

YUKON  
ENERGY



YUKON ENERGY  
CORPORATION  
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WHITEHORSE  
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File: 3310-22-03-C1

July 16, 2008

Ms. Wendy Shanks, Chair  
Yukon Utilities Board  
Box 31728  
Whitehorse, Yukon  
Y1A 6L3

YUKON UTILITIES BOARD		
EXHIBIT		C1-4
DAY	ENTERED BY	DATE
	YEC	July 16/08

Dear Ms. Shanks:

**Re: Yukon Electrical Company Limited 2008-2009 Phase I General Rate  
Application Interrogatories**

Enclosed please find copies of interrogatories from Yukon Energy Corporation ("YEC") to Yukon Electrical Company Limited ("YECL") with respect to YECL's 2008-2009 Phase I General Rate Application.

Given the tight time schedule, outlined in the Board's order, if YEC has any difficulties in understanding any questions asked, or other concerns about providing full responses, it would be helpful if such difficulties could be reviewed with YEC as soon as possible so that the full answer to YEC's questions are received within the timelines set out by the Board.

Yours truly

A handwritten signature in black ink, appearing to read 'D Morrison'.

David Morrison  
President & CEO

Enclosure

**YEC Interrogatories to YECL**  
**YECL 2008/09 GENERAL RATE APPLICATION**  
**July 16 2008**

**YEC - YECL 1**

**Overall Revenue Requirement**

- (a) Please provide a copy of Schedule 1.1 as updated July 4, 2008 that includes:
- i. A column showing the last approved test year forecasts.
  - ii. Columns showing the percentage year over year changes by line item for each year starting in 2004.
  - iii. A column showing, by line item, the average annual actual percent increase for the years 2003 to 2007 inclusive.
  - iv. A column showing, by line item, the percentage change for test year 2009 compared with actual 2007.
- (b) Please provide all internally generated reports or documents prepared for or by senior management or otherwise in 2007 or 2008 which discusses in any way with the possibility of not proceeding with the GRA for the 2008 test year or the 2008 and 2009 test years.
- (c) Please provide a detailed explanation as to why YECL is deferring to Alberta based factors in preparing its revenue requirement application. (e.g. Alberta ROE formula, Alberta inflation rate, etc.)
- (d) In YECL's view should YEC use these same factors in preparing its General Rate Application? If not, why not.
- (e) Please produce all internally generated documents including any reports done by or for senior management or otherwise in 2005, 2006 and 2007 which discusses in any manner how YECL could avoid bringing a GRA in 2005, 2006 or 2007, including any discussion as to how O&M expenses or capital additions could be curtailed in those years to avoid a GRA.

**SALES AND REVENUES AND GENERATION**

**YEC – YECL 2**

**Sales and Revenue Forecast**

- (a) Please provide Schedule 2.1, as updated July 4, 2008, broken out separately for each of the following rate zones:
- WAF
  - Large Diesel [Watson Lake]
  - Small Diesel [diesel served communities other than Watson Lake and Old Crow]

- Old Crow

- (b) Is the sales forecast method the same as used in YECL's last General Rate Application? If not, please enumerate any differences and provide an explanation for why the forecasting method was changed.
- (c) Please describe YECL's method for reviewing its sales and revenue forecasts. How frequently are forecasts prepared? Who reviews and approves the forecasts?
- (d) Please describe YECL's method for evaluating the accuracy of its forecasts. Does YECL have accuracy targets or tolerance ranges? How frequently are actual sales and revenues compared against forecasts?
- (e) Provide a detailed variance schedule including the forecast and actual amounts of the customers, energy sales and revenues indicated for the years 1996 to 2007, and for the first six months of 2008, for each customer class broken out separately for WAF, Watson Lake, other diesel served communities other than Old Crow.
- (f) Please discuss the impact on the utility's costs, return on rate base and net income if actual sales exceed the GRA forecasts and if actual sales are lower than the GRA forecasts. Indicate the expected impact on return on rate base and net income for 2009 if actual WAF sales are 10% more than forecast, compared with 10% less than forecast.
- (g) With respect to the customer additions forecasts for the residential customer class, does the forecast consider only "known" residential property developments or does it also consider population growth forecasts? If so please provide the source of the population growth forecasts. If not, please explain why population growth forecasts are not considered.
- (h) With respect to the use per customer (UPC) for residential customers, please explain why a three year average was used? In YECL's view does this method adequately capture the potential for increased use per customer due to increased saturation of home electronics?
- (i) With respect to the commercial customer sales forecast, please describe in detail how the Whitehorse 2007 UPC was adjusted to remove load specifically attributable to the Canada Winter Games (including the forecast without this adjustment).
- (j) For each test year (2008 and 2009), how many new commercial customers were forecast in Whitehorse and what is the average UPC assumed for these new customers in each test year? Provide for each year starting in 2003 until

2007 the number of new commercial customers in Whitehorse and the average UPC each year for these new customers. Please provide any analysis that YECL has done of normalized UPC trends since 2003 for existing Whitehorse commercial customers, i.e., trends excluding impacts from new customers.

