

UTILITIES CONSUMERS' GROUP
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July 11, 2016

Yukon Utilities Board
Box 31728
Whitehorse, Yukon Y1A 6L3

Attention: Mr. Robert Laking, Chair

**Re: ATCO Electric Yukon / Yukon Electrical Company Limited
2016-2017 General Rates Application – Phase 1 - UCG Information Requests to AEY**

Dear Mr. Laking:

The Utilities Consumers' Group hereby submits its information requests to ATCO Electric Yukon (AEY) pursuant to Board Order 2016-01.

UCG asks that AEY provide responses and attachments in word-searchable PDF and/or Word format. Where responses take the form of tables with underlying calculations, UCG asks that AEY provide the related Excel file as well.

If the Board or AEY requires any clarification with respect to UCG's IRs, please direct all inquiries to me by email at rondeau@northwestel.net or by phone at 633-5210.

Yours truly,

Roger Rondeau
Utilities Consumers' Group

**ATCO ELECTRIC YUKON
2016-2017 GENERAL RATE APPLICATION**

**Utilities Consumers' Group
Information Request No. 1**

- 1) *Reference:* May 11, 2016 Application

Request:

- (a) Please provide details of all customer and stakeholder consultations conducted by ATCO Electric Yukon during development of this application prior to submitting it to the YUB.
- (b) Please provide specific details on how AEY's customers were informed of proposals being considered for inclusion in the application and how input from customers was used to develop details of the application.
- (c) Please provide all documentation related to issues discussed during these consultations and a list of all parties involved in the consultations.
- (d) Please confirm how and when the leadership / owners of AEY approved the General Rate Application as provided to the YUB. Please identify the dates on which these approvals were provided.

- 2) *Reference:* May 11, 2016 Application page 1-2

AEY states "ATCO Electric Yukon also owns and operates the Fish Lake Hydro plant on the outskirts of Whitehorse. Built in 1950, the Fish Lake plant continues to provide green hydroelectric power".

Request:

- (a) Please provide a breakdown by year of all the costs (capital and operating) that have been incurred for the Fish Lake plant for the last 10 years including a description of what work was completed and when amounts were added to rate base.
- (b) Please provide a breakdown by year for the last 10 years of the cost per kWh to generate electricity at Fish Lake.

- 3) *Reference:* May 11, 2016 Application page 1-3

AEY states "As explained in Section 13, ATCO Electric Yukon is requesting an increase of 4.42% over the current Rider R of 7.20%. The resulting 11.62% interim refundable Rider R would apply to electrical consumption on or after July 1, 2016. This interim rider has been calculated by taking 50.0% of the 2016 shortfall revenue requirement and collecting this over the July 2016 to December 2016. This rider will be applied to all ATCO Electric Yukon and Yukon Energy retail customer bills, excluding Secondary Energy Rate 32, in order to recover the difference between the forecast revenues on existing rates and riders and the forecast 2016 revenue requirement as applied for in this Application. This request is consistent with the approach approved by the Board for ATCO Electric Yukon's 2013-2015 GRA where a 6.50% interim refundable rider was approved in Board Order 2013-05. By implementing the rider on July 1, 2016, ATCO Electric Yukon will recover approximately 50.0% of the forecast total shortfall in 2016".

Request:

- (a) Please provide details of all expected recoveries through Rider R by month for the period July 2016 through December 2017 including all recoveries by Yukon Energy Corporation.
- (b) Please provide details of how much of AEY's 2016 revenue shortfall will be recovered from AEY customers and details of how much will be recovered from customers of Yukon Energy Corporation.
- (c) Please explain why customers of Yukon Energy Corporation are required to pay a higher Rider R in order to allow AEY to recover additional revenues.

4) *Reference:* May 11, 2016 Application, page 1-4

With respect to a proposed deferral account, AEY states: *"ATCO Electric Yukon seeks the ability to flow-through (dollar for dollar) costs related to Board Orders or legislative provisions resulting in changes to the rules or parameters that ATCO Electric Yukon operates under, or that bear on the nature and extent of ATCO Electric Yukon's obligations as a regulated utility and which impact its 2016-2017 revenues or revenue requirement"*.

Request:

Please confirm AEY's understanding that a deferral account simply keeps track of related costs for review and potential disposition / recovery at a later date.

5) *Reference:* May 11, 2016 Application, page 1-5

AEY states *"For the 2016 test period, in-scope (subject to a collective agreement) and out-of-scope (not subject to a collective agreement) labour has been escalated by 3.25%. This escalation is based on ATCO Electric Yukon's existing collective agreement that expires on December 31, 2016. Consistent with past practice, ATCO Electric Yukon has applied the same inflation increases to both the in-scope and out-of-scope labour costs"*.

Request:

- (a) Please provide a breakdown of the in-scope and out-of-scope labour costs for 2014 (actual), 2015 (actual) and 2016 (actual / forecast) which includes details of staff positions included within each classification.
- (b) Please provide details of labour costs in the Yukon as a whole for 2014, 2015 and 2016 including any available breakdown of costs affected by a collective agreement.
- (c) What labour escalation rates are currently used for 2016 by FortisBC Utilities, BC Hydro, Manitoba Hydro, NWT Power Corporation, SaskPower, ENMAX, Nova Scotia Power, New Brunswick Power and Qulliq Energy Corporation? Please provide copies of the reference material related to these rates.

6) *Reference:* May 11, 2016 Application, page 1-5

AEY states *"For the 2017 test period, in-scope and out-of-scope labour has been escalated by 3.0%. This escalation rate is consistent with the inflationary increases being applied for and approved in Alberta for 2017"*.

Request:

- (a) Please provide copies of the referenced Alberta approvals.

- (b) Please provide details of the labour cost escalation rates in the Yukon for 2017 and the source documents for these forecasts.
- (c) What labour escalation rates are currently used for 2017 by FortisBC Utilities, BC Hydro, Manitoba Hydro, NWT Power Corporation, SaskPower, ENMAX, Nova Scotia Power, New Brunswick Power and Qulliq Energy Corporation? Please provide copies of the reference material related to these rates.

7) *Reference: May 11, 2016 Application, page 1-5*
 AEY states “*For non-labour costs, an inflation rate of 2.2% has been applied for 2016 based on the Yukon Economic Outlook issued by the Yukon Economic Development in October 2015. For 2017, no public forecast of Yukon inflation is available, therefore the 2.2% inflation rates has also been used for 2017.*”.

