

**YUKON ENERGY CORPORATION
2008-09 GENERAL RATE APPLICATION**

**BOARD INFORMATION REQUEST (YUB) NO. 1 TO
YUKON ENERGY CORPORATION (YEC)**

January 30, 2009

YUKON UTILITIES BOARD		
EXHIBIT A-8		
DAY	ENTERED BY	DATE
	YUB	Jan 30/09

YUB-YEC-1

Reference: Application, page 2-1

Issue/Sub-Issue: Retail Customers

Quote: YEC directly serves about 1900 customers at the distribution (retail) level (about 11% of all electrical retail customers in Yukon), most of whom live in and around Dawson City, Mayo and Faro.

Request:

Should the remaining 89% of retail customers or their representative be consulted on rate design issues?

YUB-YEC-2

Reference: Application, page 2-5

Issue/Sub-Issue: Sales to Minto Mine

Quote: Forecast industrial sales as provided in July 2008 by Minto Explorations Ltd. for the last three months of 2008 are 6,845 MW.h and forecast industrial sales for 2009 are 29,023 MW.h.

Request:

- (a) What date did sales to Minto begin? What are the 2008 actual energy sales to Minto?
- (b) Please reconcile the 2009 forecast industrial sales to Minto versus the assumed load of 32.5 GW.h in the PPA application. What loads in the original assumptions did not materialize?

YUB-YEC-3

Reference: Section 2.2.2.2 Update on Other Mines

Issue/Sub-Issue: Carmacks Copper Mine

Quote: The projected in-service date at this time is 2011, with an expected annual requirement averaging approximately 4 GW.h per month (48 GW.h per year) and a mine life of at least six years.

Request:

- (a) If the projected in-service date is 2011, when would construction need to begin?
- (b) Would 2010 inventory and other working capital items be affected by this project?
- (c) If this mine goes ahead, does this accelerate the need for the second phase of the CSTP?
- (d) Are costs with respect to the Carmacks Copper PPA included in the forecast of regulatory costs during the test years?

YUB-YEC-4

Reference: Tab 3 Revenue Requirement

Issue/Sub-Issue: Consultants

Request:

- (a) Please provide a table showing the amount YEC has spent and forecast to spend on consultants for the years 2005 to 2009 inclusive. Within the table provide a breakdown for each year based on the categories of Capital, O&M, Admin and General, and Regulatory, listing the individual or organization that provided the service. Provide reference to specific schedules containing these costs.
- (b) For those individuals or organizations listed in part A, for those instances where the costs exceed \$50,000 in a given year, provide the terms of reference of the consulting engagement, the related project, and what results were achieved.

YUB-YEC-5

Reference: Application, Page 3-2

Issue/Sub-Issue: Stage 1 CSTP

Quote: Completion of Stage One CSTP, which contributes to these increased revenue requirements, is the key factor leading to an overall 2009 rate reduction.

Request:

- (a) On what date did Minto become a customer of YEC?
- (b) When did the actual connection of the Minto mine to the grid occur?
- (c) When did Pelly Crossing connect to the grid?

YUB-YEC-6

Reference: **Insurance and Reserve for Injury and Damages (IRID)**

Request:

- (a) Please provide a continuity table of IRID showing the appropriations going in and the charges against for the years 2005 to 2009 inclusive.
- (b) Please provide a detailed breakdown of the actual charges against IRID for the years 2005-2008 inclusive and the forecast charges for 2009.

YUB-YEC-7

Reference: **Application, Page 3-16**

Issue/Sub-Issue: **Regulatory Liabilities**

Request:

Does the balance in Regulated Liabilities accrue interest? If not, why not?

YUB-YEC-8

Reference: **Application, Page 3-17**

Issue/Sub-Issue: **FRSR and Depreciation**

Request:

- (a) Please provide a continuity schedule of the balance in FRSR from 2005 to 2009 inclusive.
- (b) Since Order 2005-12, has YEC made any changes to its depreciation assumptions or undertaken any further studies on depreciation?

