Yukon Energy Corporation
2017-18 GRA

Yukon Utilities Board Information Request Round 2 to
Yukon Energy Corporation (YEC)

YEC-YUB-2-1
Reference: **Appendix A to Board Order 2015-01, PDF pages 6 and PDF page 14**
Issue/sub-issue: **DCF**
Quote: The difference in cost between forecast diesel and actual diesel generation in any year at any given level of grid generation reflects only the variance in water availability (hydro generation) relative to the forecast, and this difference is what goes into or comes out of the DCF. Funds are held in the DCF to protect ratepayers against adverse and material rate impacts at such time as drought or low water conditions act to severely reduce hydro generation and thereby require increased diesel generation on the grid. (Footnote omitted, emphasis added)(Page 6 of 30)

…

… the Board accepts the DCF as proposed by YEC because it is a fund for customers to smooth rate impacts for those occasions when hydro generation is less than LTA or to build up the fund when hydro generation is greater than LTA. (Footnote omitted, emphasis added)(Page 14 of 30)

Preamble: Whether or not changes should be made to the DCF

Request:

(a) Please confirm that the DCF, as it currently exists, stabilizes utility costs of diesel (now thermal) due to fluctuations in generation related to higher or lower than average long term hydro generation due to water availability.

(b) If part (a) is not confirmed, please explain.

(c) For the DCF, as it currently exists, is the implementation or operation of the DCF different today from that described in the above-noted quotes from Appendix A to Board Order 2015-01? Please explain

(d) Should ratepayers or YEC pay for variances from forecast thermal generation fuel volumes? Please explain. Is this a common practice in Canadian jurisdictions? Please explain.

(e) For isolated communities, please explain whether ratepayers or YEC pay for variances from forecast thermal generation fuel volumes.

(f) For the DCF, as it currently exists, are ratepayers at risk for all thermal generation fuel volume variances (including fuel volume variances not related to water conditions)? Please explain.

(g) If the Board determined that ratepayers should not assume 100% of the risk for variances from thermal generation volume forecasts, what impact would that have on YEC?

(h) If YEC assumed the risk for thermal generation volume variances above or below forecast up to a certain threshold, for example 10%, how would that impact YEC? (For clarity, any variances above or below the threshold would be borne by ratepayers but any variance within the bounds of the thresholds would be borne by YEC). Please indicate what YEC would consider an appropriate threshold and why.

(i) What are YEC's views if, instead of the DCF, a rider set at a determined level of cents/MW.h of energy sold was established to create a fund or deferral account to cover variances for extreme water conditions (flood or drought)? What impact would such a rider have on YEC?

YEC-YUB-2-2

Reference: **YEC Part II Application (December 6, 2017), page A2.2-2, PDF page 30**

Issue/sub-issue: **Risk assignment**

Quote: From the outset of Board review of YEC revenue requirements in the late 1980s, it was understood that the risk of low water conditions, as regards added cost for thermal generation, would need to be borne by the customers of the utility.

Request:

(a) Is "low water conditions" a defined term?

(b) If "low water conditions" is not a defined term, please provide a definition of low water conditions and an explanation for YEC's working use of the term.

(c) On what basis did YEC conclude that the risk of low water conditions, as it relates to additional cost for thermal generation, is to be borne by the ratepayers? Was this statement made in a Board decision? If so, please provide the excerpts from that decision.

YEC-YUB-2-3

Reference: **YEC Part II Application (December 6, 2017), page 2-2, PDF page 30**

Issue/sub-issue: **Stabilization mechanism**

Quote: An initial thermal cost or contingency fund account mechanism (i.e., the Low Water Reserve Fund, or "LWRF") to address water-based variances from thermal generation forecasts was established in the early 1990s, when YEC relied upon short-term hydro generation forecasts for GRA purposes. The Board at that time noted concerns about lack of rate stability with use of short-term versus LTA hydro generation forecasts for GRA purposes. … DCF was approved by the Board to replace the LWRF as the thermal cost or contingency fund account mechanism to address thermal generation cost variances from GRA approved LTA forecasts and to smooth rate cost fluctuations <u>due to water level divergence from average</u>. (Emphasis added)

…

In 1996/97, after the Faro Mine resumed operations, LTA hydro generation forecasts were adopted for GRA purposes and the DCF was approved by the Board to replace the LWRF as the thermal cost or contingency fund account mechanism to address thermal generation cost variances from GRA approved LTA forecasts and to smooth rate cost fluctuations due to water level divergence from average.

