DRIVERS OF DEFICIENCY

1.0 PURPOSE

This evidence presents the revenue deficiency for the previously regulated hydroelectric and nuclear facilities over the 2014 - 2015 test period and explains the major drivers leading to these deficiencies. A summary of technology-specific deficiencies is presented in Ex. I1-1-1 Table 4.

2.0 OVERVIEW

The revenue deficiency is driven by changes in both revenue requirement and forecast production.

To calculate the changes in the previously regulated hydroelectric and nuclear revenue requirements, OPG compared the proposed revenue requirement for each technology over the 2014 - 2015 test period to the OEB-approved revenue requirement for the prior 2011-2012 test period. This comparison shows that the two year test period revenue requirement grows by $317.1M for the previously regulated hydroelectric facilities and by $1,293.3M for the nuclear facilities. Comparisons of revenue requirement between this test period and the prior test period are based on Ex. I1-1-1 Table 2 (previously regulated hydroelectric) and Table 3 (nuclear) and are shown in Charts 1 and 2 below.

The forecast production for 2014 - 2015 for the previously regulated hydroelectric facilities declines by 0.4TWh relative to the OEB-approved production for 2011 - 2012. Similarly, the forecast nuclear production for 2014 - 2015 declines by 4.2TWh relative to the OEB-approved production for 2011 - 2012. These differences are reflected in the revenue at current rates shown in Charts 1 and 2.

3.0 DRIVERS OF DEFICIENCY

3.1 Previously Regulated Hydroelectric

Chart 1 shows the changes in the previously regulated hydroelectric revenue requirement by major cost category based on the information in Ex. I1-1-1 Table 2. The $317.1M increase in

the previously regulated hydroelectric revenue requirement has several significant contributing components.

OM&A costs increase by $32.4M as a result of expenditures on major unit overhauls at several generating stations, discussed in Ex. F1-3-2 and as shown in Ex. F1-3-2 Table 1, and as a result of administration costs related to the Niagara Bridge Divestiture Program and extraordinary items described in Section 3.0 of Ex. F1-2-1. The rise in Depreciation & Amortization costs for the 2014 - 2015 test period is primarily attributable to the coming into service of the Niagara Tunnel project. Cost of Capital increases by $133.8M, chiefly as a result of higher ROE and forecasted long-term debt costs, also as a result of the Niagara Tunnel project.

Ancillary and Other Revenues are forecasted to decline by $64.8M, primarily due to decreased operating reserve revenues as a result of a more competitive operating reserve marketplace and lower expected regulation service revenues, discussed in Ex. G1-1-1 and Ex. G1-1-2. Income taxes are forecast to increase by $56.7M, due to increased regulatory taxable income. This results from an increased rate base and ROE, primarily attributable to the Niagara Tunnel project, as well as higher pension and OPEB costs which are not deductible for tax purposes. The revenue deficiency is also impacted by the 0.4TWh decrease in forecast production, primarily due to changes in weather and water conditions. The reduction is further discussed in Ex. E1-1-1 and Ex. E1-1-2.

3.2 Nuclear

Chart 2 shows the changes in the nuclear revenue requirement by major cost category based on the information in Ex. I1-1-1 Table 3. There are several significant changes that cause the two-year revenue requirement to increase by $1,293.3M between the 2014 - 2015 test period and the 2011 - 2012 test period.

The Cost of Capital decreases by $56.1M, chiefly due to decreases in ROE and forecasted long-term debt costs. The allocation of Centrally Held Costs increases by $411.6M, chiefly as a result of increased pension and OPEB costs due to lower discount rates, discussed in

Section 3.2 of Ex. F4-4-1. Outage OM&A is forecast to increase by $177.5M, primarily due to a planned Vacuum Building Outage scheduled for 2015, discussed in Ex. F2-4-2.

Due to the transfer of resources from nuclear functions to centre-led corporate functions as part of Business Transformation, the change in allocation of Support Services Costs (sometimes referred to as Corporate Costs) and Nuclear Base OM&A costs should be considered together. The level of Support Services costs allocated to nuclear rises by $349.8M. This change is primarly due to the transfer of resources from nuclear functions to centre-led corporate functions (Support Services Costs) as part of Business Transformation, discussed in Ex. A4-1-1, and the allocation of the costs of these functions back to Nuclear as discussed in Ex. F3-1-1. In 2012, this transfer is valued at $198.0M annually as shown in Ex. F3-1-1, page 2. Of this $198.0M, $196.4M has been attributed to Base OM&A and $1.6M to Outage OM&A. Excluding the BT transfer, Allocation of Support Services Costs would have decreased. The Allocation of Support Services Costs is discussed in Ex. F3-1-2.

Base OM&A decreases by $120.4M. This decrease is driven primarily by the transfer of resources from Nuclear to centre-led corporate functions as part of Business Transformation as discussed above, offset by increases which are primarily due to labour cost escalation and higher pension and OPEB costs.

