

SUMMARY OF NUCLEAR REVENUE REQUIREMENT AND REVENUE DEFICIENCY

1.0 PURPOSE

This evidence provides a summary of the revenue requirement for OPG's nuclear facilities for 2017 through 2021. This evidence also includes the revenue deficiency amounts for OPG's nuclear facilities for the same period.

2.0 REVENUE REQUIREMENT

For its nuclear facilities, OPG is seeking approval of the proposed nuclear revenue requirement, net of the stretch factor, of \$3,189.9M for 2017, \$3,250.0M for 2018, \$3,285.0M for 2019, \$3,774.8M for 2020, and \$3,489.4M for 2021 as presented in Ex I1-1-1 Table 1.

The revenue requirement amounts above do not include the recovery of deferral and variance account balances. OPG is seeking to clear certain variance and deferral accounts using a hydroelectric payment rider and a nuclear payment rider as discussed in Ex. H1-2-1.

Exhibit I1-1-1 Table 2 compares the five proposed test years' nuclear revenue requirement before stretch factor to the EB-2013-0321 OEB-approved 2014-2015 test period revenue requirement for nuclear facilities. The table also compares 2014 and 2015 actual and 2016 forecast costs, other revenues, income tax amounts and production forecasts to the OEB-approved amounts.

3.0 NUCLEAR REVENUE DEFICIENCY

Exhibit I1-1-1 Table 3 compares OPG's forecast revenues using the payment amounts approved in the EB-2013-0321 to the nuclear revenue requirements before stretch factor provided in this application. The table compares annual 2017-2021 revenue requirements to existing payment amounts. OPG's revenue deficiency for the nuclear facilities is \$931.1M for 2017, \$974.0M for 2018, \$981.2M for 2019, \$1,575.2M for 2020, and \$1,411.9M for 2021.

Exhibit I1-1-1 Table 4 presents the determination of 2016 forecast return on equity ("ROE") at current payment amounts as 3.0 per cent, which is below the EB-2013-0321 OEB-approved ROE of 9.36 per cent (2014) and 9.30 per cent (2015).

4.0 REVENUE REQUIREMENT WORK FORM

A Revenue Requirement Work Form ("RRWF") is attached as Attachment 1 to this exhibit and has also been filed in MS Excel worksheet format. The OEB provides a proprietary RRWF model as a filing requirement for transmission and distribution applications, intended to support the calculation of revenue deficiency or sufficiency. As in EB-2013-0321, OPG has filed a RRWF customized to the company's circumstances in order to provide a mechanism to support the application for 2017-2021 payment amounts for the prescribed nuclear facilities.

Similar to the OEB RRWF, adjustments are entered in a single worksheet with the effect of these adjustments presented in subsequent worksheets.

1

ATTACHMENTS

2

3

Attachment 1:

Revenue Requirement Work Form

Filed April 27 2016

EB-2016-0152
Revenue Requirement Work Form

Ontario Power Generation

Ontario Power Generation

EB-2016-0152 Revenue Requirement Work Form

Table of Contents

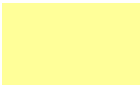
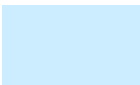

Worksheet

No.

1	Cover Page
2	Table of Contents
3	Legend / Colour Scheme
4	OEB Adjustment Input Sheet
5	Rate Base and Cost of Capital
6	Regulatory Income Taxes
7	Revenue Requirement
8	Revenue Requiremenmt Deficiency / Sufficiency
9	Requested Payment Amounts
10	Recovery of Deferral and Variance Accounts and Riders
11	Residential Customer Impacts

Ontario Power Generation
EB-2013-0321 Revenue Requirement Work Form

Legend / Colour Scheme

-  OPG Proposed Amounts
-  Adjustment Input Cells For OEB Use
-  Automatically Generated Calculations

OEB Adjustment Input Sheet

		Total Generating Facilities														
Line No.	Description	2017			2018			2019			2020			2021		
		OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
Capital Structure																
1	Common Equity	49.0%		49.0%	49.0%		49.0%	49.0%		49.0%	49.0%		49.0%	49.0%		49.0%
2	Debt	51.0%	0.0%	51.0%	51.0%	0.0%	51.0%	51.0%	0.0%	51.0%	51.0%	0.0%	51.0%	51.0%	0.0%	51.0%
Cost of Capital																
3	Short-Term Debt Facility Cost (\$M)	2.6		2.6	2.6		2.6	2.6		2.6	2.6		2.6	2.6		2.6
4	Short-Term Debt Interest Cost (\$M)	0.6		0.6	1.1		1.1	1.5		1.5	1.5		1.5	1.5		1.5
5	Short-Term Debt Cost (\$M)	2.9		2.9	3.4		3.4	3.8		3.8	3.8		3.8	3.8		3.8
6	Regulated Portion of Short-Term Debt Cost Rate	92.67%		92.67%	92.67%		92.67%	92.67%		92.67%	92.67%		92.67%	92.67%		92.67%
7	Existing and Planned Long-Term Debt Cost Rate	4.89%		4.89%	4.60%		4.60%	4.52%		4.52%	4.49%		4.49%	4.48%		4.48%
8	Other Long-Term Debt Provision Cost Rate	4.89%		4.89%	4.60%		4.60%	4.52%		4.52%	4.49%		4.49%	4.48%		4.48%
9	Common Equity Cost Rate ROE	9.19%		9.19%	9.19%		9.19%	9.19%		9.19%	9.19%		9.19%	9.19%		9.19%
10	Adjustment for Lesser of UNL/ARC Cost Rate	5.11%		5.11%	5.11%		5.11%	5.11%		5.11%	5.11%		5.11%	5.11%		5.11%
Capitalization (\$M)																
11	Short-Term Debt Principal	37.1		37.1	37.1		37.1	37.1		37.1	37.1		37.1	37.1		37.1
12	Existing and Planned Long-Term Debt Principal	2,878.4		2,878.4	3,168.1		3,168.1	3,489.7		3,489.7	3,527.6		3,527.6	3,406.0		3,406.0
13	Adjustment for Lesser of UNL/ARC	775.4		775.4	725.1		725.1	674.9		674.9	624.6		624.6	590.1		590.1

		Nuclear Facilities														
Line No.	Description	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
Rate Base (\$M)																
14	Gross Plant at Cost	7,627.1		7,627.1	8,122.9		8,122.9	8,416.1		8,416.1	12,887.2		12,887.2	13,763.5		13,763.5
15	Accumulated Depreciation/Amortization	4,218.8		4,218.8	4,581.6		4,581.6	4,962.9		4,962.9	5,417.3		5,417.3	5,848.8		5,848.8
16	Cash Working Capital	11.0		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0		11.0
17	Materials and Supplies	448.7		448.7	444.5		444.5	436.3		436.3	427.0		427.0	415.0		415.0
18	Nuclear Fuel Inventory	251.9		251.9	242.2		242.2	224.2		224.2	210.7		210.7	208.6		208.6
19	Total	4,119.8	-	4,119.8	4,239.0	-	4,239.0	4,124.7	-	4,124.7	8,118.6	-	8,118.6	8,549.2	-	8,549.2
Expenses (\$M)																
20	OM&A	2,318.6		2,318.6	2,327.1		2,327.1	2,347.9		2,347.9	2,368.0		2,368.0	2,248.7		2,248.7
21	Fuel	219.9		219.9	222.0		222.0	233.1		233.1	228.2		228.2	212.7		212.7
22	Depreciation/Amortization	346.9		346.9	378.7		378.7	384.0		384.0	524.9		524.9	338.1		338.1
23	Property Taxes	14.6		14.6	14.9		14.9	15.3		15.3	15.7		15.7	17.0		17.0
24	Total	2,900.0	-	2,900.0	2,942.8	-	2,942.8	2,980.3	-	2,980.3	3,136.7	-	3,136.7	2,816.5	-	2,816.5
Other Revenues (\$M)																
25	Bruce Lease Revenues Net of Direct Costs	(66.1)		(66.1)	(74.3)		(74.3)	(85.9)		(85.9)	(82.1)		(82.1)	(93.1)		(93.1)
26	Ancillary and Other Revenue	31.7		31.7	22.0		22.0	22.7		22.7	22.2		22.2	22.9		22.9
27	Total	(34.5)	-	(34.5)	(52.4)	-	(52.4)	(63.2)	-	(63.2)	(59.9)	-	(59.9)	(70.2)	-	(70.2)
28	Forecast Production (TWh)	38.1		38.1	38.5		38.5	39.0		39.0	37.4		37.4	35.4		35.4

