

**Energy Probe Interrogatory #001**

**Ref:**

**Issue Number: 1.2**

**Issue:** Are OPG's economic and business planning assumptions for 2011-2012 an appropriate basis on which to set payment amounts?

**Interrogatory**

Please provide a list of OPG's economic and business planning assumptions for 2011-2012 or indicate the exhibits in the Prefiled Evidence where they may be found.

**Response**

The overall business planning assumptions for 2011 – 2012 are provided in the 2010 – 2014 Corporate Business Planning Instructions found at Ex. A2-T2-S1, Attachment 1. Specific economic assumptions were identified in an internal web link in these instructions. Attachment 1 to this response provides the information accessed by that link.

	Jan-08	Jan-09	Jan-10	Jan-11	Jan-12	Jan-13	Jan-14	Jan-15	Jan-16	Jan-17	Jan-18	Jan-19	Jan-20	Jan-21	Jan-22	Jan-23	Jan-24	Jan-25	Jan-26	Jan-27
REAL GDP																				
						(Percent Change)										(Percent Change)				
U.S.	0.4%	-2.5%	2.1%	2.9%	3.7%	2.9%	2.6%	2.5%	2.5%	2.5%	2.7%	2.9%	3.0%	2.6%	2.6%	2.6%	2.6%	2.7%	2.6%	2.5%
Canada	0.4%	-2.6%	2.1%	3.4%	3.6%	3.2%	2.8%	2.5%	2.4%	2.3%	2.3%	2.3%	2.1%	2.1%	2.0%	2.1%	2.0%	2.0%	2.1%	2.1%
Ontario (DRI-WFEA)	-0.4%	-2.9%	1.9%	3.3%	3.5%	3.2%	2.7%	----->												
COST INDICATORS																				
CPI																				
U.S.*	2.152	2.144	2.174	2.222	2.268	2.310	2.355	2.400	2.448	2.495	----->									
Canada (2002=1.00)	114.1	114.5	116.4	118.8	121.3	123.7	126.2	128.7	131.3	133.9	136.6	139.3	142.1	144.9	147.8	150.8	153.8	156.9	160.0	163.2
Ontario (2002=100 NSA)*	113.3	114.0	116.0	118.4	120.8	123.2	125.7	128.2	130.8	133.4	136.1	138.8	141.6	144.4	147.3	150.2	153.2	156.3	159.4	162.6
U.S.	3.8%	-0.4%	1.4%	2.2%	2.0%	1.9%	1.9%	1.9%	2.0%	1.9%	1.9%	1.8%	----->							
Canada	2.4%	0.4%	1.6%	2.1%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Ontario (NSA)*	2.3%	0.7%	1.7%	2.1%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
GDP DEFLATOR																				
Canada	121.1	118.6	121.0	123.7	126.6	129.5	132.1	134.5	136.8	139.3	141.6	144.0	146.9	149.7	152.7	155.7	158.9	162.0	165.1	168.4
WHOLESALE PRICES																				
U.S.	9.8%	-9.4%	1.5%	4.6%	2.6%	2.0%	1.7%	1.6%	1.7%	1.1%	1.2%	1.1%	0.7%	0.6%	0.4%	0.4%	0.8%	0.9%	0.9%	1.0%
Canada IPPI*	4.3%	-3.4%	1.1%	2.6%	2.0%	1.8%	1.6%	1.3%	1.6%	1.4%	1.2%	1.5%	1.5%	1.6%	1.6%	1.8%	1.8%	1.8%	1.7%	1.7%
INDUSTRIAL PRODUCT PRICE INDEX																				
Canada (1997=100)*	120.6	116.5	117.8	120.9	123.2	125.5	127.4	129.1	131.1	132.9	134.5	136.6	138.7	140.8	143.2	145.7	148.3	151.0	153.6	156.3