- (k) With respect to the 2009 UPCs – are the UPCs the same as used for the 2008 test year or do they incorporate the 2008 year?
- (l) With respect to the commercial customer revenue forecast, please explain in detail why the average revenue per kW.h is lower in 2008 and 2009 than in 2006 and 2007, and why commercial class revenues decline in 2008 despite growth in MWh sales.
- (m) At page 2-2, it is stated that UPC was normalized for Whitehorse and Watson Lake. However, the Attachments show UPC normalized for various other communities. Please explain, and confirm the approach used for determining normalized UPC for these other communities.
- (n) Please identify the variables being compared in each of the regression analyses (e.g., Section 2, Attachments 2, 4, etc. to 30) and explain with examples how this analysis was used in the forecasts provided for Whitehorse residential normalized UPC for any given year (e.g., 2007) and for the test years. Please provide any assessments as to sensitivity of such regressions as between different months or seasons.
- (o) Please provide details on the peak load forecasting methodology for each rate zone (see "a" above) including for each rate zone peak forecast and load factor assumed for each customer class.
- (p) Using the initial business plans approved by senior management and/or YECL's board in each year in question - - what were YECL's forecasts in the 2006 business plan, and how did those forecasts compare to actual 2006 results. Please provide the same information for 2007 and 2008.
- (q) Please provide, for each rate zone and rate class:
- the current run-out rate being charged, the 1997 GRA diesel fuel price used to determine such run out rates, the comparative costs at the time of the 1997 GRA for heating with electricity versus alternative oil or propane fuels, and estimates of current comparative costs today for heating with electricity versus alternative oil or propane fuels; and
  - the adjusted run out rate that would apply to reflect current diesel fuel prices applicable to diesel generation in each rate zone (as applicable in the latest Rider F filing of YEC/YECL).

- (r) Please comment on the run out rate assumptions adopted for YECL's test year sales forecasts, and the sensitivity of such forecasts to updated run out rates to reflect current fuel prices.

### **YEC – YECL 3**

#### **Revenues**

- (a) Please indicate whether YECL received any revenues from sales or rental of underground ducts or rental of pole space to third parties (e.g. telephone, cable) in Whitehorse?
- (b) If so, please indicate the amount of revenues received in each year starting in 2003. Please also indicate whether these revenues were accounted for in the GRA Application and if so where. Where these revenues are earned as a result of an agreement with a third party, please provide a copy of this agreement.
- (c) Provide a detailed schedule of the various types of "other revenue" as shown in Schedule 2.2, as updated on July 4, 2008 and their origins.
- (d) Does YECL anticipate earning any other revenue or income that is not included in forecast revenues for 2008 and/or 2009?

### **YEC – YECL 4**

#### **Line Losses and Company Use**

- (a) Please provide Schedule 3.2, as updated on July 4, 2008 (but also showing secondary sales and primary sales, and secondary and primary purchases), broken out separately for each of the following rate zones:
- WAF
  - Large Diesel [Watson Lake]
  - Small Diesel [diesel served communities other than Watson Lake and Old Crow]
  - Old Crow
- (b) Please explain in detail what is included in "Losses and company use" as this is described in Schedule 3.2? Does YECL have targets for line losses and company use? If so please describe.
- (c) Please provide a schedule that separates out the line losses from company use for the test years and the years 2003 to 2007 and for each rate zone.
- (d) Please describe the uses that are included in "company use" and describe YECL's processes for minimizing these uses.
- (e) Please explain the factors affecting "company use" amounts each year and in each rate zone? Should company use amounts be expected to increase in

proportion with overall sales, or should they be expected to be relatively fixed from year to year?

- (f) Please provide a detailed variance schedule including the forecast and actual amounts for the first six months of 2008 for the same information required under "a" above [Schedule 3.2 for the various information as noted].

## **YEC – YECL 5**

### **Fish Lake Hydro Generation**

- (a) Please provide the actual Fish Lake hydro generation over each of the last 10 years used to calculate the forecast test year generation forecasts described on page 3-1. Please discuss if the 10 year average was adjusted to remove any one time, non-recurring generation outages.
- (b) Please provide a schedule showing the number of hours the Fish Lake hydro generation was unavailable due to planned maintenance or capital works and due to any unplanned outages for each of the 10 years used to develop the test year generation forecasts. Please provide an estimate of the generation energy lost as a result of those outages.
- (c) Please provide a schedule that shows the forecast generation at Fish Lake from the last General Rate Application and the actual generation for the same period.
- (d) At page 3-2, when discussing the Diesel Contingency Fund (DCF), it is stated: "For the purposes of this filing, Yukon Electrical has updated its annual forecast of hydro generation to 6.2 GW.h." Provide the long term average hydro generation by month last approved by the Board in the 1996/1997 GRA for YECL's DCF account. Explain fully the proposed basis for seeking a change today in this long term average hydro generation used for YECL's DCF account, and indicate the proposed average hydro generation by month. Confirm that the DCF has no application to YECL so long as WAF diesel is not on the margin.
- (e) Please provide a schedule showing Fish Lake energy generation for all years to date, and the long term average annual and monthly energy generation based on this long term record. Indicate any adjustments needed to this record, and these averages, to address one-time events not relevant to estimating long-term average energy capability.
- (f) Please provide, for each test year, the specific adjustments referenced at page 3-1 for "estimated downtime in the test period, for required rebuilds" Please provide more details on the estimated downtime in the test period for

required rebuilds at Fish Lake. Please provide the number of hours it is expected to be unavailable and the expected lost generation.

- (g) Please indicate what changes, if any, are expected to Fish Lake average annual energy and peak output capability by month after the rebuilds are completed.
- (h) What are the causes of potential fluctuations of costs in the operation of Fish Lake Facility?
- (i) Identify any options that YECL has examined to reflect in rates the downtime required for Fish Lake rebuilds (beyond the option adopted of increasing rates in the test years for the added purchase power needed due to this short term event). How does YECL propose to credit customers if the rates resulting from this GRA are in place beyond 2009 and Fish Lake generation returns to long term average levels once the rebuilds are complete? Has YECL examined the option of including the short term costs for added purchase power in the costs for the rebuild and amortizing these costs over the life of the project? If not, why not?
- (j) Please provide a variance schedule including the forecast and actual amounts of Fish Lake generation for the first six months of 2008.