Request:

- (a) Please provide details of the actual monthly inflation rate for the Yukon for 2016 to date and forecast and copies of the related source documents.
- (b) Please confirm that Yukon Economic Outlook released in May 2016 indicates that following deflation in 2015, the Whitehorse CPI is expected to grow by 2.0 per cent in 2016 and just under 2.0 per cent in 2017.
- (c) What non-labour escalation rates are currently used for 2016 and 2017 by FortisBC Utilities, BC Hydro, Manitoba Hydro, NWT Power Corporation, SaskPower, ENMAX, Nova Scotia Power, New Brunswick Power and Qulliq Energy Corporation? Please provide copies of the reference material related to these rates.

8) *Reference: May 11, 2016 Application, page 1-5*
 AEY states “*A vacancy rate of 4.0% (approximately 3 FTEs) has been applied to all labour expenses for the 2016-2017 test periods. This is based on a five year historical average which ATCO Electric Yukon believes to be reasonable and is consistent with the methodology approved in Board Order 2009-2 and 2014-06.*”.

Request:

Please provide details of the calculation of the 5 year vacancy rate for ATCO Electric Yukon including details of the positions that were vacant at any time.

9) *Reference: May 11, 2016 Application, page 1-6*
 AEY identifies 2 new positions being added in 2016 - Engineering Technologist and Supervisor, Business Support Services.

Request:

- (a) Have these two positions already been filled? If yes, when did they start working?
- (b) Please explain how the job responsibilities identified for the new positions are currently being fulfilled and why a new position is required to take on these responsibilities.
- (c) Please provide details of the total additional costs included in the 2016 and 2017 revenue requirements for these 2 new positions.
- (d) Please provide details on the alternatives that were considered versus hiring new staff.

- 10) *Reference: May 11, 2016 Application, page 2-1*
 AEY states: “*ATCO Electric Yukon forecasts its total primary non-industrial sales in 2016 to decrease 1.5% and increase 1.9% in 2017. The forecast is based on ATCO Electric Yukon’s detailed analysis of historical data by community and customer class and takes into account information gathered through ATCO Electric Yukon staff’s work in the community as well as consultation with the City of Whitehorse, Yukon Government officials and local developers*”.

Request:

- (a) Please confirm whether the electricity sales by customer class shown at the top of page 2-1 are weather normalized.
 - (b) Has the YUB approved a forecast wholesale sales level for 2016 and 2017 for Yukon Energy Corporation?
 - (c) Please provide details on when AEY’s current sales forecasts for 2016-2017 were determined for this rates application.
 - (d) Please identify the impact that demand side management had on sales levels in 2013, 2014 and 2015. Explain how this impact has been incorporated into the sales forecast for 2016 and 2017 and provide a revised version of Schedule 2.1 showing the actual and forecast sales for 2013 – 2017 with DSM impacts isolated.
- 11) *Reference: May 11, 2016 Application, page 2-1*
 Table 1 summarizes ATCO Electric Yukon’s energy sales forecast for 2016 and 2017 by customer class, along with the corresponding actuals for 2013, 2014 and 2015 and 2015 updated weather-normalized actuals.

Request:

Please provide an updated table with the 2016 Forecast reflecting 6 months of actuals and the impact this would have on the 2017 forecast.

- 12) *Reference: May 11, 2016 Application, page 2-3*
 AEY states “*Slower population growth has also contributed to minimal customer gains in both residential and commercial sectors for ATCO Electric Yukon. Additionally, ATCO Electric Yukon’s Demand Side Management (DSM) program, as well as Yukon Government energy initiatives, such as the Commercial Energy Incentive Program and Micro-generation were introduced in the Yukon over the last few years and have all contributed to lower electricity sales in 2013, 2014, and 2015*”.

Request:

- (a) Please provide details of the referenced population growth analysis undertaken by AEY and copies of the reference documents.
- (b) Please provide specific detail on the impact that DSM and other energy efficient initiatives have had on electricity sales for 2013, 2014 and 2015 including how AEY has determined the impact of these initiatives.

- 13) *Reference:* May 11, 2016 Application, page 2-4
 AEY states “*The overall impact of the economic and population growth slowdown is expected to impact ATCO Electric Yukon’s customer growth and sales over the test period*”.

Request:

Please provide details of the analysis conducted by AEY that proves this to be a valid assumption.

- 14) *Reference:* May 11, 2016 Application, page 2-5
 AEY has updated the time frames used for determining weather-normalized use per customer and has applied the growth rates experienced over 2013 to 2015 to derive the forecast use per customer for the 2016 and 2017 test years.

Request:

- (a) Please provide evidence and statistical analysis that the 3 year average methodology is a superior forecasting tool when compared to the 20 year average methodology.
- (b) Please confirm that the proposed 3 year average methodology will be more volatile than the current longer term methodology.
- (c) Please provide the 2016 and 2017 sales forecast by class using the existing longer term methodology.

- 15) *Reference:* May 11, 2016 Application, page 2-7
 AEY states that the wholesale sales to Yukon Energy Corporation are forecast to remain constant at 2015 levels for 2016 and 2017.

Request:

- (a) Please provide details of the wholesale sales forecast provided by Yukon Energy Corporation.
- (b) Given AEY’s assumption that slower population growth, DSM and other initiatives have contributed to lower electricity sales in 2013, 2014 and 2015, please explain why these factors will have no impact on the forecast of wholesale sales volumes.

- 16) *Reference:* May 11, 2016 Application, Schedule 2-1
 AEY indicates net customer impacts of its application of 2.0% in 2016 and 5.1% in 2017.

Request:

- (a) Please provide detailed calculations of the total bill (including all riders, rate relief, and taxes) for a residential customer living in Whitehorse using 1000 kWh, 1200 kWh and 1400 kWh per month in January 2013, January 2014, January 2015, January 2016, and January 2017 assuming that the 2016 and 2017 rate adjustments proposed by AEY are approved. Please provide details of the bill calculations and indicate overall percentage changes in the total bill for each year.
- (b) For the Secondary Sales section of Schedule 2-1, please expand the table to include data for the last 10 years and add a row identifying the costs of providing Secondary Power and a calculation of net revenues.