Preamble: Clarification is needed regarding the change from using LTA hydro generation forecasts to ST hydro generation forecasts and back to the current LTA hydro generation forecasts.

Request:

(a) Please provide a copy of reasons of the Board or a Board Order in which the Board accepted the use of short-term versus LTA hydro generation forecasts for GRA purposes.
(b) Has YEC continuously used LTA for hydro generation since 1996/97? Please explain.
(c) Please provide the reasons of the Board or a Board Order in which the Board accepted LTA hydro generation forecasts from the 1996/97 GRA.
(d) With respect to the DCF that was part of the 1996-97 GRA,
    i. Please provide details as to how the DCF operated, including sample numerical calculations of how determinations were made to either pay or withdraw funds from the account.
    ii. How were water level divergences determined?

YEC-YUB-2-4

Reference: **YEC Part II Application (December 6, 2017), page 2-2, PDF page 30**
Issue/sub-issue: **ERA establishment**
Quote: The ERA was established in 1993, when ST hydro generation forecasts were still being adopted for GRA purposes, as a retrospective payment calculation integrated into the wholesale rate (RS 42), designed to ensure that YECL received a full pass-through of all incremental costs or savings of diesel generation attributable to higher or lower than forecast wholesale demand. As with the DCF and its precedent fund (the LWRF), the ERA was only active during the 1990s when the Faro Mine was in operation which resulted in diesel generation accounting for 100% of any generation change due to firm load changes. (Emphasis added)

Request:

(a) YECL is referred to in the quote. Should it refer to YEC? Please explain.

(b) When the quote refers to forecast wholesale demand, does it mean energy? Is the ERA a demand charge or an energy charge? Please explain.

(c) When the ERA was established, ST hydro forecasts were still used for GRA purposes. Did the shift to LTA forecasts affect in any way the need or purpose of the ERA? Please explain.

YEC-YUB-2-5

Reference: **YEC Part II Application (December 6, 2017), page 2-3, PDF page 31**
Issue/sub-issue: **ERA establishment**
Quote: Closure of the Faro Mine in 1998 lead to reduced demand and hydro surplus conditions. Diesel generation was not responsive to load changes under LTA hydro conditions. Under these conditions, LTA hydro generation forecasts were not required for GRA purposes, the DCF was inactive (except for interest income), and the ERA was similarly not active.

…

The LTA hydro forecast for GRA purposes, and the reactivated DCF mechanisms, approved for the 2012-13 GRA differed from similar 1990 provisions in one key aspect - namely, the need in 2012-13 to estimate a changing share of incremental load that is expected to be supplied by LTA hydro generation (rather than the binary situation when the Faro mine was connected to the system, i.e., variations in generation then were either 100% diesel when the mine was operating or 100% hydro when the mine was not operating).

Request:

(a) Please explain why LTA hydro generation forecasts were not required after the closure of the Faro mine? Would the principles underlying the DCF still apply?

(b) For the proposed DCF in the 2012-2013 GRA, was the change from the previous binary situation when the Faro mine was connected to the system, the only change to the DCF, as it existed prior to the closure of the Faro mine? Please explain.

YEC-YUB-2-6

Reference: **YEC Part II Application (December 6, 2017), page 2-3, PDF page 31**
Issue/sub-issue: **Thermal generation mix**
Quote: **…** to assume that LTA thermal generation requirements (separate from thermal generation maintenance activity requirements) are supplied with a combination of 90% LNG and 10% diesel generation.

Request:

(a) What happens if the actual thermal generation mix differs from the forecast? Do ratepayers or YEC bear this risk? Please explain.

