

**Board Staff Interrogatory #199**

**Issue Number: 7.1**

**Issue:** Are the forecasts of nuclear business non-energy revenues appropriate?

**Interrogatory**

**Reference:**

Ref: Exh G2-1-1 page 4

At the above reference, OPG notes that a change in customer requirements resulted in no Helium-3 sales historically, and none are projected for the future.

Please describe the nature of the changes in customer requirements.

**Response**

The customer found an alternative product to Helium-3 to meet their requirements. As a result, the anticipated sale of Helium-3 did not occur. OPG does not expect the customer requirements to change.

**Board Staff Interrogatory #200**

**Issue Number: 7.1**

**Issue:** Are the forecasts of nuclear business non-energy revenues appropriate?

**Interrogatory**

**Reference:**

Ref: Exh G2-1-1 page 5 The evidence states that:

OPG and the IESO negotiated an extension to the existing Reactive Support and Voltage Control Service Agreement effective January 1, 2013 to May 31, 2016. OPG's expectation for the plan period is that the new contract will be negotiated with terms and conditions similar to those in the existing contract; hence the forecast is based on 2015 values with an allowance for inflation.

- a) Please confirm if a new contract was negotiated for the period after May 1, 2016.
- b) If the answer to (a) is yes, does the re-negotiated contract contain similar terms and conditions as the one previous?
- c) If the answer to (a) is no, please provide an explanation of the differences between the service agreements and confirm if the forecasted values remain appropriate?
- d) What rate is used as the allowance for inflation?

**Response**

- a) Yes, a replacement contract was negotiated for the period June 1, 2016 through May 31, 2018.
- b) Yes
- c) The re-negotiated contract contains similar terms and conditions as the previous contract. OPG confirms that the forecasted values remain appropriate.
- d) The rate used in the forecast was 2%, consistent with business planning assumptions.

**Board Staff Interrogatory #201**

**Issue Number: 7.1**

**Issue:** Are the forecasts of nuclear business non-energy revenues appropriate?

**Interrogatory**

**Reference:**

Ref 1: Exh G2-1-1 page 6

Ref 2: Exh G2-1-1 Table 1

At reference 1, OPG notes that “direct costs for heavy water sales include labour for handling, testing, loading, unloading, and packaging; the cost of containers, and transportation costs. OPG proposes that 50 percent of the related costs from the sale of surplus heavy water continue to be included in the determination of the revenue requirement in accordance with the OEB’s decision in EB-2010-0008.”

Please confirm that, because there are no sales projected for heavy water after 2017, no direct costs for the sale of heavy water are included in reference 2.

**Response**

Confirmed. All direct costs, including labour costs, have been removed from the determination of the revenue requirement for 2018 onward and have not been included in Ex. G2-1-1 Table 1 after 2017.

**OAPPA Interrogatory #4**

**Issue Number: 7.1**

**Issue:** Are the forecasts of nuclear business non-energy revenues appropriate?

**Interrogatory**

*Item 3: Is the cost sharing between ratepayers and shareholders fair and properly allocated and is the overall increase in nuclear payment amounts including rate riders reasonable given the overall bill impact to customers.*

3-OAPPA-1

**Reference:**

Ref: Exhibit G2-2-1, Bruce Generating Revenues and Cost, Section 2.0, Page 1 Lines 21 and 22 and Table 1  
Exhibit C2-1-1, Nuclear Waste Management ... Liabilities, Section 5.0

Net earnings from the Bruce Lease are forecasted to be negative for the duration of the Test Period, for a total gross loss of \$401 million (\$66.1 + 74.3 + 85.9 + 82.1 + 93.1) which is expected to be reclaimed from Ontario's ratepayers. We understand that the majority of this loss is due to Accretion, which added a further C\$ 2.7475 Billion in liabilities, as a consequence of the IESO and Bruce Power refurbishment agreement extending the facility's EOL from 2019 to 2061.

- a) Will revenue generally persist at the levels suggested by Table 1, adjusted for CPI, beyond the Test Period years? Consequently, will the [revised] Bruce Lease arrangement continue to operate at a loss until 2061?
- b) Is the transfer of Accretion and other costs away from the corporations owning Bruce Power to Ontario's rate payers appropriate?
- c) Are other cost-sharing options available and is it reasonable, or possible, to expect any favourable changes to the cost-sharing terms of the Lease arrangement in the years after the Test Period?