AVG HOURLY EARNINGS																				
Canada - All industry	20.16	20.48	20.78	21.18	21.79	22.59	23.42	24.25	25.17	26.02	26.86	27.73	28.52	29.28	30.03	30.79	31.85	33.13	34.28	35.34
Canada - Mfg.	21.98	22.21	23.74	24.22	24.97	26.00	27.05	28.11	29.36	30.56	31.78	33.10	34.35	35.56	36.79	38.05	39.78	41.84	43.74	45.52
- Const'n*	26.45	29.38	31.07	30.66	30.85	31.60	32.43	33.38	34.75	36.01	37.28	38.69	39.94	41.18	42.47	43.84	46.02	48.73	51.12	53.30
Ontario - Mfg *	22.94	22.35	24.31	25.22	26.30	27.60	28.93	30.32	31.95	33.62	35.36	37.24	39.07	40.84	42.57	44.36	46.60	49.22	51.69	54.03
Ontario - Const'n*	26.45	27.59	28.76	29.03	29.67	30.67	31.77	32.97	34.46	35.91	37.37	38.91	40.37	41.80	43.26	44.77	46.77	49.16	51.41	53.61
INTEREST RATES (annual average)																				
PRIME (current)																				
Chartered Banks - Canada	4.73	2.39	2.69																	
Bank of Canada	3.50	0.25																		
180 DAY T-BILL																				
Canada	2.52	0.45	0.84																	
1 YEAR T-BILL																				
Canada	2.95	0.59	1.12	(est)																
1 - 3 YEAR BONDS																				
Canada	2.66	1.31	1.98																	
3 - 5 YEAR BONDS																				
Canada	2.96	2.24	2.87																	
5 YEAR BONDS																				
Canada	3.01	2.45	2.96																	
5 - 10 YEAR BONDS																				
Canada	3.36	2.94	3.59																	
10 YEAR BENCHMARK BONDS																				
Canada	3.58	3.38	3.86																	
30 YEAR BENCHMARK LONG BONDS																				
Canada	4.05	3.98	4.33																	
SCOTIA MCLEOD MED-TERM CORPORATE BONDS																				
	4.21	3.96	4.58																	
SCOTIA MCLEOD LONG-TERM CORPORATE BONDS																				
	4.92	4.83	5.23																	
OPG INTEREST RATE SPREADS OVER GOV'T OF CDA (bps)																				
Source HSBC est.	1 year	95	3 year	100	5 year	110						10 year	140			15 year	150			
FOREIGN EXCHANGE																				
US\$/C\$	94.27	86.86	88.42	91.22	93.04	93.22	92.06	89.02	88.26	89.23	89.44	89.46	89.45	89.45	89.45	89.45	89.44	89.44	89.43	89.27
C\$/US\$	1.0671	1.1543	1.1310	1.0964	1.0749	1.0728	1.0863	1.1234	1.1330	1.1207	1.1181	1.1178	1.1179	1.1179	1.1179	1.1180	1.1180	1.1181	1.1182	1.1202
C\$/EURO	1.5601	1.5830	1.5753	1.5841	1.5536	1.5601	1.5969	1.6739	1.7109	1.7146	1.7330	1.7549	1.7699	1.7767	1.7746	1.7902	1.7969	1.8037	1.8107	1.8207
OPG Business Planning Assumptions		1.11	1.11	1.11	1.11	1.11														

