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March 20, 2017

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-2016-0152 – Reply to SEC Correspondence of March 15, 2107

Please find attached a response to SEC's email of March 15, 2017 re: EB-2016-0152 - OPG Payment Amounts - SEC Spreadsheet for Panel 2Ai.

This response has been submitted through the Regulatory Electronic Submissions System (RESS). OPG has also filed an excel version of Attachment 1.

Yours truly,

[Original signed by]

Barbara Reuber

cc: John Beauchamp (OPG) via e-mail
Charles Keizer (Torys) via e-mail
Crawford Smith (Torys) via e-mail

Summary Note: Comments on SEC Hydroelectric IRM Spreadsheet

MAJOR ISSUES WITH SEC Spreadsheet

OPG has reviewed the spreadsheet distributed by SEC on March 15, 2017 and has identified three major issues. OPG discussed these issues below and has addressed these issues in a revised spreadsheet provided as Attachment 1.

SEC’s Scenario Incorrectly Adjusts OM&A Under 4GIRM

Under 4GIRM, the OEB determines an annual inflationary adjustment using an index that combines sub-indices for capital and OM&A inflation. In line 10 of their scenario, SEC incorrectly escalates OPG’s OM&A costs by the combined capital & OM&A inflation factor.

Notwithstanding OPG’s view that it is inappropriate to project future costs in the context of an IRM adjustment application, the correct method to do so would be to escalate OM&A by the OM&A inflation sub-indices published by the OEB. OPG’s corrected scenario (Attachment 1), escalates OPG’s OM&A costs by 2.1% for 2016 and 2.3% for the IR period, less the proposed 0.3% stretch factor. These values were calculated using the OEB’s published AWE and GDP-IPI_FDD values for the 2016 and 2017 years as set out in Charts 1 and 2 below.

Chart 1: 2016 OM&A Inflation Index Values

Inputs and Assumptions												
Year	Non-Labour GDP-IPI (FDD) - National							Labour AWE - All Employees - Ontario			Resultant Values - Annual Growth for	
	Q1	Q2	Q3	Q4	Annual	Annual % Change	Weight ¹	Annual	Annual % Change	Weight ¹	Annual	Annual % Change
2014	110.5	110.6	111.2	111.7	111			\$ 920.16			103.7	
2015	112.7	113.2	113.7	114.1	113.425	2.185%	37%	\$ 938.36	1.98%	63%	105.8536	2.0555%
							0.810%				1.25%	2.06%
												2.10%

Note 1: As described in Ex. A1-3-2, Chart 3, OM&A Non-Labour and Labour costs account for 7% and 12% of the total I-factor. The weighting in this Chart reflects the same ratio between the Labour and Non-Labour sub-indices.

Chart 2: 2017 OM&A Inflation Index Values

Inputs and Assumptions												
Year	Non-Labour GDP-IPI (FDD) - National							Labour AWE - All Employees - Ontario			Resultant Values - Annual Growth for	
	Q1	Q2	Q3	Q4	Annual	Annual % Change	Weight ¹	Annual	Annual % Change	Weight ¹	Annual	Annual % Change
2014	112.5	113.2	113.7	114.1	113			\$ 938.27			103.7	
2015	114.4	114.8	115.6	116.1	115.225	1.632%	37%	\$ 962.73	2.61%	63%	106.0594	2.2497%
							0.600%				1.65%	2.25%
												2.30%

Note 1: As described in Ex. A1-3-2, Chart 3, OM&A Non-Labour and Labour costs account for 7% and 12% of the total I-factor. The weighting in this Chart reflects the same ratio between the Labour and Non-Labour sub-indices.

SEC's Scenario Incorrectly Excludes Capital Additions for CRVA-eligible Projects

The planned capital additions in line 5 of SEC's scenario excludes expected in-service amounts for projects that may be eligible for inclusion in the Capacity Refurbishment Variance Account ("CRVA") during the IR period. While OPG believes it is inappropriate to use forward-looking information in an annual adjustment proceeding under IRM, if the OEB does choose to consider these expected in-service amounts, they should not be excluded from the planned capital additions in this scenario.

In Attachment 1, OPG has included the expected in-service amounts for CRVA-eligible projects in line 5 (Expected Capital Additions), as set out in the updated response to Ex. L-11.1-15 SEC-095, Chart 1.

SEC's Scenario Uses Incorrect Capital Input Values

SEC appears to have used incorrect Gross Assets and Accumulated Depreciation values in the "Rebasing" column of their scenario. The values used by SEC appear to be too high. OPG has corrected these amounts.

OPG has also included OEB-approved working capital amounts in line 3b.

OTHER ISSUES WITH SEC SCENARIO

OPG has also identified several smaller but still significant issues with SEC's scenario, each of which has been corrected in the Attachment:

- i. SEC appears to have made an error in the production values for 2015 and 2016. SEC's scenario assumes production of 32.5 TWh in those years. Based on the approach SEC takes to calculate other items in those years, the appropriate production value would be 33 TWh, which increases revenues assumed for OPG in the scenario.
- ii. SEC did not escalate OM&A costs in 2016. Although OPG's payment amounts did not increase in 2016, costs were still subject to inflation.
- iii. In the past, OPG has incurred significant unusual or one-time costs that could cause costs to increase significantly in individual years. SEC's scenario does not account for any such costs during the 2017-2021 period. Since this is not a rebasing application, there is no forecast on which to assume any such costs and OPG has not proposed any adjustment to the scenario. However, OPG expects that there will likely be unique events that drive result in increased costs during the IR period; SEC's scenario does not account for the costs of these events.
- iv. PILs did not reflect the adjustment to correct for the one-time allocation of nuclear tax losses as proposed in the Settlement Agreement on Issue 11.2.
- v. The Other Revenues in line 18 did not reflect the Actual 2015 HIM revenues provided in Ex. L.9.3-1 Staff-214.