**Response**

- a) Specific information on revenue and cost items beyond the 2017-2021 IR Term is not relevant to the determination of revenue requirements and payment amounts requested in this application. In general, OPG observes that revenue levels under the Bruce lease and related agreements, and therefore overall Bruce Lease Net Revenues, are a function of a number of variables other than CPI, including the number of used nuclear fuel bundles generated by Bruce Power, the volume of low and intermediate level nuclear waste received from Bruce Power, and the associated volumetric cost rates charged

1 pursuant to the agreements based on prevailing cost estimates. Other sources of  
2 significant uncertainty in predicting future levels of Bruce Lease Net Revenues include  
3 the inherent volatility of segregated fund earnings and potential future changes in nuclear  
4 liabilities arising in connection with future ONFA Reference Plan updates, such as the  
5 upcoming 2017 ONFA Reference Plan.

6  
7 b) All revenue and cost items making up the Bruce Lease Net Revenues are appropriate  
8 because they reflect OPG's revenues under the terms of the Bruce lease and related  
9 agreements and the costs OPG incurs in relation to the Bruce stations, as determined in  
10 accordance with generally accepted accounting principles for unregulated entities as  
11 directed by the OEB. This is in accordance with sections 6(2)9 and 6(2)10 of O. Reg.  
12 53/05.

13  
14 c) OPG's commercial relationship with Bruce Power is governed by the Bruce lease and  
15 related agreements. OPG is not aware of any other "cost-sharing options" in regard to the  
16 items making up the Bruce Lease Net Revenues and is unable to speculate on potential  
17 changes to the terms of the lease arrangement that could take place between the end of  
18 the IR Term and the early 2060s.

**SEC Interrogatory #89**

**Issue Number: 7.1**

**Issue:** Are the forecasts of nuclear business non-energy revenues appropriate?

**Interrogatory**

**Reference:**

[G2/1/2]

Please explain the methodology OPG is using to forecast 2017-2021 nuclear non-energy revenues.

**Response**

For nuclear non-energy revenues except for ancillary services, OPG derives its forecasts based on historical revenues, taking into consideration the demand for heavy water and isotopes, the levels of existing and future inventories of heavy water and isotopes, knowledge of the availability of the Tritium Removal Facility and anticipated demand for heavy water processing services.

For ancillary services revenues (from the provision of Reactive Support and Voltage Control), OPG derives its forecasts by escalating contracted rates by a forecast rate of inflation of 2%, consistent with OPG's Business Plan.

**VECC Interrogatory #36**

**Issue Number: 7.1**

**Issue:** Are the forecasts of nuclear business non-energy revenues appropriate?

**Interrogatory**

**Reference:**

- a) When does OPG expect to produce its business plan for Cobalt-60 production at Darlington?
- b) Will an update of this initiative be part of the mid-period review?

**Response**

- a) OPG expects to produce a business case for Cobalt-60 production at Darlington at the end of 2017.
- b) No, the Cobalt-60 business initiative will not be updated as part of the mid-term review. The mid-term review will only update for production and associated fuel costs. The production variance will be valued based on the smoothed rate and the approved average unit fuel cost for the period. No other updates are proposed.

**VECC Interrogatory #37**

**Issue Number: 7.1**

**Issue:** Are the forecasts of nuclear business non-energy revenues appropriate?

**Interrogatory**

**Reference:**

Reference G2/T1/S1/pg.5

- a) Please explain the circumstances behind the failed sales of Helium-3 and specifically explain why there will be no opportunities in the future to make these sales.

**Response**

- a) Please see OPG's response to Ex. L-7.1-1 Staff-199.

**VECC Interrogatory #38**

**Issue Number: 7.1**

**Issue:** Are the forecasts of nuclear business non-energy revenues appropriate?

**Interrogatory**

**Reference:**

Reference G2/T1/S1/Table 1

- a) Why has OPG redacted the components of the forecast revenue for 2018 through 2021.
- b) Do the total other revenues shown for 2018 include both sales of heavy water and isotope sales?