**Energy Probe Interrogatory #002**

**Ref:** Ex. A2-T2-S1, page 12

**Issue Number: 1.2**

**Issue:** Are OPG's economic and business planning assumptions for 2011 – 2012 an appropriate basis on which to set payment amounts?

**Interrogatory**

The Prefiled Evidence states that OPG's Business Case Summaries ("BCS") Guidelines have established 7 per cent as the current discount rate for OPG's economic evaluations for regulated assets.

Please provide the specific data used to calculate that discount rate.

**Response**

The data used to calculate the seven per cent discount rate used for OPG's economic evaluations for regulated assets is reviewed periodically. Currently, the data assumed is as follows:

- Debt / Equity Ratio = 53 / 47
- Debt Rate = 5.94 per cent
- ROE = 9.85 per cent
- Tax Rate = 25 per cent

The results are generally rounded to the nearest percent, which results in seven per cent in this instance.

**Energy Probe Interrogatory #003**

**Ref:** Ex. A2-T2-S1, page 12

**Issue Number: 1.2**

**Issue:** Are OPG's economic and business planning assumptions for 2011-2012 an appropriate basis on which to set payment amounts?

**Interrogatory**

The Prefiled Evidence states that OPG's discount rate is based on "OPG's long term view of the financial markets".

- a) Please indicate how OPG's long term view of the financial markets affected the calculation of the 7 percent discount rate currently in effect.
- b) Please provide a copy of the BCS Guidelines if the document is not confidential.
- c) To illustrate how OPG uses that discount rate, please provide a non-confidential example of the calculation that it performed in a specific business case including, inter alia, the cash flows that are the subject of the discounting process.

**Response**

- a) As noted in Ex. C1-T1-S2, page 7, Chart 1, the current forecast of long-term Canada Bond rate is 4.68 per cent. Adding 126 basis points for OPG credit spread results in a long-term debt rate of 5.94 per cent that is used in calculating the current discount rate.
- b) Refer to Attachment 1 to this response for a copy of the guidelines on discount rates for project analysis. The effective date of the discount rate reflected in Attachment 1 is April 26, 2006. OPG reviews the discount rate calculation periodically. While the rates/ratios underlying the determination of the discount rates illustrated in Ex. L-6-002 have fluctuated since 2006 the resulting discount rate remained at 7 per cent as OPG policy requires rounding to the nearest per cent.
- c) Please see response to the interrogatory in Ex. L-12-047, Attachment 1 for an example on the use of the 7 per cent discount rate.

<b>TITLE:</b> <b>Decision Support Toolkit - Discount Rates for Project Analysis – effective April 26, 2006</b>	<b>Date:</b> <b>18 January 2007</b>	<b>Page</b> <b>1 of 1</b>
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EB 2010-0008  
L-06-003  
Attachment 1

## **Current Discount Rates**

### **Economic Evaluation Rates**

For economic analysis, the Weighted Average Cost of Capital is used as the appropriate discount rate. Effective April 26, 2006, the following discount rate is to be used for business case analysis.

	Discount Rate
Investments related to the manufacturing and processing of electricity for all generating facilities excluding Regulated nuclear and base loaded hydroelectric facilities.	
Investments related to the manufacturing and processing of electricity for Regulated nuclear and base loaded hydroelectric facilities.	7.0%

For projects and business opportunities that are clearly outside of OPG's core business, or are not related to the manufacturing and processing of electricity, then the project's cost of capital should be used. Please contact Corporate Finance – Corporate Investment Planning for assistance.

### **Financing Decisions (e.g., Lease, third party funded projects)**

Please contact Corporate Finance – Director - Financial Strategy and Performance Management for assistance.

**PWU Interrogatory #001**

**Ref:** Ex. A2-T2-S1, Attachment 1, page 3 states:

Recognizing the scope and complexity of the challenges we face this year, a number of changes are being made to the business planning process.

These improvements include:

- Earlier roll out of process instructions
- Two step process for top-down establishment of OM&A targets
- Improving the transparency of plans – e.g. through benchmarking and gap analyses
- Increased management oversight during the process
- Earlier approval of the corporate plan (to facilitate preparation of the OEB application)

**Issue Number: 1.2**

**Issue:** Are OPG's economic and business planning assumptions for 2011 - 2012 an appropriate basis on which to set payment payments?

**Interrogatory**

Please describe the business planning process used for the business plan that formed the basis for OPG's 2008-2009 Payment Amounts application (EB-2007-0905). Please include a description of the process used to establish OM&A budgets in that business plan.

**Response**

The Business Planning and Budgeting Process that formed the basis for OPG's 2008 – 2009 Payment Amounts application is described in EB-2007-0905, Ex. A2-T2-S1. The 2007 – 2011 Business Planning Information and Instructions filed in EB-2007-0905, Ex. L-14-45, Attachment 2 includes the process used to establish OM&A budgets.