		Nuclear Facilities														
Line No.	Description	2017			2018			2019			2020			2021		
		OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
Applicable Tax Rates																
29	Federal Rate	15.00%		15.00%	15.00%		15.00%	15.00%		15.00%	15.00%		15.00%	15.00%		15.00%
30	Provincial Rate	10.00%		10.00%	10.00%		10.00%	10.00%		10.00%	10.00%		10.00%	10.00%		10.00%
31	Total Tax Rate	25.00%	-	25.00%	25.00%	-	25.00%	25.00%	-	25.00%	25.00%	-	25.00%	25.00%	-	25.00%
Tax Credits and Payment Adjustments (\$M)																
32	SR&ED Investment	(18.4)		(18.4)	(18.4)		(18.4)	(18.4)		(18.4)	(18.4)		(18.4)	(18.4)		(18.4)
Taxable Income Adjustments (\$M)																
Additions																
33	Depreciation and Amortization	346.9		346.9	378.7		378.7	384.0		384.0	524.9		524.9	338.1		338.1
34	Pension and OPEB Accrual	272.0		272.0	280.4		280.4	289.5		289.5	271.3		271.3	279.9		279.9
35	Regulatory Liability Amortization - Income and Other Taxes Variance Acct	(2.2)		(2.2)	(2.2)		(2.2)	-		-	-		-	-		-
36	Regulatory Asset Amortization - Bruce Lease Net Revenues Variance Acct	(24.0)		(24.0)	(24.0)		(24.0)	-		-	-		-	-		-
37	Taxable SR&ED Investment Tax Credits	18.4		18.4	18.4		18.4	18.4		18.4	18.4		18.4	18.4		18.4
38	Adjustment Related to Financing Cost for Nuclear Liabilities	39.6		39.6	37.1		37.1	34.5		34.5	31.9		31.9	30.2		30.2
39	Nuclear Waste Management Expenses	57.8		57.8	59.8		59.8	72.1		72.1	61.9		61.9	63.1		63.1
40	Receipts from Nuclear Segregated Funds	85.0		85.0	108.3		108.3	140.0		140.0	208.4		208.4	191.6		191.6
41	Other	63.7		63.7	49.2		49.2	38.4		38.4	38.6		38.6	40.2		40.2
42	Total Additions	857.2	-	857.2	905.7	-	905.7	976.8	-	976.8	1,155.4	-	1,155.4	961.4	-	961.4
Deductions																
43	CCA	394.2		394.2	504.4		504.4	571.1		571.1	594.8		594.8	597.0		597.0
44	Cash Expenditures for Nuclear Waste & Decommissioning	166.0		166.0	177.4		177.4	200.6		200.6	230.7		230.7	228.0		228.0
45	Contributions to Nuclear Segregated Funds	156.1		156.1	175.3		175.3	265.7		265.7	35.2		35.2	35.2		35.2
46	Pension Plan Contributions	171.1		171.1	175.5		175.5	180.3		180.3	157.2		157.2	162.1		162.1
47	OPEB/SPP Payments	100.9		100.9	104.9		104.9	109.2		109.2	114.1		114.1	117.8		117.8
48	Deductible SR&ED Qualifying Expenditures	27.7		27.7	27.7		27.7	27.7		27.7	27.7		27.7	27.7		27.7
49	Other	20.3		20.3	0.1		0.1	1.1		1.1	5.7		5.7	16.5		16.5
50	Total Deductions	1,036.2	(20.2)	1,016.0	1,165.4	-	1,165.4	1,355.7	-	1,355.7	1,165.4	-	1,165.4	1,184.3	-	1,184.3

		Deferral Accounts					
Line No.	Description	2017			2018		
		OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved
		(a)	(b)	(c)	(d)	(e)	(f)
Hydroelectric Facilities (\$M)							
51	Hydroelectric Water Conditions Variance	(8.7)		(8.7)	(8.7)		(8.7)
52	Ancillary Services Net Revenue Variance - Hydroelectric	(6.6)		(6.6)	(6.6)		(6.6)
53	Hydroelectric Incentive Mechanism Variance	(0.0)		(0.0)	(0.0)		(0.0)
54	Hydroelectric Surplus Baseload Generation Variance	41.2		41.2	41.2		41.2
55	Income and Other Taxes Variance - Hydroelectric	(0.0)		(0.0)	(0.0)		(0.0)
56	Capacity Refurbishment Variance - Hydroelectric	1.6		1.6	1.6		1.6
57	Pension and OPEB Cost Variance - Hydroelectric - Future	1.1		1.1	1.1		1.1
58	Pension and OPEB Cost Variance - Hydroelectric - Post 2012 Additions	5.9		5.9	5.9		5.9
59	Pension & OPEB Cash Payment Variance - Hydroelectric	2.1		2.1	2.1		2.1
60	Hydroelectric Deferral and Variance Over/Under Recovery Variance	6.7		6.7	6.7		6.7
61	Total	43.4	-	43.4	43.4	-	43.4
Nuclear Facilities (\$M)							
62	Nuclear Development Variance	0.9		0.9	0.9		0.9
63	Ancillary Services Net Revenue Variance - Nuclear	0.5		0.5	0.5		0.5
64	Capacity Refurbishment Variance - Nuclear - Capital Portion	(18.8)		(18.8)	(18.8)		(18.8)
65	Capacity Refurbishment Variance - Nuclear - Non-Capital Portion	(15.8)		(15.8)	(15.8)		(15.8)
66	Bruce Lease Net Revenues Variance - Derivative Sub-Account	(34.3)		(34.3)	(34.3)		(34.3)
67	Bruce Lease Net Revenues Variance - Non-Derivative Sub-Account - Post 2012 Additions	10.3		10.3	10.3		10.3
68	Income and Other Taxes Variance - Nuclear	(2.2)		(2.2)	(2.2)		(2.2)
69	Pension and OPEB Cost Variance - Nuclear - Future	21.5		21.5	21.5		21.5
70	Pension and OPEB Cost Variance - Nuclear - Post 2012 Additions	113.1		113.1	113.1		113.1
71	Pension & OPEB Cash Payment Variance - Nuclear	11.7		11.7	11.7		11.7
72	Nuclear Deferral and Variance Over/Under Recovery Variance	22.1		22.1	22.1		22.1
73	Total	108.9	-	108.9	108.9	-	108.9

OPG Rate Base and Cost of Capital

		Total Generating Facilities			Nuclear Facilities											
Line No.	Description	2017			2018			2019			2020			2021		
		OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
1	Nuclear Rate Base Financed by Capital Structure (\$M)	3,344.4	-	3,344.4	3,513.9	-	3,513.9	3,449.8	-	3,449.8	7,494.0	-	7,494.0	7,959.1	-	7,959.1
2	Nuclear Allocation Factor	30.90%	0.00%	30.90%	31.96%	0.00%	31.96%	31.58%	0.00%	31.58%	49.70%	0.00%	49.70%	50.88%	0.00%	50.88%

		2017			2018			2019			2020			2021		
Line No.	Description	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
Capitalization (\$M)																
3	Total Rate Base	4,119.8	-	4,119.8	4,239.0	-	4,239.0	4,124.7	-	4,124.7	8,118.6	-	8,118.6	8,549.2	-	8,549.2
4	Adjustment for Lesser of UNL/ARC	775.4	-	775.4	725.1	-	725.1	674.9	-	674.9	624.6	-	624.6	590.1	-	590.1
5	Rate Base Financed by Capital Structure	3,344.4	-	3,344.4	3,513.9	-	3,513.9	3,449.8	-	3,449.8	7,494.0	-	7,494.0	7,959.1	-	7,959.1
6	Common Equity	1,638.7	-	1,638.7	1,721.8	-	1,721.8	1,690.4	-	1,690.4	3,672.1	-	3,672.1	3,899.9	-	3,899.9
7	Total Debt	1,705.6	-	1,705.6	1,792.1	-	1,792.1	1,759.4	-	1,759.4	3,821.9	-	3,821.9	4,059.1	-	4,059.1
8	Short-Term Debt	11.5	-	11.5	11.8	-	11.8	11.7	-	11.7	18.4	-	18.4	18.9	-	18.9
9	Existing and Planned Long-Term Debt	889.5	-	889.5	1,012.6	-	1,012.6	1,102.1	-	1,102.1	1,753.1	-	1,753.1	1,733.0	-	1,733.0
10	Other Long-Term Debt Provision	804.6	-	804.6	767.7	-	767.7	645.6	-	645.6	2,050.4	-	2,050.4	2,307.3	-	2,307.3
Cost of Capital (\$M)																
11	Adjustment for Lesser of UNL/ARC	39.6	-	39.6	37.1	-	37.1	34.5	-	34.5	31.9	-	31.9	30.2	-	30.2
12	Common Equity	150.6	-	150.6	158.2	-	158.2	155.3	-	155.3	337.5	-	337.5	358.4	-	358.4
13	Existing and Planned Long-Term Debt	43.5	-	43.5	46.6	-	46.6	49.8	-	49.8	78.8	-	78.8	77.6	-	77.6
14	Other Long-Term Debt Provision	39.3	-	39.3	35.3	-	35.3	29.2	-	29.2	92.1	-	92.1	103.4	-	103.4

