7]
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	Previously Regulated Hydroelectric:									
1	**Hydroelectric Water Conditions Variance**	17.1	0.0	17.1	15.2	(10.3)	0.4	0.0	22.4	42.7
2	**Ancillary Services Net Revenue Variance - Hydroelectric**	34.0	0.0	34.0	1.8	(20.4)	0.4	0.0	15.8	35.3
3	**Hydroelectric Incentive Mechanism Variance**	(2.4)	0.0	(2.4)	(2.5)	0.0	(0.0)	0.0	(5.0)	(2.4)
4	**Hydroelectric Surplus Baseload Generation Variance**	4.1	0.0	4.1	14.9	0.0	0.1	0.0	19.2	8.1
5	**Income and Other Taxes Variance - Hydroelectric**	(2.5)	0.0	(2.5)	(0.1)	1.5	(0.0)	0.0	(1.1)	(1.1)
6	**Tax Loss Variance - Hydroelectric**	48.2	0.0	48.2	0.0	(28.9)	0.5	0.0	19.7	19.8
7	**Capacity Refurbishment Variance - Hydroelectric**	1.1	0.0	1.1	111.1	0.0	0.5	0.0	112.7	114.4
8	**Pension and OPEB Cost Variance - Hydroelectric - Historic**	2.5	0.0	2.5	0.0	(1.5)	0.0	0.0	1.0	1.0
9	**Pension and OPEB Cost Variance - Hydroelectric - Future**	12.6	0.0	12.6	0.0	(1.3)	0.0	0.0	11.3	11.3
10	**Pension and OPEB Cost Variance - Hydroelectric - 2013 Additions**	N/A	N/A	N/A	18.6	0.0	0.0	0.0	18.6	21.5
11	**Impact for USGAAP Deferral - Hydroelectric**	2.8	0.0	2.8	0.0	(1.7)	0.0	0.0	1.2	1.2
12	**Hydroelectric Deferral and Variance Over/Under Recovery Variance**	(3.9)	0.0	(3.9)	2.9	2.3	(0.0)	0.0	1.3	4.3
13	**Total**	113.8	0.0	113.8	162.0	(60.3)	1.8	0.0	217.3	256.0
	Nuclear:									
14	**Nuclear Liability Deferral**	208.0	(1.8)	206.2	122.7	(74.9)	0.0	0.0	254.0	254.0
15	**Nuclear Development Variance**	30.2	0.0	30.2	25.6	0.0	0.7	0.0	56.5	69.4
16	**Ancillary Services Net Revenue Variance - Nuclear**	1.7	0.0	1.7	1.2	(1.0)	0.0	0.0	1.9	1.8
17	**Capacity Refurbishment Variance - Nuclear - Capital Portion**	1.3	0.0	1.3	4.3	0.0	0.0	0.0	5.7	3.7
18	**Capacity Refurbishment Variance - Nuclear - Non-Capital Portion**	11.8	0.0	11.8	4.0	(7.1)	0.1	0.0	8.9	25.4
19	**Bruce Lease Net Revenues Variance - Derivative Sub-Account**	230.3	0.0	230.3	24.6	(40.5)	(0.0)	0.0	214.4	189.8
20	**Bruce Lease Net Revenues Variance - Non-Derivative Sub-Account**	80.2	(5.5)	74.8	**85.9**	(22.4)	0.0	0.0	**138.2**	139.3
21	**Income and Other Taxes Variance - Nuclear**	(32.5)	0.0	(32.5)	(4.5)	19.5	(0.3)	0.0	(17.9)	(14.7)
22	**Tax Loss Variance - Nuclear**	253.3	0.0	253.3	0.0	(152.0)	2.5	0.0	103.8	104.0
23	**Pension and OPEB Cost Variance - Nuclear - Historic**	51.5	0.0	51.5	0.0	(31.4)	0.5	0.0	20.7	20.5
24	**Pension and OPEB Cost Variance - Nuclear - Future**	257.6	0.0	257.6	0.0	(25.8)	0.0	0.0	231.8	231.8
25	**Pension and OPEB Cost Variance - Nuclear - 2013 Additions**	N/A	N/A	N/A	383.7	0.0	0.0	0.0	383.7	375.9
26	**Impact for USGAAP Deferral - Nuclear**	60.3	0.0	60.3	0.0	(36.2)	0.6	0.0	24.7	24.8
27	**Pickering Life Extension Depreciation Variance[6]**	N/A	N/A	N/A	(46.8)	56.3	0.0	0.0	9.5	9.5
28	**Nuclear Deferral and Variance Over/Under Recovery Variance**	6.9	0.0	6.9	39.5	(4.2)	0.3	0.0	42.6	22.1
29	**Total**	1,160.6	(7.3)	1,153.3	640.2	(319.5)	4.4	0.0	**1,478.5**	1,457.1
30	**Grand Total**	1,274.4	(7.3)	1,267.1	802.2	(379.8)	6.2	0.0	**1,695.8**	1,713.1