**PWU Interrogatory #002**

**Ref:** A news release from Ontario Power Generation posted on May 26, 2010 states:

[Toronto): Ontario Power Generation (OPG) is proceeding with a lower rate application to the Ontario Energy Board (OEB).

The proposal, if accepted by the OEB, would result in an increase to the average residential bill of about \$1.86 per month. OPG delayed filing its application last month so that it could find a way to lower its requested rate by more than 30 per cent.

"We wanted to do more to reduce the impact of our request on ratepayers" said Tom Mitchell, OPG's President and CEO. "Last year, we found \$90 million of internal savings and deferred out application. This year, we sharpened our pencils to shave our current rate application while still allowing OPG to produce safe, clean, reliable, low-cost electricity for Ontario."

**Issue Number: 1.2**

**Issue:** Are OPG's economic and business planning assumptions for 2011 - 2012 an appropriate basis on which to set payment payments?

**Interrogatory**

Please describe in detail all changes made to the business planning assumptions related to the reductions in the proposed payment amounts.

**Response**

Please see response to the interrogatory in Ex. L-4-001, part c).

**VECC Interrogatory #001**

**Ref:** Ex. A2-T2-S1, Attachment 1, page 11, 2010 Business Plan Instructions

**Issue Number: 1.2**

**Issue:** Are OPG's economic and business planning assumptions for 2011-2012 an appropriate basis on which to set payment amounts?

**Interrogatory**

a) The evidence states that *"Interest capitalization rates are assumed to be 6% for the business planning horizon."*

Please indicate how this 6% figure was chosen.

b) Please provide the assumed interest capitalization rate in the previous business plan. If different, please explain why.

c) Please provide the impact on the revenue requirement in 2011 and 2012 of a 1% change in this assumption (i) under OPG's CWIP proposal and (ii) assuming the CWIP proposal is rejected.

**Response**

a) Interest capitalization rate of six per cent reflects an approximation of OPG's overall borrowing rate based on the interest rate on its long-term debt. This interest capitalization rate is monitored regularly against OPG's outstanding debt to ensure that the rate remains reasonable.

b) The interest capitalization rate in the previous business plan was six per cent.

c) A change in the interest capitalization rate will not impact the 2011 - 2012 revenue requirement whether or not OPG's Construction Work in Progress ("CWIP") in rate base proposal is accepted. If the proposal is accepted, CWIP will be included in rate base and no interest will be capitalized on CWIP. If OPG's proposal is rejected, then capitalized interest will accrue, but will not impact the revenue requirement until the project is closed to rate base, which will not occur in 2011 - 2012.

Based on forecast in-service additions during the test period, OPG estimates that a change of +/-1 per cent in the interest capitalization rate, beginning 2011, would increase/decrease the regulated rate base by approximately \$6M by the end of 2012. This would impact the revenue requirement by approximately \$1M for the 2011 - 2012 period.



**VECC Interrogatory #002**

**Ref:** Ex. A2-T2-S1, page 7

**Issue Number: 1.2**

**Issue:** Are OPG's economic and business planning assumptions for 2011 - 2012 an appropriate basis on which to set payment amounts?

**Interrogatory**

- a) The capitalization decision tree indicates that even if expenditure does not provide future benefits for more than one year, it will be capitalized if the expenditure exceeds materiality limits. Please indicate why this is appropriate and explain in such cases how depreciation expense is calculated.
- b) Please provide a list of all expenditures that OPG proposes to capitalize over the test period which will provide future benefits for a period of less than one year.

**Response**

- a) The question is based on an incorrect interpretation of the capitalization decision tree. OPG's capitalization policy provides that expenditures that do not provide benefits exceeding one year are recorded as OM&A expense and are **not** capitalized. This is specifically noted in Ex. A2-T2-S1, page 5, lines 22-31 and page 6, lines 1-3.
- b) See response in a) above. Expenditures that do not provide future benefits for more than one year are expensed as incurred.