

VECC Interrogatory #1

Ref: Ex. B

Issue Number: 1.1

Issue: Is the rate base appropriately determined in accordance with regulatory and accounting requirements?

Interrogatory

Please describe the process and approach taken in determining how the assets appearing in the audited statements were split between regulated and non-regulated assets for rate base purposes.

Response

OPG's assets (fixed assets, fuel inventory and materials and supplies) appearing in the audited statements were split between nuclear, regulated hydroelectric, centrally held assets and unregulated assets, for rate base purposes, by direct assignment through specific identification.

The nuclear business segment directly assigns specific assets to the Bruce facility; therefore they are not included in the rate base.

Centrally-held assets used by both regulated and unregulated operations were not included in the rate base. The costs associated with these assets are reflected in the revenue requirement through asset service fees (discussed in Ex. F3-T3-S1).

VECC Interrogatory #2

Ref: Ex. D

Issue Number: 3.1

Issue: Are the costs and financial commitments OPG is seeking to recover under section 6(2)41 incurred to increase the output of, refurbish or add operating capacity to a prescribed facility?

Interrogatory

Please confirm that none of the projects, for which capital spending is forecast in this application in respect of prescribed assets, will benefit OPG's unregulated assets. If unable to so confirm, please describe the projects for which benefits may be realized by OPG's unregulated assets and explain how the capital costs have been allocated between prescribed and unregulated assets.

Response

OPG confirms that none of the projects, for which capital spending is forecast in this application in respect of prescribed assets, will benefit OPG's unregulated assets, with the exception of certain capital expenditures by OPG's corporate groups that are included in Ex. D3-T1-S1, Table 1. Please refer to the response to L-16-5 for the discussion of capital expenditures by OPG's corporate groups.

VECC Interrogatory #3

Ref: Ex. D1-T1-S1, pages 3, 4, and 6

Issue Number: 3.5

Issue: Is the additional capital spending (beyond the levels being recovered under section 6(2)4)) appropriate?

Interrogatory

Regarding the 2007 actual capital expenditure of \$84.3M versus the 2007 budget of \$229.4M, does OPG regard the size of this variance between budgeted and actual capital expenditure as an outlier?

Response

Yes.

VECC Interrogatory #4

Ref: Ex. D1-T1-S1, pages 3, 4, and 6

Issue Number: 3.5

Issue: Is the additional capital spending (beyond the levels being recovered under section 6(2)4)) appropriate?

Interrogatory

The evidence indicates that in each of 2005, 2006, and 2007, actual capital spending was less than budgeted at an aggregate level and by type of facility. What comfort can OPG provide to parties that actual 2008 and 2009 capital spending will be approximately equal to amounts budgeted and that the regulated rate base is not overstated in this application?

Response

As described in Ex. D1-T1-S1, regulated hydroelectric capital expenditures and the associated budget variances in 2005, 2006, and 2007 are dominated by the Niagara Tunnel, a unique, large and complex project. If the Niagara Tunnel project is excluded, the remaining aggregated regulated hydroelectric capital budget variances have been relatively small (below \$1M and under 10 percent in each of 2005, 2006, and 2007).

OPG applies project estimating methods consistent with standard industry principles and practices. Based on the results documented above and the methods used for estimating capital spending, OPG continues to have confidence that the capital expenditure plans for 2008 and 2009 as presented in Ex. D1-T1-S1 are accurate.

VECC Interrogatory #5

Ref: Ex. D3-T1-S1

Issue Number: 3.1

Issue: Are the costs and financial commitments OPG is seeking to recover under section 6(2)41 incurred to increase the output of, refurbish or add operating capacity to a prescribed facility?

Issue Number: 3.2

Issue: If so, are the costs and financial commitments within project budgets approved for that purpose by the board of directors of OPG?

Issue Number: 3.3

Issue: If the costs and financial commitments are not within project budgets approved by the board of directors of OPG, are the costs and financial commitments prudent?

Issue Number: 3.5

Issue: Is the additional capital spending (beyond the levels being recovered under section 6(2)4)) appropriate?

Interrogatory

Please indicate whether there are any allocation issues between the regulated and the unregulated businesses with respect to allocating capital expenditures by OPG's corporate groups. If so, please describe how these allocation issues are resolved.