The increase of $70.5M in Depreciation & Amortization costs for the 2014-2015 test period is primarily attributable to increased Asset Retirement Costs (ARC) arising from accounting for the current approved ONFA Reference Plan effective January 1, 2012, discussed in Ex. F4-1-1 and Ex. C2-1-1. Bruce Lease Net Revenues decrease by $190.8M, primarily due to an increase in Bruce costs associated with accounting for the current approved ONFA Reference Plan, as shown in Ex. G2-2-1 Table 5 and discussed in Ex. G2-2-1.

Income taxes are forecast to rise $89.6M in 2014 - 2015. This increase is primarily due to increased pension and OPEB costs, shown in Ex. F4-2-1 Table 5. The rise in income taxes is larger in the nuclear revenue requirement than in the previously regulated hydroelectric revenue requirement due to the more labour intensive nature of nuclear operations, resulting

in a higher amount of pension and OPEB costs which are not deductible for tax purposes. Other costs increase by $180.0M. This increase captures the EB-2010-0008 disallowance of nuclear compensation costs of $145M, with the remainder including differences in Fuel, Property Taxes, Other OM&A costs, Ancillary and Other Revenue.

The nuclear revenue deficiency is also impacted by the 4.2TWh decrease in forecast production relative to the OEB-approved forecast production for 2011 - 2012. This decreased forecast is partly attributable to the 2015 Vacuum Building Outage and also reflects a change in OPG's performance expectations, following a historical trend of projected generation exceeding actual output. The reduction is further discussed in Ex. E2-1-1 and Ex. E2-1-2.

Chart 1
Previously Regulated Hydroelectric Deficiency, 2014-2015 Test Period

	($M)	Notes
EB-2010-0008Approved Revenue Requirement	**1,419.2**	Ex. I1-1-1, Table 2
Increase in Cost of Capital	133.8	Higher forecasted long-term debt costs and ROE due to increased rate base as a result of the Niagara Tunnel project coming into service
Increase in OM&A	32.4	Increases in Base OM&A (Ex. F1-2-1, Ex. F1-2-2) and Project OM&A (Ex. F1-3-2)
Increase in Depreciation & Amortization	33.4	Primarily due to the Niagara Tunnel project coming into service (Ex. F4-1-1)
Decrease in Ancillary and Other Revenue	64.8	Lower operating reserve market prices and lower regulation service revenues (Ex. G1-1-1 and Ex. G1-1-2)
Increase in Income Taxes	56.7	Increased Regulatory Taxable Income, mainly due to higher rate base due to the Niagara Tunnel coming into service (Ex. F4-2-1, Table 5)
Other	(4.0)	Includes differences in Property Taxes and Gross Revenue Charge
Total Change in Revenue Requirement	**317.1**	
Proposed Revenue Requirement for 2014 – 2015 Test Period	**1,736.3**	Ex. I1-1-1, Table 1
Revenue at Current Rates	**1,405.5**	Using forecast production levels for the test period (39.3 TWh)
Revenue Requirement Deficiency	**330.8**	Ex. I1-1-1, Table 4

Chart 2
Nuclear Deficiency, 2014-2015 Test Period

	($M)	Notes
EB-2010-0008 Approved Revenue Requirement	**5,251.5**	Ex. I1-1-1, Table 3
Decrease in Cost of Capital	(56.1)	Lower long-term debt costs and ROE
Increase in the Allocation of Centrally Held Costs	411.6	Primarily due to an increase in pension and OPEB costs (Ex. F4-4-1)
Increase in Outage OM&A	177.5	Mainly due to the 2015 Vacuum Building Outage (Ex. F2-4-2)
Increase in the Allocation of Support Services Costs	349.8	Due to the transfer of nuclear functions to centre-led corporate groups as part of BT, offset by similar reduction in nuclear costs (Ex. F3-1-2)
Decrease in Base OM&A	(120.4)	Transfers of costs to corporate groups partially offset by labour cost escalation and higher pension and OPEB costs (Ex. F2-2-1)
Increase in Depreciation & Amortization	70.5	Increase in Asset Retirement Cost due to ONFA (Ex. F4-1-1)
Decrease in Bruce Lease Net Revenues	190.8	Increase in Bruce Costs is primarily due to ONFA (Ex. G2-2-1)
Increase in Income Taxes	89.6	Higher regulatory taxable income is primarily due to pension and OPEB costs (Ex. F4-2-1, Table 5)
Other	180.0	Includes the EB-2010-0008 compensation disallowance of $145M as well as differences in Fuel, Property Taxes, other OM&A Costs and Ancillary and Other Revenue
Total Change in Revenue Requirement	**1293.3**	
Proposed Revenue Requirement for 2014 – 2015 Test Period	**6,544.7**	Ex. I1-1-1, Table 1
Revenue at Current Rates	**5,033.5**	Using forecast production levels for the test period (97.8 TWh)
Revenue Requirement Deficiency	**1,511.2**	Ex. I1-1-1, Table 4