

## IMPACT STATEMENT

This exhibit has been prepared to show the impact of three changes that have occurred since OPG filed the March 2008 update to this application. The three changes are:

1. An update to the cost of capital to reflect current market conditions;
2. An update to rate base to reflect in-service additions associated with corporate group's capital expenditures in 2008 - 2009 that were erroneously excluded from the test period rate base, as identified in the response to interrogatory L-6-17; and
3. Changes to nuclear outages, specifically:
  - a. Changes to production and costs at Pickering A associated with rescheduling of test period outages, as discussed in the covering letter to OPG's March 14, 2008 update to the pre-filed evidence.
  - b. Changes to production and costs at Pickering B associated with a recent, major, unplanned outage at Unit 7.

Each of these matters is described separately below.

### **1. Cost of Capital**

Kathleen McShane of Foster Associates, Inc. (Fosters) has updated her analysis to reflect capital market conditions as they impact the results of the cost of equity tests performed to estimate the benchmark return on equity. This update resulted in a reduction in the ROE estimate from the Equity Risk Premium test and an increase in the ROE estimate from the Discounted Cash Flow test and no change from the Comparable Earnings test. Based on these updates, she concluded that the fair return on equity for OPG for the period April 1, 2008 through December 2009 remains unchanged at 10.5%.

OPG updated its forecast of interest rates to reflect current conditions. Based on this update, OPG's cost of debt decreased by 0.22% in 2008 and 0.26% in 2009, resulting in a decrease in test period interest expense of \$7.0M for the regulated hydroelectric facilities and \$8.3M for the nuclear facilities.

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2 **2. Corporate Capital Additions**

3 As indicated in the response to interrogatory L-6-17, OPG erroneously omitted \$22M of in-  
4 service additions from the nuclear rate base and \$1.9M from the regulated hydroelectric rate  
5 base. These in-service additions were corporate group capital expenditures that are solely  
6 associated with the regulated facilities. These in-service additions are not factored into the  
7 asset service fees charged to the regulated business.

8  
9 The revenue requirement impact for the test period of these additions to rate base is an  
10 increase of \$0.5M in the regulated hydroelectric revenue requirement and an increase of  
11 \$4.2M in the nuclear revenue requirement.

12  
13 **3. Nuclear Outages**

14 **a. Pickering A Outage Rescheduling**

15 The Nuclear Integrated Generation Plan which underpinned OPG's March 14, 2008 filing  
16 included a scheduled 67 day Unit 4 outage in September 2008. In 2007, neither Unit 1 nor  
17 Unit 4 accumulated the expected planned operating hours as a result of the Inter-Station  
18 Transfer Bus ("ISTB") forced outage and an extension of a Unit 4 2006 fall outage into 2007.

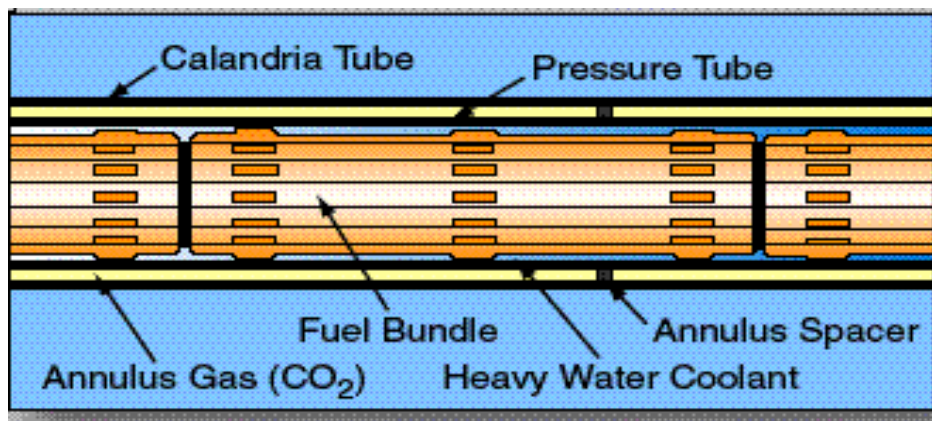
19  
20 Given the developments in 2007, OPG, after an extensive analysis, established an  
21 opportunity to improve production in the test period by rescheduling the Unit 4 fall outage  
22 from September 2008 to January 2009 and by rescheduling the September 2009 Unit 1  
23 outage to coincide with the Vacuum Building outage in April 2010. OPG received Canadian  
24 Nuclear Safety Commission approval for these scheduling changes in April 2008. While the  
25 rescheduled 2009 Unit 4 outage will be slightly longer, the net result is a forecast of lower  
26 planned outage days over the test period for the Pickering A station resulting in increased  
27 production of 0.66 TWh and associated higher fuel costs and lower outage OM&A costs  
28 resulting in a revenue requirement reduction of \$34.7M.

