

Yukon Energy Corporation (YEC) 2017-2018 GRA

Round 2 Information Requests of YEC
from
John Maissan

Section 1 Introduction

JM-YEC-2-1	<p>Page 1-3 L20-26 Re. YDC Contributions "...with \$18.3 million used to offset the capital costs of the Whitehorse Diesel Natural-Gas Conversion Project (LNG Project) added to rate base in 2015..."</p> <p>And CBC radio media coverage on March 13 at approximately 7:20 AM in which Mr. Brad Cathers (the then Minister responsible for the Yukon Development Corporation and the Yukon Energy Corporation) is heard to say that the \$18.3 million was YDC's equity contribution to the LNG project as the Yukon Utilities Board requires Yukon Energy to have a 60:40 debt equity ratio.</p> <ul style="list-style-type: none">(a) Was the \$18.3 million given to YEC by YDC intended to be YEC's equity portion of the project?(b) If so, does the balance of the LNG Project costs of \$23.633 million (\$41.933 million less \$18.3 million) attract debt cost only as opposed to a mixture of debt and equity?(c) If the answer to (a) is no, please explain the apparent discrepancy between the referenced two pieces of information and provide documentation to support YEC's position.
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Section 2 Sales and Generation

JM-YEC-2-2	<p>Various media coverage involving contact with YEC, has indicated that YEC is experiencing lower than long term average (LTA) water flows available for generation due to low water levels in Mayo Lake.</p> <ul style="list-style-type: none">(a) What flow volume and generation is available from the Mayo Hydro system this 2017-2018 winter and what are the long term winter averages for this system?(b) Are the flows and generation available from Whitehorse Rapids and the Aishihik generating stations this winter at LTAs?(c) If not, please provide the actual flow and generation available from these two plants and what are the LTAs?(d) Please provide a forecast for the winter of 2017-2018 (assuming spring flows will be at LTA) of the shortfall in hydro generation (requiring additional thermal generation) compared to LTA.(e) What will this the cost of this generation be, and will this come out of
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	the DCF?
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Short-term hydro alternative GRA forecast (Appendix 2.2 to two-part ERA application December 6, 2017)

JM-YEC-2-3	<p>Page A-2.2-1</p> <p>(a) Given the below LTA hydro experienced so far this winter, would the ST hydro forecast be any different if it was being run today compared to when it was run for this application?</p>
JM-YEC-2-4	<p>Page A2.2-3 top bullets re diesel-LNG allocation</p> <p>(a) Whether LTA or ST hydro is assumed for forecasting thermal generation requirements, the <u>actual</u> thermal requirements in any year will be the same. How then can <u>actual</u> LNG-diesel allocation be 60:40 with ST forecasting and 90:10 when using LTA forecasting?</p> <p>(b) Why would the actual operational practice of running LNG or diesel be any different if the actual requirement is the same (the forecast method cannot change the actual hydro availability)?</p>
JM-YEC-2-5	<p>Page A2.2-5 Item 3b.</p> <p>(a) Is this section essentially saying that rates will be more volatile using a ST forecasting method; i.e. they will vary with water availability?</p> <p>(b) Does YEC have a preference for one forecasting method or the other?</p>

YECSIM model

JM-YEC-2-6	<p>At the YECSIM workshop February 12, 2018 it was explained that YECSIM could not model the benefits of the diurnal variations in intermittent energy supply options such as solar PV and wind power. Solar power only being available in the day time when electrical loads are higher and wind power which is higher in the afternoons when electrical loads are higher and lower in early mornings when electrical loads are typically lower.</p> <p>(a) Please describe how YEC would or does assess the added value of such beneficial diurnal patterns when assessing such supply options.</p> <p>(b) Can the YESIM model adequately assess the value of uprates to the existing hydro plants and changes to the storage ranges of hydro reservoirs?</p> <p>(c) Can the YECSIM model adequately assess smaller run-of-river hydro plants that may be considered in future?</p> <p>(d) When YEC installs the proposed short-term battery energy storage project, would/could the YECSIM model be updated to include it being operated as intended?</p>
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