**YEC- YECL 6**

**Generation**

- (a) Describe, for each rate zone (WAF, Large Diesel, Small Diesel and Old Crow) the firm capacity and firm energy capabilities of each generation source.
- (b) Describe the criteria YECL uses in calculating firm energy and firm capacity.

**YEC- YECL 7**

**Sales Forecasts**

- (a) Please provide an update, using 2008 and 2009 forecasts, to the response to CI-YEC/YECL-35 from the 1993/94 General Rate Application.
- (b) Please provide a copy of the forecast wholesale power purchase and Rider J forecast information by month and year that YECL provided to YEC for planning purposes each year from 2003 to 2008, and provide a schedule indicating the variances between the forecast and actual amounts

**OPERATIONS AND MAINTENANCE COSTS**

**YEC – YECL 8**

**Operations and Maintenance Expense – Labour Costs**

- (a) Please provide a version of Schedule 5.1, as updated July 4, 2008, that separates labour costs from non-labour costs.
- (b) For the actual years 2003 through 2007 and the 2008 and 2009 test years, please provide a schedule that shows total labour costs; the portion capitalized as part of capital projects (if any) and the total labour costs included in O&M.
- (c) Please provide a schedule that shows the number of full time equivalent positions (FTEs) for the actual years 2003 through 2007 and the test years 2008 and 2009.
- (d) Please provide a copy of the 2008-2009 collective agreement or wages negotiated by ATCO Electric and its employee association (as referenced at line 20 of page 5-2).
- (e) Will all YECL employees be covered by the 2009-2010 collective agreement with YECL's employee association or are there any positions that are excluded from the collective agreement? If there are excluded positions please indicate the number of excluded positions, the average wage increase assumed for those positions in each test year and the justification for the assumed wage increase.
- (f) Please provide the actual vacancy rate for each year from 2003 through 2007.
- (g) Please provide a schedule that compares the existing YECL wages, the forecast YECL wages including the 9.5% average job class wage increase proposed for the 2009 test year and the 2008-2009 wages negotiated between ATCO Electric and its employee association. Provide the equivalent information for the last GRA test year (1997) as well as for the years 2003 to 2007.
- (h) Please provide a detailed explanation as to why Yukon ratepayers should have to pay equivalent wages to what ATCO negotiated in Alberta. Has such an approach been approved by the Public Utilities Board of the NWT for YECL's sister company in the NWT?
- (i) Please provide an explanation and justification for the head office personnel allocated to YECL (Section 1 Attachment 1).
- (j) Please provide an explanation and justification for YECL-based personnel with responsibilities for sister companies having such high allocations to YECL and low allocations to sister companies as shown in Section 1

Attachment 1. Provide the equivalent information for the last GRA test year (1997) as well as for the years 2003 to 2007.

- (k) Please provide a detailed listing (names and responsibilities) of all head office personnel allocated to YECL. Please provide a detailed justification for why head office personnel have been allocated to YECL (Section 1 Attachment 1).
- (l) Please explain and justify the increase in YECL based FTEs in Section 1 Attachment 1. Provide the equivalent information for the last GRA test year (1997) as well as for the years 2003 to 2007.
- (m) In order to avoid or reduce such an extraordinary revenue requirement increase in the test years, what consideration has been given to staff reductions in the test years? Please provide any internally generated documents, including any reports prepared by, or for, senior management discussing in any way this possibility.
- (n) For the actual years 2003 through 2007 and the 2008 and 2009 test years, please describe any changes to employee benefits and provide a schedule that shows the following:
  - i. Total FTEs.
  - ii. Base wages.
  - iii. Increases in wage costs due to cost of living increases.
  - iv. Increases in wage costs due to step or merit increases.
  - v. Fringe benefit costs.
  - vi. Northern Living Allowance.
  - vii. Costs related to the additional travel benefits discussed at page 5-2
  - viii. Costs related to the increases in 2008 and 2009 for job classifications that are in demand and difficult to fill as described on page 5-2.
  - ix. Other earnings.

## **YEC – YECL 9**

### **Operations and Maintenance Expense – Non-Labour Costs**

- (a) Please provide a schedule similar to Schedule 5.1, as updated July 4, 2008, that separates non-labour costs into ongoing operational and administrative activities and new programs or projects.
- (b) Please describe in more detail YECL's budgeting process for non-labour costs. When and how often are budgets prepared? Who reviews and approves the budgets? How are budgets monitored?

- (c) Please provide the sources and justification for the use of a 5% "Alberta based inflation rate" for non-labour costs in the test years. Please provide a detailed explanation as to why Yukon ratepayers should be required to pay an Alberta-based inflation rate.
- (d) Please provide the actual inflation rate for Yukon and for Alberta for each of the past 5 years.
- (e) Have increases in non-labour cost tracked consistently with actual Alberta inflation rate for the years from 2004 to 2007. Please provide the necessary detailed information for each year.

**YEC – YECL 10**

**Pelly Crossing Fuel Deferral Account**

- (a) Please describe in detail any capital works that YECL must undertake in order to connect Pelly Crossing to the main grid and provide an update on the expected timing and in-service dates for these capital works.
- (b) Please provide a detailed explanation as to what the "uncertainties" are with respect to connecting Pelly Crossing to the main grid effective November 1, 2008, and identify all steps taken, or to be taken, by YECL to address each such uncertainty.
- (c) Please confirm that YECL's proposed Pelly Crossing fuel deferral account will in effect shift to ratepayers all risks and costs related to delays in YECL's connection to the new Carmacks-Pelly Crossing transmission line.
- (d) Please provide a detailed explanation as to why YECL's customers, rather than YECL, should be at risk through the proposed deferral account for YECL's ability to plan and execute the required capital works to connect Pelly Crossing to the main grid at the earliest possible date.
- (e) Does YECL have a deferred cost or deferral account accounting policy? If so please provide a copy of the policy.
- (f) Please indicate when YECL connected Stewart Crossing to the Mayo-Dawson grid, and explain any delays encountered in this regard after the grid had come into service.