Attachment 1 - OPG Hydroelectric Cost Model

Component	2014-2015							2017-2021 Totals	Comparison with SEC Scenario	Notes
	OEB									
	Approved	2016	2017	2018	2019	2020	2021			
a	b	c	d	e	f	g	h	i		
1 Gross Assets	9,290.2	9,418.6	9,600.6	9,778.6	9,964.6	10,175.6	10,370.6			
2 Accum. Depreciation	1,813.9	1,958.9	2,106.6	2,257.0	2,410.3	2,566.9	2,726.5			
3a Net Fixed Assets	7,476.3	7,459.8	7,494.1	7,521.6	7,554.3	7,608.7	7,644.2			
3b Working Capital & Cash Working Capital	31.4	31.4	31.4	31.4	31.4	31.4	31.4			OPG finances Working Capital, which impacts ROE and interest expense
3c Net Rate Base	7,507.7	7,491.2	7,525.5	7,553.0	7,585.7	7,640.1	7,675.6			
4 Weighted Average Depreciation Rate		1.54%	1.54%	1.54%	1.54%	1.54%	1.54%			Applied SEC approach to revised rate base
5 Expected Capital Additions		128.4	182.0	178.0	186.0	211.0	195.0			2017-2021 in-service additions as shown in Ex. L.11.1-1 SEC-095. 2016 in service reflects average 2014 (\$77.5M) and 2015 (\$136.4M) per EB-2013-0321 page 21, escalated by Compound Annual Growth Rate of 20%.
6 I factor		N/A	1.80%	1.80%	1.80%	1.80%	1.80%			EB-2016-0152 Ex I1-2-1, Table 1, line 1
7 X-Factor		N/A	0.30%	0.30%	0.30%	0.30%	0.30%			EB-2016-0152 Ex I1-2-1, Table 1, line 5
8 OM&A Escalation Index		2.10%	2.30%	2.30%	2.30%	2.30%	2.30%			Based on OEB published index values for labour and non-labour OM&A and OPG input factor weightings
<u>Costs Associated with Operations</u>										
9 GRC	350.6	350.6	350.6	350.6	350.6	350.6	350.6	1,752.9	(26.6)	Varies based on production (SEC used incorrect 2014-2015 production)
10 OM&A	334.9	342.0	348.8	355.8	362.9	370.2	377.6	1,815.3	63.4	SEC uses price cap index and stretch. OPG uses OM&A index and stretch
11 Total Ops Costs	685.5	692.6	699.4	706.4	713.5	720.7	728.1	3,568.2		
<u>Costs Associated with Capital</u>										
12 Depreciation/Amortization	143.3	144.9	147.7	150.5	153.3	156.6	159.6	767.6	32.4	Applies SEC approach to revised rate base
13 Cost of Debt	199.4	199.0	199.9	200.6	201.5	203.0	203.9	1,008.9	57.4	Applies SEC approach to revised rate base
14 ROE	315.2	314.5	316.0	317.1	318.5	320.8	322.3	1,594.6	92.3	Applies SEC approach to revised rate base
15 PILs	78.6	78.4	78.8	79.1	79.4	80.0	80.4	397.6	17.0	Applies SEC formula to revised ROE - includes property tax and annual impact of \$21.7M tax loss
16 Total Capital Related Costs	736.5	736.9	742.4	747.3	752.7	760.3	766.1	3,768.7		
17 Total Costs	1,422.0	1,429.4	1,441.8	1,453.7	1,466.2	1,481.0	1,494.2	7,336.9		Five years 2017-2021
18 Less Other Revenues	85.7	57.7	57.7	57.7	57.7	57.7	57.7	288.5	(140.0)	Adjusted for 2015 HIM shortfall. HIM shortfall will continue 2017-2021
19 Net Revenue Requirement	1,336.3	1,371.7	1,384.1	1,395.9	1,408.5	1,423.3	1,436.5	7,048.3	375.9	Higher Net Costs Than projected by SEC
20 Payment Amount	\$41.09	\$41.09	\$41.71	\$42.33	\$42.97	\$43.61	\$44.27			EB-2016-0152 Ex I1-2-1, Table 1, line 8
21 Production (TWh)	33.0	33.0	33.0	33.0	33.0	33.0	33.0			EB 2013-0321 Payment Amount Order, Appendix A, Line 1, Col (b) and (e)
22 Revenues	1,356.0	1,356.0	1,376.3	1,397.0	1,417.9	1,439.2	1,460.8	7,091.1	(0.6)	Higher Revenue than projected by SEC
23 Insufficient/Excess Revenues		(15.7)	(7.7)	1.0	9.4	15.9	24.2	42.8	(376.5)	
24 Cost-Based Payment Amount			\$41.94	\$42.30	\$42.68	\$43.13	\$43.53			
25 Difference			-\$0.23	\$0.03	\$0.28	\$0.48	\$0.73			
26 Insufficient/Excess Revenues			-7.7	1.0	9.4	15.9	24.2			
27 Percent			-0.56%	0.07%	0.67%	1.11%	1.69%			