- (c) Please provide details of AEY's understanding of mitigation efforts in other jurisdictions if rate adjustments result in bill impacts in excess of a specific threshold.
- (d) Please provide details of AEY's position regarding mitigation efforts that should be imposed if rate adjustments in the Yukon result in bill impacts in excess of 10%.

17) *Reference:* May 11, 2016 Application, page 3-2

AEY justifies the creation of a deferral account based on the assumption that changes to purchased power costs may produce a loss or gain of substantial magnitude.

Request:

- (a) Please provide statistical analysis showing changes to the cost of purchased power for 2010 through 2015.
- (b) Please provide details of what AEY would classify as "a loss or gain of substantial magnitude" and why.

18) *Reference:* May 11, 2016 Application, page 3-3

AEY states that total forecast purchases have been determined by applying a forecast line loss of 6.2% to ATCO Electric Yukon's sales load forecast and that this line loss was calculated using a 5-year historical average.

Request:

- (a) Please provide the statistical analysis showing the calculation of the 6.2% line loss.
- (b) Please describe the specific work that AEY has undertaken and specifically when it was undertaken to reduce the level of line losses on its various systems since 2010 and provide the analysis that shows how line losses have or have not been reduced.
- (c) Under its Master Service Contract, does ATCO Electric still perform load and loss research studies for AEY? If yes, please provide the most recent loss research study.

19) *Reference:* May 11, 2016 Application, page 4-1

AEY states: "*Fuel is purchased on an ongoing basis for each of the five isolated diesel plants operated by ATCO Electric Yukon. ATCO Electric Yukon conducts a diesel fuel tendering process in which a vendor is selected to be the provider of diesel fuel to ATCO Electric Yukon*".

Request:

- (a) Please explain when the new tender for diesel fuel purchases will be effective.
- (b) Please confirm that any new diesel fuel prices will be reflected in fuel costs paid by Yukon ratepayers through the Rider F.

20) *Reference:* May 11, 2016 Application, page 4-2

AEY states "*Plant efficiencies are based on the average efficiencies of the previous five years adjusted for any changes due to the replacement of units*".

Request:

- (a) Please expand Schedule 4.2 to provide details of the diesel fuel efficiencies for the 5 years used to support the 2016 and 2017 forecasts including how they were measured.

(b) Please explain work that AEY has undertaken in the last 5 years to improve diesel fuel efficiencies on its various systems and statistical analysis showing the results.

- 21) *Reference:* May 11, 2016 Application, page 4-2
Regarding diesel fuel costs, AEY states “*Price forecasts for each community are based on the 2015 actual prices for diesel fuel*”.

Request:

Please update Schedule 4.2 with the most recent actual diesel fuel prices for 2016 to date.

- 22) *Reference:* May 11, 2016 Application, page 4-3
AEY has applied for a LNG Fuel Deferral Account to track and subsequently refund or recover changes in costs due to the differential in actual LNG fuel prices and the price included in rates.

Rate Policy Directive Order in Council 1995/90 – Section 8

“8. *The Board must permit Yukon Energy Corporation and The Yukon Electrical Company Limited to adjust their rates to retail customers, major industrial customers, and isolated industrial customers so as to reflect fluctuations in the prices for which the two utilities pay for diesel fuel, without the requirement for specific application to and approval of the Board.*”

Request:

- (a) Please explain how variances in LNG fuel prices can be passed on to ratepayers when the Rate Policy Directive only addresses variances in diesel fuel.
(b) Please provide a breakdown for the last 4 years of the cost per kWh to generate electricity (i) using diesel generators, (ii) using LNG generators only, and (iii) the blended cost of using LNG and diesel generators.
- 23) *Reference:* May 11, 2016 Application, page 5-1
The table on page 5-1 shows AEY’s actual operations and maintenance expenses for 2013, 2014 and 2015 and forecast for 2016 and 2017.

Request:

- (a) Please provide a table showing non-fuel operating and maintenance costs per customer for 2012, 2013, 2014, 2015, 2016 (forecast) and 2017 (forecast).
(b) Please provide detail on what expenses are included in the \$441,000 spent in 2013-2015 and the \$295,000 to be spent in 2016 and 2017 under Public Information.
- 24) *Reference:* May 11, 2016 Application, page 5-2
The table on page 5-2 shows AEY’s actual operations and maintenance expenses for 2013, 2014 and 2015 as compared to the amounts filed for in the 2013-2015 GRA and those approved by the Board in Board Order 2014-06.

Request:

Please explain the relevance of including proposed O&M expense levels that were filed in the last GRA for 2013, 2014 and 2015 and how these numbers and identified variances

from these amounts provide assistance to the YUB to determine appropriate O&M levels for 2016 and 2017.

- 25) *Reference:* May 11, 2016 Application, page 5-2
 AEY states “*The total labour costs are calculated by multiplying the number of staff per job class by the rate of pay for each job class. These labour costs are then distributed to operations and maintenance accounts or capital accounts depending on the nature of work being performed by the staff in that job class.*”

Request:

- (a) Please identify the number of employees compensated more than \$100,000 annually in 2013, 2014, 2015, 2016 (forecast) and 2017 (forecast).
- (b) Please provide a table showing employee complement history by function for 2013 Allowed, 2013 Actual, 2014 Allowed, 2014 Actual, 2015 Allowed, 2015 Actual, 2016 Forecast and 2017 Forecast.

- 26) *Reference:* May 11, 2016 Application, pages 5-2 – 5-3
 AEY has included placeholder amounts for 2016 and 2017 for costs related the defined benefit pension plans. AEY is seeking YUB approval to be tied to the outcome of the upcoming ATCO Utilities 2016 Pension Application which will set the 2016 pension expense levels. AEY is also seeking continuation of the deferral account currently in place to flow-through any increases or decreases to the defined benefit funding amounts as a result of any updated actuarial evaluations.