Notes:
1 From EB-2012-0002 Payment Amounts Order, App. A, Table 1 col. (a) for regulated hydroelectric and Table 2 col. (a) for nuclear.
2 From EB-2012-0002 Payment Amounts Order, App. A, Table 1 col. (b) for regulated hydroelectric and Table 2 col. (b) for nuclear.
3 All balances from EB-2012-0002, Ex. M1-1 Attachment 1, Tables 16A and 17A, col. (c). With the exception of balances at lines 3, 4, 7, 10, 15, 17, 25 and 27, all balances were approved by the OEB in EB-2012-0002 (Payment Amounts Order, App. B, Table B-1, col. (a)).
4 From EB-2012-0002 Payment Amounts Order, App. B, Table B-1, col. (c).
5 Effective January 1, 2013, per EB-2012-0002 Payments Amount Order, no interest is recorded in the Nuclear Liability Deferral Account, and, up to December 31, 2014, no interest is recorded in the Bruce Lease Net Revenues Variance Account and the Future Recovery component of the Pension and OPEB Cost Variance Account on outstanding balances. Up to December 31, 2014, interest is also not being recorded on the 2013 additions to the Pension and OPEB Cost Variance Account. Line 19 includes an interest credit related to the inadvertent overstatement of the amount recoverable in 2013 and 2014 for the Derivative Sub-Account, as noted in Ex. H1-1-1, section 4.13 and OPG's letter to the OEB dated September 26, 2013 referenced therein.
6 Per the EB-2012-0002 Payment Amounts Order, the account reflects a credit of $3.9M per month to ratepayers for the benefit of lower non-asset retirement costs depreciation expense and associated income tax impacts resulting from the revision of the Pickering generation stations' service lives, as discussed in Ex. H1-1-1 section 4.14. No interest is recorded in this account.
7 From Ex. H1-1-1 Table 1, col. (h)

Table 6
(Updated version of Ex. H1-1-1 Table 6)
Income and Other Taxes Variance Account
Summary of Account Transactions - Actual 2013[1] ($M)

Line No.	Particulars	Note	Hydroelectric	Nuclear	Total
			(a)	(b)	(c)
	Entry (i) Increase of Scientific Research and Experimental Development ("SR&ED") Investment Tax Credits (ITCs) Recognition Percentage from 50% to 75% for 2013				
1	**Actual SR&ED ITCs, net of Tax on ITCs of Prior Periods, at 50%**	2	(0.1)	(6.5)	(6.6)
2	**Actual SR&ED ITCs, net of Tax on ITCs of Prior Periods, at 75%** (line 1 x 3/2)		(0.1)	(9.8)	(9.9)
3	**Addition to Variance Account - SR&ED ITCs Recognition Percentage Increase for 2013** (line 2 - line 1)		(0.0)	(3.3)	(3.3)
	Entry (ii) Reduction in Contractor Payments Qualifying for SR&ED ITCs from 100% to 80%				
4	**Annual Qualifying Contractor Payments Reflected in SR&ED ITCs**		0.6	57.4	58.0
5	**20% Portion Not Eligible for SR&ED ITCs** (line 4 x 20%)		0.1	11.5	11.6
6	**Investment Tax Credit Rate**	3	20%	20%	20%
7	**Reduction in SR&ED ITCs** (line 5 x line 6)		0.0	2.3	2.3
8	**Addition to Variance Account - Reduction in Contractor Payments Qualifying for SR&ED ITCs** (line 7 x 75%)		0.0	1.7	1.7
	Entry (iii) Income Tax Variance Due to Nuclear Waste Management Capital Expenditures Adjustment				
9	**Non-Deductible Portion of Cash Expenditures for Nuclear Waste & Decommissioning**		0.0	2.9	2.9
10	**Additional Capital Cost Allowance**		0.0	3.7	3.7
11	**Impact on Taxable Income** (line 9 - line 10)		0.0	(0.8)	(0.8)
12	**Income Tax Rate**	4	25.00%	25.00%	25.00%
13	**Addition to Variance Account - Nuclear Waste Management Capital Expenditures Adjustment** (line 11 x line 12)		0.0	(0.2)	(0.2)
	Entry (iv) Increase of SR&ED ITCs Recognition Percentage from 75% to 100% for April 1, 2008 to December 31, 2008				
14	**Actual SR&ED ITCs, net of Tax on ITCs of Prior Periods, at 75%**	5	(0.1)	(8.5)	(8.6)
15	**Actual SR&ED ITCs, net of Tax on ITCs of Prior Periods, at 100%** (line 14 x 4/3)		(0.1)	(11.3)	(11.4)
16	**Addition to Variance Account - SR&ED ITCs Recognition Percentage Increase for 2008** (line 2 - line 1)		(0.0)	(2.8)	(2.9)
17	**Total Addition to Variance Account** (line 3 + line 8 + line 13 + line 16)		(0.1)	(4.5)	(4.6)