YUB-YEC-9

Reference: **Application, Page 3-17**

Issue/Sub-Issue: **Contributions**

Request:

Please provide continuity schedules of contributions and amortization of contributions for the years 2005 to 2009 inclusive. Within the schedule provide a breakdown based on the following categories:

- YTG Contributions
- YDC Contributions
- Minto Exploration Contributions
- Other Contributions

Please provide a table on the CSTP project showing capital costs, contributions by the parties listed above and any amortization of the capital costs and contributions for the period 2006 to 2009 inclusive.

YUB-YEC-10

Reference: Application, Page 3-17

Issue/Sub-Issue: Planning and Study Costs

Quote: The largest component of this increase since 2005 (\$0.547 million) relates to planning and study costs, which is primarily studies of the existing system and options for expanding the quantity of renewable generation, as well as studies related to the safety and reliability of the system, the Minto Mine PPA negotiations, and other small projects, offset by the termination of amortization since 2005 on old study amounts as they become fully amortized.

Request:

- (a) What is the result of the studies on renewable generation?
- (b) Why are the Minto PPA negotiations accounted for in this manner?
- (c) Why are safety and reliability studies amortized and not directly expensed?

YUB-YEC-11

Reference: Application, Page 3-19

Issue/Sub-Issue: Cost of Debt, Unsecured Advances from YDC

Request:

Please provide the terms of the YDC loans and notes as listed in Schedule 13 of Tab 7.

YUB-YEC-12

Reference: Application, Page 3-19

Issue/Sub-Issue: Cost of Debt, Minto Mine Obligation re: Diesels

Request:

- (a) In Order 2007-5, what comments did the Board make regarding the purchase of the Minto diesels?
- (b) Has YEC provided a business case on the purchase of the Minto diesels? If not, please provide the business case showing where this option fits according to YEC's 20 Year Resource Plan and what options in the Resource Plan are recommended to be deferred because of this option.
- (c) Has the Board approved the incorporation of the Minto diesels into rate base?
- (d) Could YEC obtain an unsecured advance from YDC to finance the Minto diesels?

YUB-YEC-13

Reference: Application, Page 3-20

Issue/Sub-Issue: Cost of Debt, YDC Flexible Promissory Note

Quote: The face interest rate on the note is 6.55% and, due to the present substantial benefits to ratepayers arising from the Mayo-Dawson line given current forecast diesel prices, the full 6.55% face-interest rate is forecast to be paid in 2008 and 2009.

Request:

- (a) Are the “present substantial benefits to ratepayers” based on the forecast costs of the MD line or based on the actual costs of that line?
- (b) Please provide the calculations of the “substantial benefits to ratepayers” (include the electronic version in your response), based on the fuel prices in effect at the end of 2008.
- (c) Based on the reduced current fuel prices (December 31, 2008) what does YEC forecast the interest rate for 2009 to be on this note?

YUB-YEC-14

Reference: Application, Page 3-20

Issue/Sub-Issue: Cost of Debt, TD Canada Trust Note

Request:

- (a) Why did YEC acquire this instrument and not obtain unsecured financing from YDC?
- (b) Does YEC plan on refinancing this note with YDC at a lower interest rate in 2011?

YUB-YEC-15

Reference: Application, Page 3-21

Issue/Sub-Issue: ROE

Quote: In both the YEC 1998 proceeding and 2005 proceeding, efforts were made to permit a cost-effective and simple means to set the fair level of ROE. In particular, in the 2005 proceeding, the fair ROE for test year 2005 was proposed by YEC to be set by reference to the British Columbia Utilities Commission (BCUC) formulaic approach, based on YEC receiving a 52-basis-points premium due to its risk compared to low risk utility.

Request:

- (a) In Order 2005-12 did the Board determine that the use of the BCUC automated adjustment mechanism for ROE did not impose a precedent in Yukon?
- (b) Is it YEC’s view that that determination should serve/impose a precedent for Yukon?
- (c) Has anything changed that would lower the risk premium for YEC closer to that of FortisBC?
- (d) Has the BCUC determined the base ROE for 2009? If so, what is it?

YUB-YEC-16

Reference: Application, Page 3-21

Issue/Sub-Issue: ROE

Quote: Absent implementation of the approvals and consequential rate reductions proposed in this application, YEC's forecast return on equity for the test years is 9.55% for 2008 and 11.03% for 2009.

