

**YUKON UTILITIES BOARD**  
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February 23, 2007

David Morrison  
President, Yukon Energy Corporation  
Box 5920  
Whitehorse, Yukon Y1A 6S7

Dear Mr. Morrison:

**Re: Yukon Utilities Board Information Requests to YEC re PPA**

Attached are the Information Requests from Yukon Utilities Board regarding the Yukon Energy Corporation-Minto PPA.

Sincerely,



Deana Lemke  
Executive Secretary

c. Intervenors

# **Yukon Utilities Board Information Requests to YEC re Power Purchase Agreement (PPA) between YEC and Minto**

## **1 Section 2.0 Overview of the PPA and Requested Approvals**

*Section 3.1 (a) of the PPA provides that prior to proceeding with and completing the Transmission Project under the Agreement, on or before April 30, 2007 the YUB will have approved the PPA, including, without limitation, the following provisions set out under 3.1(a)(i) to (vii):*

YEC does not expect to provide grid service to Minto before the start of Q3, 2008. Why is approval of the rates as described in the remainder of 2.0 and as further described in Section 4.1 of the Application, Attachment A (Cost of Service) of the Application, and Schedule C of the PPA required so far in advance of the service?

## **2 Section 1.0 Introduction**

*When it has been completed, the Transmission Project will enable Yukon Energy to deliver surplus hydroelectricity from the Whitehorse-Aishihik-Faro (WAF) grid to the mine, thereby displacing on-site diesel generation which Minto will be relying upon when the Mine begin commercial operations in 2007.*

Provide a 20-year forecast showing surplus hydro generation being utilized. State all assumptions.

If the assumptions include the construction of a third turbine at Aishihik, does YEC believe the hydro is surplus if new hydro facilities have to be created?

## **3 Application, page 2**

*... with the first stage to include the 138 kV CS development from Carmacks to Pelly Crossing ("Stage 1") and the second stage to proceed thereafter with the balance of the CS transmission when conditions will permit its development without adverse impact on ratepayers;*

Describe what YEC means by adverse impact? Can YEC anticipate a scenario where rates to ratepayers will decrease from current levels?

## **4 Application , page 2.**

*Timely completion of the Transmission Project prior to the end of 2008 will enable YEC to supply electricity to Minto, displacing use of the Mine Diesel and securing economic benefits for both Minto and Yukon electricity ratepayers.*

Describe the economic benefits to Yukon ratepayers. Describe the economic benefits to Minto.

**5 Application, page 3 Low Grade Ore Processing  
Secondary Energy Rate**

Describe how the use of secondary energy to process low grade ore will be measured. Will the use of this secondary energy displace other secondary energy users on the WAF grid? Will a similar rate be offered to other potential industrial customers? Commercial customers?

**6 Application, page 3 Mine Net Revenue Account**

Would Yukon ratepayers receive direct benefits if the account was not set up and the funds were used to lower rates for all rate classes? Could the funds become part of the revenue requirement calculations and if, in future, YEC required funds for future projects, YEC could present a business case and seek regulatory approval?

**7 Application, page 3 Capital Cost Contribution**

How was the total capital cost contribution determined? How does this determination relate to YEC's Ts and Cs? Would a similar process be available to other industrial customers? Commercial customers? What principles were applied in determining the capital cost contribution?

**8 Application, page 3 YEC Purchase of Diesel Units**

The Board would like YEC to reference which part(s) of YEC's 20-Year Resource Plan contained the acquisition of these additional diesel units. Were these units referenced as opportunity projects? Were the units referenced as capacity related projects? Provide a 20-Year forecast for each of these units for each year showing expected operating hours and MW.hs of energy produced. Where specifically does YEC plan to deploy these diesel units?

**9 Application, page 4 Schedule 1**

Will the Capital Cost Contribution be increased if the costs for Stage 1 of the CS project fall between the mid point costs and the high costs? If the costs for stage 1 of the project exceed the high costs will the contribution by Minto be recalculated? What will the effect be on rates?

**10 Application Section 4.0 PPA Rates and Impact on WAF System**

Provide examples of other jurisdictions where transmission costs are allocated based on an energy-only criterion. Provide COS schedules and revised rate schedules using classification factors for transmission assets based on 60% demand and 40%. Would YEC consider undertaking and providing classification factor studies to determine appropriate classifications of transmission assets?

Did the 20-Year Resource Plan indicate that Stage 1 of the CS project would not proceed unless there was additional mine load? If yes, then is the driver of the project new load rather than diesel displacement?

Would YEC be adverse to assigning costs used only by industrial customers to industrial customers and then allocating the remaining costs that are shared by all customers to all customers?

When was the last complete COS study provided for Yukon ratepayers including updates on classifications factors, line loss studies, reviews of cost assignments to marketing, accounting, administrative and overhead? Given that approval is being asked for new rates, what is the position of YEC in providing more detailed studies to support the cost of service and rate design?

