Yukon Utilities Board

Information Requests to YEC

CSTP Part-3 Review

BR-YEC-1

Reference: **Application, page 11**
Issue: **Diesel Generation**
Preamble: Item 5. b iii Terms of Reference requires the Board to address the implications of the ongoing use of diesel generation at Minto and other locations that could receive grid service from Stage 1. At page 11 of its application, YEC estimates that Stage 1 could reduce total output of CO_2 by close to 24,100 tonnes per year based on reducing diesel consumption eight to nine million liters per year at Minto and 0.5 million liters at Pelly Crossing. The Board would like to put these figures into a more meaningful context. For example, Board staff has calculated that 9 million liters of diesel is equivalent to the usage of about 45 pickup trucks, assuming 20,000 km per year and a fuel consumption of 10 liters per 100 kilometers.

Request

a) Please provide the Board with some context for the elimination of about 9 million liters of diesel consumption annually and the associated $C0_2$ reductions. For example, please calculate this in terms of the equivalent number of pickup trucks removed, or in terms of other familiar equivalencies of CO_2 production.
b) What is the current price for diesel fuel?
c) Based on the price indicated in part (b), what is the economic benefit to Minto of proceeding with grid connection?

BR-YEC-2

Reference: **Application, page 6**
Issue: **Other Potential Loads**
Preamble: At page 6 of its application, YEC discusses "added power loads and capital contributions from other new mine developments in the CSTP area". YEC's footnote 13 discusses, as an example, a possible 48 GW.h per year load at the proposed Carmacks Copper Mine.

Request:

a) Please provide any other potential loads that YEC believes may materialize to be served from the Stage-1 project.

b) What would YEC determine the contribution to be for an additional industrial load equal to the duration of Minto but half the load? Assume spur costs are separate.

c) What would YEC determine the contribution to be for an additional industrial load equal to the duration of Minto but one and one-half (1.5) times the load? Assume spur costs are separate.

BR-YEC-3

Reference: **Application, page 14**
Issue: **Diesel Generation**
Preamble: YEC discusses, in footnote 21, the potential for additional Mine loads to ultimately require additional baseload diesel.

Request:

a) Please elaborate on the extent to which adding the Aishihik third turbine mitigates the risk that additional baseload diesel would be needed.

BR-YEC-4

Reference: **Application, page 7**
Issue: **Capital Costs**
Preamble: In Schedule 1, YEC provides a range for the capital costs of the project from $19.3 to $25.9 million. The Board wishes to understand the risks of cost overruns.

Request:

a) Please discuss the risk that the capital costs could exceed $25.9 million.

b) At what cost estimate would YEC determine that the project was no longer financially viable?

c) Does Government of Yukon funding push the economics of the project ahead a further $10 million?

d) When did YEC first become aware of potential contributions from the Government of Yukon?

BR-YEC-5

Reference: **YEC Application to Approve Power Purchase Agreement between Yukon Energy Corporation and Minto Explorations Ltd. – Schedule 1, page 4**

Issue: **Economic Benefit**

Preamble: Overall Stage-1 Benefits: Schedule 1 shows net benefits ranging from $10.59 million (low costs) to $4.69 million (high costs) to YEC. On page 5 of YECL's argument in the PPA Proceeding, reference is made to NPV savings to Minto of $18.7 million.

Request:

a) Do you agree with the assessment of the approximate NPV to Minto?

b) If you disagree, what do you estimate the NPV of the benefit to Minto to be? How did you derive your estimate?

c) How do you reconcile the NPV of the benefit to Minto versus the benefit to Yukon ratepayers?

BR-YEC-6

Reference: **Report to Executive Commissioner Yukon Energy Corporation 20-Year Resource Plan, page 33**

Issue: **Pelly-Stewart Transmission Line**

Preamble: The Board does not recommend the Pelly-Stewart line as a project to satisfy a need for capacity in the WAF system, as the cost of this line ($15.2 million) does not justify the limited capacity contribution of 6 MW (and decreasing as the load on the MD grid increases).

Request:

a) If the United Keno Hill Mine re-opens, thus diminishing capacity contributions from MD to WAF, even with the Carmacks Copper Mine going forward, is there a justification for the Stage-2 development?

b) If the Aishihik third turbine project goes forward, is the excess capacity from MD required? Would there still be a need to develop Stage 2?

BR-YEC-7

Reference: **Application, Page 16**
Issue: **Mine Net Revenue Account**

Preamble: The Minister has asked the Board to review the impacts of the Board's finding in the PPA application in relation to the Mine Net Revenue Account proposed in the PPA and its impacts, if any, on rates and risks to ratepayers.

Request:

a) As The Mine Net Revenue account is supposed to protect ratepayers in "certain extreme scenarios where the mine permanently closes prematurely in its initial stages of operation", please elaborate on the anticipated value of this account in each of the first two years of the mine's operation and the risks to ratepayers if the mine closes in either of these years.