Request:

How does this statement reconcile with the requested ROEs?

YUB-YEC-17

Reference: Application, Page 4-2

Issue/Sub-Issue: Pelly Crossing Connection

Quote: ... the current level of existing firm rates (including Rider J and the Fixed component of industrial Rider F, as reviewed in Section 4.3) provides \$0.359 million excess revenue in 2008 and \$1,334 million excess revenue in 2009 compared to revenue requirements set out in Tab 3.

Request:

Based on the actual connection date for Pelly Crossing, please update the excess revenue forecast for 2008.

YUB-YEC-18

Reference: Application, Page 4-5

Issue/Sub-Issue: Secondary Sales Interruptions

Quote: Only one term for the secondary energy service (Rate Schedule 32) is proposed to be changed in this Application. In the 2005 proceeding, YEC received approval for a procedure related to determining the timing of scheduled secondary sales interruptions based on forecasting the quantity (hours) of diesel generation expected to be required over the coming seven day period in winter (i.e. interruptions were to be initiated if YEC forecast a requirement to dispatch diesel generation for more than 10% of the hours over the coming seven-day period).

Request:

- (a) At the time of the 2005 proceeding, what source(s) was YEC using for the seven-day forecast?
- (b) Are there alternative sources YEC can use other than Environment Canada?

YUB-YEC-19

Reference: Application, Page 4-6
Issue/Sub-Issue: Low Grade Ore processing Secondary Energy

Request:

- (a) In Order 2007-5, did the Board only approve Rate Schedule 35 on an interim basis?
- (b) Did the Board express concerns about a lack of cost of service (COS) associated with this new rate?
- (c) Did the Board direct YEC, with YECL, to provide electronic COS models for the next GRA?

YUB-YEC-20

Reference: Appendix A to YUB Board Order 2007-5
Issue/Sub-Issue: Page 5 of 27

Quote: Therefore, the Board reiterates its earlier direction that YEC and YECL must provide a complete COS study and rate design with their next GRA.

Request:

How does YEC interpret the above quoted direction?

YUB-YEC-21

Reference: Runoff (or "Second Block") Rates

Request:

- (a) Please describe the consultation process YEC utilized when developing its principles on runoff rates.
- (b) What is YEC's understanding of YECL's views on this new rate structure?
- (c) Given that YECL directly serves a significantly larger customer base than YEC, should YECL's views be considered?
- (d) How were the criteria for runoff rates developed?

YUB-YEC-22

Reference: Application, Page 4-18
Issue/Sub-Issue: ERA

Request:

Would the current lower prices for diesel fuel alter YEC's recommendation for this item?

YUB-YEC-23

Reference: Application, Page 6-1
Issue/Sub-Issue: Order 2005-1

Quote: In response, YEC/YECL jointly filed a required report with the Board in August 2005 that provided information on the revenue to cost ratios by customer class for both companies using the most recent cost of service allocation study, including comments on the implementation of a rate shift program over 10 years.

Request:

- (a) Please provide a copy of that report.
- (b) When did the most recent COS study occur that was referenced in the above quote?
- (c) Was the previous COS study undertaken before the closure of the Faro mine?
- (d) Why has no action been taken with respect to Order 1996-7 with respect to a rate-rebalancing program?

YUB-YEC-24

Reference: Application, Page 6-2
Issue/Sub-Issue: Chant Construction

Request:

Based on the claims and counter claims, was YEC required to make further payments? If so where were the payments recorded? Where were legal fees associated with the process recorded?

YUB-YEC-25

Reference: Application, Page 6-4

Issue/Sub-Issue: Phase II Filing

Quote: OIC 2007/94 in effect defers, until after December 31, 2012, any cost of service based rate rebalancing adjustments or rate shifts affecting major industrial customers. It is noted as well that non-government residential customers are currently experiencing major bill increases due to the phasing out of the Yukon Government's Rate Stabilization Fund subsidies over the period July 2007 through July 2009, and that these changes seriously constrain the extent in the near term to which rate shift program changes could proceed to increase residential revenue to cost ratios.