Response

No, there are no allocation issues with respect to corporate capital expenditures. Capital expenditures by OPG's corporate groups are either directly associated with a specific generation business unit (including nuclear and regulated hydroelectric business units), or are associated with assets that are used by more than one business unit and are therefore held centrally. Generation business units are charged asset service fees for the use of these centrally-held assets (as discussed in Ex. F3-T3-S1).

VECC Interrogatory #6

Ref: Ex. A2-T2-S1, pages 4 - 7

Issue Number: 3.6

Issue: Will OPG's accounting policies result in capitalization of an appropriate amount of costs incurred in 2008 and 2009 with respect to the construction or acquisition of capital assets?

Interrogatory

Please confirm that there has been no change in OPG's capitalization policies in this application as compared to previous practice or practices. If unable to so confirm, please provide details in respect of any changes.

Response

OPG confirms that there have been no changes to its capitalization policies in this application as compared to previous practices other than the increase in the materiality threshold for capitalization eligibility of certain assets to \$25,000 effective January 1, 2007, as discussed in Ex. A2-T2-S1, Section 4.1.

VECC Interrogatory #7

Ref: Ex. A2-T2-S1, pages 4-7

Issue Number: 3.6

Issue: Will OPG's accounting policies result in capitalization of an appropriate amount of costs incurred in 2008 and 2009 with respect to the construction or acquisition of capital assets?

Interrogatory

Please provide a table showing past historical, current, and projected (i.e., for 2008 and 2009) rates of OM&A capitalization in respect of the prescribed facilities.

Response

OPG's capitalization eligibility procedure provides for the capitalization of costs that are directly attributable to the acquisition or construction of an asset, consistent with Generally Accepted Accounting Principles. OPG does not have a standard OM&A capitalization rate for projects. Capitalization of shared costs that were directly attributable to the PARTS project is discussed in L-14-50 part (g).

Costs that are directly attributable to the acquisition or construction of an asset can include support costs such as the cost of support functions including finance, legal and human resources. When these costs are directly attributable to a capital project, they are capitalized; otherwise they are expensed as incurred.

VECC Interrogatory #8

Ref: Ex. E1-T1-S1

Issue Number: 4.1

Issue: Is the methodology used by OPG to generate the proposed hydroelectric and nuclear business production forecasts appropriate?

Interrogatory

Is OPG in possession of any additional materials or evidence, anecdotal or otherwise, in respect of the accuracy of its hydroelectric production forecasts as compared to the forecast production accuracy of other hydroelectric facilities operators in North America? If so, please provide any relevant materials.

Response

OPG does not have any material regarding the accuracy of its hydroelectric production forecasts as compared to other hydroelectric facility operators in North America. This information is generally considered commercially sensitive and is not shared among generators.

VECC Interrogatory #9

Ref: Ex. E1-T1-S1

Issue Number: 4.1

Issue: Is the methodology used by OPG to generate the proposed hydroelectric and nuclear business production forecasts appropriate?

Interrogatory

On pages 2 and 3 of this exhibit, the evidence states: "Other factors that may be adjusted in the Niagara forecasting application, if necessary, include Lake Ontario water levels" Please indicate the circumstances under which Lake Ontario water levels would not be relevant to the forecast.

Response

Lake Ontario water levels are relevant to the forecasting application in that Lake Ontario levels are used to estimate Sir Adam Beck tailrace water levels (i.e., the water levels directly downstream of the station). These water levels are required for determining the head for the Sir Adam Beck I and II generating stations in the Niagara forecasting application. Typically, five year average monthly Lake Ontario levels are utilized unless significant deviations exist from the results generated by the Lake Ontario Regulation Plan 1958-D model.

VECC Interrogatory #10

Ref: Ex. E1-T1-S1

Issue Number: 4.1

Issue: Is the methodology used by OPG to generate the proposed hydroelectric and nuclear business production forecasts appropriate?

Interrogatory

In general, during what month or months would OPG prepare its hydroelectric production forecast for the following year?

Response

The hydroelectric production forecast that forms the following year's budget is typically prepared in October.

VECC Interrogatory #11

Ref: Ex. E1-T1-S1

Issue Number: 4.1

Issue: Is the methodology used by OPG to generate the proposed hydroelectric and nuclear business production forecasts appropriate?

Interrogatory

Please indicate when the hydroelectric production forecasts included in this application were prepared.

Response

Hydroelectric production forecasts were prepared as follows:

Forecast Information (as of Q3/2004) for facilities prescribed under O. Reg. 53/05
2005 - 2009 Plan forecast was prepared October 2004.