**YEC - YECL 11**

**Affiliate Costs**

- (a) Please describe in detail the "fully allocated cost methodology" referenced on pages 5-3 and 5-4 of the Application. Provide specific calculations and ratios.

- (b) Please elaborate on the benchmarking process related to ATCO I-Tek and ATCO I-Tek Business Services described on page 5-4 of the Application. When is the referenced ATCO report to be filed with the AUC?
- (c) Please provide a detailed explanation as to why a report prepared by ATCO to be ruled upon by the AUC should be used by the YUB in setting Yukon-based rates.
- (d) Please provide Schedule 5.3 for affiliate costs as estimated in the 1996/97 GRA. Identify and explain any material changes in cost allocation methods since that time.

**YEC – YECL 12**

**Operation and Maintenance Costs Schedule 5.1, 5.2 and 5.3**

- (a) Provide a detailed schedule for the past five years of the labour, lubricants, consumables, engine maintenance and overhaul costs that are included in the production expenses. Include in the schedule any other cost categories that need to be identified in order to analyze the total production costs.

**YEC – YECL 13**

**O&M Expense**

- (a) Please provide a detailed breakdown of production expenses for YECL from 1996 to 2009 and explain in detail the relationships between generation levels and these production O&M expenses.
- (b) Please provide a detailed breakdown of transmission and distribution expenses for YECL from 1996 to 2009 and provide a detailed explanation for major changes.
- (c) Please provide a detailed breakdown of YECL's Public Information expenditures for the years 2005 to 2009 and provide a detailed explanation for major changes.
- (d) Please provide a detailed breakdown of Commercial expenses for 1996 to 2009 and provide a detailed explanation for major changes.
- (e) Please provide a detailed breakdown of Administration and General Expenditures from 1996 to 2009 and provide a detailed explanation for any significant variances.
- (f) Please compare 1996 and 1997 actual O and M expenditures and forecast 2008 and 2009 O&M expenditures and explain in detail the reasons for any variances greater than 10%.

**YEC – YECL 14**

**Parent Charges**

- (a) Provide a detailed accounting of parent charges. Please provide a detailed explanation of what the parent charges are for and why Yukon ratepayers should be required to pay for such charges.

**YEC – YECL 15**

**Administration Costs**

- (a) Provide a schedule detailing the costs included in each of the administration cost categories.

**YEC – YECL 16**

**Diesel Fuel Costs**

- (a) Please provide a copy of Schedule 4.1, as updated July 4 2008, that provides the information separated by rate zone. Please explain the rationale for using January 1, 2008 prices as the forecast for the test years.
- (b) Please provide a copy of each Rider F filing with the YUB since 2003. Explain the basis for fuel price forecasts adopted by YECL in the June 30, 2008 Rider F filing.
- (c) Please compare the diesel fuel prices used by YECL in the latest Rider F filing (June 30, 2008) with the diesel fuel prices assumed in the GRA. Update Schedule 4.1 for the test years to reflect the June 30, 2008 Rider F fuel price forecasts, and provide this information broken out by rate zone.
- (d) Please provide the actual diesel fuel prices paid by community and overall rate zone (similar to Schedule 4.2) for June 2008. Update, for the test years, Schedule 4.2 to reflect YECL's current fuel price forecasts for these years.

**DEPRECIATION**

**YEC – YECL 17**

**Depreciation**

- (a) Please provide the retainer letter and any terms of reference given to Gannett Fleming with respect to the Depreciation Study as at December 31, 2007.
- (b) Was Gannett Fleming directed to use the equal life group (ELG) method? Did YECL have any influence on Mr. Kennedy's decision to use the ELG method?
- (c) Did YECL or Gannett Fleming consider the average service life (ASL) method? If not, why not? If yes, why was it rejected?
- (d) Provide a detailed summary of any discussion with Mr. Kennedy on all matters discussed with him in relation to the ASL method including all discussion regarding the issue of YECL using a different depreciation method than YEC.
- (e) With the aid of Gannett Fleming please provide an estimate of the YECL depreciation expense for the test years assuming the ASL method were approved by the YUB instead of the ELG method? Please indicate the impact on each test year depreciation if this method was adopted.

- (f) With the aid of Gannett Fleming please provide a summary of regulated utilities in Canada who use depreciation rates based on the ELG method and utilities who use depreciation rates based on the ASL method.
- (g) Please discuss YECL's accounting approach to future removal and site restoration costs. Indicate the impact on each test year depreciation expenses if the Board directs YECL to treat future removal and site restoration costs in the same way as it directed YEC to treat these costs in Order 2005-12.
- (h) Please identify any asset lives used in the Depreciation Study that are less than the asset lives used (and approved by the YUB) for YEC for comparable assets (e.g. wood poles) in their last GRA, and provide an explanation and justification for each such shorter asset life adopted in the Depreciation Study filed in YECL's Application.

## **CAPITAL PROJECTS**

### **YEC - YECL 18**

#### **Automated Meter Reading**

- (a) Please provide the business case for conversion to AMR system, including any cost-benefit analysis undertaken.
- (b) Please provide all internally generated documents including reports done for or by senior management to justify this capital project.

### **YEC – YECL 19**

#### **New Customer Care and Billing System**

- (a) Please provide the business case for the new customer care and billing system *conversion including any cost-benefit analysis undertaken.*
- (b) Please provide all internally generated documents including reports done for or by senior management to justify this capital project.
- (c) Please provide the amortization periods for the legacy systems that are being replaced with the new customer care and billing system.