Request:

- (a) Without a COS study, how does YEC know, given the significant changes in Yukon since the last COS study, the potential direction of any rate shift changes?
- (b) In YEC's opinion, does a Phase II proceeding include more than rate design?
- (c) Without compliance of a COS study, what comfort does YEC have that Rate 35 appropriately covers its costs?
- (d) Without the direction of the COS study being completed, should the Board allow the continuance of Rate Schedule 35?

YUB-YEC-26

Reference: Application, Page 6-6

Issue/Sub-Issue: Maximum Utility Investment

Request:

Does YEC believe that Electric Service Regulations or Terms and Conditions of Service are a Phase II matter?

YUB-YEC-27

Reference: Report to Commissioner in Executive Council: Yukon Energy Corporation 20-Year Resource Plan

Issue/Sub-Issue: Section 6: Assessment of Near-Term Projects

Request:

- (a) Subsequent to the 20-Year Resource Plan, has anything caused the status of the Marsh Lake storage project to change?
- (b) What is the current status and timing of the Aishihik Third Turbine project?
- (c) What steps has YEC taken with respect to the development of an Independent Power Producers policy?

YUB-YEC-28

Reference: YEC Application, page 1-6

Issue/Sub-Issue: Reliability

Quote: Winter peak-generation interruption related to a single major system-risk event (Aishihik transmission interruption) was underlined by the January 29, 2006, Whitehorse-Aishihik-Faro (WAF) grid outage.

Preamble: the YUB wishes to gain reliability information related to WAF.

Request:

- (a) Please provide a table showing reliability performance measures on a calendar-year basis with respect to YEC's WAF and MD grids. The table should include such indices as:
 - a. The System Average Interruption Duration Index (SAIDI)
 - b. The System Average Interruption Frequency Index (SAIFI)
 - c. The Customer Average Interruption Duration Index (CAIDI)Annual averages for the above must be derived from raw data, not by averaging monthly averages
- (b) Please identify any formalized evaluation process that YEC has in place in order to identify problem areas on the WAF or MD grids.
- (c) Please identify protection or reliability studies that have been undertaken over the period 2005 to 2007. If studies were undertaken, please provide details and results, and any work that has been undertaken or may need to be done in order to mitigate shortcomings that may have been identified.

YUB-YEC-29

Reference: YEC Application, Page 1-7

Issue/Sub-Issue: WAF Hydro

Quote: In 2005, surplus hydro generation on WAF prior to secondary (interruptible) sales approximated 90 GWh/yr at normal flows; absent new industrial loads, some surplus hydro was forecast to remain at normal flows on both the WAF and Mayo-Dawson ("MD") grids until at least around 2020.

Preamble: The Board needs to get an understanding of surplus hydro generation.

Request:

- (a) Please provide load duration curves for the Whitehorse hydro plant for the period 2005 to 2007.
- (b) Please provide load duration curves for the Aishihik hydro plant for the period 2005 to 2007.
- (c) Please provide total hydro load duration curves on the WAF grid for the period 2005 to 2007.

(d) Please provide total diesel load duration curves on the WAF grid for the period 2005 to 2007

YUB-YEC-30

Reference: YEC GRA Application, Page 1-8

Issue/Sub-Issue: Higher Oil Prices

Quote: Forecast oil prices for 2009 are materially above levels approved for the 2005 Yukon Energy revenue requirement. Higher oil prices increase test year overall Yukon power system costs to the extent that diesel generation is required in 2009, and highlight the potential importance of timely new renewable resource generation development to minimize any renewed requirements for baseload diesel generation on the WAF and MD grids.

Preamble: The Board wishes to understand the implications of the above statement.

Request:

Considering that fuel prices have dropped significantly, does YEC wish to update its fuel-price forecast for the test period?

YUB-YEC-31

Reference: YEC GRA Application, Page 2-2

Issue/Sub-Issue: YEC System Sales and Generation Overview

Quote: Yukon Energy hydro generation capability materially exceeded firm sales on both the WAF and Mayo systems after the Faro mine closure in 1998 on WAF and the 1989 closure of the United Keno Hill Mine (UKHM) on the MD system. However, given continued load growth on the WAF system, including new industrial load once grid service to Minto commences in October 2008, WAF surplus generation will have declined markedly by 2009 ...