29  
30 **b. Pickering B Unit 7 Forced Outage**

31 On April 6, 2008, a test was carried out for the Pickering B Unit 8 planned outage. During this

1 test, Unit 7 was forced off due to a switchyard fault. Unit 7 was placed in a Guaranteed  
2 Shutdown State ("GSS") to allow repairs. While Unit 7 was in GSS, unanticipated chemical  
3 sample results were discovered. Based on OPG's operating procedures, the unit was  
4 subsequently placed in a drained GSS while the reasons for the unanticipated sample results  
5 were investigated.

6  
7 OPG's initial assessment has determined that the unanticipated chemical results occurred  
8 due to the presence of increasing amounts of CO<sub>2</sub> gas in the unit's heavy water moderator  
9 system. CO<sub>2</sub> gas is normally contained between the calandria and pressure tubes (see  
10 diagram below). The presence of this gas in the heavy water contained in the moderator  
11 system is due to a leak from a calandria tube into the moderator system. While this CO<sub>2</sub> leak  
12 was first detected in 2005, a series of engineering reviews (including a third party  
13 assessment) determined that the unit could safely operate until 2010, at which time a  
14 calandria tube replacement had been scheduled as part of a 2010 planned outage.



OPG is unable to restart the unit until the chemical anomaly is rectified. OPG has reviewed  
various options and has concluded that it will need to replace the calandria tube in the  
current shutdown. Based on preliminary analysis, Unit 7 is expected to be in a forced outage  
from April 6, 2008 to August 31, 2008. To mitigate the impact of this forced outage, OPG is  
currently planning to bring the majority of outage work from the planned Unit 7 fall outage  
forward into this forced outage, with the remainder deferred until 2010. The impact of  
combining the calandria tube replacement work with the fall outage scope has yet to be fully

1 assessed.

2  
3 Given the uniqueness and complexity of this outage and the need to make major  
4 adjustments to existing plans, there is considerable uncertainty with respect to the duration of  
5 the outage. The net result of the Pickering B Unit 7 forced outage is currently estimated to be  
6 a reduction in test period production of 1.05 TWh and an increase in revenue requirement of  
7 \$29.5M associated with higher outage OM&A expense, cost of capital associated with  
8 increased capital expenditures for tooling for the calandria tube replacement, increased  
9 depreciation and reduced fuel expense.

10  
11 **Conclusion**

12 The three changes considered in this impact statement result in a decrease in the revenue  
13 requirement of \$15.2M and reduced production from the nuclear facilities of 390 GWh,  
14 resulting in an increase in the revenue deficiency of \$1.0M (assuming nuclear production is  
15 at the variable rate of \$41.50 as per OPG's application). Details of the impacts of the three  
16 items are presented in the attached schedule. OPG is not revising its request for payment  
17 amounts to reflect the increase in the revenue deficiency associated with these items.

**Summary of Production and Revenue Requirement Impacts (\$M)****April 1, 2008 to December 31, 2009****Corporate Capital Programs****CHANGES**Hydroelectric

Cost of Capital	0.1
Depreciation & Amortization	0.3
<b>Revenue Requirement Impact</b>	<b>0.5</b>

Nuclear

Cost of Capital	1.2
Depreciation & Amortization	3.0
<b>Revenue Requirement Impact</b>	<b>4.2</b>

**Pickering 4 Outage Deferral (+660 GWh)**Nuclear

OM&A	(37.0)
Fuel	2.3
<b>Revenue Requirement Impact</b>	<b>(34.7)</b>

**Pickering 7 Forced Outage (-1,050 GWh)**Nuclear

OM&A	31.0
Fuel	(3.4)
Depreciation	1.3
Cost of Capital	0.6
<b>Revenue Requirement Impact</b>	<b>29.5</b>

**Cost of Capital - Interest Rate Change**Hydroelectric

Cost of Capital	(7.0)
<b>Revenue Requirement Impact</b>	<b>(7.0)</b>

Nuclear<sup>1</sup>

Cost of Capital	(8.3)
<b>Revenue Requirement Impact</b>	<b>(8.3)</b>

<b>Total Revenue Requirement Impact (\$M)<sup>2</sup></b>	<b>(15.2)</b>
Nuclear Revenue Requirement	(8.7)
Hydroelectric Revenue Requirement	(6.5)
<b>Total Energy Production Impact ( GWh Nuclear)</b>	<b>(390)</b>
<b>Impact on Revenue Deficiency (\$M):</b>	
Revenue Requirement Change	(15.2)
Impact of Lost Production @ \$41.50/MWh	16.2
<b>Total Impact on Deficiency</b>	<b>1.0</b>

1 Includes impact of interest rate change on Bruce Lease revenues net of cost.

2 Includes income tax on incremental net income.