Exhibit E1 - Historical Years
2005 Budget forecast was prepared February 2005.
2006 Budget forecast was prepared October 2005.

Exhibit E1 - Bridge Year
2007 Budget forecast was prepared September 2006.

Exhibit E1 - Test Period Years
2008 and 2009 Plan forecast was prepared October 2007.

VECC Interrogatory #12

Ref: Ex. E1-T1-S2

Issue Number: 4.1

Issue: Is the methodology used by OPG to generate the proposed hydroelectric and nuclear business production forecasts appropriate?

Interrogatory

The table provided in this exhibit indicates that in each of the years 2005, 2006, and 2007, actual production from the regulated hydroelectric facilities exceeded production budgeted. Please comment on the asymmetric nature of this variance, the impacts of this variance on any deferral account balances, and the ultimate impact of these variances on ratepayers in Ontario.

Response

Production Variances (Actual versus Budget)

Total regulated hydroelectric production was similar to budget for 2005 (about 1 percent difference). For 2006 and 2007, actual total regulated production exceeded budget production by about 4 percent.

Flows on the Niagara and St. Lawrence Rivers were below normal at the time that the 2006 budget forecast was undertaken in October 2005. (Monthly mean flows for the Niagara River were below normal for July and August 2005 and ranked as lower quartile for September 2005 while monthly mean flows for the St. Lawrence River ranked as lower quartile for August and September 2005.) Below normal flows were expected to persist in the short-term, and this was reflected in the production forecast for 2006. However, flows recovered closer to normal levels during the fall of 2005 and continued through the winter of 2006 as net basin supplies to Lakes Erie and Ontario were above average for November 2005 and January and February 2006.

Similarly, when the 2007 budget forecast was prepared in September 2006, flows on the Niagara and St. Lawrence Rivers were once again below normal. (The mean Niagara River flow for June 2006 ranked as lower quartile, as did the mean St. Lawrence River flows for June through August 2006.) The 2007 production budget forecast reflected these below normal flow conditions. However, Niagara and St. Lawrence River flows recovered very quickly during the fall of 2006 as net basin supplies to Lakes Erie and Ontario were significantly above average from October 2006 through January 2007. Monthly mean flows ranked as upper quartile on both river systems for the months of December 2006 and January 2007, with upper quartile flows persisting on the St. Lawrence River through March 2007. Normal (or above normal) flows continued through May 2007 before declining to lower quartile rankings during the summer months.

1 Although similar deviations between forecast and actual production results occurred for
2 both 2006 and 2007, it should not be presumed that this is representative of a systemic
3 forecasting bias. The forecast accuracy is very dependent on the extent to which
4 weather conditions in the lower Great Lakes basin deviate from "normal". Flow
5 conditions can change dramatically in response to extreme changes in weather patterns,
6 as evident during the latter half of 2006 when flows recovered from below normal or
7 lower quartile levels during the summer to upper quartile levels later that fall, in response
8 to above average precipitation and net basin supplies. If more typical or drier weather
9 conditions had occurred during this period, it is probable that actual production would
10 have been similar to or less than the forecast values.

11
12 Impact on Variance Account

13 Since the differences between actual production and budget production presented in
14 Exhibit E1 are not related solely to changes in river flows, the total variances presented
15 in Ex. E1-T1-S2, Table 1 are not applied to the interim variance account (see L-3-66).
16 The methodology applied to determine energy variances applicable for the Hydroelectric
17 Water Conditions Sub-Account is described in Ex. J1-T1-S1, Section 3.1.1, page 3.

18
19 Impact on Consumers

20 The intent of the variance account is to provide a means whereby OPG and consumers
21 share the financial risks and rewards associated with production deviations from plan
22 due to changes in natural water conditions. If river flows are higher than the original
23 forecast plan submitted to the OEB (Q3/2004), then OPG production and net revenue
24 increase. The Hydro Water Conditions Sub-account ensures that consumers benefit
25 from these favourable water conditions. If river flows are lower than the Q3/2004
26 forecast plan, then OPG production and net revenue decrease and the variance account
27 provides financial relief to OPG.

28
29 See L-16-13 for a general discussion of Ontario market impact associated with regulated
30 hydroelectric production variances.
31

VECC Interrogatory #13

Ref: Ex. E1-T1-S2

Issue Number: 4.1

Issue: Is the methodology used by OPG to generate the proposed hydroelectric and nuclear business production forecasts appropriate?