### **YEC- YECL 20**

#### **Johnson's Crossing**

- (a) Please confirm the rate proposed to be charged for Johnson's Crossing.
- (b) Please provide justification for rate and explain why it is fair and reasonable.

### **YEC- YECL 21**

#### **Additions to Rate Base**

- (a) With reference to any existing and applicable policy on capital expenditures, please provide a brief description and justification of all capital projects over \$500,000 undertaken from 1996 to 2006 that will continue to have costs in

rate base during 2008 or 2009, and indicate the amount of such costs in forecast rate base in 2008 and 2009.

- (b) For each of the capital projects in (a) please provide the business case and all internally generated documents including reports done for or by senior management to justify this capital project.
- (c) Please provide a continuity schedule for gross plant in service showing capital additions and disposals for each year (1996-2009).
- (d) Please provide a continuity schedule for accumulated amortization, opening balance and fixed asset amortization.

**YEC – YECL 22**

**Contributions in Aid of Construction**

- (a) Please provide a continuity schedule for YECL of Contributions in Aid of Construction for the years 1996 to 2009 segregating additions and amortizations.
- (b) Please provide contributions from customers since 1996 (gross balance as of December 31, 2007).
- (c) By component please confirm which component of the company's investment policy with regard to maximum utility investment was used to determine YECL's investment in each project.
- (d) If the company's investment policy was not followed please provide a detailed explanation as to how YECL derived its investment.

**YEC- YECL 23**

**Capital Plans**

- (a) Describe the system planning criteria used to develop YECL's capital plans.
- (b) How far into the future does YECL prepare capital plans? What are these capital plans based on? Please provide a schedule showing YECL's capital plans by project for the next 5 years.
- (c) Please describe how YECL's capital projects are prioritized.
- (d) Please describe the age and condition assessments which lead to YECL's conclusion that lines need to be upgraded. What are the reliability statistics for these lines and how do these statistics compare to other lines on the system and the system average.
- (e) Has a condition assessment study or other report documenting condition assessment been undertaken? If so, please provide copies of all relevant documents.

- (f) Please provide YECL's multi year plan to upgrade and extend the life of major components.

**YEC- YECL 24**

**Generation Plants**

- (a) With reference to pages 9-5 and 9-6, "Plant fuel systems required updating to current Canadian mandatory standards and codes." Please provide detailed information regarding which Canadian mandatory standards and codes are being complied with.
- i. Please provide a list of the current Canadian mandatory standards and codes applicable to these projects. Please provide specific sections of Canadian mandatory standards and codes applicable to projects.
  - ii. Please provide an explanation regarding how the system improvements undertaken meet and comply with the Canadian mandatory standards and codes.
  - iii. Are any system improvements being undertaken which are not required to comply with mandatory standards and codes? If so, please provide list of such improvements and their justification.

**YEC-YECL 25**

**Distribution Projects Undertaken Between 1996 and 2005**

- (a) For projects greater than \$100,000 and in a manner consistent with 1996/97 GRA question YUB-YEC/YECL-1-35, please complete a table that details (1) project name and total expense capitalized, (2) project description, (3) rationale/justification and (4) cost/benefit for all distribution projects between January 1, 1996 and 2007. On an annual basis, please ensure that table provides the sum of all projects not included in this analysis that reconciles to the total distribution capitalized for a given year.
- (b) For 1996 and 1997 please explain any discrepancies regarding forecast capital projects and actual results.

**YEC-YECL 26**

**Distribution New Extensions**

- (a) With reference to page 9-1 lines 7-9, please provide more information regarding the discussions undertaken by YECL with regard to developing its new extension capital forecast, i.e., provide a list the communities, developers, engineering firms and customers consulted with, when and how such consultation occurs and provide detailed summaries of discussion or input received and how this information was integrated into or influenced the extension capital forecast.

- (b) With reference page 9-1 lines 9-11, please provide policy or standard by which YECL assesses the ability of infrastructure to accommodate proposed growth. Provide examples of the types of customer service requirements that are considered.
- (c) With reference page 9-1 lines 11-13, please provide detailed information on how YECL develops its estimate for facilities required for new extensions which are inserted in the forecast.
- (d) With reference to page 9-1, lines 12-14, please provide detailed information on the consideration given to historical customer additions. How are these integrated into the forecast?

## **YEC-YECL 27**

### **Distribution Improvements**

- (a) With reference to Reference page 9-1 lines 17-19, please provide YECL's definition of "an acceptable level" of system performance.
- (b) With reference to pages 9-1 and 9-2, can the four major categories of *distribution improvement projects* be categorized by order of necessity or priority? Which distribution improvement projects currently included in the capital plan fall within each of the four major categories. Which are type A and how many are type B?
- (c) With reference to Reference page 9-2 lines 11-13, please file the analysis referred to and used in the capital forecast.
- (d) How many outages have been attributed to system deficiencies from the period 1996-2007?
- (e) Describe the review process undertaken with regard to outages. Please provide any documentation or reporting that is provided.
- (f) How many customer complaints regarding power quality concerns have been received from 1996-present? How many are received annually?
- (g) With reference page 9-2 lines 16-18, please provide options reviewed for each major distribution improvement forecast for the test period. Please provide summary of engineering input sought and received for each project. Is such input sought prior to determining optimal option or afterwards? What criteria is used to determine the optimal option for system improvements?

- (h) Please provide options reviewed for projects over \$500,000 that have been undertaken over the period from 1996-2005.
- (i) With reference to page 9-12, please provide a detailed description of past problems caused by old standard clearance of 3m to 5m clearance.
- (j) Please provide authority for the new standard clearance distance employed. What other jurisdictions use the new standard?