Notes:

1 Entries (i), (ii) and (iii) are discussed in Ex. H1-1-1 Section 4.5 and Ex. F4-2-1 Sections 3.3.3 and 3.5. Entry (iv) was recorded following the resolution during 2013 of the 2008 taxation year audit. An additional entry of less than $0.1M is reflected in the December 31, 2013 account balance relating to SR&ED qualifying capital expenditures.

2 Forecasts for 2013 have been determined based on amounts reflected in the payment amounts approved in EB-2010-0008 using the methodology from the EB-2012-0002 Payment Amounts Order, as follows:

Table to Note 2 - Forecast SR&ED ITCs, Net of Tax on ITCs of Prior Periods ($M)

Line No.			2011	2012	Total
			(a)	(b)	(c)
1a	Full Year SR&ED ITCs - Regulated Hydroelectric (from EB-2010-0008, Ex. F4-4-1 Table 2, line 5)		(0.1)	(0.1)	(0.2)
2a	Full Year SR&ED ITCs - Nuclear (from EB-2010-0008, Ex. F4-4-1 Table 3, line 6)		(8.7)	(8.7)	(17.4)
3a	Less: Full Year Taxable ITCs of Prior Periods x tax rate (26.50% for 2011 and 25.00% for 2012) - Regulated Hydroelectric[#]		0.0	0.0	0.1
4a	Less: Full Year Taxable ITCs of Prior Periods x tax rate (26.50% for 2011 and 25.00% for 2012) - Nuclear[#]		2.3	2.2	4.4
5a	Forecast SR&ED ITCs, net of Tax on ITCs of Prior Periods, from EB-2010-0008 - Regulated Hydroelectric (lines 1a + 3a)		(0.1)	(0.1)	(0.1)
6a	Forecast SR&ED ITCs, net of Tax on ITCs of Prior Periods, from EB-2010-0008 - Nuclear (lines 2a +4a)		(6.4)	(6.6)	(13.0)
7a	Annualized Forecast Amount ((line 5a, col. (c) / 24 months) x 12 months) - Regulated Hydroelectric				(0.1)
8a	Annualized Forecast Amount ((line 6a, col. (c) / 24 months) x 12 months) - Nuclear				(6.5)

\# Total full year taxable ITCs of prior periods for regulated operations are shown in EB-2010-0008 Payment Amounts Order, App. A, Tables 6 and 7, line 11.

3 As discussed in Ex. F4-2-1, section 3.5.

4 2013 tax rate from Ex. F4-2-1 Table 5, line 29.

5 Represents SR&ED ITCs, net of tax on ITCs of prior periods, for the period from April 1, 2008 to December 31, 2008 previously credited to ratepayers at 75% through the December 31, 2010 and December 31, 2012 approved balances of the Income and Other Taxes Variance Account . The amount in col. (c) can be calculated as: 3/2 x (EB-2010-0008 Ex. H1-1-1, Table 13, col. (a), line 2 + line 4).