Request:

- (a) Please provide annual hydro-capacity utilization percentages for the period 1998 to 2008.
- (b) With respect to water availability, have drought conditions occurred over the period 1998 to 2008?
- (c) Considering that "... the forecast for the test years is based on continued ability to supply nearly the entire test generation forecast on both the WAF and MD grids from hydraulic generation (other than for "peaking" requirements):
 - i. Describe in detail YEC's hydro plant maintenance programs.
 - ii. During the forecast period, is any one hydro unit on the WAF or MD grids expected to be down for an extended or planned maintenance outage period?

- iii. Provide a detailed description of YEC's contingency plan should an extended and unplanned outage occur affecting one of its hydro units.
- iv. Please provide an explanation as to what is meant by the phrase "long-term average capability" of the installed hydraulic generation.

YUB-YEC-32

Reference: YEC Application
Issue/Sub-Issue: Sales Forecast

Request:

- (a) Please provide tables 2.2 to 2.4 in an Excel spreadsheet complete with formulae intact.
- (b) With respect to YEC's firm retail sales forecast, please provide details, i.e. numbers of customers and usage per customer that forms the basis of YEC's proposed growth in general service sales.
- (c) Please provide the detail upon which YEC based its forecast respecting the modest growth in the number of residential customers and the consistent use per customer over the period.
- (d) Please provide metered load for the years 2005 to 2008.
- (e) Please provide corresponding generation for the same period.
- (f) Please provide losses on a system-by-system basis, i.e. WAF and MD.
- (g) Please provide capital and O&M initiatives undertaken by YEC to mitigate losses on the system. If those are not available or YEC has no DSM initiatives, please provide a detailed explanation.
- (h) Please provide actual sales for YEC's residential and general service customers for the period 1998 to 2008.

YUB-YEC-33

Reference: YEC Application
Issue/Sub-Issue: Power Generation

Request:

- (a) Please provide annual numbers by unit that form the basis of YEC's long-term average hydro generation capability (WAF grid), as estimated in the 1996-97 GRA and updated to include the period 1998 to 2008.
- (b) Please describe what YEC terms as "extreme drought conditions". What are the probabilities of such an event occurring?
- (c) Considering that a) sustained base-loaded diesel generation units have average fuel efficiencies greater than diesel generation units that are used as peak shavers, and b) the current level of fuel prices, would YEC consider base-loading diesel generation as was done in the mid-1990s? Please explain.

YUB-YEC-34

Reference: YEC Application
Issue/Sub-Issue: Peak Demand Forecast

Request:

- (a) Please detail and explain the long-term planning assumptions YEC used to develop its peak-demand forecast.
- (b) Please define what YEC perceives as being long-term.
- (c) Please provide winter load duration curves for the WAF hydro generating plant for the period 1998 to 2008.
- (d) With respect to adding generation capacity on the WAF system, please provide details underpinning YEC's determination that the N-1 criteria remains the key requirement when compared to the outcomes of the LOLE criteria.
- (e) Please provide the business case that led YEC to determine that 6.4 MW of diesel capacity can be added to the system in the best economical manner through purchase of diesel units at the Minto mine site.
- (f) Subsequent to the re-commissioning of the FD1 unit at Faro and purchase of the Minto diesel units, YEC determined that the most economical option of adding generation capacity to the WAF grid is through an orderly refurbishment of the Whitehorse Mirrlees units. Please provide the business case.
- (g) Respecting capacity additions on the WAF system, when would the LOLE criteria supplant the N-1 criteria?
- (h) With respect to Yukon River icing, please provide the study and accompanying results that led YEC to determine that the 24 MW winter peak output for the Whitehorse hydro plant remains valid for planning the system.

YUB-YEC-35

Reference: Application, Tab 7 Schedule 8

Request:

Please detail what is included in "Trust Liability" and "Deferred revenue".