(b) How are variances in actual fuel costs due to a change in the thermal generation mix accounted for? Please provide a numerical example.

(c) How and why was the 90:10 thermal generation mix developed?

YEC-YUB-2-7

Reference: **YEC Part II Application (December 6, 2017), page 2-5, PDF page 33**
Issue/sub-issue: **VGC PPA**
Quote: The PPA Application indicates a potential increase in grid loads over the next decade sufficient to sustain material forecast thermal generation at LTA hydro generation, e.g., prior to any enhanced renewable generation being implemented, incremental YEC LTA thermal generation at 65% to 75% of the incremental generation is needed to supply the VGC mine power requirements. Since the late 1980s, such grid loading magnifies thermal generation cost impacts from load changes which in turn reinforces the requirement for LTA hydro generation forecasts for GRA purposes, LTA DCF-type thermal cost or contingency fund account mechanisms, and the ongoing need for ERA wholesale rate mechanisms. (Emphasis added)

Request:

(a) The ERA only accounts for changes in wholesale loads from forecast. How is YEC protected from changes in industrial loads? Please explain.

(b) The ERA allows YEC to collect incremental thermal generation charges from incremental wholesales of electricity above the last Board approved forecast. YECL's (AEY) deferral account allows YECL to collect those charges from all customers in Yukon. Would it be more efficient if YEC applied for a rider for all Yukon customers to cover the cost of this incremental thermal generation? Please explain.

YEC-YUB-2-8

Reference: **YEC Part II Application (December 6, 2017), page 2-7, PDF page 35**
Issue/sub-issue: **Ratepayer risks**
Quote: As reviewed below, these inter-relationships start from the accepted premise that ratepayers bear the risk of low water conditions as regards added costs for added thermal generation, and that material instability in thermal generation costs due to water availability therefore pose direct challenges to the stability of rates that the Board would need to approve.

Request:

(a) Please define "material instability".

(b) What does YEC mean by "direct challenges to the stability of rates"? Did the Board make a determination as to a specific threshold that when breached leads to instability of rates? Please explain.

YEC-YUB-2-9

Reference: **YEC Part II Application (December 6, 2017), page 2-8, PDF page 36, Figure 2-1**
Issue/sub-issue: **Yukon hydro grid inter-relationship**
Preamble: **Figure 2-1 shows a contingency fund implementation post GRA**

Request:

(a) Please confirm if the use of a contingency fund can apply to either a short-term or LTA hydro forecast.

(b) If part (a) is confirmed, please explain why YEC has never requested a contingency fund based on a short-term hydro forecast.

(c) In Figure 2-1, the middle box states: 1. Ratepayers bear risk related to water variability. Is this for all variations of water variability from forecast?

(d) Can water variability be defined? Please explain. Does it refer to the total amount of hydro generation possible or is it the amount available dependent upon level of load?

(e) Do all Canadian utilities that have hydro generation have a contingency fund that passes risk of variation in water to customers? Please explain.

(f) Could the ratepayer risk be mitigated? That is, could the contingency fund only apply for variations above or below a certain level of forecast such as 10%? Please explain.

(g) Has YEC investigated methods to reduce risk related to water variability for ratepayers? Please explain.

(h) YEC (and YECL) has a deferral account for the price of fuel for thermal generation. With the DCF or a similar contingency fund, is it accurate to state that YEC's risk with respect to fuel volumes for thermal generation is mitigated? Please explain.

(i) If the statement in part (h) is accurate, should YEC's ROE be reduced to reflect the risks borne by ratepayers? Please explain.

(j) In the converse, if the Board determined that YEC should bear risks related to water variability, how would that affect YEC's ROE?

YEC-YUB-2-10

Reference: **YEC Part II Application (December 6, 2017), page 2-8, PDF page 36 Figure 2-1**
Issue/sub-issue: **Final utility costs for fiscal year**
Preamble: **Figure 2-1 shows a model for final utility costs**

Request:

In Figure 2-1, the third box states: 1. YEC final expected fuel costs for actual load (excluding water variance). Is it possible for YEC to develop a model whereby fuel costs are based on actual volumes of diesel consumed, and the accounting for variations in water are accounted for separately? Please explain.