Numbers may not add due to rounding.

Table 13
(Updated version of Ex. H1-1-1 Table 13)
Bruce Lease Net Revenues Variance Account[1]
Summary of Account Transactions - Actual 2013

Line No.	Particulars	Note	Actual 2013
			(a)
1	**Actual Total Bruce Lease Net Revenues ($M)**	2	7.9
2	**Forecast Bruce Lease Net Revenues - EB-2010-0008 ($M)**	3	135.5
3	**Nuclear Forecast Production - EB-2010-0008 (TWh)**	4	51.0
4	**Rate Credited to Customers ($/MWh)** (line 2 / line 3)		2.66
5	**Actual Nuclear Production (TWh)**	5	44.7
6	**Amount Credited to Customers ($M)** (line 4 x line 5)		118.5
7	**Total Addition to Variance Account ($M)** (line 6 - line 1)		110.5
8	**Less: Addition to Derivative Sub-Account ($M)**	6	24.6
9	**Addition to Non-Derivative Sub-Account ($M)** (line 7 - line 8)		85.9

Notes:

1 Bruce Lease Net Revenues are discussed in Ex. G2-2-1.

2 Bruce Lease net revenues are from Ex.L-1.0-1 Staff-2, Table 36, col. (a), line 31, as increased by $1.6M to Canadian GAAP basis. The adjustment is discussed in Ex. A2-1-1 Section 4.0.

3 Per EB-2012-0002 Payment Amounts Order, App. B, p. 11-12, amount is determined as the annual average (at $11.30M/month) of Bruce Lease net revenues reflected in the EB-2010-0008 approved revenue requirement (EB-2010-0008 Payment Amounts Order, App. A, Table 2, line 20).

4 Represents the average of 2011 and 2012 annual nuclear production from EB-2010-0008 Payment Amounts Order, App. A, Table 3, line 1.

5 From Ex. L-1.0-1 Staff-002, Table 14, col. (d), line 3.

6 From Ex. L-1.0-1 Staff-002, Table 39, col. (a), line 30.

SEC Interrogatory #138

Ref: H1-3-1/p.7

Issue Number: 9.7
Issue: Is OPG's proposal to make existing hydroelectric variance accounts applicable to the newly regulated hydroelectric generation facilities appropriate?

Interrogatory

Please provide details of past CCA taken on the newly regulated hydroelectric facilities, and for each such facility compare the CCA to date with the depreciation to date. Please calculate the future tax liability associated with the timing differences.

Response

As noted in Ex. L-6.13-1 Staff-171, O. Reg. 53/05 requires the OEB to accept the values for the assets and liabilities of the newly regulated hydroelectric facilities as set out in OPG's 2013 audited financial statements. This requirement includes income tax effects of timing differences reflected in the above noted financial statements. As the values of the fixed and intangible assets ("PP&E") of the newly regulated hydroelectric facilities and the impact of the associated timing differences with respect to the Undepreciated Capital Cost ("UCC") of these assets are reflected in OPG's 2013 audited financial statements, the OEB must accept these values.

Timing differences are measured by comparing accounting and tax values of assets and liabilities. Therefore, the PP&E net book value and the UCC are required to satisfy the O. Reg. 53/05 requirement. These balances as at December 31, 2013 for the newly regulated hydroelectric facilities are provided in Ex. L-2.1-6 ED-003 b). Below is their breakdown by plant group, as well as the associated future income tax liability:

Newly Regulated Hydroelectric Net Book Value and Undepreciated Capital Cost
As at December 31, 2013

$M	**Net Book Value of PP&E[1]**	**Undepreciated Capital Cost**	**Future Income Tax Liability @ 25%[2]**
Ottawa-St. Lawrence Plant Group	1,233.8	710.0	130.7
Central Hydro Plant Group	100.7	40.9	13.8
Northeast Plant Group	560.2	294.3	66.4
Northwest Plant Group	630.2	345.7	69.8
Total Newly Regulated Hydroelectric	**2,524.9**	**1,390.9**	**280.7**

[1]Caclulated as the difference between Ex. L-0-1 Staff-2, Att.1, Table 2, col. (e) and Table 3, col. (d)
[2]Excludes PP&E amount not eligible for CCA (i.e., land).