Request:

- (a) What is the status of the ATCO Utilities 2016 Pension Application and when is a decision expected on this application?
- (b) Please confirm that the Alberta Utilities Commission denied ATCO permission to include pension costs related to pensions having 100% cost-of-living adjustment in the estimates of revenue requirements.
- (c) Please provide copies of the defined benefit pension actuarial evaluation as at December 31, 2012, 2013, 2014 and 2015 and identify the resulting funding amounts.
- (d) Please provide copies of all oversight reports provided to supervisory authorities with respect to AEY’s pension plans since 2010.
- (e) Please provide details of the credits / debits recorded in the existing deferral account for 2013, 2014 and 2015.
- (f) What returns or carrying costs have been accrued on the balances in the deferral account since it was approved in April 2014?
- (g) Please provide evidence demonstrating that AEY’s total compensation costs and compensation strategy are in line with utility sector practice.
- (h) Please provide a breakdown of total compensation cost and pension cost showing separately the amount attributed to capital expenditures and the amount attributed to operating expenditures.
- (i) Please provide a description of the actuarial cost method used to determine the value of the underlying DB obligation and the method used to determine amounts attributed to capital expenditures and amounts attributed to operating expenditures for AEY’s DB pension plan. Please explain any deviations from what is considered actuarial best practice along with an explanation of the implications of any such deviations.

- (j) Does AEY provide enhanced benefits under early retirement or other severance arrangements? If yes, please provide evidence demonstrating the value of the enhancements and impact on ratepayers.
- (k) Does AEY incur any pension-related costs directed to special categories of employees such as a supplementary executive retirement plan(s)? If yes, please identify the amounts contributed by employees to any such plan(s) and describe the basis of determining the amount included in rates.
- (l) Please provide a description of the governance framework AEY employs to govern its pension plans (both DB and DC plans).
- (m) Please confirm that all pension costs identified in the Application are only related to YUB rate-regulated activities.

27) *Reference: May 11, 2016 Application, pages 5-4*

AEY states: “*ATCO Electric Yukon outsources certain major administrative functions to affiliate companies, such as ATCO Electric, to take advantage of the economies associated with the scope and scale of services available from a larger utility. The costs of these services are detailed in Schedule 5.3 and are based on a fully allocated cost methodology that does not contain any element of profit or return. Labour support is purchased from ATCO Electric for various services including financial reporting, regulatory support, governance, human resources, health and safety, payroll, IT services, and customer care & billing support*”.

Request:

- a) Are there additional affiliate charges that are capitalized and do not show up on the O&M schedule 5-3? Please provide details of these charges for 2013 through 2017.
- b) Are there any outbound affiliate services? If yes, where are they identified?
- c) Please provide copies of service level agreements for all affiliate services provided to and by AEY in 2013-2015 and forecast to be provided to and by AEY over the 2016-2017 test period.
- d) Please provide evidence demonstrating that it is more cost-effective to procure the services for 2013-2017 from affiliates than from other sources.

28) *Reference: May 11, 2016 Application, page 6-1*

AEY states “*Property taxes are paid to the communities annually for ATCO Electric Yukon’s office building, generation facilities, substation properties and power lines. The increases in the forecast over the test period are due to inflation.*”

Request:

- (a) Please update the table on page 6-1 to show the allowed property taxes for 2013, 2014 and 2015.
- (b) Please provide a breakdown of actual property taxes paid in 2013, 2014 and 2015 and forecast for 2016 and 2017 to each entity to which property taxes are paid.
- (c) Is there any planned capital work that would result in increased property taxes in 2016 and 2017 beyond the proposed inflation increase?

- 29) *Reference: May 11, 2016 Application, page 7-1*
 AEY states “*The annual increases in depreciation expense from 2013-2017 are due to growth in property, plant and equipment.*”

Request:

- (a) Please confirm that costs related to Future Removal and Site Restoration costs are not included in the depreciation expense for 2013-2017 identified in this Application.
 - (b) Please provide details of the accumulated amount for net negative salvage since 2010 including any reductions as salvage costs are incurred.
 - (c) Please explain how AEY treated the difference between the depreciation expense allowed to be recovered in rates in 2013, 2014 and 2015 and the depreciation expense identified as incurred in 2013, 2014 and 2015.
 - (d) Please provide specific calculations related to assets being added to rate base that result in an increase in depreciation expense of \$380,000 in 2016 (2016 forecast vs. 2015 actual) and an additional \$491,000 in 2017 (2017 forecast vs. 2016 forecast).
- 30) *Reference: May 11, 2016 Application, page 8-2*
 AEY is proposing that the benchmark ROE to be set in a currently incomplete BCUC generic cost of capital proceeding be used to set the AEY ROE for the 2016 and 2017 test years and that the add-on risk premium be increased from the current 0.46% to 0.6%.

Request:

- (a) Please confirm AEY’s understanding that to accept changes to any element of its revenue requirement after a decision on the test period has been made by the YUB would violate the prospective nature of rate-setting in the Yukon.
- (b) Please identify the YUB-allowed ROE and equity ratio currently incorporated in rates charged by Yukon Energy Corporation.
- (c) Please confirm AEY’s understanding that the Rate Policy Directive (OIC 1995/90 as amended by OIC 1998/32) requires the YUB to include in the rates of AEY and YEC a provision to recover a fair return on their equity used to finance their rate base and that YEC’s rates will only be allowed to recover this fair return less 0.5%.
- (d) What costs have / will AEY incur for hiring Concentric Energy Advisors to assess the risk of AEY in relation to other electricity and gas distribution utilities? How much of this cost will be recovered from Yukon ratepayers versus AEY’s shareholders?
- (e) Please confirm that the current benchmark ROE of 8.75% established by the BCUC was for a utility having a 38% equity ratio with no provision for an add-on risk premium.
- (f) Please confirm that the current benchmark ROE of 8.75% established by the Alberta Utilities Commission does not allow for an add-on risk premium.
- (g) Please provide a table that reflects the actual annual ROE earned by AEY for 2010 through 2015 (% and \$).
- (h) Please indicate all cases in the last 5 years where AEY has had to defer or abandon expenditures needed to provide service due to an inability to raise the necessary capital under reasonable terms and conditions. Please provide details.
- (i) Is AEY planning to raise any capital to finance investment growth in the 2016-2017 test period?

- 31) *Reference:* May 11, 2016 Application, page 8-9
 AEY states: “To determine the working capital for the 2016-2017 test periods, ATCO Electric Yukon completed a review of the components of each of the items in necessary working capital to ensure that the nature of the revenue/expenses included in each category had not changed materially since the previous lead/lag study. Based on this review, payment dates were updated, which reflect a reduction in lag days from the lag days reported in the previous lead lag study.”

Request:

Please provide all details of the lead lag analysis conducted by AEY for this application as well as the referenced previous lead lag study. Please provide all schedules in Excel format.