**Response**

- a) The reason for the redactions is set out in OPG's letter to the OEB requesting confidential treatment for certain portions of its application filed with the OEB on May 27, 2016 (pp. 3-4), as follows:

*The information redacted from the Revenue Comparison Tables located at Exhibit G2-1-1, Table 1 and Exhibit G2-1-2, Table 1 relates to OPG's sales and proceeds from its heavy water sales business or aggregate information that would allow determination of such information.*

*This information has consistently been treated as confidential by OPG, as it relates to commercially sensitive information. OPG requests that this information be protected as confidential as its disclosure will prejudice OPG's competitive position and will interfere significantly with any future negotiations being carried out by OPG. The confidential nature of this information was approved by the Board in its decision in EB-2010-0008 (see p.64 Reasons for Decision, dated March 10, 2011), and also provided for in Procedural Order No. 4 in EB-2013-0321 (see page 3 of Procedural Order No. 4, dated March 21, 2014).*

- b) Total other revenues shown for 2018 do not include revenues from sales of heavy water (see Ex. G2-1-1, p. 1). Total other revenues shown for 2018 include isotope sales.

**Board Staff Interrogatory #202**

**Issue Number: 7.2**

**Issue:** Are the test period costs related to the Bruce Nuclear Generating Station, and costs and revenues related to the Bruce lease appropriate?

**Interrogatory**

**Reference:**

Ref. Exh G2-2-1, page 2 of 21

OPG states that the methodology for assigning and allocating revenues and costs to the Bruce facilities and under the Bruce lease is consistent with what has been used in previous applications, which was independently reviewed and deemed appropriate by Black & Veatch Corporation Inc. as part of EB-2010-0008.

- a) What analyses has OPG undertaken since the independent review to support that this methodology continues to be appropriate for purposes of the current application?
- b) What is OPG's policy with respect to reviewing and updating this allocation methodology to ensure its continued appropriateness?

**Response**

- a) All revenue and cost items making up Bruce Lease Net Revenues are determined in accordance with generally accepted accounting principle for non-regulated entities and are subject to true up through the audited balance of the Bruce Lease Net Revenues Variance Account, as directed by the OEB in EB-2007-0905 based on O. Reg. 53/05 requirements. OPG believes that the methodology used to assign and allocate these items to the Bruce facilities and under the Bruce lease and related agreements remains appropriate, for the reasons outlined below. As noted at Ex. G2-2-1, p. 3, lines 2-7, this is the same methodology that applied in EB-2010-0008, EB-2012-0002, EB-2013-0321 and EB-2014-0370.

OPG believes that the methodology remains appropriate in part because the nature of the revenue and cost items has remained consistent since EB-2007-0905. The items continue to represent well-defined, specifically tracked elements of OPG's revenues and costs. Specifically, all revenue items relate to clearly identified agreements with Bruce Power and are wholly assigned to Bruce Lease Net Revenues. With respect to the costs, the majority of the items relate to Nuclear Liabilities and result from the application of accounting requirements – depreciation of asset retirement costs, accretion, earnings on segregated funds, used fuel storage and disposal costs, and waste management variable expenses. As discussed in Ex. C2-1-1, these items form part of the OEB-approved methodology for recovery of Nuclear Liabilities, which has been consistently applied

1 since the OEB's direction in EB-2007-0905, and are directly assigned to the Bruce  
2 facilities based on specific station-level continuities maintained by OPG.

3  
4 The vast majority of the revenue and cost items making up Bruce Lease Net Revenues  
5 continue to be directly assigned. These revenues and costs are itemized at p. 17 of the  
6 Black & Veatch Corporation Inc. (Black & Veatch) cost allocation study filed in EB-2010-  
7 0008, Ex. F5-2-1. Table 5 on page 17 identified that all but two items making up Bruce  
8 Lease Net Revenues were directly assigned.<sup>1</sup> OPG continues to follow the direct  
9 assignment approach for all of the items identified in the Black & Veath study and has  
10 been itemizing Bruce Lease Net Revenues in detail in its pre-filed evidence in every  
11 payment amount proceeding (i.e. Ex. G2-2-1 of EB-2010-0008, EB-2013-0321 and EB-  
12 2016-0152).

- 13  
14 b) For the reasons set out in part (a) above, OPG has been and continues to be of the view  
15 that the existing methodology remains appropriate. OPG's relationship with the Bruce  
16 facilities and the nature of the revenue and cost items making up Bruce Lease Net  
17 Revenues is not expected to change. The OEB has previously established a clear basis  
18 for determining these items based on O. Reg. 53/05 requirements. The vast majority of  
19 the items are directly assigned. As a result of these considerations, OPG sees no basis  
20 for changing the methodology in the future. OPG will continue to monitor for any  
21 developments that could necessitate an update to the methodology.

