



OPG Rate Payer Impact Analysis

Prepared for: The Ministry of Energy

As part of the Assessment of Organizational and
Structural Opportunities at OPG study

February 9, 2013

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Use of this Information

The Ministry of Energy engaged KPMG to estimate rate payer impact based on KPMG-identified organizational and structural opportunities for cost savings at OPG.

Estimated savings in this report are based on specific assumptions and actions undertaken by OPG. Actual savings achieved for the period covered and the time to achieve these savings will vary from the information presented and the variations may be material.

Our procedures consisted solely of inquiry, observation, comparison and analysis of OPG-provided information. We relied on the completeness and accuracy of the information provided. Such work does not constitute an audit. Accordingly, we have expressed no opinion on financial results, internal controls or other information.



OPG Rate Payer Analysis

Introduction

This document illustrates the rate payer impact based on the estimated savings identified in the KPMG report titled ‘The Assessment of Organizational and Structural Opportunities at OPG’.

The methodology used to trace savings is based on the methodology put forward in OPG’s Rate Filing Submission to the OEB (EB-2010-0008). Savings estimates are based on assumptions used in this submission including forecasted production for regulated hydroelectric and nuclear business units as well as the OPG portion of each electricity bill. This is explained in greater detail later in this document.

The savings are calculated in an excel model that can be adjusted to show the impact of a single opportunity or multiple opportunities. This allows for a business case to be generated for each opportunity.

Savings opportunities that impact all three business units have been allocated based on 2012 OM&A costs. The same approach was taken to distribute one-time costs associated with the opportunities.

Rate Payer Savings:

We have provided rate payer impacts for two years: year one shows the impact of opportunity savings and the one-time implementation costs. Year two shows the impact of opportunity savings only.

The percentage change in Consumer Bills is calculated by allocating savings and costs in the Nuclear and Regulated Hydroelectric business units based on forecasted production (provided in the OPG submission). Savings and one-time costs associated with the unregulated hydroelectric and thermal business are assumed not to be passed on the rate payer as there is not regulatory obligation to do so.

The following tables show the calculation of savings on consumer bills in both years one and two for residential consumer usage of 800 KWh per month. In Appendix A, we have provided analysis of monthly consumer usage of 1000 KWh per month.

Table 1: Year One Rate Payer Savings (Annual Savings + One-time Costs)
800 kwh/month Household Usage

Line Number	Description	Base Case			Stretch Case		
		Reg. Hydro	Nuclear	Total	Reg. Hydro	Nuclear	Total
1	Typical Residential Consumer Usage (kWh/month) ¹	800	800	800	800	800	800
2	Gross-up for Line Losses ¹	1.0728	1.0728	1.0728	1.0728	1.0728	1.0728
3	OPG Portion ¹	14.0%	35.9%	49.9%	14.0%	35.9%	49.9%
4	Residential Consumer Usage of OPG Generation (kWh/month) ¹	120.2	308.1	428.3	120.2	308.1	428.3
IMPACT OF KPMG OPPORTUNITY SAVINGS							
5	Opportunity Savings ² (\$m)	(0.70)	(11.77)	(12.47)	(1.54)	(27.91)	(29.45)
6	Opportunity One-time Costs ³ (\$m)	-	1.60	1.60	0.58	14.28	14.86
7	Amount to be Recovered from Customers ⁴ (\$m)	(0.70)	(10.17)	(10.87)	(0.96)	(13.63)	(14.59)
8	Forecast Production (TWh) ⁵	19.0	50.0	69.0	19.0	50.0	69.0
9	Savings Recovery per MWh (\$/MWh) ⁶	(0.04)	(0.20)	(0.24)	(0.05)	(0.27)	(0.32)
10	Typical Monthly Consumer Bill Impact (\$) ⁷	(0.004)	(0.063)	(0.067)	(0.006)	(0.084)	(0.090)
11	Typical Monthly Consumer Bill (\$) ⁸	113.40	113.40	113.40	113.40	113.40	113.40
12	Percentage Change in Consumer Bills ⁹	-0.004%	-0.055%	-0.059%	-0.005%	-0.074%	-0.079%

Notes

1. From EB-2010-008, Payment Amounts Order, Appendix A, Table 8
2. From KPMG Opportunity Assessment
3. From KPMG Opportunity Assessment – assumes severance for 50% of FTEs
4. Calculation: Line 6 – Line 5
5. From EB-2010-008: Exhibit E1-1-2, Table 1; Exhibit E2-1-1, Table 1
6. Calculation: Line 7 / Line 8
7. Calculation: Line 4 x Line 9 / 1000
8. Ministry of Energy calculation using data from OEB website
9. Line 10 / Line 11

Table 2: Year Two Rate Payer Savings (Annual Savings only)
800 kWh/month Household Usage