- 32) *Reference:* May 11, 2016 Application, Schedule 8.5
 AEY provides a calculation of actual vs. approved rate base for 2013-2015 and forecast rate base for 2016 and 2017.

Request:

- (a) Please confirm that AEY's actual rate base for 2013, 2014 and 2015 was lower in each year than was approved by the YUB.
- (b) Since rates for 2013 through 2015 were based in part on a return on rate base that was in excess of what would have been earned on actual rate base, please provide a calculation of the excess return incorporated in rates for 2013 through 2015.

- 33) *Reference:* May 11, 2016 Application, Schedule 8.8
 AEY has identified the deferred cost associated with various studies.

Request:

- (a) In order to test the prudence of all costs incurred, please provide details on the costs incurred for any study identified resulting in costs to be recovered from ratepayers.
- (b) Please explain why there are no DSM-related costs forecast for 2017.

- 34) *Reference:* May 11, 2016 Application, Section 8, Attachment 8.1
 AEY has submitted an assessment by Concentric Energy Advisors of the business and financial risk of AEY to FortisBC Energy as well as other regulated electricity and gas distribution utilities in Canada and the business and financial risk of AEY compared to AEY's risk profile at the time of its 2008 GRA filing.

Request:

- (a) Please provide details and documentation related to the RFP process followed by AEY before hiring Concentric to undertake the business and financial risk study.
- (b) Please confirm that in its Board Order 2014-06 (dated April 23, 2014), the YUB determined that AEY did not qualify for a risk premium over the BCUC benchmark utility.
- (c) Please confirm that in its Board Order 2014-06, the YUB determined that if YEC's business risks are higher than those of AEY, then it would not make sense to approve an equity ratio for AEY higher than that approved for YEC.

- (d) Please confirm that in its Board Order 2014-06, the YUB determined that the equity thickness presented for the NWT jurisdiction or for the BCUC benchmark utility (FortisBC Energy) is not comparable to AEY.
- (e) Please confirm that Concentric believes that FortisBC Energy has lower business risk than AEY because (i) FortisBC Energy is substantially larger than AEY both in terms of retail customers served and regulated rate base; (ii) FortisBC Energy has more cost recovery protection through deferral and variance accounts; (iii) FortisBC Energy has more revenue stability through a weather normalization clause; and (iv) AEY owns and operates electricity generation.
- (f) Please confirm that Concentric's references to Maritime Electric's deemed equity ratio and allowed ROE for 2016 (40.9% and 9.35% respectively) were determined as part of a 3-year rate setting settlement agreement (March 2016 – February 2019) and that the deemed equity ratio will be reduced to 40% for 2017 and 2018.
- (g) While Concentric refers to a forecast reduction in Yukon GDP in 2015 of 6% and a forecast reduction in retail sales of 0.6% in 2015, please confirm that Yukon's GDP only decreased by 3.8% in 2015 and that retail sales increased by 4.7% over 2014.
- (h) Has AEY (or YECL) ever applied to the YUB for a variance account for changes in demand due to abnormal weather conditions or DSM/energy efficiency programs? If yes, what was the result of the applications?
- (i) Concentric states on page 26 of its report that "AEY's residential customers tend to switch between various fuels for electric space heating depending on the relative price of those fuels". Please provide the evidence that supports this statement.
- (j) Has there been any change in AEY's business risk since Board Order 2014-06 (dated April 23, 2014) that would materially impact AEY's risk profile?
- (k) Has there been any change in AEY's weather risk since Board Order 2014-06 (dated April 23, 2014) that would materially impact AEY's risk profile?
- (l) Has there been any change in AEY's power supply risk since Board Order 2014-06 (dated April 23, 2014) that would materially impact AEY's risk profile?
- (m) Please provide an analysis for each of the transmission and distribution utilities in the U.S. that Concentric is comparing against AEY. Please provide specific comparative analysis by utility similar to that provided for the Canadian utility proxy group.

35) *Reference: May 11, 2016 Application, page 9-3*

AEY states: "In addition to the above, ATCO Electric Yukon tracks distribution system performance on an ongoing basis and the performance is reviewed when preparing the capital forecast. Additionally, ATCO Electric Yukon reviews unplanned outages that may be attributed to system deficiencies and implements corrective action".

Request:

- a) Please provide all reports prepared since 2012 related to AEY's ongoing tracking of distribution system performance and outages.
- b) Please identify the specific distribution system performance improvements and the related impact on revenue requirement that have resulted from capital expenditures since 2010.

- 36) *Reference: May 11, 2016 Application, page 9-5*
AEY states: "A listing of the capital expenditures for 2016-2017 is provided in Attachment 9.1 and 9.2 which includes a project description for those projects greater than \$100,000. Full business cases for the following major capital projects (\$500,000 or greater) are 19 included in Appendix 1 - 11."

Reference: Board Order 2014-06, Reasons for Decision, page 64

"However, YECL needs to provide information in relation to project costs overruns in its Application. Therefore, the Board directs YECL in future applications to explain more fully the reasons for project overruns. For clarity, for project costs overruns that are (collectively) 100 percent over and \$100,000 greater than the original estimate, YECL is to provide business case type descriptions in the Application, to alert interveners and the Board to the cost overruns, thereby allowing for a more efficient process to examine the cost overruns. Furthermore, YECL, in their explanations, are to explain why the expenditures were not foreseen and actions it takes to ensure that such overruns will not occur in future. Moreover, for projects similar in nature to the Oracle HRxcellence HR management project with expenditures greater than \$100,000, which may arise between GRAs, YECL in future applications is directed to furnish business cases for such projects and the reasons why YECL deemed it necessary and reasonable to proceed with the project."

Reference: Board Order 2009-2, page 37

"The Board directs YECL in future to provide business cases for all major capital expenditures at the time YECL files its rate applications to give the Board and Intervenors better opportunity to examine the business cases and time to allow for written information requests. Further, the Board directs that YECL provide an annual update on its capital plans and expenditures. The Board further directs YECL in future rate applications to provide an itemized list of miscellaneous capital expenditures."

Request:

- (a) Please provide business case type information in relation to all projects added to rate base in 2013, 2014 and 2015 where actual total project costs were \$100,000 greater than originally estimated.
- (b) Please provide business case type information in relation to projects forecast to be added to rate base in 2016 and 2017 where actual total project costs are forecast to be \$100,000 greater than originally estimated.
- (c) Please confirm that AEY considers "major capital projects" to only be those projects costing \$500,000 or greater.
- (d) Please provide references to YUB Orders in which Board defines what it believes to be the spending threshold for a major project for AEY.
- (e) Does AEY believe that a utility with a \$100 million rate base (such as AEY) should have the same expenditures threshold to define a major project as a utility with a \$226 million rate base (such as YEC)?