OPG Regulatory Income Taxes

Filed: 2016-05-27
EB-2016-0152
Exhibit I1-1-1
Attachment 1

		Nuclear Generating Facilities														
Line No.	Description	2017			2018			2019			2020			2021		
		OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
Applicable Tax Rates																
1	Federal Rate	15.00%	0.00%	15.00%	15.00%	0.00%	15.00%	15.00%	0.00%	15.00%	15.00%	0.00%	15.00%	15.00%	0.00%	15.00%
2	Provincial Rate	10.00%	0.00%	10.00%	10.00%	0.00%	10.00%	10.00%	0.00%	10.00%	10.00%	0.00%	10.00%	10.00%	0.00%	10.00%
3	Total Tax Rate	25.00%	0.00%	25.00%	25.00%	0.00%	25.00%	25.00%	0.00%	25.00%	25.00%	0.00%	25.00%	25.00%	0.00%	25.00%
Taxable Income (\$M)																
4	Earnings Before Tax	198.3	-	198.3	214.2	-	214.2	222.8	-	222.8	470.8	-	470.8	503.2	-	503.2
5	Adjustments: Additions	857.2	-	857.2	905.7	-	905.7	976.8	-	976.8	1,155.4	-	1,155.4	961.4	-	961.4
6	Adjustments: Deductions	1,036.2	-	1,036.2	1,165.4	-	1,165.4	1,355.7	-	1,355.7	1,165.4	-	1,165.4	1,184.3	-	1,184.3
7	Tax Loss Carry Over	(19.3)		(19.3)	45.5		45.5	156.1		156.1	(182.3)		(182.3)	-		-
8	Total Taxable Income	0.0	-	0.0	0.0	-	0.0	0.0	-	0.0	278.4	-	278.4	280.2	-	280.2
Income Taxes (\$M)																
9	Federal Income Taxes	0.0	-	0.0	0.0	-	0.0	0.0	-	0.0	41.8	-	41.8	42.0	-	42.0
10	Provincial Income Taxes	0.0	-	0.0	0.0	-	0.0	0.0	-	0.0	27.8	-	27.8	28.0	-	28.0
11	Tax Credits (SR&ED Investment)	(18.4)	-	(18.4)	(18.4)	-	(18.4)	(18.4)	-	(18.4)	(18.4)	-	(18.4)	(18.4)	-	(18.4)
12	Total Income Taxes	(18.4)	-	(18.4)	(18.4)	-	(18.4)	(18.4)	-	(18.4)	51.2	-	51.2	51.7	-	51.7
Earnings Before Tax (\$M)																
13	Requested After Tax ROE	150.6	-	150.6	158.2	-	158.2	155.3	-	155.3	337.5	-	337.5	358.4	-	358.4
14	Bruce Lease Net Revenues	(66.1)	-	(66.1)	(74.3)	-	(74.3)	(85.9)	-	(85.9)	(82.1)	-	(82.1)	(93.1)	-	(93.1)
15	Total Regulatory Income Taxes After Tax Loss Carry-Over	(18.4)		(18.4)	(18.4)		(18.4)	(18.4)		(18.4)	51.2		51.2	51.7		51.7
16	Total Earnings Before Tax	198.3	-	198.3	214.2	-	214.2	222.8	-	222.8	470.8	-	470.8	503.2	-	503.2
Adjustments (\$M)																
Additions																
16	Depreciation and Amortization	346.9	-	346.9	378.7	-	378.7	384.0	-	384.0	524.9	-	524.9	338.1	-	338.1
17	Pension and OPEB Accrual	272.0	-	272.0	280.4	-	280.4	289.5	-	289.5	271.3	-	271.3	279.9	-	279.9
18	Regulatory Liability Amortization - Income and Other Taxes Variance Account	(2.2)	-	(2.2)	(2.2)	-	(2.2)	-	-	-	-	-	-	-	-	-
19	Regulatory Asset Amortization - Bruce Regulatory Asset	(24.0)	-	(24.0)	(24.0)	-	(24.0)	-	-	-	-	-	-	-	-	-
20	Taxable SR&ED Investment Tax Credits	18.4	-	18.4	18.4	-	18.4	18.4	-	18.4	18.4	-	18.4	18.4	-	18.4
21	Adjustment Related to Financing Cost for Nuclear Liabilities	39.6	-	39.6	37.1	-	37.1	34.5	-	34.5	31.9	-	31.9	30.2	-	30.2
22	Nuclear Waste Management Expenses	57.8	-	57.8	59.8	-	59.8	72.1	-	72.1	61.9	-	61.9	63.1	-	63.1
23	Receipts from Nuclear Segregated Funds	85.0	-	85.0	108.3	-	108.3	140.0	-	140.0	208.4	-	208.4	191.6	-	191.6
24	Other	63.7	-	63.7	49.2	-	49.2	38.4	-	38.4	38.6	-	38.6	40.2	-	40.2
25	Total Additions	857.2	-	857.2	905.7	-	905.7	976.8	-	976.8	1,155.4	-	1,155.4	961.4	-	961.4
Deductions																
26	CCA	394.2	-	394.2	504.4	-	504.4	571.1	-	571.1	594.8	-	594.8	597.0	-	597.0
27	Cash Expenditures for Nuclear Waste & Decommissioning	166.0	-	166.0	177.4	-	177.4	200.6	-	200.6	230.7	-	230.7	228.0	-	228.0
28	Contributions to Nuclear Segregated Funds and Earnings	156.1	-	156.1	175.3	-	175.3	265.7	-	265.7	35.2	-	35.2	35.2	-	35.2
29	Pension Plan Contributions	171.1	-	171.1	175.5	-	175.5	180.3	-	180.3	157.2	-	157.2	162.1	-	162.1
30	OPEB Payments	100.9	-	100.9	104.9	-	104.9	109.2	-	109.2	114.1	-	114.1	117.8	-	117.8
31	SR&ED Costs Capitalized for Accounting	27.7	-	27.7	27.7	-	27.7	27.7	-	27.7	27.7	-	27.7	27.7	-	27.7
32	Other	20.3	-	20.3	0.1	-	0.1	1.1	-	1.1	5.7	-	5.7	16.5	-	16.5
33	Total Deductions	1,036.2	-	1,036.2	1,165.4	-	1,165.4	1,355.7	-	1,355.7	1,165.4	-	1,165.4	1,184.3	-	1,184.3

Numbers may not add due to rounding

OPG Revenue Requirement

Line No.	Description	Nuclear Facilities														
		2017			2018			2019			2020			2021		
		OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	PG Proposed 5/27/2016	OEB Adjustment	OEB Approved
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
Cost of Capital (\$M)																
1	Short-term Debt	0.9	0.0	0.9	1.1	0.0	1.1	1.2	0.0	1.2	1.9	0.0	1.9	1.9	0.0	1.9
2	Long-Term Debt	82.8	0.0	82.8	81.9	0.0	81.9	79.0	0.0	79.0	170.9	0.0	170.9	181.0	0.0	181.0
3	ROE	150.6	0.0	150.6	158.2	0.0	158.2	155.3	0.0	155.3	337.5	0.0	337.5	358.4	0.0	358.4
4	Adjustment for Lesser of UNL/ARC	39.6		39.6	37.1		37.1	34.5		34.5	31.9		31.9	30.2		30.2
5	Total	273.9	0.0	273.9	278.2	0.0	278.2	270.1	0.0	270.1	542.1	0.0	542.1	571.5	0.0	571.5
Expenses (\$M)																
6	OM&A	2,318.6	0.0	2,318.6	2,327.1	0.0	2,327.1	2,347.9	0.0	2,347.9	2,368.0	0.0	2,368.0	2,248.7	0.0	2,248.7
7	Fuel	219.9	0.0	219.9	222.0	0.0	222.0	233.1	0.0	233.1	228.2	0.0	228.2	212.7	0.0	212.7
8	Depreciation/Amortization	346.9	0.0	346.9	378.7	0.0	378.7	384.0	0.0	384.0	524.9	0.0	524.9	338.1	0.0	338.1
9	Property Taxes	14.6	0.0	14.6	14.9	0.0	14.9	15.3	0.0	15.3	15.7	0.0	15.7	17.0	0.0	17.0
10	Total	2,900.0	0.0	2,900.0	2,942.8	0.0	2,942.8	2,980.3	0.0	2,980.3	3,136.7	0.0	3,136.7	2,816.5	0.0	2,816.5
Other Revenues (\$M)																
11	Bruce Lease Net Revenues	(66.1)		(66.1)	(74.3)		(74.3)	(85.9)		(85.9)	(82.1)		(82.1)	(93.1)		(93.1)
12	Ancillary and Other Revenue	31.7	0.0	31.7	22.0	0.0	22.0	22.7	0.0	22.7	22.2	0.0	22.2	22.9	0.0	22.9
13	Total	(34.5)	0.0	(34.5)	(52.4)	0.0	(52.4)	(63.2)	0.0	(63.2)	(59.9)	0.0	(59.9)	(70.2)	0.0	(70.2)
14	Regulatory Income Tax (\$M)	(18.4)	0.0	(18.4)	(18.4)	0.0	(18.4)	(18.4)	0.0	(18.4)	51.2	0.0	51.2	51.7	0.0	51.7
15	Revenue Requirement (\$M)	3,189.9	0.0	3,189.9	3,255.0	0.0	3,255.0	3,295.1	0.0	3,295.1	3,790.0	0.0	3,790.0	3,509.8	0.0	3,509.8

Numbers may not add due to rounding

OPG Revenue Requirement Deficiency / (Sufficiency)

Filed: 2016-05-27
EB-2016-0152
Exhibit I1-1-1
Attachment 1

Line No.	Description	Nuclear Facilities														
		2017			2018			2019			2020			2021		
		OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
Production & Revenue																
1	Forecast Production (TWh)	38.1	0.0	38.1	38.5	0.0	38.5	39.0	0.0	39.0	37.4	0.0	37.4	35.4	0.0	35.4
2	Current Payment Rate (\$/MWh)	59.29	0.00	59.29	59.29	0.00	59.29	59.29	0.00	59.29	59.29	0.00	59.29	59.29	0.00	59.29
3	Revenue From Current Payment Rate (\$M)	2,258.9	0.0	2,258.9	2,280.9	0.0	2,280.9	2,313.9	0.0	2,313.9	2,214.8	0.0	2,214.8	2,097.9	0.0	2,097.9
Revenue Requirement																
4	Revenue Requirement (\$M)	3,189.9	0.0	3,189.9	3,255.0	0.0	3,255.0	3,295.1	0.0	3,295.1	3,790.0	0.0	3,790.0	3,509.8	0.0	3,509.8
5	Revenue Requirement Deficiency (Sufficiency) (\$M)	931.1	0.0	931.1	974.0	0.0	974.0	981.2	0.0	981.2	1,575.2	0.0	1,575.2	1,411.9	0.0	1,411.9

Numbers may not add due to rounding

OPG Requested Payment Amounts

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Filed: 2016-05-27
EB-2016-0152
Exhibit I1-1-1
Attachment 1

Hydroelectric Facilities																
Line No.	Description	2017			2018			2019			2020			2021		
		OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	Attachment 1	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
1	Requested Payment Amount (\$/MWh)	41.71		41.71	42.33		42.33	42.97		42.97	43.61		43.61	44.27		44.27