YUB-YEC-36

Reference: YEC Application
Issue/Sub-Issue: Capital Projects, Section 5.2.1

Request:

- (a) Are Yukon ratepayers responsible for the \$3.744 million cost overrun related to the Stage One CS/MS development? If so, please explain how this fulfills the condition that ratepayers would not be adversely affected by this project.
- (b) Please provide an updated business plan related to the CSTP.
- (c) What are the incremental costs with respect to purchasing the Minto diesel units if YEC chooses to relocate the units to another location on the system? Please provide detailed cost-benefit analyses with but not limited to the following three options: existing substation, a new substation or sale.
- (d) Please provide a detailed comparison between forecast and actual costs related to the Faro Mirrlees (FD1) re-commissioning project and variance explanations.
- (e) Provide a cost-benefit analysis respecting the timing of refurbishment of Whitehorse Unit #1 (Mirrlees unit) that includes the option of “mothballing”.
- (f) Please describe YEC’s policy in regard to the expensing or capitalizing “... early planning and feasibility work (as well as permitting work ...).
- (g) Is it YEC’s view that the use of its diesel units is limited to one that of peak shaving unless an emergency exists on the grid? In the answer, please provide a detailed explanation and business case as to YEC’s strategy in the near- and long-term.
- (h) Considering the current cost of fuel, is the addition of the third turbine at Aishihik still an economically viable option? Please provide an updated business case.

YUB-YEC-37

Reference: YEC GRA
Issue/Sub-Issue: Capital Additions, Section 5.2.2

Request:

- (a) Please provide Table 5.2 in an Excel spreadsheet complete with formulae that underpin the calculations.
- (b) Please provide an explanation as to why the Mirrlees Electrical Upgrades expenses are not included in the associated Mirrlees project that is greater than \$1 million (Section 5.2.1.3).
- (c) Please provide a business case that justifies the \$1-million Financial Systems Software Replacement expenditure.
- (d) With respect to L170 Line Assessment Phase 2 Carmacks – Faro, please explain what is included in the line assessment and how often a transmission line assessment is performed. Please present the findings of the 2006-07 line assessment and what type of maintenance that is required on the line.
- (e) Please describe YEC’s pole-replacement and brushing programs in detail.

YUB-YEC-38

Reference: YEC GRA
Issue/Sub-Issue: Deferred Costs, Section 5.3

Request:

- (a) Considering current fuel prices, please provide a cost-benefit analysis for the near-term Mayo B hydro generation expansion.
- (b) Please provide details as to what customers can expect in regard to YEC's proposed "Other Generation Feasibility" significant \$7.6 million expenditure over the test years?
 - i. Please define what is meant by a "pre-feasibility study".
 - ii. Does YEC perform the studies or are these third-party studies? Please explain.
 - iii. Please provide a cost-benefit analysis for the \$7.6 million expenditure.

YUB-YEC-39

Reference: Report to Yukon Minister of Justice, YEC Application for an Energy Project Certificate and Energy Operation Certificate Regarding the CSTP (May 31, 2007)

Issue/Sub-Issue: Costs of Stage One of CSTP

Quote: On Page 13 of 17 of the report: The Board recommends that the Minister direct YEC to consult with the Minister before making any decision to proceed if the tendering process results in a capital cost that is materially above the high end of YEC's estimate of \$25.9 million or if schedule delays result in the in-service date slipping beyond the end of 2008.

Preamble: During the process (Application for an Energy Project certificate ...) financial details were not available to the Board.

Request:

- (a) Please provide a copy of the winning tender for the CSTP project.
- (b) Given the capital costs exceeded \$25.9 million, please provide a copy of the letter to the Minister where YEC sought consultation to proceed with the project.
- (c) What was YEC's stop point for the project? That is, at what capital cost was YEC not going to proceed? Please show all calculations on how that point was determined.

YUB-YEC-40

Reference: Application, Page 5-7

Issue/Sub-Issue: Minto spur

Request:

- (a) Does YEC consider a 161% increase in the cost for the Minto Spur acceptable?
- (b) What processes or reviews has YEC undertaken to prevent such low estimates from happening in the future?
- (c) Will the cost for the Minto Spur be subject to an audit from the federal government?