- 37) *Reference: May 11, 2016 Application, Schedule 9.2*
 AEY provides a listing of generation plant projects many of which have actual expenditures over \$100,000.

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- descriptions of the project*
- economic analysis including preliminary engineering estimates*
- discussion of alternatives and how the chosen option was determined*
- discussion of the risks of proceeding with the chosen alternative*
- discussion of risks of not proceeding with the chosen alternative; and*
- discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Reference: Board Order 2014-06, Reasons for Decision, page 64

“However, YECL needs to provide information in relation to project costs overruns in its Application. Therefore, the Board directs YECL in future applications to explain more fully the reasons for project overruns. For clarity, for project costs overruns that are (collectively) 100 percent over and \$100,000 greater than the original estimate, YECL is to provide business case type descriptions in the Application, to alert interveners and the Board to the cost overruns, thereby allowing for a more efficient process to examine the cost overruns. Furthermore, YECL, in their explanations, are to explain why the expenditures were not foreseen and actions it takes to ensure that such overruns will not occur in future. Moreover, for projects similar in nature to the Oracle HRxcellence HR management project with expenditures greater than \$100,000, which may arise between GRAs, YECL in future applications is directed to furnish business cases for such projects and the reasons why YECL deemed it necessary and reasonable to proceed with the project.”

Request:

- a) Please provide a detailed description and detailed breakdown of the total costs incurred in all of the generation plant projects where actual expenditures are over \$100,000, when these costs were incurred and when these projects are proposed to be added to rate base. Please provide the supporting analyses in an Excel spreadsheet.
- b) If AEY has already provided business cases for any of these projects in a general rates application, please identify when they were filed with the YUB and when the YUB approved the capital expenditures.
- c) If not previously provided, please provide business cases per the expectations of business cases as outlined in Board Order 2009-8 for each of these projects and the reasons why AEY deemed it necessary and reasonable to proceed with the project. Please provide the supporting analyses in an Excel spreadsheet.
- d) What were the average annual capital expenditures on generation plant projects for the period 2010-2015?

- 38) *Reference: May 11, 2016 Application, Schedule 9-2*
 AEY provides a listing of new extensions projects many of which have actual expenditures over \$100,000.

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- descriptions of the project*
- economic analysis including preliminary engineering estimates*
- discussion of alternatives and how the chosen option was determined*
- discussion of the risks of proceeding with the chosen alternative*
- discussion of risks of not proceeding with the chosen alternative; and*
- discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Reference: Board Order 2014-06, Reasons for Decision, page 64

“However, YECL needs to provide information in relation to project costs overruns in its Application. Therefore, the Board directs YECL in future applications to explain more fully the reasons for project overruns. For clarity, for project costs overruns that are (collectively) 100 percent over and \$100,000 greater than the original estimate, YECL is to provide business case type descriptions in the Application, to alert interveners and the Board to the cost overruns, thereby allowing for a more efficient process to examine the cost overruns. Furthermore, YECL, in their explanations, are to explain why the expenditures were not foreseen and actions it takes to ensure that such overruns will not occur in future. Moreover, for projects similar in nature to the Oracle HRxcellence HR management project with expenditures greater than \$100,000, which may arise between GRAs, YECL in future applications is directed to furnish business cases for such projects and the reasons why YECL deemed it necessary and reasonable to proceed with the project.”

Request:

- a) Please provide a detailed description and detailed breakdown of the total costs incurred in all of the new extension projects where actual expenditures are over \$100,000, when these costs were incurred and when these projects are proposed to be added to rate base. Please provide the supporting analyses in an Excel spreadsheet:
- b) If AEY has already provided business cases for any of these projects in a general rates application, please identify when they were filed with the YUB and when the YUB approved the capital expenditures.
- c) If not previously provided, please provide business cases per the expectations of business cases as outlined in Board Order 2009-8 for each of these projects and the reasons why AEY deemed it necessary and reasonable to proceed with the project. Please provide the supporting analyses in an Excel spreadsheet.
- d) What were the average annual capital expenditures on new extensions projects for the period 2010-2015?

- 39) *Reference: May 11, 2016 Application, Schedule 9-2*
 AEY provides a listing of distribution improvements projects many of which have actual expenditures over \$100,000.

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Reference: Board Order 2014-06, Reasons for Decision, page 64

“However, YECL needs to provide information in relation to project costs overruns in its Application. Therefore, the Board directs YECL in future applications to explain more fully the reasons for project overruns. For clarity, for project costs overruns that are (collectively) 100 percent over and \$100,000 greater than the original estimate, YECL is to provide business case type descriptions in the Application, to alert interveners and the Board to the cost overruns, thereby allowing for a more efficient process to examine the cost overruns. Furthermore, YECL, in their explanations, are to explain why the expenditures were not foreseen and actions it takes to ensure that such overruns will not occur in future. Moreover, for projects similar in nature to the Oracle HRxcellence HR management project with expenditures greater than \$100,000, which may arise between GRAs, YECL in future applications is directed to furnish business cases for such projects and the reasons why YECL deemed it necessary and reasonable to proceed with the project.”

Request:

- a) Please provide a detailed description and detailed breakdown of the total costs incurred in all of the distribution improvement projects where actual expenditures are over \$100,000, when these costs were incurred and when these projects are proposed to be added to rate base. Please provide the supporting analyses in an Excel spreadsheet:
- b) If AEY has already provided business cases for any of these projects in a general rates application, please identify when they were filed with the YUB and when the YUB approved the capital expenditures.
- c) If not previously provided, please provide business cases per the expectations of business cases as outlined in Board Order 2009-8 for each of these projects and the reasons why AEY deemed it necessary and reasonable to proceed with the project. Please provide the supporting analyses in an Excel spreadsheet.
- d) What were the average annual capital expenditures on distribution improvement projects for the period 2010-2015?

- 40) *Reference: May 11, 2016 Application, Schedule 9-2*
 AEY provides a listing of street and sentinel lighting projects many of which have actual expenditures over \$100,000.