Nuclear Facilities																
Line No.	Description	2017			2018			2019			2020			2021		
		OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
2	Revenue Requirement (\$M)	3,189.9	0.0	3,189.9	3,255.0	0.0	3,255.0	3,295.1	0.0	3,295.1	3,790.0	0.0	3,790.0	3,509.8	0.0	3,509.8
3	Stretch Adjustment (\$M)	N/A	N/A	N/A	5.0	0.0	5.0	10.1	0.0	10.1	15.2	0.0	15.2	20.4	0.0	20.4
4	Forecast Production (TWh)	38.1	0.0	38.1	38.5	0.0	38.5	39.0	0.0	39.0	37.4	0.0	37.4	35.4	0.0	35.4
5	Unsmoothed Payment Amount (\$/MWh) ((Line 4 - Line 5) / Line 6)	83.73	-	83.73	84.48	-	84.48	84.17	-	84.17	101.05	-	101.05	98.62	-	98.62
6	Smoothed Payment Amount (11%)	65.81	-	65.81	73.05	-	73.05	81.09	-	81.09	90.01	-	90.01	99.91	-	99.91

Numbers may not add due to rounding

OPG Recovery of Deferral and Variance Accounts and Riders

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EB-2016-0152
Exhibit I1-1-1
Attachment 1

		Previously Regulated Hydroelectric Facilities		
Line No.	Description	Amortization 2017/2018		
		OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved
		(a)	(b)	(c)
Variance Accounts (\$M)				
1	Hydroelectric Water Conditions Variance	(17.3)	0.0	(17.3)
2	Ancillary Services Net Revenue Variance - Hydroelectric	(13.2)	0.0	(13.2)
3	Hydroelectric Incentive Mechanism Variance	(0.1)	0.0	(0.1)
4	Hydroelectric Surplus Baseload Generation Variance	82.5	0.0	82.5
5	Income and Other Taxes Variance - Hydroelectric	(0.0)	0.0	(0.0)
6	Capacity Refurbishment Variance - Hydroelectric	3.3	0.0	3.3
7	Pension and OPEB Cost Variance - Hydroelectric - Future	2.1	0.0	2.1
8	Pension and OPEB Cost Variance - Hydroelectric - Post 2012 Additions	11.8	0.0	11.8
9	Pension & OPEB Cash Payment Variance - Hydroelectric	4.3	0.0	4.3
10	Hydroelectric Deferral and Variance Over/Under Recovery Variance	13.5	0.0	13.5
11	Total	86.8	0.0	86.8
12	2015 Actual Production (divided by 12, multiplied by 24) (TWh)	60.5	0.0	60.5
13	Rider (\$/MWh) (Line 12 / Line 13)	1.44	0.0	1.44

		Nuclear Facilities		
Line No.	Description	Amortization 2017/2018		
		OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved
		(a)	(b)	(c)
Variance Accounts (\$M)				
14	Nuclear Development Variance	1.7	0.0	1.7
15	Ancillary Services Net Revenue Variance - Nuclear	1.0	0.0	1.0
16	Capacity Refurbishment Variance - Nuclear - Capital Portion	(37.6)	0.0	(37.6)
17	Capacity Refurbishment Variance - Nuclear - Non-Capital Portion	(31.6)	0.0	(31.6)
18	Bruce Lease Net Revenues Variance - Derivative Sub-Account	(68.6)	0.0	(68.6)
19	Bruce Lease Net Revenues Variance - Non-Derivative Sub-Account - Post 2012 Additions	20.6	0.0	20.6
20	Income and Other Taxes Variance - Nuclear	(4.3)	0.0	(4.3)
21	Pension and OPEB Cost Variance - Nuclear - Future	42.9	0.0	42.9
22	Pension and OPEB Cost Variance - Nuclear - Post 2012 Additions	226.2	0.0	226.2
23	Pension & OPEB Cash Payment Variance - Nuclear	23.4	0.0	23.4
24	Nuclear Deferral and Variance Over/Under Recovery Variance	44.1	0.0	44.1
25	Total	217.9	0.0	217.9
26	Forecast Production (TWh)	76.6	0.0	76.6
27	Rider (\$/MWh) (Line 28 / Line 29)	2.85	0.0	2.85

Numbers may not add due to rounding

OPG Customer Bill Impacts

Line No.	Description	Residential Consumers														
		2013-0321/2014-0370 >> EB-2016-0152			EB-2016-0152			Attachment 1			EB-2016-0152			EB-2016-0152		
		2017			2018						2020			2021		
		OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
Production and Demand																
1	Typical Usage, including Line Losses ¹ (kWh/Month)	789.4	n/a	789.4	789.4	n/a	789.4	789.4	n/a	789.4	789.4	n/a	789.4	789.4	n/a	789.4
2	Forecast Production (TWh)	68.3	-	68.3	68.7	-	68.7	69.3	-	69.3	67.6	-	67.6	65.6	-	65.6
3	IESO Forecast Provincial Demand ² (TWh)	137.6	n/a	137.6	137.6	n/a	137.6	137.6	n/a	137.6	137.6	n/a	137.6	137.6	n/a	137.6
4	OPG Proportion of Consumer Usage (line 2 / line 3)	49.7%	0.0%	49.7%	49.9%	0.0%	49.9%	50.3%	0.0%	50.3%	49.1%	0.0%	49.1%	47.7%	0.0%	47.7%
5	Typical Usage of OPG Generation (kWh/Month) (line 1 x line 4)	392	-	392	394	-	394	397	-	397	388	-	388	376	-	376
6	Typical Bill¹ (\$/Month)	150.58	n/a	150.58	150.58	n/a	150.58	150.58	n/a	150.58	150.58	n/a	150.58	150.58	n/a	150.58
Production-Weighted Average Rates																
7	Prior Year weighted average rate with proposed payment amounts and riders (\$/MWh)	60.66	-	60.66	57.37	-	57.37	61.76	-	61.76	64.45	-	64.45	69.26	-	69.26
8	Current Year weighted average rate with proposed payment amounts and riders (\$/MWh)	57.37	-	57.37	61.76	-	61.76	64.45	-	64.45	69.26	-	69.26	74.27	-	74.27
Impact																
9	Typical Bill Impact (\$/Month)	(1.29)	-	(1.29)	1.73	-	1.73	1.07	-	1.07	1.86	-	1.86	1.89	-	1.89
10	Percentage Change of Typical Bill (line 9 / line 6)	-0.9%	0.0%	-0.9%	1.1%	0.0%	1.1%	0.7%	0.0%	0.7%	1.2%	0.0%	1.2%	1.3%	0.0%	1.3%

		2013-0321/2014-0370		
		Current Rates		
Line No.	Description	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved
		(a)	(b)	(c)
Payment Amounts (\$MWh)				
11	Regulated Hydroelectric	40.72	n/a	40.72
12	Nuclear	59.29	n/a	59.29
Riders (\$MWh)				
13	Regulated Hydroelectric	3.83	n/a	3.83
14	Nuclear	13.01	n/a	13.01
Total Annual Rates (\$MWh)				
15	Regulated Hydroelectric	44.55	n/a	44.55
16	Nuclear	72.30	n/a	72.30
Forecast Production EB-2016-0152 (TWh)				
17	Regulated Hydroelectric	33.8	n/a	33.83
18	Nuclear	46.8	-	46.8
19	Total	80.6	-	80.6
Production-Weighted Average Rates (\$MWh)				
20	Regulated Hydroelectric	18.69	n/a	18.69
21	Nuclear	41.97	-	41.97
22	Total (line 20 + line 21)	60.66	-	60.66
23	Total Production-Weighted Average Rate (\$MWh)	60.66	-	60.66

Line No.	Description	EB-2016-0152			EB-2016-0152			EB-2016-0152			EB-2016-0152			EB-2016-0152		
		Proposed Rates			Proposed Rates			Proposed Rates			Proposed Rates			Proposed Rates		
		2017			2018			2019			2020			2021		
		OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved	OPG Proposed 5/27/2016	OEB Adjustment	OEB Approved
		(a)	(b)	(c)	(a)	(b)	(c)	(a)	(b)	(c)	(a)	(b)	(c)	(a)	(b)	(c)
Payment Amounts (\$MWh)																
24	Regulated Hydroelectric	41.71	-	41.71	42.33	-	42.33	42.97	-	42.97	43.61	-	43.61	44.27	-	44.27
25	Nuclear	65.81	-	65.81	73.05	-	73.05	81.09	-	81.09	90.01	-	90.01	99.91	-	99.91
Riders (\$MWh)																
26	Regulated Hydroelectric	1.44	-	1.44	1.44	-	1.44									
27	Nuclear	2.85	-	2.85	2.85	-	2.85									
Total Annual Rates (\$MWh)																
28	Regulated Hydroelectric	43.14	-	43.14	43.77	-	43.77	42.97	-	42.97	43.61	-	43.61	44.27	-	44.27
29	Nuclear	68.66	-	68.66	75.90	-	75.90	81.09	-	81.09	90.01	-	90.01	99.91	-	99.91
Forecast Production EB-2016-0152 (TWh)																
30	Regulated Hydroelectric	30.2	n/a	30.23	30.2	n/a	30.23	30.2	n/a	30.23	30.2	n/a	30.23	30.2	n/a	30.23
31	Nuclear	38.1	-	38.1	38.5	-	38.5	39.0	-	39.0	37.4	-	37.4	35.4	-	35.4
32	Total	68.3	-	68.3	68.7	-	68.7	69.3	-	69.3	67.6	-	67.6	65.6	-	65.6
Production-Weighted Average Rates (\$MWh)																
33	Regulated Hydroelectric	19.09	n/a	19.09	19.26	n/a	19.26	18.75	n/a	18.75	19.51	n/a	19.51	20.39	n/a	20.39
34	Nuclear	38.28	-	38.28	42.50	-	42.50	45.70	-	45.70	49.75	-	49.75	53.88	-	53.88
35	Total (line 20 + line 21)	57.37	-	57.37	61.76	-	61.76	64.45	-	64.45	69.26	-	69.26	74.27	-	74.27
36	Total Production-Weighted Average Rate (\$MWh)	57.37	-	57.37	61.76	-	61.76	64.45	-	64.45	69.26	-	69.26	74.27	-	74.27

Numbers may not add due to rounding

Notes:

1 Typical monthly consumption (750 kWh) and typical monthly bill are based on the OEB "Bill Calculator" for estimating monthly electricity bills (using Time of Use pricing), available at: <http://www.ontarioenergyboard.ca/OEB/Consumers/Electricity/Your+Electricity+Utility> Typical Consumption includes line losses (Assumed loss factor of 1.0525)

2 Based on forecast demand for 2017 (137.6 TWh) from Table 3.1 of IESO 18-Month Outlook Update for April 2016 to September 2017, published March 22, 2016.