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<sup>1</sup> One of those items, capital tax, has since then been eliminated effective in 2010.

**Board Staff Interrogatory #203**

**Issue Number: 7.2**

**Issue:** Are the test period costs related to the Bruce Nuclear Generating Station, and costs and revenues related to the Bruce lease appropriate?

**Interrogatory**

**Reference:**

Ref. Exh G2-2-1, page 4 of 21

Under the Lease Term section, OPG indicates that the lease has been extended by 21 years from December 31, 2043 to December 31, 2064 such that Bruce Power now has options to renew the lease for additional consecutive renewal periods for up to 46 years after the expiry of the initial lease term on December 31, 2018 (the 2015 Amendment). OPG's test period forecasts assume that Bruce Power will exercise the options to renew the lease.

- a) Please provide a copy of the Agreement, or the relevant excerpts from the Agreement, that detail each of the renewal periods available after the expiry of the initial lease term on December 31, 2018.
- b) Prior to the 2015 Amendment, the lease term for accounting purposes was assessed to be December 2036, but the actual maximum available term of the lease was to December 2043. Why does the period between 2036-2043 now form part of the lease term for accounting purposes if it didn't qualify previously?
- c) The 2015 Amendment extended the maximum lease-term by 21 years. On what basis does this additional renewal period qualify to form part of the lease term for accounting purposes?
- d) Why does the updated lease term of 2064 extend beyond the useful life of the longest running Bruce station (Bruce B station, which has an end of life date of 2061)?

**Response**

- a) OPG declines to provide a copy of the Bruce Lease Agreement or the requested excerpts for the reasons set out in the OEB's decision in EB-2007-0905 (Decision with Reasons, pages 99-106) where the OEB held, among other things, that the Bruce Lease is an unregulated commercial contract and that "The Board has no authority to set or review the terms of the lease between OPG and Bruce Power." (p.99).

With respect to the renewal periods available after the expiry of the initial lease term on December 31, 2018, the lease can be renewed consecutively for up to 46 years starting on January 1, 2019 and there are 23 renewal periods; the first is for 1 year, the second to

1 twenty-second are for 2 years each and the twenty-third and final renewal period is for 3  
2 years.

3  
4 b) and c)

5  
6 According to US GAAP requirements, the lease term for accounting purposes is reviewed  
7 only when there is a significant modification to the lease. Prior to the 2015 Amendment,  
8 OPG was last required to review the lease term for accounting purposes when a  
9 significant change to the lease took place in 2008, as discussed in EB-2010-0008 Ex.  
10 G2-2-1 p.3 and EB-2012-0002 Ex. L-1-1 Staff-06. Based on information available at the  
11 time, the 2008 lease reassessment determined the most likely outcome to be renewal of  
12 the lease to the end of 2036 in line with the assumed end of life for certain of the Bruce A  
13 units subject to refurbishment (see EB-2007-0905 Ex. F3-2-1, App. B, p. 6),  
14 notwithstanding the available renewal term of the lease to 2043.

15  
16 The 2015 Amendment and the amended refurbishment agreement between Bruce Power  
17 L.P. and the IESO (ARBPRIA) required OPG to reassess the lease term for accounting  
18 purposes for the first time since 2008. In line with the end-of-life dates for the Bruce units  
19 published in the ARBPRIA and adopted by OPG for depreciation purposes (see Ex. L-1-  
20 6.9 Staff-176), OPG determined the most likely outcome to be a continuation of the lease  
21 to the end of the amended available renewal term in 2064. This resulted in the extension  
22 of the lease term for accounting purposes from 2036 to 2064.

23  
24 d) The accounting end-of-life date for the Bruce B station of 2061 is computed by  
25 averaging the four estimated unit end-of-life dates per the ARBPRIA, which are  
26 summarized at Ex. F4-2-1 Att. 1, p. 4, with the last Bruce B unit reaching end of life in  
27 2063. Bruce Power's last available lease renewal period to 2064 extends beyond the  
28 estimated end of life of the Bruce B units, reflecting a contractual requirement for  
29 Bruce Power to fulfill a number of end of lease obligations before the leased premises  
30 are handed back to OPG. As such, it is expected that Bruce Power would extend the  
31 lease to the last available renewal period in 2064 to complete these contractual  
32 obligations.