Line Number	Description	Base Case			Stretch Case		
		Reg. Hydro	Nuclear	Total	Reg. Hydro	Nuclear	Total
1	Typical Residential Consumer Usage (kwh/month) ¹	800	800	800	800	800	800
2	Gross-up for Line Losses ¹	1.0728	1.0728	1.0728	1.0728	1.0728	1.0728
3	OPG Portion ¹	14.0%	35.9%	49.9%	14.0%	35.9%	49.9%
4	Residential Consumer Usage of OPG Generation (kwh/month) ¹	120.2	308.1	428.3	120.2	308.1	428.3
IMPACT OF KPMG OPPORTUNITY SAVINGS							
5	Opportunity Savings ² (\$m)	(0.70)	(11.77)	(12.47)	(1.54)	(27.91)	(29.45)
6	Opportunity One-time Costs ³ (\$m)	-	-	-	-	-	-
7	Amount to be Recovered from Customers ⁴ (\$m)	(0.70)	(11.77)	(12.47)	(1.54)	(27.91)	(29.45)
8	Forecast Production (TWh) ⁵	19.0	50.0	69.0	19.0	50.0	69.0
9	Savings Recovery per MWh (\$/MWh) ⁶	(0.04)	(0.24)	(0.27)	(0.08)	(0.56)	(0.64)
10	Typical Monthly Consumer Bill Impact (\$) ⁷	(0.004)	(0.073)	(0.077)	(0.010)	(0.172)	(0.182)
11	Typical Monthly Consumer Bill (\$) ⁸	113.40	113.40	113.40	113.40	113.40	113.40
12	Percentage Change in Consumer Bills ⁹	-0.004%	-0.064%	-0.068%	-0.009%	-0.152%	-0.160%

Notes

1. From EB-2010-008, Payment Amounts Order, Appendix A, Table 8
2. From KPMG Opportunity Assessment
3. From KPMG Opportunity Assessment – assumes severance for 50% of FTEs
4. Calculation: Line 6 – Line 5
5. From EB-2010-008: Exhibit E1-1-2, Table 1; Exhibit E2-1-1, Table 1
6. Calculation: Line 7 / Line 8
7. Calculation: Line 4 x Line 9 / 1000
8. Ministry of Energy calculation using data from OEB website
9. Line 10 / Line 11

Allocation of Opportunity Savings:

In order to allocate savings from corporate opportunities, we determined the distribution based on OPG's OM&A in 2012; for business unit specific opportunities the entire savings amount is allocated to that business unit.

The table below shows how the opportunities are allocated to each business unit under the base case and stretch scenario based on the percentages calculated:

Table 3: Savings and Cost allocation

	Reg. Hydro	Nuclear	Unregulated
2012 OM&A	\$125.9m	\$ 1,976.3m	\$420.1m
% of Corporate Opportunities (directly tied to % of total O&MA)	4.99%	78.35%	16.66%
% of Nuclear Savings	0%	100%	0%
Allocation of KPMG Opportunity Savings and Associated Costs			
Base Case:			
Base Case Opportunity Savings	\$0.7m	\$11.8m	\$2.3m
Base Case One-time Costs	-	\$1.6m	-
Stretch Case:			
Stretch Case Opportunity Savings	\$1.5m	\$27.9m	\$5.1m
Stretch Case One-time Costs	\$0.6m	\$14.3m	\$1.9m

Tables 4 and 5 below show a detailed breakdown of each opportunity and the associated costs across each business unit. This illustrates the magnitude of savings and costs attributable to each opportunity and business unit. Note that unregulated business unit savings and costs are not passed on to rate payers.

Table 4: Allocation of Savings to OPG Divisions

Description	Base Case			Stretch Case		
	Reg. Hydro	Nuclear	Unregulated	Reg. Hydro	Nuclear	Unregulated
Opportunity 1 (Nuclear)	-	0.8	-	-	2.6	-
Opportunity 2 (Nuclear)	-	-	-	-	1.1	-
Opportunity 3 (Joint)	0.7	11.0	2.3	1.2	18.8	4.0
Opportunity 4 (Joint)	-	-	-	0.1	1.5	0.3
Opportunity 5 (Joint)	-	-	-	0.2	3.9	0.8
Total OM&A Savings	0.7	11.8	2.3	1.5	27.9	5.1

Table 5: Allocation of One-Time Costs to OPG Business Units

Description	Base Case			Stretch Case		
	Reg. Hydro	Nuclear	Unregulated	Reg. Hydro	Nuclear	Unregulated
Opportunity 1 (Nuclear)	-	1.6	-	-	3.5	-
Opportunity 2 (Nuclear)	-	-	-	-	1.7	-
Opportunity 3 (Joint)	-	-	-	-	-	-
Opportunity 4 (Joint)	-	-	-	0.2	2.5	0.5
Opportunity 5 (Joint)	-	-	-	0.4	6.6	1.4
Total One-Time Costs	-	1.6	-	0.6	14.3	1.9

Key Assumptions:

The primary assumptions that were used in this analysis are:

- Severance costs assumed to be paid to 50% of affected FTE.
- Opportunity allocations are calculated using 2012 OM&A costs for each business unit
- Savings allocated to the unregulated portion of the business are not passed along to the rate payer

Appendix A : 1000 kWh/month Household Usage

Table A1: Year One Rate Payer Savings (Annual Savings + One-time Costs)

Line Number	Description	Base Case			Stretch Case		
		Reg. Hydro	Nuclear	Total	Reg. Hydro	Nuclear	Total
1	Typical Residential Consumer Usage (kwh/month) ¹	1000	1000	1000	1000	1000	1000
2	Gross-up for Line Losses ¹	1.0728	1.0728	1.0728	1.0728	1.0728	1.0728
3	OPG Portion ¹	13.5%	34.9%	48.4%	13.5%	34.9%	48.4%
4	Residential Consumer Usage of OPG Generation (kwh/month) ¹	144.8	374.4	519.2	144.8	374.4	519.2
IMPACT OF KPMG OPPORTUNITY SAVINGS							
5	Opportunity Savings ² (\$m)	(0.70)	(11.77)	(12.47)	(1.54)	(27.91)	(29.45)
6	Opportunity One-time Costs ³ (\$m)	-	1.60	1.60	0.58	14.28	14.86
7	Amount to be Recovered from Customers ⁴ (\$m)	(0.70)	(10.17)	(10.87)	(0.96)	(13.63)	(14.59)
8	Forecast Production (TWh) ⁵	19.0	50.0	69.0	19.0	50.0	69.0
9	Savings Recovery per MWh (\$/MWh) ⁶	(0.04)	(0.20)	(0.24)	(0.05)	(0.27)	(0.32)
10	Typical Monthly Consumer Bill Impact (\$) ⁷	(0.005)	(0.076)	(0.081)	(0.007)	(0.102)	(0.109)
11	Typical Monthly Consumer Bill (\$) ¹	133.06	133.06	133.06	133.06	133.06	133.06
12	Percentage Change in Consumer Bills⁸	-0.004%	-0.057%	-0.061%	-0.006%	-0.077%	-0.082%

Notes

- From EB-2010-008 J14.6 Attachment 1 Table 1
- From KPMG Opportunity Assessment
- From KPMG Opportunity Assessment – assumes severance for 50% of FTEs
- Calculation: Line 6 – Line 5
- From EB-2010-008: Exhibit E1-1-2, Table 1; Exhibit E2-1-1, Table 1
- Calculation: Line 7 / Line 8
- Calculation: Line 4 x Line 9 / 1000
- Line 10 / Line 11

Appendix A : 1000 kWh/month Household Usage

Table A2: Year Two Rate Payer Savings (Annual Savings only)

Line Number	Description	Base Case			Stretch Case		
		Reg. Hydro	Nuclear	Total	Reg. Hydro	Nuclear	Total
1	Typical Residential Consumer Usage (kwh/month) ¹	1000	1000	1000	1000	1000	1000
2	Gross-up for Line Losses ¹	1.0728	1.0728	1.0728	1.0728	1.0728	1.0728
3	OPG Portion ¹	13.5%	34.9%	48.4%	13.5%	34.9%	48.4%
4	Residential Consumer Usage of OPG Generation (kwh/month) ¹	144.8	374.4	519.2	144.8	374.4	519.2
IMPACT OF KPMG OPPORTUNITY SAVINGS							
5	Opportunity Savings ² (\$m)	(0.70)	(11.77)	(12.47)	(1.54)	(27.91)	(29.45)
6	Opportunity One-time Costs ³ (\$m)	-	-	-	-	-	-
7	Amount to be Recovered from Customers ⁴ (\$m)	(0.70)	(11.77)	(12.47)	(1.54)	(27.91)	(29.45)
8	Forecast Production (TWh) ⁵	19.0	50.0	69.0	19.0	50.0	69.0
9	Savings Recovery per MWh (\$/MWh) ⁶	(0.04)	(0.24)	(0.27)	(0.08)	(0.56)	(0.64)
10	Typical Monthly Consumer Bill Impact (\$) ⁷	(0.005)	(0.088)	(0.093)	(0.012)	(0.209)	(0.221)
11	Typical Monthly Consumer Bill (\$) ¹	133.06	133.06	133.06	133.06	133.06	133.06
12	Percentage Change in Consumer Bills ⁸	-0.004%	-0.066%	-0.070%	-0.009%	-0.157%	-0.166%

Notes

- From EB-2010-008 J14.6 Attachment 1 Table 1
- From KPMG Opportunity Assessment
- From KPMG Opportunity Assessment – assumes severance for 50% of FTEs
- Calculation: Line 6 – Line 5
- From EB-2010-008: Exhibit E1-1-2, Table 1; Exhibit E2-1-1, Table 1
- Calculation: Line 7 / Line 8
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