**YEC-YECL 28**

**Conversion of Overhead Systems**

- (a) With reference to Reference 9-12 - 4th Avenue Klondike Inn to Ogilvie St., please provide more information regarding how new overhead systems will not meet current electrical codes. Specify which electrical codes are violated and the provisions violated.
- (b) "The City is a partner is covering the costs to build underground rather than overhead." Please provide more information regarding cost sharing between the City of Whitehorse and YECL for this project.
  - i. Is this cost sharing undertaken pursuant to YECL utility investment policy? If the company's investment policy was not followed please explain how YECL derived its investment.
  - ii. By component please confirm which component of the company's investment policy with regard to maximum utility investment was used to determine YECL's investment.
  - iii. Please provide the total customer contribution, the company investment, the total cost of the project and the estimated demand.
- (c) With reference to page 9-8 Yukon Electrical First Avenue Conversion, please provide a detailed rationale for conversion. Was any cost benefit analysis undertaken to support the prudence of conversion of a portion of the overhead system to underground locations?
- (d) Was this distribution improvement undertaken as a system performance project a life extension project, a system replacement project or a forced project? Provide justification and rationale.
- (e) Was this a type A or type B distribution improvement? Provide rationale.
- (f) With reference to U/G Rebuild Justice Centre to Whitehorse Star, please provide more information regarding how new overhead systems will not meet current electrical codes. Specify which electrical codes are violated and the provisions violated.

**YEC – YECL 29****Problem Areas**

- (a) With reference to Grey Mountain Top Cable, how often do failures occur to this system? Typically, how long are such failures?
- (b) With reference to Carcross Km 129-131.5 Hwy 2 (south of Annie Lake Rd); please provide more information outlining how this line has been a problem area in the past. What problems have occurred? How often have such problems occurred? What has been the cost of such past problems? How does this cost compare to the cost of moving the line?
- (c) Has a cost benefit analysis of been undertaken? If so, please provide summary or any report produced.

**YEC-YECL 30****Pole Replacements**

- (a) Does YECL have a pole inspection policy or program? If so, please provide.
- (b) How often are pole inspections undertaken and by whom? Please provide any inspection reports or record of pole inspections undertaken over the past 10 years.
- (c) Are pole replacements capitalized or expensed? Provide rationale.
- (d) At what age do poles need to be replaced? How many poles being replaced are currently at this age or older?
- (e) Does YECL have in place a plan for pole replacements on an ongoing basis? Please provide.
- (f) Please describe pole replacement operations undertaken since the 1996/1997 GRA. Provide the dollar value of pole replacements undertaken from 1996 to 2005.

**YEC-YECL 31****Danger Tree Removal in ROW**

- (a) With reference to page 9-7, is the new standard clearance implemented pursuant to a generally accepted policy or standard? If so, please provide.
- (b) Where else has the new standard 6.1 meter clearance distance been implemented?

**YEC-YECL 32****Street and Sentinel Lights**

- (a) With reference to page 9-3, please provide description of consultation process undertaken with local communities with regard to streetlight work.
- (b) Please provide policy or standards employed with regard to determining whether streetlights require replacement.
- (c) Please provide a copy of any report, analysis or study undertaken to determine streetlight replacement requirements.
- (d) *Who performs streetlight audits? How often are they performed?*
- (e) Is there an inspection policy? If so, please provide. Who carries out inspections and how often are they undertaken?
- (f) With reference to page 9-9, please provide copy of the Rural/Urban Transportation Association of Canada guidelines.
- (g) Please provide a brief summary of how lighting levels *do not meet* the above-noted guidelines.
- (h) Was the requirement and cost to replace First Avenue Streetlights in the City of Whitehorse factored into any cost benefit analysis undertaken by YECL to determine whether switching from overhead to underground was a prudent decision?

**YEC-YECL 33****Generation Projects Undertaken from 1996 to 2005**

- (a) For projects greater than \$100,000 and in a manner consistent with 1996/97 GRA question YUB-YEC/YECL-1-35, please complete a table that details (1) project name and total expense capitalized, (2) project description, (3) rationale/justification, and (4) cost/benefit for all distribution projects between January 1, 1996 and 2007. On an annual basis, please ensure that table provides the sum of all projects not included in this analysis that reconciles to the total distribution capitalized for a given year.
- (b) For 1996 and 1997 please explain any discrepancies regard forecast projects and actual results.

**YEC-YECL 34**

**Fish Lake Generator Rebuild**

- (a) With reference to page 9-16, "Third party inspections recommended that this unit needs to be cleaned and that an electrical arcing noise be addressed."
- i. Who performed the third party inspections? When? Were these mandatory inspections or were such inspections undertaken voluntarily by YECL?
  - ii. Were such inspections undertaken pursuant to a regular inspection program or other assessment process? If so, please describe.
  - iii. Please provide complete recommendations and reports issued by third party inspectors.
  - iv. Were such third party inspections carried out on Fish Lake specifically or were they undertaken for all generation plants? If other third party inspections were undertaken please provide other recommendations or reports issued.

**YEC – YECL 35**

**Haines Junction Diesel Plant Upgrade**

- (a) With reference to page 9-16, were any studies or assessments undertaken by YECL or third parties prior to determining the need for this project? If so, please provide a copy of study or report justifying project.
- (b) If project was undertaken pursuant to third party inspection please provide any recommendations provided.
- (c) Were other options available or considered? Please provide brief description and summary regarding why such options were not considered optimal. Please provide all internally generated documents discussing options.