Interrogatory

Please provide OPG's estimate of the impacts on revenues and ultimately on ratepayers of (i) actual 2008 hydroelectric production exceeding plan by 1 TWh, (ii) actual 2008 hydroelectric production being less than plan by 1 TWh, (iii) actual 2009 hydroelectric production exceeding plan by 1 TWh, (ii) actual 2009 hydroelectric production being less than plan by 1 TWh.

Response

OPG's proposed energy rate for its prescribed hydroelectric production is \$37.9/MWh. Assuming implementation of this rate, a change in regulated production of 1 TWh in either 2008 or 2009 would have a corresponding regulated hydroelectric revenue impact of \$37.9M. However, OPG would be able to offset the revenue loss in its variance account for the proportion of revenue change that is attributable to changes in water conditions.

Also, see L-3-64.

OPG is not able to calculate ratepayer impacts, as it does not have access to all of the information necessary to do this calculation. However, OPG estimates that a shortfall of 1 TWh in hydroelectric production in 2008 would increase HOEP by \$0.50, and the Ontario market would face incremental costs of approximately \$44M to replace this energy. The impact of an increase of 1 TWh of hydroelectric production is an estimated decrease of \$0.40 in HOEP and reduction in costs of about \$31M.

This analysis of incremental costs to the Ontario market is similar to that used in L-12-8.

VECC Interrogatory #14

Ref: Ex. E2-T1-S2

Issue Number: 4.1

Issue: Is the methodology used by OPG to generate the proposed hydroelectric and nuclear business production forecasts appropriate?

Interrogatory

Please provide OPG's estimate of the impacts on revenues and ultimately on ratepayers of (i) actual 2008 nuclear production exceeding plan by 1 TWh, (ii) actual 2008 nuclear production being less than plan by 1 TWh, (iii) actual 2009 nuclear production exceeding plan by 1 TWh, (ii) actual 2009 nuclear production being less than plan by 1 TWh.

Response

OPG's proposed energy rate for its nuclear production is \$41.5/MWh. Assuming implementation of this rate, a change in regulated production of 1 TWh in either 2008 or 2009 would have a corresponding nuclear revenue impact of \$41.5M.

OPG is not able to calculate ratepayer impacts, as it does not have access to all of the information necessary to do this calculation. However, OPG estimates that a shortfall of 1 TWh in nuclear production in 2008 would increase HOEP by \$0.50, and the Ontario market would face incremental costs of approximately \$28M to replace this energy. The impact of an increase of 1 TWh of nuclear production is an estimated decrease of \$0.1 in HOEP and an increase in costs to the Ontario market of about \$7M.

This analysis of incremental costs to the Ontario market is similar to that used in L-12-8.

VECC Interrogatory #15

Ref: Ex. F1-T2-S1, Table 1

Issue Number: 5.1

Issue: Are the Operation, Maintenance and Administration ("OM&A") budgets for the prescribed hydroelectric and nuclear business appropriate?

Issue Number: 5.3

Issue: Are the 2008 and 2009 human resource related costs (wages, salaries, benefits, incentive payments, FTEs and pension costs) appropriate?

Interrogatory

Please confirm that the data provided in this table indicates that compensation to labour in OPG's regulated hydroelectric business averaged \$100.8K per FTE (full-time equivalent) in 2005 and steadily increased over the period 2005-2009 to an average of \$130.0K per FTE in 2009 and that this increase reflects an average annual increase of 6.6% per FTE per year.

Response

OPG agrees that the increase in average labour costs per FTE in the regulated hydroelectric business over the period 2005 - 2009, as cited in the interrogatory above, has been appropriately calculated based on information provided in Table 1, Ex. F1-T2-S1. OPG notes that the labour costs presented in this table are based on standard labour rates for each year that represent the total estimated labour cost to the company, including the cost of statutory benefits (Employment Insurance, Canada Pension Plan, Employer Health Tax, etc.) and the cost of pension and benefits. Hence, OPG notes that amounts in the table do not solely represent compensation received directly by the employees.