Table 1
Summary of Revenue Requirement - Nuclear (\$M)
Years Ending December 31, 2017 to 2021

Line No.	Description	Note	2017	2018	2019	2020	2021
			(a)	(b)	(c)	(d)	(e)
	Rate Base						
1	Net Fixed Assets	1	3,408.3	3,541.3	3,453.2	7,469.9	7,914.7
2	Working Capital	1	700.5	686.7	660.5	637.7	623.5
3	Cash Working Capital	1	11.0	11.0	11.0	11.0	11.0
4	Total Rate Base		4,119.8	4,239.0	4,124.7	8,118.6	8,549.2
	Capitalization						
5	Short-term Debt	2	11.5	11.8	11.7	18.4	18.9
6	Long-Term Debt	2	1,694.2	1,780.2	1,747.7	3,803.5	4,040.3
7	Common Equity	2	1,638.7	1,721.8	1,690.4	3,672.1	3,899.9
8	Adjustment for Lesser of UNL or ARC	2	775.4	725.1	674.9	624.6	590.1
9	Total Capital		4,119.8	4,239.0	4,124.7	8,118.6	8,549.2
	Cost of Capital						
10	Short-term Debt	3	0.9	1.1	1.2	1.9	1.9
11	Long-Term Debt	3	82.8	81.9	79.0	170.9	181.0
12	Return on Equity	3	150.6	158.2	155.3	337.5	358.4
13	Adjustment for Lesser of UNL or ARC	3	39.6	37.1	34.5	31.9	30.2
14	Total Cost of Capital		273.9	278.2	270.1	542.1	571.5
	Expenses:						
15	OM&A	4	2,318.6	2,327.1	2,347.9	2,368.0	2,248.7
16	Fuel	5	219.9	222.0	233.1	228.2	212.7
17	Depreciation & Amortization	6	346.9	378.7	384.0	524.9	338.1
18	Property Tax	7	14.6	14.9	15.3	15.7	17.0
19	Total Expenses		2,900.0	2,942.8	2,980.3	3,136.7	2,816.5
	Less:						
	Other Revenues						
20	Bruce Lease Revenues Net of Direct Costs	8	(66.1)	(74.3)	(85.9)	(82.1)	(93.1)
21	Ancillary and Other Revenue	9	31.7	22.0	22.7	22.2	22.9
22	Total Other Revenues		(34.5)	(52.4)	(63.2)	(59.9)	(70.2)
23	Income Tax	7	(18.4)	(18.4)	(18.4)	51.2	51.7
24	Revenue Requirement Before Stretch Factor (line 14 + line 19 - line 22 + line 23)		3,189.9	3,255.0	3,295.1	3,790.0	3,509.8
25	Cummulative Nuclear Stretch Dollars¹¹	11	0.0	5.0	10.1	15.2	20.4
26	Revenue Requirement Net of Stretch Factor (line 24 - line 25)		3,189.9	3,250.0	3,285.0	3,774.8	3,489.4
27	Amortization of Variance & Deferral Account Amounts	10	108.9	108.9	-	-	-
28	Revenue Requirement Net of Stretch Factor Plus Variance & Deferral Account Amounts (line 26 + line 27)		3,298.9	3,358.9	3,285.0	3,774.8	3,489.4

Notes:

- 1 From Ex. B1-1-1 Table 2.
- 2 Nuclear portion of totals from Exhibit C1-1-1 Tables 1 through 5, (col. (a)).
Capitalization is allocated to regulated hydroelectric and nuclear operations using rate base financed by capital structure.
Capital Structure for OPG's combined regulated operations is provided in Ex. C1-1-1 Tables 1 through 5.
- 3 Nuclear portion of totals from Exhibit C1-1-1 Tables 1 through 5, (col. (d)).
Cost of Capital is allocated to regulated hydroelectric and nuclear operations using rate base financed by capital structure.
Capital Structure for OPG's combined regulated operations is provided in Ex. C1-1-1 Tables 1 through 5.
- 4 From Ex. F2-1-1 Table 1.
- 5 From Ex. F2-5-1 Table 1.
- 6 From Ex. F4-1-1 Table 2.
- 7 From Ex. F4-2-1 Table 2.
- 8 From Ex. G2-2-1 Table 1.
- 9 From Ex. G2-1-1 Table 1.
- Other Revenues included in the determination of the nuclear revenue requirement are adjusted for sharing of 50 percent of net revenue from sales of heavy water per the OEB Decision in EB-2010-0008, (see Ex. G2-1-2 Table 1, Note 2).
- 10 From Ex. H1-2-1 Table 2, col. (g), line 16, divided by 2.
- 11 From Ex. I1-3-1 Table 1

Table 2
Comparison of Revenue Requirement to OEB Approved - Nuclear (\$M)
Years Ending December 31, 2014 through 2021

Line No.	Description	Note	OEB Approved ¹		Actual		Forecast					
			2014	2015	2014	2015	2016	2017	2018	2019	2020	2021
			(a)	(b)		(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Total Cost of Capital	2	233.5	231.4	59.8	(103.8)	(93.9)	273.9	278.2	270.1	542.1	571.5
	Expenses:											
2	OM&A	3	2,085.4	2,166.3	2,314.5	2,504.0	2,426.3	2,318.6	2,327.1	2,347.9	2,368.0	2,248.7
3	Fuel	4	268.6	262.6	254.8	244.3	264.8	219.9	222.0	233.1	228.2	212.7
4	Depreciation & Amortization	5	273.7	288.5	285.3	298.0	293.6	346.9	378.7	384.0	524.9	338.1
5	Property Tax	6	15.9	16.4	13.2	13.2	13.5	14.6	14.9	15.3	15.7	17.0
6	Total Expenses		2,643.6	2,733.9	2,867.7	3,059.6	2,998.1	2,900.0	2,942.8	2,980.3	3,136.7	2,816.5
	Less:											
	Other Revenues											
7	Bruce Lease Revenues Net of Direct Costs	7	39.7	40.6	71.7	7.1	(66.0)	(66.1)	(74.3)	(85.9)	(82.1)	(93.1)
8	Ancillary and Other Revenue	8	37.6	37.6	31.2	33.2	24.1	31.7	22.0	22.7	22.2	22.9
9	Total Other Revenues		77.3	78.2	102.9	40.3	(41.9)	(34.5)	(52.4)	(63.2)	(59.9)	(70.2)
10	Income Tax	6	(9.4)	(9.4)	(61.5)	(31.8)	(18.7)	(18.4)	(18.4)	(18.4)	51.2	51.7
11	Revenue Requirement (line 1 + line 6 - line 9 + line 10)		2,790.4	2,877.6	2,763.1	2,883.7	2,927.5	3,189.9	3,255.0	3,295.1	3,790.0	3,509.8
12	Forecast Production (TWh)	9	49.0	46.6	48.1	44.5	46.8	38.1	38.5	39.0	37.4	35.4

Notes:

- 1 From EB-2013-0321 Payment Amounts Order, Appendix A, Table 3, except forecast production which is from Appendix A, Table 4.
- 2 Actuals and Forecast: Nuclear portion of totals from Ex. C1-1-1 Tables 1 through 7 (col. (d)).
Cost of Capital is allocated to nuclear operations using rate base financed by capital structure, except for Return on Equity from 2014 to 2016 which is determined relative to taxable income for the Nuclear Business Unit
- 3 Actuals and Forecast from Ex. F2-1-1 Table 1, line 11. 2014 to 2016 amounts are reflected on an accrual basis for Pension and OPEB. 2017 to 2021 pension and OPEB amounts are reflected on a cash basis.
- 4 Actuals and Forecast from Ex. F2-5-1 Table 1.
- 5 Actuals and Forecast from Ex. F4-1-1 Table 2.
- 6 Actuals and Forecast from Ex. F4-2-1 Table 2.
- 7 Actuals and Forecast from Ex. G2-2-1 Table 1.
- 8 Actuals and Forecast from Ex. G2-1-1 Table 1.
Other Revenues included in the determination of the Nuclear revenue requirement are adjusted for sharing of 50 percent of net revenue from sales of heavy water per the OEB Decision in EB-2010-0008, per Ex. G2-1-2 Table 1, Note 2.
- 9 Actuals and Forecast from Ex. E2-1-1 Table 1.

Numbers may not add due to rounding.

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EB-2016-0152

Exhibit I1

Tab 1

Schedule 1

Table 3

Table 3
Summary of Revenue Deficiency - Nuclear
January 1, 2017 to December 31, 2021

Line No.	Description	Nuclear				
		2017	2018	2019	2020	2021
		(b)	(c)	(d)	(e)	(f)
1	Forecast Production ¹ (TWh)	38.1	38.5	39.0	37.4	35.4
2	Prescribed Payment Amount from EB-2013-0321 ² (\$/MWh)	59.29	59.29	59.29	59.29	59.29
3	Indicated Production Revenue (\$M) (line 1 x line 2)	2,258.9	2,280.9	2,313.9	2,214.8	2,097.9
4	Revenue Requirement ³ (\$M)	3,189.9	3,255.0	3,295.1	3,790.0	3,509.8
5	Revenue Requirement Deficiency (\$M) (line 4 - line 3)	931.1	974.0	981.2	1,575.2	1,411.9

Notes:

- 1 E2-1-1 Table 1, line 3, cols. (e) through (i).
- 2 EB-2013-0321 Payment Amounts Order, Appendix D, Table 1, line 3.
- 3 Ex. I1-1-1 Table 1, line 24.