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Reference: Board Order 2014-06, Reasons for Decision, page 64

“However, YECL needs to provide information in relation to project costs overruns in its Application. Therefore, the Board directs YECL in future applications to explain more fully the reasons for project overruns. For clarity, for project costs overruns that are (collectively) 100 percent over and \$100,000 greater than the original estimate, YECL is to provide business case type descriptions in the Application, to alert interveners and the Board to the cost overruns, thereby allowing for a more efficient process to examine the cost overruns. Furthermore, YECL, in their explanations, are to explain why the expenditures were not foreseen and actions it takes to ensure that such overruns will not occur in future. Moreover, for projects similar in nature to the Oracle HRxcellence HR management project with expenditures greater than \$100,000, which may arise between GRAs, YECL in future applications is directed to furnish business cases for such projects and the reasons why YECL deemed it necessary and reasonable to proceed with the project.”

Request:

- a) Please provide a detailed description and detailed breakdown of the total costs incurred in all of the street and sentinel lighting projects where actual expenditures are over \$100,000, when these costs were incurred and when these projects are proposed to be added to rate base. Please provide the supporting analyses in an Excel spreadsheet:
- b) If AEY has already provided business cases for any of these projects in a general rates application, please identify when they were filed with the YUB and when the YUB approved the capital expenditures.
- c) If not previously provided, please provide business cases per the expectations of business cases as outlined in Board Order 2009-8 for each of these projects and the reasons why AEY deemed it necessary and reasonable to proceed with the project. Please provide the supporting analyses in an Excel spreadsheet.
- d) What were the average annual capital expenditures on street and sentinel lighting projects for the period 2010-2015?

- 41) *Reference:* May 11, 2016 Application, Schedule 9-2
 AEY identifies Replacement of Meters and New Installations as a single line item with actual expenditures in 2013-2015 (\$708,000) well below approved.

Request:

- a) Please provide details of where these expenditures were made and why the actual expenditures were so much lower than forecast / allowed.
 - b) What were the average annual capital expenditures on replacement of meters and new installations for the period 2010-2015?
 - c) Please provide a breakdown by year of all the capital costs for new meters since changeover from analog to digital including how many meter changes, how many in new service areas, amounts added to rate base, type of digital meters used, manufacturer of meters, where meters were purchased, price of meters purchased, specifications of meters including current standard compliance for electric magnetic fields, radiation, radio frequency, and the cost of analog meters today.
- 42) *Reference:* May 11, 2016 Application, Schedule 9-2
 AEY provides a listing of general plant projects many of which have actual expenditures over \$100,000.

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Reference: Board Order 2014-06, Reasons for Decision, page 64

“However, YECL needs to provide information in relation to project costs overruns in its Application. Therefore, the Board directs YECL in future applications to explain more fully the reasons for project overruns. For clarity, for project costs overruns that are (collectively) 100 percent over and \$100,000 greater than the original estimate, YECL is to provide business case type descriptions in the Application, to alert interveners and the Board to the cost overruns, thereby allowing for a more efficient process to examine the cost overruns. Furthermore, YECL, in their explanations, are to explain why the expenditures were not foreseen and actions it takes to ensure that such overruns will not occur in future. Moreover, for projects similar in nature to the Oracle HRxcellence HR management project with expenditures greater than \$100,000, which may arise between GRAs, YECL in future applications is directed to furnish business cases for such projects and the reasons why YECL deemed it necessary and reasonable to proceed with the project.”

Request:

- a) Please provide a detailed description and detailed breakdown of the total costs incurred in all of the general plant projects where actual expenditures are over \$100,000, when these costs were incurred and when these projects are proposed to be added to rate base. Please provide the supporting analyses in an Excel spreadsheet:
- b) If AEY has already provided business cases for any of these projects in a general rates application, please identify when they were filed with the YUB and when the YUB approved the capital expenditures.
- c) If not previously provided, please provide business cases per the expectations of business cases as outlined in Board Order 2009-8 for each of these projects and the reasons why AEY deemed it necessary and reasonable to proceed with the project. Please provide the supporting analyses in an Excel spreadsheet.
- d) What were the average annual capital expenditures on general plant projects for the period 2010-2015?

43) *Reference:* May 11, 2016 Application, Schedule 10.1

AEY is anticipating that its Utility Earnings Before Tax will increase by 36% in 2016 (over 2015) and then reduce by 5% in 2017 (versus 2016). By the time 2017 is ended, AEY is expecting its Utility Earnings Before Tax to increase by 77% over 2013 levels.

Request:

- a) Please provide a detailed explanation for why AEY's Utility Earnings Before Tax will increase at such an alarming rate between 2013 and 2017.
- b) Please provide a detailed explanation for the changes in AEY's CCA deduction between 2013 and 2017.

44) *Reference:* May 11, 2016 Application, Attachment 11.7

Business Case for Actual Expenditures over \$100,000 - 2013-2015 Completed Projects Old Crow Unit #2 Replacement

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Attachment 11.7 the following has been provided:
 - economic analysis including preliminary engineering estimates
 - discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and

- discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- b) If the items in part a) are not provided, please provide.
 - c) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.
 - d) Please provide a breakdown by year of all the costs (capital and operating) that have been incurred for the Old Crow plant for the last 10 years including a description of what work was completed and when amounts were added to rate base.
 - e) Please provide a breakdown by year for the last 10 years of the cost per kWh to generate electricity at Old Crow.

- 45) *Reference:* May 11, 2016 Application, Attachment 11.8
Business Case for Actual Expenditures over \$100,000 - 2013-2015 Completed Projects
Whistle Bend Subdivision Stage 1 & 2

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Attachment 11.8 the following has been provided:
 - economic analysis including preliminary engineering estimates
 - discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and
 - discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- b) If the items in part a) are not provided, please provide.
- c) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.

- 46) *Reference:* May 11, 2016 Application, Attachment 11.9
Business Case for Actual Expenditures over \$100,000 - 2013-2015 Completed Projects
Whistle Bend Underground Residential Service

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Attachment 11.9 the following has been provided:
 - economic analysis including preliminary engineering estimates
 - discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and
 - discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- b) If the items in part a) are not provided, please provide.
- c) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.

- 47) *Reference:* May 11, 2016 Application, Attachment 11.10
Business Case for Actual Expenditures over \$100,000 - 2013-2015 Completed Projects
City of Whitehorse Range Road Widening

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Attachment 11.10 the following has been provided:
 - economic analysis including preliminary engineering estimates
 - discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and
 - discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- b) If the items in part a) are not provided, please provide.
- c) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.