The derivation of standard labour rates is described in section 8.0, page 28, Ex. F3-T4-S1. As noted in section 8.0, Ex. F3-T4-S1, the annual escalation rate for the significant components of the standard labour rate (excluding pension and other post employment benefits ["OPEB"]) are in the range of 3 – 4 percent for both represented and Management staff. The average annual rate of increase of 6.6 percent derived from Table 1, Ex. F1-T2-S1 is higher than the 3 – 4 percent range because it includes an increase in the burden component of pension and OPEB costs that rise significantly for both nuclear and regulated hydroelectric over the period 2005 - 2009, as seen in Chart 6 on page 26 - 27 of Ex. F3-T4-S1. The increase in the burden component of pension and OPEB costs over the 2005 - 2009 period is discussed in section 7.3.4, page 26, Ex. F3-T4-S1.

VECC Interrogatory #16

Ref: Ex. F2-T1-S1, Table 1

Issue Number: 5.1

Issue: Are the Operation, Maintenance and Administration ("OM&A") budgets for the prescribed hydroelectric and nuclear business appropriate?

Issue Number: 5.3

Issue: Are the 2008 and 2009 human resource related costs (wages, salaries, benefits, incentive payments, FTEs and pension costs) appropriate?

Interrogatory

Please add two rows to this table with one row showing labour expense for regular staff FTEs and the other showing labour expense for nonregular staff FTEs.

Response

Please see attached table.

Numbers may not add due to rounding.

Table 1
Operating Costs Summary - Nuclear (\$M)

Line No.	Cost Item	2005 Actual	2006 Actual	2007 Actual	2008 Plan	2009 Plan
		(a)	(b)	(c)	(d)	(e)
	OM&A:					
1	Base OM&A	1,036.4	1,133.8	1,216.6	1,360.8	1,368.0
2	Project OM&A	155.9	142.0	111.6	144.6	137.1
3	Outage OM&A	163.0	187.7	215.6	192.2	207.9
4	Allocation of Corporate Costs	356.2	423.2	446.8	457.0	430.2
5	Asset Service Fee	14.7	30.8	33.2	29.9	25.5
6	P2/3 Impairment Charges and Write-Offs ¹	120.0	0.0	0.0	0.0	0.0
7	Total OM&A	1,846.2	1,917.5	2,023.8	2,184.6	2,168.7
8	Nuclear Fuel Costs	100.5	104.9	113.0	162.4	204.2
	Other Operating Cost Items:					
9	Depreciation ²	259.6	242.8	300.7	294.4	316.4
10	Income Tax	5.7	0.0	0.0	0.0	0.0
11	Capital Tax	8.6	9.0	7.9	7.9	7.8
12	Property Tax	7.5	16.8	8.2	13.9	14.2
13	Total Operating Costs	2,228.1	2,291.0	2,453.5	2,663.1	2,711.3
14	Total Regular Staff FTEs	7,311.7	7,484.7	7,542.0	8,109.1	7,933.8
15	Non-Regular Staff FTEs	787.2	624.5	736.8	379.3	250.9
16	Total Staff FTEs	8,098.9	8,109.2	8,278.8	8,488.4	8,184.7
17	Total Regular Staff Labour	819.3	923.5	967.7	1,084.8	1,112.2
18	Non-Regular Staff Labour	62.9	46.7	59.3	33.2	20.8
19	Total Labour (\$M)	882.2	970.2	1,027.0	1,118.0	1,133.0

1

1 Impairment charge (\$63M) associated with construction work in progress and fixed assets for Pickering A Units 2 & 3; and write-off of inventory (\$57M) for Pickering A Units 2 & 3.

2 Includes nuclear waste management variable expenses (2005 Actual - \$4.0M, 2006 Actual - \$3.6M, 2007 Actual - \$1.6M, 2008 Plan - \$1.7M, 2009 Plan - \$1.8M)

2

Witness Panel: Base OM&A and Fuels

VECC Interrogatory #17

Ref: Ex: F2-T5-S1 page 7

Issue Number: 5.7

Issue: Is the forecast of nuclear fuel costs appropriate?

Interrogatory

Please describe the revised spot market procurement process implemented by OPG and indicate the benefits that OPG expects to when financial derivative markets for uranium are developed. Also please describe any costs or risks that may arise in conjunction.

Response

Please refer to L-1-63 for the description of the revised spot market procurement process.

OPG is currently observing the development of the financial derivative market for uranium. OPG has not made any decisions at this time concerning participation in such market and has not included any assumptions on the use of such market in its application. Therefore, OPG has no expectations regarding benefits, costs or risks in the test period associated with these markets.