#### **11 Application, page 8**

*Secondary Energy under this rate is to be used only at a mine site engaged primarily in copper production for processing ore with less than 1% copper content ("Low Grade Ore"), and the customer will provide YEC with auditable reporting and controls as reasonably required by YEC to confirm that this secondary energy has been used only to process Low Grade Ore (any such energy use that is not so confirmed will be charged at the Industrial Primary Rate)*

What does YEC mean by "primarily"? What exclusions would apply? Describe the auditable reporting and controls as stated in the above passage. Describe the reporting required by YEC as referenced in the next bullet on page 8. Describe how proper use of secondary energy will be measured versus improper use of secondary energy? Why will Rate Schedule 35 remain fixed when the rates for other Secondary Sales customers are adjusted on a quarterly basis?

#### **12 Application, page 10**

*Attachment B indicates that bringing Aishihik 3<sup>rd</sup> Turbine on line mitigates this situation by reducing diesel generation costs and extending secondary sales opportunities, e.g., baseload diesel generation required in 2016 is reduced to 1.8 GW.h with the 32.5 GW.h/year Minto Mine load and 6.6 GW.h/year (2015) with the 43 GW.h Minto Mine load.*

Is YEC of the view that all costs with respect to the Aishihik 3<sup>rd</sup> Turbine should become part of its future revenue requirement and form the basis of a cost of service study? Is YEC also of the view that the results of such a study could indicate revisions to all rate schedules including schedules 39 and 35?

### **13 Application, page 11**

*The units provide added security to YEC and Minto as regards reliable supply at the mine; in YEC's case, the purchase payment arrangements for this asset enhance YEC's security with regard to the Minto obligations to pay the Mine Spur Capital Cost Contribution.*

If the need for these assets was not identified in the 20-Year Resource Plan, then could they not be considered redundant? If the assets are redundant, what is the benefit to Yukon ratepayers? Would it be more beneficial to Yukon ratepayers to receive a monetary capital cost contribution that reduces net rate base versus receiving an asset which increases net rate base?

### **14 Section 5.1 No Adverse Impact on Ratepayers**

*... it is the parties intention that costs of the transmission project required to provide Grid Electricity to the Mine will not adversely impact other ratepayers in the Yukon.*

Is there a scenario where an adverse impact can happen? If so, describe such a scenario. Is there a possibility that the project could positively affect rate payers (reduce rates)? What is the likelihood of such a possibility?

### **15 Application, page 12, Mine Net Revenue Account**

What is the purpose of the account? Why does YEC want incremental annual Mine Net Revenues to not affect YEC earnings or the determination of the revenue requirements affecting other ratepayers in Yukon? How does the Mine Net Revenue Account ensure there are no adverse rate impacts on other ratepayers? Does the creation of this account also ensure that there are no positive rate impacts on other ratepayers? Does YEC believe this provision to be in accord with regulatory, COS and rate design principles?

Why is this provision in place as protection against any potential future negative earnings related to mine activities when the PPA provides security provisions for YEC? Does YEC believe the security provisions are adequate?

### **16 Minimum Take-or-Pay Contract**

Explain footnote 26 on page 15 of the Application. If the Board does not agree with the COS as provided by YEC, what is the impact on this section? What is the impact on other ratepayers? Should the Board focus on the cost saving to Minto under the PPA or look at the impact on all ratepayers?

**17 Application, Section 5.3**

*Section 5.7 states that “the contribution to the Capital Costs incurred by YEC assigned to a New YEC Industrial Customer for the CS Project would be “based on the segment and voltage level of a transmission line that each New Industrial Customer would require to receive Electricity in the absence of the Transmission Project or the CS Project.”*

How does the above caption relate to YEC’s Terms and Conditions? Is there a formula used by YEC in determining the amount of customer contributions? If so provide the formula.

**18 Attachment A – Introduction and Overview, page A-1**

*Section 3.5 of the PPA in effect also provides for ongoing adjustment of the Firm Mine Rate after 2008 by the YUB based on the cost of service principles and methods in Schedule E. It sets out impacts with regard to the Minimum Take-or-Pay Amount and the YEC Security in the event that the Firm Mine Rate is increased in future by a decision of the YUB made on the basis of COS principles and methods which are inconsistent with the COS principles and methods in Schedule E when such a Firm Mine Rate increase materially adversely affects the cost savings to Minto under the PPA.*

Does YEC believe that the COS principles as enunciated in Section 3.5 of the PPA are the only COS principles applicable to Yukon ratepayers? Does YEC believe that the YUB has discretion to direct YEC to apply the COS principles it determines appropriate for the benefit of all Yukon ratepayers?

How was the final level of cost savings for Minto determined? What criteria were used to determine that level to be the appropriate amount of savings? Would Minto still be financially better off if the net cost savings were only \$1,000,000?

**19 Attachment A, Forecast Consolidated Revenue Requirement, page A-2**

Describe the coordination undertaken with YECL to determine the Rate Revenue Requirements.