- 48) *Reference:* May 11, 2016 Application, Attachment 11.11
 Business Case for Actual Expenditures over \$100,000 - 2013-2015 Completed Projects
 4L314 Chilkoot Way Upgrade

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Attachment 11.11 the following has been provided:
 - economic analysis including preliminary engineering estimates
 - discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and
 - discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- b) If the items in part a) are not provided, please provide.
- c) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.

- 49) *Reference: May 11, 2016 Application, Attachment 11.12*
 Business Case for Actual Expenditures over \$100,000 - 2013-2015 Completed Projects
 Azure Road Extension

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Attachment 11.12 the following has been provided:
 - economic analysis including preliminary engineering estimates
 - discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and
 - discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- b) If the items in part a) are not provided, please provide.
- c) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.

- 50) *Reference: May 11, 2016 Application, Attachment 11.13*
 Business Case for Actual Expenditures over \$100,000 - 2013-2015 Completed Projects
 2nd Ave Relocation

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Attachment 11.13 the following has been provided:
 - economic analysis including preliminary engineering estimates
 - discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and
 - discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- b) If the items in part a) are not provided, please provide.
- c) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.

- 51) *Reference:* May 11, 2016 Application, Appendix 1
Business Case - Fish Lake Ditch 3 Diversion Replacement (\$3,049,000)

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Appendix 1 the following has been provided:
 - economic analysis including preliminary engineering estimates
 - discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and
 - discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- b) If the items in part a) are not provided, please provide.
- c) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.

- 52) *Reference:* May 11, 2016 Application, Appendix 2
Business Case - Fish Lake #2 Head Pond Spillway Replacement (\$593,000)

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Appendix 2 the following has been provided:
 - economic analysis including preliminary engineering estimates
 - discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and
 - discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- b) If the items in part a) are not provided, please provide.
- c) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.

- 53) *Reference:* May 11, 2016 Application, Appendix 3
Business Case - Watson Lake Bi-Fuel Project (Phase 1 - \$3.26 million, Phase 2 - \$1.7 million)

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) AEY states that it is only seeking approval of Phase 1 expenditures. Isn't AEY committed to incur Phase 2 costs if Phase 1 is undertaken?

- b) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Appendix 3 the following has been provided:
- economic analysis including preliminary engineering estimates
 - discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and
 - discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- c) If the items in part a) are not provided, please provide.
- d) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.

- 54) *Reference:* May 11, 2016 Application, Appendix 4
Business Case - Watson Lake Unit #2 Replacement (\$1,390,000)

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Appendix 4 the following has been provided:
- economic analysis including preliminary engineering estimates
 - discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and
 - discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- b) If the items in part a) are not provided, please provide.
- c) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.

- 55) *Reference: May 11, 2016 Application, Appendix 5*
 Business Case - Old Crow Unit #3 Replacement (\$1,262,000)

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Appendix 5 the following has been provided:
 - economic analysis including preliminary engineering estimates
 - discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and
 - discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- b) If the items in part a) are not provided, please provide.
- c) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.

- 56) *Reference: May 11, 2016 Application, Appendix 6*
 Business Case - Destruction Bay Unit #2 Replacement (\$758,000)

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Appendix 6 the following has been provided:
 - economic analysis including preliminary engineering estimates

- discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and
 - discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- b) If the items in part a) are not provided, please provide.
- c) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.
- d) Please provide a breakdown by year of all the costs (capital and operating) that have been incurred for the Destruction Bay plant for the last 10 years including a description of what work was completed and when amounts were added to rate base.
- e) Please provide a breakdown by year for the last 10 years of the cost per kWh to generate electricity at Destruction Bay.

57) *Reference:* May 11, 2016 Application, Appendix 7
Business Case - Whistle Bend Subdivision - Stage 3C (\$1,530,000)

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Appendix 7 the following has been provided:
- economic analysis including preliminary engineering estimates
 - discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and
 - discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- b) If the items in part a) are not provided, please provide.
- c) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.

- 58) *Reference: May 11, 2016 Application, Appendix 8*
 Business Case - McIntyre Subdivision - Replacement Project Update (\$5,129,000)

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Appendix 8 the following has been provided:
 - economic analysis including preliminary engineering estimates
 - discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and
 - discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- b) If the items in part a) are not provided, please provide.
- c) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.

- 59) *Reference: May 11, 2016 Application, Appendix 9*
 Business Case - Downtown Whitehorse Capacity Improvement (\$1,823,000)

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Appendix 9 the following has been provided:
 - economic analysis including preliminary engineering estimates

- discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and
 - discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- b) If the items in part a) are not provided, please provide.
- c) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.

- 60) *Reference:* May 11, 2016 Application, Appendix 10
Business Case - Paint Mountain Cable Replacement (\$562,000)

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*
- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Appendix 10 the following has been provided:
- economic analysis including preliminary engineering estimates
 - discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and
 - discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- b) If the items in part a) are not provided, please provide.
- c) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.

- 61) *Reference:* May 11, 2016 Application, Appendix 11
Business Case - Destruction Bay Unit 3 Replacement (\$634,000)

Reference: Board Order 2009-8, page 37

“Further, in future GRA applications, the Board directs YEC to include business cases for major capital items, including electronic models. Business cases will include:

- *descriptions of the project*
- *economic analysis including preliminary engineering estimates*

- *discussion of alternatives and how the chosen option was determined*
- *discussion of the risks of proceeding with the chosen alternative*
- *discussion of risks of not proceeding with the chosen alternative; and*
- *discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.”*

Request:

- a) Pursuant to the components of business cases identified in YUB Order 2009-8, please identify where in Appendix 11 the following has been provided:
 - economic analysis including preliminary engineering estimates
 - discussion of the risks of proceeding with the chosen alternative
 - discussion of risks of not proceeding with the chosen alternative; and
 - discussion of assumptions included in the business case including escalation factors, loading, financial measures, term of project and associated ancillary costs.
- b) If the items in part a) are not provided, please provide.
- c) Please provide details of capital and operating costs related to this project as well as the discounted cash flow analysis used by AEY to determine the feasibility of proceeding with this project.