YEC-YUB-2-11

Reference: **YEC Part II Application (December 6, 2017), page 2-11, PDF page 39**
Issue/sub-issue: **LTA versus ST GRA forecast alternatives**
Quote: As expected during a period of favourable water conditions, the ST Alternative GRA Forecast would reduce the test year revenue requirements (by $2.0 and $0.7 million) and cumulative rate increase required by 2018 (reduced by about 11%, from 9.08% to 8.11%).

Request:

(a) Please confirm that favorable water conditions refer to water conditions better than the LTA forecast.

(b) Please provide the derivation of the $2.0 and $0.7 million reductions and any assumptions made in that derivation.

(c) Please provide further explanation as to how the DCF cap results in Rider E rebates that reduce actual ratepayer final bills. Please provide a numerical example.

(d) Please explain "major differences in ratepayer bill impacts with ST versus LTA forecast alternatives for the current GRA for 2017-18 are likely to be limited if the current DCF cap is retained".

YEC-YUB-2-12

Reference: **YEC Part II Application (December 6, 2017), page 2-12, PDF page 40**
Issue/sub-issue: **ST versus LTA hydro generation forecasts**
Quote: Adoption of the ST alternative today would expose ratepayers to considerable rate instability risks.

Request:

(a) When would the asserted rate instability arise? Please explain.

(b) The second bullet under consistency with past Board decisions indicates that current rates are well above what they would be if ST hydro forecasts were being utilized. If the Board directed YEC to adopt ST hydro forecasts for the test period, everything else being equal, would rates be reduced? Please confirm that once the rates were set there would be no instability during the test period. If not confirmed, please explain.

YEC-YUB-2-13

Reference: **YEC Part II Application (December 6, 2017), page 2-12, PDF page 40**
Issue/sub-issue: **ST versus LTA hydro generation forecasts**
Quote: The LTA forecast alternative, in combination with the DCF, adjusts to changes in water conditions without the need for new GRAs to adjust rates in response to changes in water conditions; in contrast, the ST forecast alternative presumes that a new GRA is likely to be needed as soon as water condition deterioration is forecast even relative to current favourable water conditions.

Request:
Would a GRA proceeding due to unfavorable water conditions be seen as a positive if it sends correct pricing signals to ratepayers to modify their consumption? Please explain.

YEC-YUB-2-14

Reference: **YEC Part II Application (December 6, 2017), page 2-13, PDF page 41**
Issue/sub-issue: **Risks**
Quote: Specific risks are related to this ST forecast for reasons not related to water conditions, e.g., experience from 2012-2016 has shown actual annual thermal generation averaging 2.45 GW.h/year, or well above the ST forecast of approximately 1.1 GW.h in 2017 of the current GRA

Request:
(a) Please describe the various specific risks referred to in the quote.

(b) If the DCF is a contingency fund based on variations in water levels, how does LTA address the specific risks identified in part (a)?

(c) Is the DCF used for more than variations in water levels? If so, please explain all events that LTA and the DCF address.

YEC-YUB-2-15

Reference: **YEC ERA Application, page 2-13, PDF page 41**
Issue/sub-issue: **Short-term Alternative GRA Forecast**
Quote: On pdf page 41 of the application, YEC states:

Considerable separate risk is related to water conditions, i.e., there is the potential material risk that water conditions will deteriorate, and very little possibility that water conditions could be better than assumed in the ST forecast for the 2017-18 GRA.

Request:
(a) Please explain how YEC concluded that there is "very little possibility that water conditions could be better than assumed in the ST forecast…".

(b) Notwithstanding the answer to (a) above, in the context of a two-year period, is it possible that the second year could have better water conditions than the first year?

YEC-YUB-2-16

Reference: **YEC Part II Application (December 6, 2017), page 2-13, PDF page 41**

Issue/sub-issue: **Risks**

Quote: A ST alternative thermal cost or contingency fund account mechanism would need to specify how changes in actual thermal generation from GRA forecasts can be separated into water-related changes versus changes due to load adjustments, forecast errors or other factors.