Numbers may not add due to rounding.

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EB-2016-0152
Exhibit I1
Tab 1
Schedule 1
Table 4

Table 4
Determination of 2016 Forecast Return on Equity (\$M)

Line No.	Description	Note	
1	Nuclear Forecast Production (TWh)	1	46.8
2	EB-2013-0321 Nuclear Payment Amount plus EB-2014-0370 Nuclear Rider 2015/16-A (\$/MWh)	2	70.1
3	Indicated Nuclear Production Revenue (\$M) (line 1 x line 2)		3,282.7
	Nuclear Expenses:		
4	OM&A	3	2,426.3
5	Fuel and GRC	3	264.8
6	Depreciation & Amortization	3	293.6
7	Property Taxes	3	13.5
8	Total Nuclear Expenses		2,998.1
9	Nuclear Ancillary and Other Revenue	4	24.1
	Nuclear Component of Cost of Capital Excluding Return on Equity	5	
10	Short-term Debt		0.7
11	Long-Term Debt		77.9
12	Adjustment for Lesser of UNL or ARC		42.2
13	Nuclear Component of Cost of Capital Excluding Return on Equity		120.9
	Nuclear Deferral and Variance Account Adjustments		
14	Amortization of Previously Approved Amounts	6	(533.0)
15	Transactions Excluding Income Tax Components	7	105.8
16	Total Nuclear Deferral and Variance Account Adjustments		(427.2)
17	Nuclear Revenue Requirement Excluding Income Tax and Return on Equity, Plus Deferral and Variance Account Amounts Excluding Income Tax Components (line 8 - line 9 + line 13 - line 16)		3,522.1
18	Regulatory Return on Equity Reporting Adjustments	8	21.2
19	2016 Forecast Nuclear Regulatory Earnings Before Tax (line 3 - line 17 + line 18)		(218.2)
20	Nuclear Income Tax	3	(18.7)
21	Nuclear Deferral and Variance Account Transactions - Income Tax Variance Components	9	(15.3)
22	2016 Nuclear Forecast Return on Equity (line 19 - line 20 + line 21)		(214.8)
23	2016 Regulated Hydroelectric Forecast Return on Equity		352.6
24	2016 Total Forecast Return on Equity		137.8
25	ROE as a Percent of Equity Financed by Capital Structure (line 25 / Ex. C1-1-1 Table 6, col. (a), line 5)		3.0%

See Ex. I1-1-1 Table 4a for notes.

Table 4a
Determination of 2016 Forecast Return on Equity (\$M)
Notes to Ex. I1-1-1 Table 4

Notes:

- 1 From Ex. E2-1-1 Table 1, col. (d), line 3.
- 2 Ex. I1-1-2 Table 2, col. (a), line 1 and 2, less EB-2014-0370 Interim Period Shortfall Rider (Nuclear Rider-2015/16-B) of \$2.17/MWh
- 3 From Ex. F2-1-1 Table 1, col. (d).
- 4 From Ex. G2-1-1 Table 1, col. (d), line 10.
- 5 Cost of Debt from Ex. C1-1-1 Table 6, col. (d) is allocated to regulated hydroelectric and nuclear operations using rate base financed by capital structure.
Capital Structure for OPG's combined regulated operations is provided in Ex. C1-1-1 Table 6.
- 6 From EB-2014-0370 Payment Amounts Order, Table B-1, col. (d), Nuclear sub-total.
- 7 Forecast 2016 Transactions Excluding Income Tax Components are computed as follows:

Table to Note 7 (\$M)		
Line No.	Description	Nuclear
1a	Total Transactions Impacting Calculation of Regulatory Return on Equity	72.4
	Less: Tax Gross-up Components of Transactions in:	
2a	Capacity Refurbishment Variance Account	(0.5)
3a	Impact Resulting from Changes in Station End-Of-Life Dates (December 31, 2015) Deferral Account	(17.6)
	Less: Tax Variance Components of Transactions in:	
4a	Capacity Refurbishment Variance Account - CCA Differences	(15.3)
5a	Transactions Excluding Income Tax Components (line 1a - lines 2a through 6a)	105.8

- 8 These adjustments are intended to derive a forecast ROE that is as representative as possible of the approach that will be used to determine the actual ROE for this period as part of OPG's annual historical regulatory ROE reporting to the OEB (established in EB-2010-0008). The actual historical ROE is calculated using the reconciliation approach discussed in EB-2013-0321 Ex. C1-1-1 Section 4.2, starting with the financial results for OPG's prescribed assets calculated in accordance with US GAAP. The resulting main adjustment to the 2016 forecast ROE calculation in Table 4 is an inter-period adjustment between 2015 and 2016, on account of certain timing differences between the regulatory asset and liability amortization expense recorded in accordance with US GAAP and the amortization amounts set out in the OEB's EB-2014-0370 Payment Amounts Order. These self-correcting timing differences reverse across reporting periods (i.e. 2015 and 2016).
- 9 From Note 7, line 4a.

CONSUMER IMPACT

1.0 PURPOSE

This evidence describes the impact of the proposed payment amounts and payment rider changes on a residential electricity consumer consuming at the 750 kWh per month level (the “typical consumer”).

2.0 CONSUMER IMPACT

OPG has calculated the weighted average of regulated hydroelectric and smoothed nuclear payment amounts and payment amount riders, weighted by forecast production to be \$57.37/MWh for 2017, \$61.76/MWh for 2018, \$64.45/MWh for 2019, \$69.26/MWh for 2020, and \$74.27/MWh for 2021.¹

Using the 2016 budget production forecast, the weighted average of currently approved payment amounts and payment amount riders is \$60.66MWh.²

OPG has applied the annual changes in weighted average payment amounts and riders to the typical consumer’s usage of OPG generation, after adjusting for line losses and accounting for OPG’s share of the province’s generation. Typical consumer data is based on the average electricity distributor bill information provided on the OEB’s website at:

<http://www.ontarioenergyboard.ca/OEB/Consumers/Electricity/Your+Electricity+Utility>

The estimated monthly consumer bill impacts associated with the revenue requirement and OPG’s deferral and variance account proposals are reflected in Chart 1, as calculated in Ex. I1-1-2 Table 1.

¹ Includes smoothed 2017-2021 rates for nuclear payment amounts, as illustrated in Ex. I1-3-1 Table 1. Also assumes that the proposed 2017 hydroelectric price cap index is held constant through 2021, as illustrated in Ex. I1-2-1 Table 1. Actual hydroelectric payment amounts for 2018-2021 will depend on annual variations in the sub-indices that produce the I-factor. These amounts do not include riders in 2019, 2020, or 2021.

² Ex. I1-1-2, Table 2.

Chart 1

Annualized Residential Consumer Impact

	2017	2018	2019	2020	2021
Typical Bill (\$/Month)	\$150.58	\$150.58	\$150.58	\$150.58	\$150.58
Typical Bill Impact (\$/Month)	\$(1.29)	\$1.73	\$1.07	\$1.86	\$1.89
Typical Bill Impact (%)	(0.9)%	1.1%	0.7%	1.2%	1.3%

Table 1
Annualized Residential Consumer Impact
EB-2013-0321 / EB-2014-0370 to EB-2016-0152

Line No.	Description	2017 Amount	2018 Amount	2019 Amount	2020 Amount	2021 Amount
		(a)	(b)	(c)	(d)	(e)
1	Typical Consumption ¹ (kWh/Month)	789	789	789	789	789
2	Typical Usage of OPG Generation (kWh/Month) (line 1 x line 11)	392	394	397	388	376
3	Typical Bill ¹ (\$/Month)	150.58	150.58	150.58	150.58	150.58
4	Typical Bill Impact (\$/Month) (line 2 x line 8 / 1000)	(1.29)	1.73	1.07	1.86	1.89
5	Typical Bill Impact (%) (line 4 / line 3)	-0.9%	1.1%	0.7%	1.2%	1.3%
6	Prior Year weighted average rate with proposed payment amounts and riders ^{2,3} (\$/MWh)	60.66	57.37	61.76	64.45	69.26
7	Current Year weighted average rate with proposed payment amounts and riders ^{2,3} (\$/MWh)	57.37	61.76	64.45	69.26	74.27
8	Change in OPG weighted average rate (\$/MWh) (line 7 - line 6)	(3.29)	4.39	2.69	4.81	5.02
9	Total OPG Regulated Production ⁴ (TWh)	68.3	68.7	69.3	67.6	65.6
10	Forecast of 2017 Provincial Demand ⁵ (TWh)	137.6	137.6	137.6	137.6	137.6
11	OPG Proportion of Consumer Usage (line 9 / line 10)	49.7%	49.9%	50.3%	49.1%	47.7%

Notes:

- Typical monthly consumption (750 kWh) and typical monthly bill are based on the OEB "Bill Calculator" for estimating monthly electricity bills (using Time of Use pricing), available at: <http://www.ontarioenergyboard.ca/OEB/Consumers/Electricity/Your+Electricity+Utility>
Typical Consumption includes line losses (Assumed loss factor of 1.0525)
- From Ex. I1-1-2 Table 2, line 8
- Uses Nuclear smoothed rate per Ex. I1-3-1 Table 1, IRM Hydro rate (illustrative after 2017) per Ex. I1-2-1 Table 1
- From Ex. I1-1-2 Table 2, line 5.
- Based on forecast demand for 2017 (137.6 TWh) from Table 3.1 of IESO 18-Month Outlook Update for April 2016 to September 2017, published March 22, 2016.