**Board Staff Interrogatory #204**

**Issue Number: 7.2**

**Issue:** Are the test period costs related to the Bruce Nuclear Generating Station, and costs and revenues related to the Bruce lease appropriate?

**Interrogatory**

**Reference:**

Ref. Exh G2-2-1, Section 4.1.2, page 8 of 21

OPG indicates that Supplemental rent revenue is generally recognized on a cash basis for financial accounting purposes because it is not a fixed amount.

- a) The 2015 Amendment has eliminated the HOEP triggered provision for a conditional supplemental rent rebate. In light of the new methodology that has been implemented, please indicate why it is still appropriate to recognize the supplemental rent revenue on a cash basis.
- b) How would the supplemental rent revenue forecast for the test years be impacted had they been presented on an accrual basis? Please provide a table that compares the current test year forecast of supplemental rent with the annual forecasted amounts under accrual accounting.

**Response**

a) and b)

The supplemental rent under the 2015 Amendment is derived from a single average per fuel bundle cost rate determined based on the ONFA cost estimate to manage Bruce Power's used fuel waste (Ex. G2-2-1, pp. 4-5). OPG recognizes the revenue and invoices Bruce Power as the used fuel waste is generated by the Bruce units. The revenue is therefore variable and dependent on the number of used fuel bundles. As such, recognizing the supplemental rent revenue on a cash basis or accrual basis would effectively be the same under this arrangement.

**Board Staff Interrogatory #205**

**Issue Number: 7.2**

**Issue:** Are the test period costs related to the Bruce Nuclear Generating Station, and costs and revenues related to the Bruce lease appropriate?

**Interrogatory**

**Reference:**

Ref Exh G2-2-1, page 12 of 21

In regards to the forecasted number of used fuel bundles for purposes of calculating the test period supplemental rent revenues, OPG indicates that these volume estimates are based on forecasted information submitted by Bruce Power.

- a) What process is in place to review and assess the reasonableness and reliability of the assumptions used by Bruce Power in preparing these forecasts? .
- b) Does this same forecast form the basis of the estimates for the test year "Used Fuel Storage and Disposal Expenses": since it is driven by used fuel bundle volume as well?
- c) Please provide a table that provides the historical actual used fuel bundle volume for 2013-15 and the estimated volume for the bridge and test years.
- d) The supplemental rent revenue estimate of \$161.2M for 2021 is below the \$182M average over the test period. Please explain why.

**Response**

- a) OPG received confirmation from the IESO, as the counterparty to the amended refurbishment agreement (ARBPRIA), that the fuel bundle volume forecast provided by Bruce Power, which OPG used to forecast the 2016-2021 supplemental rent revenues presented in Ex. G2-2-1, was consistent with the volumes that IESO's technical expert had reviewed as part of the due diligence work on the ARBPRIA. The true-up mechanism for supplemental rent established as part of the 2015 Amendment will address any differences between actual and forecast fuel bundle volumes (see Ex. G2-2-1, p. 5).
- b) Yes
- c) The requested table is presented in Chart 1 below. As used fuel volumes are based on information provided by Bruce Power, this information is confidential.

1

**Chart 1**

Bruce Facilities - Used Fuel Bundles			
Year	Bruce A	Bruce B	Total
2013 Actual			
2014 Actual			
2015 Actual			
2016 Budget			
2017 Plan			
2018 Plan			
2019 Plan			
2020 Plan			
2021 Plan			

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- d) Projected supplemental rent revenue in 2021 is lower than the average amount projected over the 2017-2021 period due to a lower volume of forecast used fuel bundles for 2021 provided by Bruce Power for the Bruce B station. OPG understands that this reflects the scheduled start of the refurbishment activities for the first Bruce unit on January 1, 2020.

**Board Staff Interrogatory #206**

**Issue Number: 7.2**

**Issue:** Are the test period costs related to the Bruce Nuclear Generating Station, and costs and revenues related to the Bruce lease appropriate?

**Interrogatory**

**Reference:**

Ref. G2-2-1, Section 4.1.1, page 7 of 21

This section indicates that pursuant to the 2015 Amendment, the renewal term base rent payments commencing in 2019 are generally intended to cover the executory costs being incurred by OPG in connection with the lease.