Request:

(a) Under the current LTA approach, how are changes due to load adjustments, forecast errors and other factors accounted for? Please explain.

(b) Should any of these factors (load adjustments, forecast errors and other factors) be part of the overall forecast risk of YEC? Please explain.

YEC-YUB-2-17

Reference: **YEC Part II Application (December 6, 2017), Appendix 2.2, page A2.2-1, PDF page 55**

Issue/sub-issue: **Forecast thermal generation**

Quote: This table provides (under "Existing Forecast") a thermal generation forecast, based on ST forecast hydro, of 1,130.0 MW.h for 2017 and 1,084.4 MW.h for 2018, excluding requirements for maintenance and capital projects (each of which is not affected by selection of ST versus LTA forecasts for hydro generation).

Request:

From the June 2017 Application under the Existing Forecast 2017 and 2018 columns, for the row total thermal, the amounts are 2,172 and 2010 MW.h. Please explain how the capital and maintenance amounts for each of 2017 and 2018 were determined.

YEC-YUB-2-18

Reference: **YEC Part II Application (December 6, 2017), Appendix 2.2, page A2.2-1 to A2.2-2, PDF pages 55-56**

Issue/sub-issue: **ST hydro**

Quote: The final month of 2018 was forecast based on the ST forecast reservoir levels as at the end of November 2018.

The ST Alternative GRA Forecast for 2018 differs from the ST forecast in Table 2.2 of the GRA, which assumed reservoir levels (all three reservoirs) reset as at September 30, 2017 based on latest 5-year average (2012-2016); for GRA revenue requirement forecast purposes it is more reasonable (as was done for the 2012-13 GRA ST forecast filings) to avoid such a reset that relies on recent history. (Footnote omitted)

Request:

(a) Please explain why 25 months of the LTA were not used to take the forecast to December 31, 2018.

(b) How was the ST forecast reservoir levels determined as at the end of November 2018? Please explain.

(c) Please explain why it is more reasonable to avoid a reset of reservoir levels based on the latest 5-year average versus a reset that relies on recent history for a short-term forecast.

YEC-YUB-2-19

Reference:	**YEC Part II Application (December 6, 2017), Appendix 2.2, page A2.2-2, PDF page 56**
Issue/sub-issue:	**Forecast for diesel and LNG thermal**
Quote:	The ST Alternative GRA Forecast as developed above does not address the allocation between diesel and LNG generation. This requirement raises new issues.

Request:

(a) Please explain why YEC failed to develop an allocation between diesel and LNG for the ST Alternative GRA Forecast.

(b) Please explain whether the impact if the LNG:diesel fuel mix is correct for the LTA forecast. If there is none or if there is negligible impact, please explain how this effect is mitigated using LTA.

YEC-YUB-2-20

Reference:	**YEC Part II Application (December 6, 2017), Appendix 2.2, page A2.2-3, PDF page 57**
Issue/sub-issue:	**Forecast for diesel and LNG thermal**
Quote:	No useful ST forecast is provided in the GRA of the diesel-LNG allocation for the ST forecast thermal generation. The only prior year with full year LNG generation capability showed 5,087 MW.h thermal (excluding capital and RFID, but not excluding maintenance), with 2,293 MW.h diesel (45%) and 2,794 MW.h LNG (55%)16; the first 10 months of 2017 showed 8,317 MW.h thermal (excluding capital, RFID and maintenance), with 3,126 MW.h diesel (38%) and 5,190 MW.h LNG (62%).

Request:

For all aspects of YEC's GRA application, does YEC use only historical data in the formulation of its forecasts? Please explain.

YEC-YUB-2-21

Reference: **YEC Part II Application (December 6, 2017), Appendix 2.2, page A2.2-3, PDF page 57**

Issue/sub-issue: **Forecast for diesel and LNG thermal**

Quote: This alternative ST thermal forecast for the ERA Application assumes a 60/40 LNG/diesel allocation of forecast ST generation for each test year. This assumption reflects the tendency for diesel generation to dominate smaller and shorter duration thermal generation, and the lack of any useful additional assessments as to a forecast allocation for each test year.

