Yukon Energy Corporation (YEC) 2022 Tlingit Homeland Energy Limited Partnership (THELP) Electricity Purchase Agreement

Round 2 Information Requests of YEC
from
John Maissan

Note that referenced page numbers are to YEC's amended submission dated April 2022

JM-YEC-2-1	Page 5 Project Capabilities: (a) How much of the increased project capacity from 8.5 MW to 8.75 MW is the result of increased water utilization efficiency in the new project configuration and how much is the result of increased projected water availability based on the now 51 years of water record vs the previous 35? (b) How much of the increased LTA energy availability in the PWP from 36.2 GWh per year to 41.5 GWh per year is the result of increased water utilization efficiency in the new project configuration and how much is the result of increased projected water availability based on the now 51 years of water record vs the previous 35? (c) Please explain the factors that contributed to the reduction to the 63.75 PWP days (85% of 75) that the full dependable capacity of 8.75 MW is available vs. the previous 70.5 days (94%) at 8.0 MW?
JM-YEC-2-2	Page 5 Footnote 7 (a) Please explain what YEC knows of the (proposed?) battery installation in connection with the existing hydro plant supplying power to the community of Atlin.
JM-YEC-2-3	Page 12 Section 3.4.1 No.4 Thermal Benchmarking Price: (a) What was the actual average weighted price per kWh for LNG fuel for power generation for the period January 1, 2022, to May 31, 2022? (b) What was the actual average weighted price per kWh for diesel fuel for power generation for the period January 1, 2022, to May 31, 2022? (c) What was the total thermal generation for this period and what were the actual proportions of LNG generation and diesel generation? (d) What would have been the answer to (c) above under LTA YIS water availability? (e) How would have been the answer to (d) above if the THELP project (as anticipated in this submission) had been available?
JM-YEC-2-4	Page 15 Table 3-1: (a) For 2024-2034 please explain why the winter energy price has increased from $0.132 per kWh for 25.2 GWh plus $0.072 per kWh

	for 5.6 GWh (30.8 – 25.2 GWh) to $0.135 per kWh for 34.0 GWh (all winter energy). (b) For 2035 & beyond please explain why the winter energy price has changed from $0.107 per kWh for 25.2 GWh plus $0.027 per kWh for 5.6 GWh (30.8 – 25.2 GWh) per year to $0.097 per kWh for 34.0 GWh (all winter energy). (c) Assuming LTA water availability what would have been the cost for winter energy in one winter in the 2024 to 2034 period, and for one winter in the 3035 & beyond period in the original (January 2022) submission? (d) Assuming LTA water availability what would be the cost for winter energy in one winter in the 2024 to 2034 period, and for one winter in the 3035 & beyond period in the amended (April 2022) submission?
JM-YEC-2-5	Page B-4 and B-5 Conditions Precedent (a) Please provide a copy of the Interconnection Agreement between the YEC, THELP, and AEY and the budgeted costs for the AEY system upgrades. (b) Please confirm that YEC has received the Funding Plan from THELP and please provide a copy of the Plan. (c) Please confirm in providing IR answers on June 27 whether on June 14 YEC gave notice to THELP that it is satisfied that the project is viable. (d) Please confirm that THELP has the all the specified environmental authorizations and the specified TRTFN approval.
JM-YEC-2-6	Page A1-7 (a) If not already answered in JM-YEC-2-5 above, please confirm that all conditions precedent outlined in Article 2.1 (d) have been met, and, if not, what is being done to achieve compliance. (b) Please provide copies of any agreements entered into between any or all of the parties as required in the conditions precedent.
JM-YEC-2-7	Page A1-19 Article 7.3 second paragraph: "…for the new arrangements that may cause changes to the Seller's Plant, **expected** Delivered Energy, or Dependable Plant Capacity provided during the Peak Winter Period. …" (emphasis added) (a) Is this a typo, should the word be *except* or *excepted* rather than *expected*?.
JM-YEC-2-8	Page A1-64 Exhibit B-1 (a) The original THELP proposed plant consisted of two 3 MW generators in the upper plant and one 2.7 MW generator in the lower plant. The new configuration consists of a single 9.2 MW generator.

	In practice this will mean that any trip of the generator will now have a much greater impact on the YIS grid than the trip of one of the three smaller generators would have had in the original configuration. Please discuss in detail the implications of a generator trip during the PWP when 8.75 MW is being delivered to the YIS at Jake's Corner: i. To the AEY line and customers at Teslin, ii. To the AEY line and customers in the Judas Creek and Marsh Lake area, iii. To the AEY line and customers along the South Klondike Highway including Carcross and Tagish, iv. To the AEY line from Carcross Corner to Whitehorse and S150 substation in Whitehorse, and v. To the customers on the YIS.
JM-YEC-1-9	YUB-YEC-1-14 AMENDED and JM-YEC-1-5 AMENDED (a) The original YUB-YEC-1-14 question referenced the YEC original January, 2022 submission Figure 2-4; the corresponding Figure in YEC's amended April, 2022 submission would appear to be Figure 2.2-2. Can YEC confirm that the references to Figure 2.4 in amended response to this IR both in the question and in the answer should have been changed to Figure 2.2-2? (b) JM-YEC-1-5 AMENDED provides on page 2 of 4 a graph that shows visually a distinct correlation between the Surprise Lake inflows and Marsh Lake inflows. Since the Whitehorse Rapids hydro plant provides more than half of the annual hydro energy available on the YIS, how can YEC imply in response to YUB-YEC-1-14 AMENDED (a) second paragraph, that no probability for a correlation can be provided when both 1) YEC as neither attempted a correlation and 2) a correlation is visually obvious in YEC's responses to JM-YEC-1-5 AMENDED?