**YEC- YECL 36**

**Fish Lake Weir in Ditch#3 or Gate**

- (a) Please provide YECL's 2007 Dam Safety Review.
- (b) Were third parties contracted to review this project and provide options and recommendations? If so provide recommendations and report or study provided to YECL.
- (c) Were other options considered? If not, why not? If so, why was this considered the optimal option? Please provide all internally generated documents discussing options.

**YEC-YECL 37**

**Fish Lake Unit #2 New Wheel, Shaft and Bearing Pedestal**

- (a) Please provide more information regarding the third party inspections and recommendations provided.
- i. Who performed third party inspections? Were these mandatory inspections or were such inspections undertaken voluntarily by YECL?
  - ii. Were such inspections undertaken pursuant to a regular inspection program or other assessment process? If so, please describe.
  - iii. Please provide complete recommendations or report issued by third party inspectors.
  - iv. Were such third party inspections carried out on Fish Lake specifically or were they undertaken for all generation plants? If other third party inspections were undertaken please provide other recommendations or reports issued.

**YEC- YECL 38**

**Carcross New 1.5 MW Power Plant**

- (a) Please provide copies of all documents including any documents setting out YECL's franchise rights which deal in any way with the issue of why YECL believes diesel backup at Carcross is YECL's responsibility.
- (b) Please provide basis for statement at page 9-23 that this project is "per Yukon Energy's Resource Plan"? Provide quotes of any relevant portions of Yukon Energy's Resource Plan. Identify and summarize any and all YECL discussions with YEC leading to YECL's proposal of this project in this GRA.
- (c) Prior to determining the need for a diesel unit at Carcross what assessment or analysis of the justification, need for and alternatives to the proposed project was undertaken?
- (d) Please provide any analysis undertaken by third parties or YECL to justify the need for this unit at this time. Please provide all internally generated documents including reports done for or by senior management to justify this project.
- (e) Were other contingency options considered and assessed? If so, please provide any analysis or study undertaken and rationale underlying selection of a new Carcross unit as the preferred option. If not, why not?
- (f) Were other interested parties consulted with regard to the need or justification for a new unit at Carcross for contingency purposes? If so, please provide a summary of other views obtained. If not, why not?

**Return on Equity**

- (a) Please provide a copy of the engagement letter and terms of reference between YECL and Foster Associates, Inc. for the preparation of the cost of capital evidence in this proceeding.
- (b) Please provide the ROE allowed by the BCUC for benchmark low risk utilities for the past 10 years and provide appropriate references.
- (c) Please provide the actual regulated ROE by year for YECL for that same period.
- (d) Please confirm that YECL is protected from fuel price risk for diesel generation by Rider F. If not, why not.
- (e) Please explain why, in Ms. McShane's view, it is reasonable to use one average long-term Canada bond yield for the two test years as the basis for the proposed ROE instead of using different ROEs for each test year.
- (f) Please provide the data relied on by Ms. McShane to support the statements that "...the quarterly consensus forecasts for U.S. 10-year Treasury bond yields can be used to approximate the forecast for the 10-year Government of Canada bond yield, as the available consensus forecasts show that the Canadian and U.S. rates are expected to track closely, with the 10-year Canada bond slightly higher (10 basis points) than the 10-year Treasury by 2010" (pages 10 and 11 of the Foster Associates Inc evidence).
- (g) Please provide the actual long-term Canada bond yield at June 30, 2008 and the average long-term Canada bond yield for the first six months of 2008.
- (h) Please indicate the generic return on equity that would be calculated using the Alberta EUB method if:
  - i. The actual June 30, 2008 long-term Canada bond yield were used as the basis for the return on equity calculation for 2008.
  - ii. The average long-term Canada bond yield for the first six months of 2008 was used as the basis for the return on equity calculation for 2008.
- (i) Please provide a copy of schedule 1.1 for YECL under each of the following assumptions as to rate of return on common equity: 9%, 8.5%, 8% and 7.5%.

**Capital Structure**

- (a) Please provide a copy of schedule 1.1 for YECL under each of the following assumptions as to equity ratio in the capital structure: 40%, 41%, 42% and 43%.
- (b) Please provide a copy of schedule 1.1 for YECL assuming a capital structure of 52.5% common equity and a return on equity of 8.75%.
- (c) Please confirm that YECL has operated at a capital structure of approximately 40% to 43% equity for each year from 2003 through 2007.
- (d) Please discuss, and provide any relevant evidence, if YECL has had difficulty accessing capital markets with a capital structure of 40-43% equity. If so, please provide a detailed summary of those difficulties and the debt cost impacts on YECL from 2003 to 2007.
- (e) Please confirm that obtaining a capital structure of 46.86% by mid-year for the 2009 test year requires additional mid-year equity of \$3.181 million in 2008 and \$4.305 million in 2009 (if not, please provide the correct equity amounts in each year). Please confirm that the largest increase in mid-year equity for the period 2003 through 2007 was \$0.652 million in 2005 (per Schedule 8.1 provided in the package dated July 4 2008).
- (f) Please elaborate on the need and justification for these large increases in equity in the test years. Please explain in detail why such large equity increases were not required between 2004 and 2007.
- (g) Please provide a copy of the source of Table 5 (page 27) of the Foster Associates Inc. evidence.
- (h) Please explain in detail how the business risk score of "4", the notional business risk score attributed to YECL was determined (page 27 of the Foster Associates Inc. evidence).
- (i) Please provide the impact on customers resulting from the increase in YECL's equity component.