Request:
If the 60:40 ratio is more accurate, why did YEC not use this ratio for the GRA forecast for total fuel costs? Please explain.

YEC-YUB-2-22

Reference: **YEC Part II Application (December 6, 2017), Appendix 2.2, page A2.2-3, PDF page 57**

Issue/sub-issue: **Forecast for diesel and LNG thermal**

Quote: It is apparent that there is a considerable risk, absent any change in the forecast total Firm Load Generation, that the diesel/LNG allocation in each test year could be very different than assumed in this alternative ST thermal forecast.

Request:
How is this risk reduced under the LTA alternative? Please explain.

YEC-YUB-2-23

Reference: **YEC Part II Application (December 6, 2017), Appendix 2.2, page A2.2-3, PDF page 57**

Issue/sub-issue: **Working Capital**

Quote: The ST forecast thermal generation cost reductions will reduce GRA forecast working capital by approximately $0.140 million in 2017 and $0.049 million in 2018 (assumed working capital impact at approximately 6.93% of operating cost change, based on Schedule 2 of the GRA [Tab 7]).

Request:
Please provide the details showing the working capital reductions. Include an electronic version (excel) with formulae intact.

YEC-YUB-2-24

Reference: **ERA application, Appendix 2.2, page A2.2-3, PDF pages 57-58**
Issue/sub-issue: **Alternative short-term forecast for other costs**

Request:
For all of the cost changes reported in the sections titled "Alternative ST Forecast for Other Costs," please provide the calculations used to determine the reported numbers. Please provide these calculations in excel format, with formulas intact and references to where the input data were sourced.

YEC-YUB-2-25

Reference: **ERA application, Appendix 2.2, page A2.2-4, PDF page 58**
Issue/sub-issue: **Alternative short-term forecast revenue shortfall and rate increase required**

Request:
For all of the revenue requirement and revenue changes reported in the sections titled "Alternative ST Forecast Revenue Shortfall and Rate Increase Required," please provide the calculations used to determine the reported numbers. Please provide these calculations in excel format, with formulas intact and references to where the input data were sourced.

YEC-YUB-2-26

Reference: **YEC response to IR YUB-YEC-1-12, PDF pages 35-40, Tab 7, Schedule 5, Line 7, Amortization of deferred costs Application, Tables 5-3 to 5-8, PDF pages 226-236**
Issue/sub-issue: **Deferral and reserve accounts**
Preamble: In its response to the referenced IR, YEC provided detailed information concerning its deferral and reserve accounts, including continuity schedules (in tables 1 to 4) for rate base amounts shown on lines 6, 8, 9 and 18 of Schedule 1 of Tab 7.

However, the Board is unable to cross-reference or reconcile the appropriation or amortization amounts identified in the continuity schedules (in tables 1 to 4) or on Tables 5-3 to 5.8 of YEC's Application, to the amounts referenced on Line 7 of Schedule 5 of Tab 7.

Request:
Please provide a detailed listing of the amounts comprising YEC amortization of deferred costs as shown on Line 7 of Schedule 5 of Tab 7. Where applicable, please cross-reference the amounts comprising Line 7 to information provided or referenced in YEC's response to IR YUB-YEC-1-12, PDF pages 35-40.

YEC-YUB-2-27

Reference: **YEC response to IR YUB-YEC-1-17(a, b), PDF pages 51-52, Application, Schedule 6, lines 7 and 8, PDF page 287**

Issue/sub-issue: **Depreciation and amortization of contributions expense – proposed forecasts**

Preamble: The referenced YUB IR requested YEC to provide detailed calculations supporting each of its proposed depreciation and amortization expense amounts shown on lines 7 and 8, of Schedule 6 of Tab 7 for the years 2017 and 2018. The Board also requested that the currently approved depreciation parameters (and resultant depreciation rates) on an account by account basis be provided.