Numbers may not add due to rounding.

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EB-2016-0152
Exhibit I1
Tab 1
Schedule 2
Table 2

Table 2
Computation of Percent Change in Payment Amounts
EB-2013-0321 / EB-2014-0370 to EB-2016-0152

Line No.	Description	Note	2016 per EB-2013-0321 Payment Amounts Order plus EB-2014-0370 Riders	2017 per EB-2016-0152 Proposed Payment Amount plus EB-2016-0152 Riders	2018 per EB-2016-0152 Proposed Payment Amount plus EB-2016-0152 Riders	2019 per EB-2016-0152 Proposed Payment Amount	2020 per EB-2016-0152 Proposed Payment Amount	2021 per EB-2016-0152 Proposed Payment Amount
			(a)	(b)	(c)	(d)	(e)	(f)
1	Regulated Hydroelectric Rate Including Rider (\$/MWh)	1	44.55	43.15	43.77	42.97	43.61	44.27
2	Nuclear Rate Including Rider (\$/MWh)	2	72.30	68.66	75.90	81.09	90.01	99.91
3	Regulated Hydroelectric Production (TWh)	3	33.8	30.2	30.2	30.2	30.2	30.2
4	Forecast Nuclear Production (TWh)	3	46.8	38.1	38.5	39.0	37.4	35.4
5	Total Production (TWh) (line 3 + line 4)		80.6	68.3	68.7	69.3	67.6	65.6
7	Regulated Hydroelectric Portion of Production-Weighted Average Rate (\$/MWh) (line 1 x line 3 / line 5)		18.69	19.09	19.26	18.75	19.51	20.39
6	Nuclear Portion of Production-Weighted Average Rate (\$/MWh) (line 2 x line 4 / line 5)		41.97	38.28	42.50	45.70	49.75	53.88
8	Total Production-Weighted Average Rate (\$/MWh) (line 6 + line 7)		60.66	57.37	61.76	64.45	69.26	74.27
9	Percentage Change in Hydroelectric Rate Including Rider	4		-3.2%	1.4%	-1.8%	1.5%	1.5%
10	Percentage Change in Nuclear Rate Including Rider	4		-5.0%	10.5%	6.8%	11.0%	11.0%
11	Percentage Change in Overall Payment Amount			-5.4%	7.7%	4.3%	7.5%	7.2%

Notes:

- Col. (a) is average Regulated Hydroelectric payment amount including riders for Jul-Dec 2015 (production-weighted average of previously and newly regulated hydroelectric base rates and riders in effect at the end of 2015). See Ex. I1-2-1 Table 1(a). Col. (b) - (f) is proposed EB-2016-0152 payment amount plus riders from Ex. I1-2-1 Table 1 line 10.
- Col. (a) is base rate of \$59.29/MWh (EB-2013-0321 Payment Amounts Order, Appendix D, Table 1, line 3) plus nuclear rider 2016 from EB-2014-0370 (\$10.84/MWh) plus Nuclear Interim Period Shortfall Rider from EB-2014-0370 (\$2.17/MWh). Col. (b) - (f) is proposed EB-2016-0152 payment amount plus riders from Ex. I1-3-1 Table 1 line 13.
- Regulated Hydroelectric 2017-2021 is 2015 actual production, 2016 Budget production used to calculate 2016 total production weighted average rate Nuclear from EB-2016-0152 Ex. E2-1-2_Table 1

REGULATED HYDROELECTRIC PAYMENT AMOUNT

1.0 PURPOSE

This evidence presents OPG's requested 2017 payment amount for the company's regulated hydroelectric generation facilities.

2.0 COMBINED HYDROELECTRIC RATE

In OPG's previous payment amounts application (EB-2013-0321), the OEB approved payment amounts independently for the company's previously-regulated hydroelectric generation facilities and the facilities that were newly-regulated at the time of that application. Rather than maintaining two distinct payment amounts in this application, OPG has combined the previously and newly-regulated hydroelectric payment amounts into a single production-weighted average payment amount for the regulated hydroelectric facilities. For comparison purposes, the production-weighted average of the current approved 2015 payment amount is \$40.72/MWh, as calculated in Ex. I1-2-1 Table 1a.

3.0 REGULATED HYDROELECTRIC PAYMENT AMOUNT

OPG is seeking approval of a payment amount for the company's regulated hydroelectric facilities of \$41.71/MWh, effective January 1, 2017, for the average hourly net energy production (MWh) from the regulated facilities in any given month (the "hourly volume") for each hour of that month. Where production is over or under the hourly volume, regulated hydroelectric incentive revenue payments will be consistent with the OEB's Payment Amounts Order in EB-2013-0321.

The requested payment amount is calculated in Ex. I1-2-1 Table 1. This table also presents the proposed regulated hydroelectric payment rider of \$1.44/MWh effective January 1, 2017, as calculated in Ex. H1-2-1 Table 1.

As described in Ex. A1-3-2, section 2.3.2, the hydroelectric "going in" rate is corrected to remove the one-time allocation of nuclear tax losses to the hydroelectric business in the EB-2013-0321 payment amounts order; this calculation is presented in Ex. I1-2-1 Table 2.

Numbers may not add due to rounding.

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EB-2016-0152

Exhibit I1

Tab 2

Schedule 1

Table 1

Table 1
Payment Amounts and Riders – Hydroelectric¹
January 1, 2017 to December 31, 2021

Line No.	Description	Note	2017	Illustrative Payment Amounts ¹				
				2018	2019	2020	2021	
1	Price Escalator (I-Factor)	2	1.80%	1.80%	1.80%	1.80%	1.80%	
2	Labour: AWE - Ontario	3	2.60%	2.60%	2.60%	2.60%	2.60%	
3	Canadian Gross Domestic Product Implicit Price Index - Final Domestic Demand	3	1.70%	1.70%	1.70%	1.70%	1.70%	
4	Productivity Factor		0.00%	0.00%	0.00%	0.00%	0.00%	
5	Stretch Factor	4	0.30%	0.30%	0.30%	0.30%	0.30%	
6	Price Cap Index	5	1.50%	1.50%	1.50%	1.50%	1.50%	
7	Prior Year Hydroelectric Payment Amount (\$/MWh)	6	41.09	41.71	42.33	42.97	43.61	
8	Prior Year Price Cap Adjusted Hydroelectric Payment Amount (\$/MWh)	7	41.71	42.33	42.97	43.61	44.27	
9	Payment Rider (\$/MWh)	8	1.44	1.44				
10	Total of Hydroelectric Payment Amounts Plus Riders (line 8 + line 9)		43.15	43.77	42.97	43.61	44.27	

Notes:

- 1 Payment Amounts for 2018-2021 are illustrative only - final payment amounts will be determined annually, using I factor values
- 2 Pursuant to Ex. A1-3-2, the Price Escalator (I-Factor) is derived using a composite inflation index of 12% labour cost (Line 2), 7% non-labour cost (Line 3) and 81% capital cost (Line 3)
- 3 Ex. A1-3-2, Chart 4 – Summary of Hydroelectric I-Factor Sub-indices, Q1 2016
- 4 Pursuant to Ex. A1-3-2
- 5 Price Escalator (Line 1) minus Productivity Factor (Line 4) minus Stretch Factor (Line 5)
- 6 2017 is Weighted Average of tax adjusted Approved Hydroelectric Payment Amount from EB-2013-0321 - see Ex. I1-2-1 Table 1a
- 7 Prior Year Hydroelectric Payment Amount (Line 7) escalated by the Price Cap Index (Line 6)
- 8 From Ex. H1-2-1 Table 1, line 14, col (g)

Numbers may not add due to rounding.

Filed: 2016-05-27
EB-2016-0152
Exhibit I1
Tab 2
Schedule 1
Table 1a

Table 1a
Notes to Table 1: Combined Hydroelectric Payment Amount

Line No.	Description	Note	EB-2013-0321	Tax Adjusted EB-2013-0321
			(a)	(b)
1	Previously Regulated Hydroelectric Payment Amount (\$/MWh)	1	40.20	40.52
2	Newly Regulated Hydroelectric Payment Amount (\$/MWh)	2	41.93	42.40
3	2014-2015 OEB Approved Production (Previously Regulated Hydroelectric) (TWh)	3	41.1	41.1
4	2014-2015 OEB Approved Production (Newly Regulated Hydroelectric) (TWh)	4	17.9	17.9
5	Total 2015 OEB Approved Regulated Hydroelectric Production (line 3 + line 4)		59.0	59.0
6	Previously Regulated Portion of Production-Weighted Average Payment Amount (\$/MWh) (line 1 x line 3 / line 5)		28.00	28.23
7	Newly Regulated Portion of Production-Weighted Average Payment Amount (\$/MWh) (line 2 x line 4 / line 5)		12.72	12.86
8	Production-Weighted Regulated Hydroelectric Payment Amount (\$/MWh) (line 6 + line 7)		40.72	41.09
9	Deferral and Variance Account Recovery Payment Rider	5	3.19	3.19
10	Interim Period Shortfall Rider	6	0.64	0.64
11	Production-Weighted Regulated Hydroelectric Payment Amount (\$/MWh) (Including Riders) (line 8 + line 9 + line 10)		44.55	44.92

Notes:

- 1 See Ex. I1-2-1 Table 2, line 3
- 2 See Ex. I1-2-1 Table 2, line 6
- 3 Per EB-2013-0321 Payment Amounts Order, Appendix B, Table 1
- 4 Per EB-2013-0321 Payment Amounts Order, Appendix C, Table 1
- 5 Per EB-2014-0370 Payment Amounts Order, Appendix A, Table 1, line 12
- 6 Per EB-2014-0370 Payment Amounts Order, Appendix A, Table 3, line 4

Numbers may not add due to rounding.