**YEC-YECL 41****Cost of Debt**

- (a) Please provide the basis for the 200 basis point spread over the 4.55% forecast long-term Canada Bond yield used to estimate the cost of debt in the test years.
- (b) Please provide the actual spread over long-term Canada bond yields for each actual debt issuance from 2000 through 2007.
- (c) Please explain why the effective cost rates (per Schedule 8.3) for the forecast 2008 and 2009 debt issuances are substantially higher than the effective cost rates for the 2004 through 2006 debt issuances.
- (d) Please provide a copy of Schedule 8.3 assuming:
  - i. The spread over the long-term Canada bond yield for debt issuances in 2008 and 2009 is the average spread for the actual debt issuances from 2002 through 2006.
  - ii. The long-term Canada bond yield for 2008 used is the actual average yield for the first six months of 2008.

**YEC – YECL 42****Accounting Policy**

- (a) Describe any changes in YECL's accounting policies since the time of YECL's last General Rate Application and indicate the impact of each change on the revenue requirement.

**YEC – YECL 43****Pre-Tax Interest Coverage**

- (a) Provide YECL's pre-tax interest coverage for the past five years and the projections for 2008 and 2009 based upon the application.

**YEC – YECL 44****Fixed Charges**

- (a) Provide YECL's fixed charge coverage ratios for the past five years and the projections for 2008 and 2009 based upon the application.

**YEC – YECL 45****Rate Case**

- (a) Provide a detailed breakdown by major component of the forecast regulatory hearing costs for 2008 and 2009 (page 8-5).
- (b) What was the difference between the forecast and actual hearing costs for the 1996/1997 GRA? Explain the variances.
- (c) As part of the 1996/1997 GRA, did YECL have a rate case reserve as a component of rate base and revenue requirement?

- (d) If yes, please provide a continuity schedule of what has been expensed and what has been incurred for each of the years 1996 through to what is forecast for 2008 and 2009. For greater clarity please update the Regulatory Cost component of 1996/1997 GRA CITY-YEC/YECL-1-19.
- (e) For each of the years 1996 through to December 31, 2007, please provide a detailed schedule that shows regulatory expenses incurred that exceed the allowed rate and the net expense charged against the deferred regulatory account.
- (f) Please confirm your accounting of regulatory disbursements is consistent with the proposal detailed in 1996/1997 GRA UCG-YEC/YECL-1-7. If not, please explain why.
- (g) Please provide copies of all correspondence with the Board with respect to regulatory costs between 1996 and December 31, 2007.
- (h) Please explain and justify the treatment of any deferred credits taken into income since 1996 from the rate case reserve by YEC, e.g. see Schedule 8.8 for 2008.

**YEC – YECL 46**

**General Plant and Equipment**

- (a) Provide details of items for which capital expenditures were made/ planned for 2006-2009 under the category of general property and equipment (e.g., list in detail the anticipated purchases of Office Computer Equipment).
- (b) Provide policies and procedures followed for approval of capital expenditures.

**YEC – YECL 47**

**Reliability**

- (a) Identify which capital projects are improving reliability and provide an explanation for how they improve reliability.
- (b) Describe (for each project in "a" that is improving reliability) the reliability criteria used and how it would be violated if the project were not undertaken.

**YEC – YECL 48**

**Deferred Costs**

- (a) Please provide a continuity schedule for each category of deferred cost for YECL for the years 1996 to 2009 showing additions and amortizations.

**YEC- YECL 49**

**RFID**

- (a) Please provide a continuity schedule for the account for 1996-2009 with an explanation of all claims made against the account including why they qualify as a charge against the account.

- (b) Provide a schedule showing the historical losses and damages incurred since 1996 that would support any charges for replenishing RFID reserves in 2008 and 2009.

**YEC – YECL 50**

**YECL Income Tax Computation**

- (a) Please provide a detailed Income Tax computation for 1997 to 2009 including a reconciliation of earnings to taxable income in the format of T2S (1).
- (b) Please provide a continuity schedule of capital cost allowance in similar format to T2S (8).

**YEC- YECL 51**

**Deferred Study Costs**

- (a) In a manner consistent with information provided in 1996/1997 GRA CITY-YEC/YECL1-19 please provide a listing of the various deferred study cost Total Expenditures, Amortization Rate and Method (including commencement date), Accumulated Amortization and Unamortized balance for the actual years 2006 and 2007 as well as the test years 2008 and 2009. December 31, 2006 and December 31, 2007.
- (b) For all deferred study cost projects please complete a table that details (1) project name and total expense capitalized, (2) project description, (3) rationale/ justification and (4) cost benefit.
- (c) Please provide a summary to any changes or expected changes to terms and conditions of licences for any facilities re-licenced. Please provide an assessment of the financial implications of any of these changes on ratepayers.

**YEC- YECL 52**

**Inventory**

- (a) For each year starting in 1996 and including forecast 2008 and 2009, please provide a breakdown of YECL's fuel, distribution, transmission and generation inventory as of December 31. Please ensure the analysis breaks down distribution, transmission and generation inventory in their respective major categories.
- (b) Please provide variance analysis for increases or decreases including annual turnover analysis for distribution inventory.

**YEC – YECL 53**

**Retirements, Disposals and Adjustments**

- (a) For each year starting in 1996 and including 2008 and 2009 forecast please provide a breakdown of YECL's retirements, disposals and adjustments.

**YEC – YECL 54**

**AFUDC**

- (a) For each year starting in 1996 and including forecast 2008/2009, please provide a breakdown of the projects, and associated Allowance for Funds Used during Construction, contributing to the income and addition to YEC's rate base.

**YEC – YECL 55**

**Distribution and Transmission Construction (Technical) Standards**

- (a) Has YECL developed distribution and transmission construction (technical) standards? If yes, please describe how these standards are documented and utilized on an ongoing basis.
- (b) Please provide the amount spent each year since 2003 on external as well as internal resources on the development and maintenance of Distribution and Transmission Construction Standards. Please confirm whether these expenses have been capitalized or expensed.