In its response, YEC provided a summary of its proposed depreciation expense on a functional basis, but did not include the detailed expense calculations or depreciation parameters (and corresponding depreciation rates) on an account by account basis as requested.

Request:

Please provide the detailed calculations supporting YEC's proposed depreciation and amortization expense amounts for the years 2017 and 2018 for each of YEC's depreciation expense (line 7) and amortization of contributions and fire insurance recoveries (line 8) as shown on Schedule 6 of Tab 7. Please provide the (line 7 and 8) calculations in a working excel workbook format with formula intact that also includes depreciation parameters (and corresponding depreciation rates) on an account by account basis.

YEC-YUB-2-28

Reference: **VGC Group PPA application, Section 4.3, page 8, PDF page 11**

Issue/sub-issue: **SKTP components**

Quote: Yukon Energy is pursuing the SKTP at this time to improve the electrical transmission infrastructure in central Yukon between Stewart Crossing and Keno City; reinforce and strengthen the grid between Stewart Crossing and Mayo; and replace and remove deteriorated and "end of life" transmission infrastructure between Mayo and Keno City. The project is being planned to ensure continued safe and reliable service and to facilitate future economic development within the territory.

- The SKTP as defined for environmental review and permitting, and/or for the engineering/costing work, included the following components:
  - 138 kV H-frame transmission line development involving the following segments:
    - L179 Stewart to Mayo (58 km) [the existing new 69 kV line would remain as well for this segment];
    - L180 Mayo to McQuesten (31 km) [to be operated at 138 kV]; and
    - L250 McQuesten to Keno City (20 km) [this segment would initially be operated at 69 kV].

Request:
With respect to the above quote, in particular the *existing new 69 kV line* (L179 from Stewart to Mayo), please explain

a. Why the L179 cannot be converted to 138 kV.

b. When was L179 constructed?

c. What is the depreciated value of the assets in place?

d. Why is the line to remain in place?

YEC-YUB-2-29

Reference:	**Application, IR responses**
Issue/sub-issue:	**Hyperlinks**
Preamble:	The Board has previously stated it does not accept hyperlinks on the record to its proceedings as over time those links can be broken rendering the record for the proceeding to be incomplete.
Request:	Please file PDF versions of all hyperlinks in the application and in the information responses.

YEC-YUB-2-30

Reference:	**YCS-YEC-1-12**
Issue/sub-issue:	**Gladstone project**

Request:
Please provide the dates and documentation indicating when YEC became aware that the Gladstone project would not receive DFO and First Nations support.

YEC-YUB-2-31

Reference:	**YEC Part II Application (December 6, 2017), pages 2-10 to 2-11.**
Issue/sub-issue:	**Alternatives to DCF and ERA Approach**
Quote:	… Yukon Energy is not aware of any applicable alternative to the requirement for a thermal cost or contingency fund account similar to the DCF to ensure that ratepayers bear the risks related to water variability, and to provide a fund for dealing with thermal cost variability due to water variability.

Request:
(a) What research did YEC undertake to determine this?
(b) Did YEC review other Canadian jurisdictions? If so, what were YEC's findings? Also, please provide all references.
(c) Do any other jurisdictions have a thermal cost or contingency fund? If so, please provide examples with specific references from the regulatory body governing those jurisdictions.
(d) If YEC cannot provide any form of confirmation to the question in part (c), how do other Canadian regulators protect ratepayers from associated risks of changing thermal generation in response to water variability?

YEC-YUB-2-32

Reference: **YEC 2016 Resource Plan**

Issue/sub-issue: **Water storage levels**

Preamble: **YEC proposes to increase water storage capacity in the Southern Lakes system and in Mayo Lake**

Request:

(a) Please confirm the statement in the preamble to this question.

(b) If part (a) is confirmed please provide an update to the status and any pertinent details of increasing the water levels for those areas.

(c) Are increased water levels in the aforementioned areas included in YEC's 2017-18 GRA forecast? Please explain.

(d) The YEC website refers to a document titled "A Southern Lakes Enhanced Storage Concept Overview". Please provide a copy of this document for the record of this proceeding.