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EB-2016-0152
Exhibit I1
Tab 2
Schedule 1
Table 2

Table 2
Adjusted Previously Regulated and Newly Regulated Hydroelectric Payment Amounts

Line No.	Description	EB-2013-0321 Order	Tax Loss Adjustment	Adjusted Payment Amounts
		(a)	(b)	(c)
	<u>PREVIOUSLY REGULATED PAYMENT AMOUNT:</u>	Note 1	Note 3	
1	Revenue Requirement (\$M)	1,652.8	13.1	1,665.8
2	Forecast Production (TWh)	41.1	-	41.1
3	Payment Amount (\$/MWh) (line 1 / line 2)	40.20	0.32	40.52
	<u>NEWLY REGULATED PAYMENT AMOUNT:</u>	Note 2	Note 4	
4	Revenue Requirement (\$M)	751.9	8.6	760.5
5	Forecast Production (TWh)	17.9	-	17.9
6	Payment Amount (\$/MWh) (line 4 / line 5)	41.9	0.47	42.40

Notes:

- 1 From Payment Amounts Order, Appendix B, col. (a), lines 1 and 2
- 2 From Payment Amounts Order, Appendix C, col. (c), lines 1 and 2
- 3 Tax loss adjustment to EB-2013-0321 revenue requirement from Ex. I1-2-1, Table 2a, col. (a), line 15
- 4 Tax loss adjustment to revenue requirement from Ex. I1-2-1, Table 2a, col. (b), line 15

Table 2a
Notes to Table 2
Summary of EB-2013-0321 Forecast Regulatory Taxable Income for Prescribed Facilities
Revised to Remove the 2015 Nuclear Tax Loss from the Regulated Hydroelectric Income Tax Calculation
Year Ending December 31, 2015

Line No.	Particulars	Note	Previously Reg Hydro	Newly Reg Hydro	Nuclear	Total Regulated
	EB-2013-0321 Payment Amount Order, Appendix A, Table 8		(a)	(b)	(c)	(d)=(a)+(b)+(c)
1	Regulatory Taxable Income Before Loss Carry-Over	1	214.0	140.4	(159.1)	195.3
2	Tax Loss Carry-Over	2	(52.3)	(34.3)	159.1	72.4
3	Regulatory Taxable Income After Loss Carry-Over (line 1 + line 2)		161.7	106.1	(0.0)	267.7
4	Regulatory Income Taxes - Federal (line 3 x line 16)		24.2	15.9	0.0	40.2
5	Regulatory Income Taxes - Provincial (line 3 x (line 17 + line 18))		16.2	10.6	0.0	26.8
6	Regulatory Income Taxes - SR&ED Investment Tax Credits		(0.3)	(0.7)	(9.4)	(10.4)
7	Total Regulatory Income Taxes (line 4 + line 5 + line 6)	3	40.1	25.8	(9.4)	56.5
	Revised to Remove Application of Nuclear Tax Loss To Regulated Hydroelectric:					
8	Regulatory Taxable Income Before Loss Carry-Over	1	214.0	140.4	(159.1)	195.3
9	Tax Loss Carry-Over		0.0	0.0	72.4	72.4
10	Regulatory Taxable Income After Loss Carry-Over (line 8 + line 9)	4	214.0	140.4	(86.7)	267.7
11	Regulatory Income Taxes - Federal (line 10 x line 16)		32.1	21.1	0.0	40.1
12	Regulatory Income Taxes - Provincial (line 10 x (line 17 + line 18))		21.4	14.0	0.0	26.8
13	Regulatory Income Taxes - SR&ED Investment Tax Credits		(0.3)	(0.7)	(9.4)	(10.4)
14	Total Regulatory Income Taxes (line 11 + line 12 + line 13)		53.2	34.4	(9.4)	56.5
15	Adjustment to Regulatory Income Tax (line 14 - line 7)		13.1	8.6	0.0	(0.0)
	Income Tax Rate:					
16	Federal Tax		15.00%	15.00%	15.00%	15.00%
17	Provincial Tax		10.00%	10.00%	10.00%	10.00%
18	Total Income Tax Rate		25.00%	25.00%	25.00%	25.00%

- 1 Total Regulated as provided in EB-2013-0321 Payment Amount Order, Appendix A, Table 8, Line 21
- 2 Total Regulated tax loss carry-back of \$72.4M reduced 2014 nuclear taxable income to \$0 per EB-2013-0321 Payment Amount Order, Appendix A, Table 8a, Note 5. The 2015 nuclear tax loss of \$159.1M (see EB-2013-0321 OPG Response to Intervenor Comments on the Draft Payment Amounts Order, p. 4) less carry back of \$72.4M resulted in \$86.7M in residual nuclear tax loss that was allocated to reduce the 2015 regulated hydroelectric income tax, based on regulatory taxable income (line 1).
- 3 As shown in EB-2013-0321 Payment Amounts Order, Appendix A as follows: Table 1, line 23 (Prev Reg Hydro); Table 2, line 23 (Newly Reg Hydro); Table 3, line 23 (Nuclear).
- 4 The negative nuclear taxable income (i.e. remaining tax loss) of \$86.7M would have been carried forward in the absence of application against regulated hydroelectric taxable income. Under the EB-2013-0321 approach, customers received the benefit of this tax loss through lower regulated hydroelectric payment amounts in that test period. For further discussion, please see section 2.3.2 of Ex. A1-3-2.

NUCLEAR PAYMENT AMOUNTS

1.0 PURPOSE

This evidence presents OPG's requested payment amounts for the nuclear facilities for 2017, 2018, 2019, 2020, and 2021.

2.0 PAYMENT AMOUNT

OPG is seeking approval of the following smoothed payment amounts:

- \$65.81/MWh for the nuclear facilities effective January 1, 2017;
- \$73.05/MWh for the nuclear facilities effective January 1, 2018;
- \$81.09/MWh for the nuclear facilities effective January 1, 2019;
- \$90.01/MWh for the nuclear facilities effective January 1, 2020; and
- \$99.91/MWh for the nuclear facilities effective January 1, 2021.

The basis for the requested payment amount is presented in Ex. I1-3-1 Table 1. This table also presents the proposed nuclear payment rider of \$2.85/MWh, effective January 1, 2017, as provided in Ex. H1-2-1 Table 2.

Table 1
Payment Amounts and Riders - Nuclear
Test Period January 1, 2017 to December 31, 2021

Line No.	Description	2017	2018	2019	2020	2021
		(a)	(b)	(c)	(d)	(e)
	<u>PAYMENT AMOUNT:</u>					
1	Revenue Requirement Before Stretch Factor ¹ (\$M)	3,189.9	3,255.0	3,295.1	3,790.0	3,509.8
2	Nuclear Base OM&A ²	1,210.6	1,226.0	1,248.4	1,264.7	1,276.3
3	Nuclear Allocated Corporate Costs ³	448.9	437.2	442.7	445.0	454.1
4	Total OM&A Applicable for Stretch Factor ⁴	1,659.5	1,663.2	1,691.1	1,709.7	1,730.4
5	Nuclear Stretch Factor (Ex. A1-3-2, Chart 9)		0.3%	0.3%	0.3%	0.3%
6	Cummulative Nuclear Stretch Dollars ((line 4 x line 5) + Prior Year)	-	5.0	10.1	15.2	20.4
7	Revenue Requirement Net of Stretch Factor (\$M) (line 1 - line 6)	3,189.9	3,250.0	3,285.0	3,774.8	3,489.4
8	Forecast Production ⁵ (TWh)	38.1	38.5	39.0	37.4	35.4
9	Illustrative Unsmoothed Payment Amount (\$/MWh) (line 7/line 8)	83.73	84.48	84.17	101.05	98.62
10	Rate Smoothing % Increase	11.0%	11.0%	11.0%	11.0%	11.0%
11	Smoothed Payment Amount (\$/MWh) increases by 11% per year ⁶	65.81	73.05	81.09	90.01	99.91
	<u>DEFERRAL AND VARIANCE ACCOUNT PAYMENT RIDER:</u>					
12	Payment Rider ⁷ (\$/MWh)	2.85	2.85			
13	Total of Nuclear Payment Amount Plus Riders (line 11 + line 12)	68.66	75.90	81.09	90.01	99.91

Notes:

- 1 From Ex. I1-1-1 Table 2, line 24.
- 2 Ex. F2-1-1 Table 1
- 3 Ex. F2-1-1 Table 1
- 4 Please see section 3.2 of Ex. A1-3-2
- 5 From Ex. E2-1-1 Table 1, line 3, cols. (e) through (i).
- 6 2017 calculated as \$59.29/MWh from EB-2013-0321 Payment Amounts Order, Appendix D, Table 1, line 3, escalated by 11%.
- 7 From Ex. H1-2-1 Table 2, line 18, col (g)

IESO SETTLEMENT PROCESS

1.0 PURPOSE

This evidence provides a description of the IESO settlement process used for OPG's regulated generation facilities.

2.0 DESCRIPTION OF SETTLEMENT PROCESS

The general IESO settlement process is described in Chapter Nine of the Ontario Market Rules. OPG understands that in order for revised payment amounts and riders to be implemented on the first of a given month, a final rate order establishing the new payment amounts and riders would have to be issued by the 20th of the second month prior to the implementation month in order for the IESO to update their systems and perform the settlement without retroactive adjustment. For example, for implementation on June 1, the rate order would have to be issued on April 20.

OPG expects that retroactive adjustment will be used for the months prior to the implementation date back to the effective date of new payment amounts and riders. For example, assuming a rate order on April 20, retroactive adjustment would be used for the months of January through May, with unadjusted implementation for the month of June and beyond.

The timelines for implementation are based on the changes proposed in this submission. Material changes to the proposed rate structure may require a longer lead time for implementation.