**20 Attachment A, page A-4**

*These COS filings determined cost of service estimates for each customer class based on consolidated forecasts using a three-step methodology to functionalize costs, classify costs, and then allocate costs to each customer class.*

Does YEC believe that there is a benefit to directly assigning the costs of assets to specific rate classes when those assets are only used by a particular rate class or can be applied to only a few rate classes?

With the development of the M-D transmission line and the proposed Stage 1 of the C-S line, does YEC see a benefit in reviewing and updating the classification factors for transmission assets?

Provide the studies and assumptions that the classification factors are currently based on. When were such studies last undertaken? If YEC is unable to provide such studies, does YEC believe it is fair for the YUB to approve a rate schedule that does not have such supporting studies?

**21 Attachment A (page A-5) – Faro mine COS rulings**

Please provide Exhibit 83 from the 1998 YUB hearing that set out the relevant final assessments and describe the modifications for the Industrial class required to reflect changes to WAF system costs. Where Schedule E classifies 100% of WAF transmission costs to Energy, comment on how this classification of costs conforms with the recommendations of the Electric Utility Cost Allocation Manual published by the National Association of Regulatory Commissioners (NARUC)?

**22 Flexible Term Note**

Describe the Flexible Term Note (FTN), the outstanding balance, amortization schedule, applicable interest rate, relevant terms, payment schedule and how payment amounts are determined.

**23 Attachment A, page A-6, footnote 6**

Has the use of Whitehorse #4 unit changes from strictly diesel displacement to contributed to meeting winter peak demands?

**24 Attachment A, Secondary Sales, page A-7**

*Secondary sales revenues as forecast are treated as an offset against generation costs (YEC secondary sales revenues) and distribution costs (YECL secondary sales revenues); the forecast secondary sales rate variance (as forecast for 2007 in the latest Rider F filing with the YUB) are included as offset to generation costs.*

Should this assumption be reviewed to include a portion to offset some transmission costs?

**25 Attachment A, page A-8**

Describe the purpose of a transmission system. Could it be argued that the M-D transmission system class is within that purpose and therefore should use appropriate transmission classification factors and allocators? Will Stage 1 of the C-S line not only meet new load requirements but also contribute to meet peak winter loads?

**26 Attachment A, Explanation of Estimated 2008 Yukon Industrial COS**

When were the latest studies completed on Marketing, Accounting, Administration and Overhead allocations? When were the latest load studies completed to determine appropriate energy, demand, and customer allocators? How were the forecast customer class loads estimated? What is the basis for the line loss assumptions for the Minto and CS loads?

**27 Attachment A, FTN Added Costs, page A-13**

*... noting that added generation due to the new WAF loads resulting from the CS project is in effect causing these added costs)...*

What new generation is this line referring to?

**28 Attachment B, Framework for Assessment**

*The assessment generally adopts the framework used in the Yukon Energy 20-Year Resource Plan (2006-2025) to assess Base Case WAF forecast loads, generation, and costs under various resource options.*

Describe the areas that deviate from the framework.

**29 Timing Requirements and Conditions, page 5**

YEC is to have completed its due diligence review of Minto and the mine by February 28, 2007. Confirm that the review was completed by that date and advise of the results. Will the financial and legal due diligence reviews being conducted by Behr Dolber and Davis and Company LLP be made available to the intervenors and the YUB?

Is the Mine still on schedule to commence commercial operations by June 30, 2007? If not, what is the revised date?

### **30 Timing Requirements and Conditions, page 6**

The PPA sets out consequences to YEC if YEC is unable to provide Commencement of Delivery by September 30, 2008 to the mine. In the event YEC is unable to meet this date, what assurances can YEC provide that there will be no negative impact to rate payers?

### **31 Timing Requirements and Conditions, page 7**

The PPA indicates that the FIRM Mine Rate may be amended by the YUB from time to time after 2008. If the YUB amended the mine rate prior to this time, is there any consequence on the PPA?

### **32 PPA, Section 5.1, page 11**

YEC states in the PPA that there is "no net costs to Yukon ratepayers", and further, that no individual ratepayer will see an increase to their rates due to the Transmission Project.

Would this statement still hold if Sherwood Copper were to default on its financial obligations to YEC?

### **33**

Provide an example [Table format over a typical year] using Minto Mine energy requirements on how the Peak Shaving Option and Winter Load Contract would work.

### **34**

On February 1, 2007, the President of Sherwood Copper was quoted on the CBC as saying that the only way the transmission line [Stage 1 C-S line] will be built is if YEC carries the financing [~\$11million] because Sherwood has no more debt capacity.

The BMO and flow through financing was done after this statement was made. The majority of the YEC loan repayments do not take place until after year 4 of production.

It would seem that mining companies and their investors are in the risk business but the YEC and its ratepayers are not. It would appear to be difficult to forecast what metal prices would be in four years when YEC would be receiving the bulk of its repayments. Minto is expected to save about \$26.5 million over the period 2008-2016 using power from Stage 1 of the C-S line rather than generating electrical energy on site by diesel.

Why is YEC assuming the risk and carrying the cost of the contribution when a significant financial benefit is accruing to Minto? Does YEC normally finance the contributions of its customers?