- a) The evidence states that up to the 2015 Amendment, there has been insufficient evidence to characterize for accounting purposes that a portion of the base rent is intended to cover executory costs. Please indicate what has changed that now allows for this distinction. Please provide the relevant excerpts from the 2015 Amendment.
- b) Please provide a table that compares the test year base rent revenues as currently presented in this application, versus the quanta had there been no executory cost component.

**Response**

- a) Prior to the 2015 Amendment process, OPG did not have a basis for treating renewal term base rent payments as resulting from the executory costs incurred by OPG in connection with the Bruce lease. As part of the 2015 Amendment process, Bruce Power L.P. and OPG explicitly acknowledged that these payments are intended to cover OPG's executory costs such as property tax for the Bruce site. This is noted at Ex. G2-2-1, p. 4, lines 13-18. The acknowledgement was made by the parties during the negotiation process but was not formally identified in the text of the amended lease agreement.
- b) OPG's accounting treatment of the renewal term base rent payments, being intended to cover OPG's executory costs, is reflected in OPG's financial statements prepared in accordance with Generally Accepted Accounting Principles of the United States of America (US GAAP) and has been accepted by OPG's external auditors. If, hypothetically, the annual base rent payments of \$16M per annum escalated by the Ontario Consumer Price Index (CPI) were not considered to be on account of executory costs, US GAAP would require these base rent payments (including escalation) to be averaged and recognized as revenue on a straight-line basis over the expected term of the lease determined for accounting purposes. Chart 1 below compares the test year

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6

**SEC Interrogatory #90**

**Issue Number: 7.2**

**Issue:** Are the test period costs related to the Bruce Nuclear Generating Station, and costs and revenues related to the Bruce lease appropriate?

**Interrogatory**

**Reference:**

[G2/2/1]

Please provide a detailed calculation, on a regulatory basis, and not on an accounting basis, of the OPG's return on equity on the Bruce nuclear assets, including actual for 2015, forecast for 2016, and budget for 2017. For the purposes of the calculation, please assume the debt and equity thicknesses applicable to the OPG, and the debt rates paid or expected to be paid by OPG in the respective periods. If assumptions are made with respect to the variable components of lease revenues, please provide details of those assumptions. Please exclude the impacts of derivative accounting on the calculations, including on the tax calculations.

**Response**

The question asks OPG to determine the impact of applying a hypothetical "regulatory basis" to an unregulated activity, an alternative approach that the OEB has already rejected based on the provisions of O. Reg. 53/05, as outlined below. As such, the requested calculation is not relevant and is not provided.

As outlined in EB-2012-0002 Ex. L-1-7 SEC-01, the OEB's EB-2007-0905 Decision with Reasons established the basis to be used in determining Bruce Lease revenues and costs. The result is that regulatory constructs are not used to determine specific Bruce Lease revenues or costs. This approach has been consistently applied in every applicable OPG proceeding since EB-2007-0905 (i.e., EB-2010-0008, EB-2012-0002, EB-2013-0321 and EB-2014-0370).

Specifically, at page 110 of the EB-2007-0905 Decision, the OEB required the following:

"that Bruce lease revenue be calculated in accordance with GAAP for non-regulated businesses. The Board's rationale is the same as its rationale for requiring that the cost of the Bruce nuclear liabilities be computed in accordance with GAAP – it is not reasonable to interpret the regulation to find that OPG can calculate revenues from an unregulated activity using an accounting policy that an unregulated company would not be permitted to use."

1 At page 109 of that Decision, the OEB also noted the following with respect to the  
2 requirements of O. Reg. 53/05 as they relate to the determination of Bruce Lease revenues  
3 and costs:  
4

5 “[i]n the Board’s view, it would not be a reasonable interpretation of  
6 Sections 6(2)9 and 6(2)10 to find that OPG should use an accounting  
7 method to determine revenues and costs that an unregulated business  
8 would otherwise never use. Had the Province intended the Board to  
9 determine revenues and costs related to Bruce in accordance with  
10 principles applicable to a regulated business, the regulation would have  
11 so stated.”

**VECC Interrogatory #39**

**Issue Number: 7.2**

**Issue:** Are the test period costs related to the Bruce Nuclear Generating Station, and costs and revenues related to the Bruce lease appropriate?

**Interrogatory**

**Reference:**

Reference: G2/T2/S1/pgs.1-5

- a) OPG lists a number of changes from the new Bruce Lease Agreement. How have these changes affected the allocation of revenues and costs to the Bruce facilities?
- b) Please provide the report or study which supports the use of the current cost allocation methodology for the revised agreement.