As part of the 2014 - 2016 Business Plan review process (see Ex A2-2-1), OPG's senior management directed generation planning staff to reassess the plan based on OPG's historical performance in which significant production forecast variances have occurred (i.e., actual generation has been lower than forecast over the past nine years including 2013). The reassessment revisited both outage scope along with the allowances, with the objective of establishing a more realistic and accurate nuclear production forecast for 2014 - 2015.

2.3.1.1 Pickering

The Pickering production forecast for 2014 and 2015 in the 2014 - 2016 Business Plan shows a 1.0 TWh reduction in generation compared to the 2013 - 2015 Business Plan.

Chart 6

Pickering NGS Plan over Plan Changes

Pickering NGS		**2014**	**2015**	**Total Variance**
Generation - TWH	2014-2016 Nuclear Business Plan	20.9	21.3	
	2013-2015 Nuclear Business Plan	21.3	21.9	
	Variance (BP2014-16 vs 2013-2015)	-0.4	-0.6	**-1.0**
FLR %	2014-2016 Nuclear Business Plan	7.8	5.5	
	2013-2015 Nuclear Business Plan	7.8	5.5	
	Variance (BP2014-16 vs 2013-2015)	0.0	0.0	**0.0**
Planned Outage Days	2014-2016 Nuclear Business Plan	327.9	339.5	
	2013-2015 Nuclear Business Plan	292.9	287.9	
	Variance (BP2014-16 vs 2013-2015)	35.0	51.6	**86.6**

Numbers may not add due to rounding

This is due to an increase of 86.6 planned outage days over the two-year period, as follows:

- An additional 23 day mid-cycle Unit 5 outage in 2014. In the 2013 Unit 5 outage, unexpected reductions in pressure tube to calandria tube gaps were noted. The 2014 mid-cycle planned outage is therefore required to measure the gap and to perform maintenance as required. Monitoring and maintaining the gap between calandria and pressure tubes is critical since there is the potential for blistering if the pressure tube and calandria tube touch which can result in failure of the pressure tube.
- The 2013 Unit 4 outage was deferred to January 2014. This resulted in the timing of all future Unit 1 and 4 planned outages being similarly deferred (e.g., the 2014 Unit 1 outage is deferred to 2015; and, the 2015 Unit 4 outage is deferred until 2016). The deferral of the 2013 Unit 4 fall outage into 2014 results in an additional seven planned outage days over the test period due to additional scope.
- An additional 28 day 2015 mid-cycle outage has been added to the 2014 - 2016 Business Plan in support of OPG's 2016 targeted reduction in FLR to 5.0 per cent. Pickering has a two year planned outage cycle (i.e., each Pickering unit is subject to a planned outage once every two years). However, starting in 2012, OPG began implementing short duration, mid-cycle planned outages (i.e., an additional planned outage within the two year cycle) for Pickering Units 1 and 4 to focus on preventative maintenance and to lessen the risk of future forced outages thereby improving reliability and reducing the FLR.
- OPG's generation plan includes allowances (Ex. E2-1-1, p. 6) to account for risks that can result in an extension of an outage. The reassessment increased the allowance for Pickering planned outages by a total of 28.6 outage days (0.30 TWh) over the two-year test period. This increase is based on an assessment of historical performance which showed that over the period 2005 to 2013, the average annual forced extension to planned outages at Pickering was 72.6 days (0.87 TWh per year).

2.3.1.2 <u>Darlington</u>

The Darlington production forecast for 2014 and 2015 in the 2014 - 2016 Business Plan has a 1.6 TWh reduction in generation compared to the 2013 - 2015 Business Plan.

LIST OF ATTACHMENTS

Attachment 1	AON Hewitt Report calculating Pension and Benefit costs for 2014-16
Attachment 2	CIA issued Educational Note Supplement: “Canadian Pensioners Mortality” October 30, 2013.
Attachment 3	CIA issued Draft Report for Comments, “Canadian Pensioners Mortality” July 2013.
Attachment 4	2014/16 OPG Corporate Business Plan
Attachment 5	2014/16 Nuclear Business Plan
Attachment 6	2014/16 HTO Business Plan
Attachment 7	Updated Revenue Requirement Work Form