**Response**

- a) The changes resulting from the amendments to the Bruce lease and related agreements set out in Ex. G2-2-1 do not affect the allocation of revenues and costs to the Bruce facilities in the determination of Bruce Lease Net Revenues. The amendments resulted in certain changes of how the revenues are determined; however, they did not change the fact that all such revenues continue to be specifically identified, tracked and wholly assigned to the Bruce Lease Net Revenues calculation. As the amendments relate to revenues, they did not impact the costs assigned or allocated to the Bruce facilities.
- b) As discussed in part (a), the amendments to the Bruce lease and related agreements did not affect the allocation of revenues and costs in the determination of Bruce Lease Net Revenues.

As noted at Ex. G2-2-1, p. 3, lines 3-8, the methodology currently used to assign and allocate revenue and costs to the Bruce facilities was independently reviewed and determined to be appropriate by Black & Veatch Corporation Inc. as part of EB-2010-0008 (see EB-2010-0008 Ex. F5-2-1, pp. 15-18). The methodology is unchanged from that applied in EB-2010-0008, EB-2012-0002, EB-2013-0321 and EB-2014-0370. For the reasons set out in Ex. L-7.2-1 Staff-202, OPG believes this methodology remains appropriate.

**VECC Interrogatory #40**

**Issue Number: 7.2**

**Issue:** Are the test period costs related to the Bruce Nuclear Generating Station, and costs and revenues related to the Bruce lease appropriate?

**Interrogatory**

**Reference:**

- a) The effect of the new Bruce lease agreement is to transfer income produced from regulated (prescribed) OPG assets to the non-regulated Bruce assets. Is entirely due to the obligation of OPG with respect to the Bruce facility AROs?

**Response**

Applying Bruce Lease Net Revenues to the revenue requirement for OPG's prescribed nuclear assets in accordance with sections 6(9) and 6(10) of O. Reg. 53/05 does not transfer income between the prescribed assets and the Bruce assets. OPG's income from the prescribed assets reflects the revenue requirement and payment amounts approved by the OEB. To the extent the Bruce Lease Net Revenues are positive, applying them against the revenue requirement reduces OPG's income from the prescribed assets. If the Bruce Lease Net Revenues are negative (i.e. net cost), their application to the revenue requirement serves to increase OPG's income from the prescribed assets. This treatment of Bruce Lease Net Revenues was indicated in the OEB's EB-2007-0905 Decision with Reasons:

*When OPG earns a profit (measured in accordance with GAAP) on its Bruce activities, the Board's approach calls for all of that profit to be used to reduce the payment amounts for Pickering and Darlington. [...] If OPG were to incur a loss on its Bruce activities, which could happen if there are significant increases in the Bruce nuclear liabilities in the future, that loss would increase the payment amounts for the prescribed assets under the Board's approach. (p. 111)*

In line with the above, the projected decrease in Bruce Lease Net Revenues in the 2016-2021 period compared to historical levels is described as follows at Ex. G2-2-1, p. 3:

*The forecast decrease in net revenues in 2016-2021 relative to 2015, excluding the impact of the derivative embedded in the Bruce lease agreement, is primarily due to the impact on OPG's nuclear asset retirement obligation ("ARO") and related asset retirement costs ("ARC") of extending the EOL dates of the Bruce units in line with the ARBPRIA, effective December 31, 2015. As discussed in Ex. C2-1-1 and detailed in Ex. C2-1-1 Tables 5 and 6, the estimated impact of these changes is a decrease to the forecast Bruce Lease net revenues of approximately \$69.9M in 2016, \$72.0M in 2017, \$73.5M in 2018, \$75.5M in 2019, \$120.7M in 2020 and \$121.7M in 2021.*

1 While the amounts presented in evidence remain OPG's current forecast, as discussed in  
2 Ex. L-07.1-12 OAPPA-004, a number of variables could materially impact (up or down) future  
3 levels of Bruce Lease Net Revenues. These factors include the inherent volatility of  
4 segregated fund earnings and potential future changes in nuclear liabilities arising in  
5 connection with future ONFA Reference Plan updates, such as the upcoming 2017 ONFA  
6 Reference Plan. Differences between actual and forecast net revenues are trued up via the  
7 Bruce Lease Net Revenues Variance Account.