YUKON ENERGY CORPORATION
YEC EPA

Utilities Consumers' Group
Information Requests No. 1

All of the following questions will reference the YEC Submission Re: Yukon Utilities Board Review of the Electricity Purchase Agreement between YEC and THELP January 2022 UNLESS a different reference is specified.

UCG-YEC-1-1

Reference:

Proposed Atlin Hydro Expansion Project Page 7
THELP has hired SNC Lavalin to provide Owner's Engineering services for THELP's Plant, and is undertaking contractor selection as required for Project equipment procurement, installation and construction.
THELP is responsible for all AEY and YEC system upgrade costs needed to connect the Project to the YIS.
Final scoping for these upgrades (with planning level cost estimates) is to be included in the Buyer-AEY System Interconnection Study Report that is currently being concluded as part of the Interconnection Agreement between THELP, YEC and AEY.

Questions:

1. How much will the Buyer-AEY System Interconnection Study and Report cost ratepayers?
2. How much will the Interconnection Agreement between THELP, YEC and AEY cost ratepayers?

UCG-YEC-1-2

Reference:

Proposed Atlin Hydro Expansion Project Page 6 and 7
The Yukon Environmental and Socio-economic Assessment Board (YESAB) for construction and operation of a 42 km, 3-strand, 69 kV transmission line from Jakes Corner to the British Columbia border. The YESAB Teslin Designated Office issued its Evaluation Report on September 10, 2021, recommending that this project proceed subject to four recommended terms and conditions. A Decision Document has not yet been issued by the Yukon Government.

Question:

1. How much will the YESAB Assessment cost ratepayers?

UCG-YEC-1-3

Reference:

Section 2.1 Proposed Atlin Hydro Expansion Project Page 8
The EPA was negotiated over a period of approximately 18 months. The Parties used as a starting template for the negotiation an amalgam of the YEC Standing Offer Program (SOP) EPA and the BC Hydro Independent Power Producer (IPP) Large Project EPA, and certain other commercial principles entered into between THELP and Yukon Energy effective January 14, 2022.

Question:

1. How much will the 18 month negotiation and EPA cost ratepayers? Explain.

UCG-YEC-1-4

Reference:

Proposed Atlin Hydro Expansion Project Page 8
The Project will also include upgrades as required to connect the THELP's Plant to the YIS (defined in the EPA as "Buyer-AEY System" and "Buyer-AEY System Upgrades"). Final scoping for these upgrades (with planning level cost estimates) is to be included in the Buyer-AEY System Interconnection Study Report that is currently being concluded as part of the Interconnection Agreement between THELP, YEC and AEY.

Questions:

1. How do you expect the YUB to make a rational informed decision on this submission before all information about the EPA is fully represented?
2. Will there not be AEY scoping costs for study, negotiations and report? How will this be handled in determining added ratepayer costs?
3. Can YEC assure stakeholders that no hidden costs will be added to ratepayers on top of the energy purchase costs and the capacity costs?

UCG-YEC-1-5

Reference:

Proposed Atlin Hydro Expansion Project Page 9
***YEC's Target COD** – target of June 1, 2024 for YEC to complete all Buyer-AEY System Upgrades (expect AEY Upgrades to be completed in Q1 2024). YEC is responsible under the EPA for Buyer-AEY System Upgrades,13 and will exercise commercially reasonable efforts to achieve YEC's COD prior to YEC's Target COD. YEC will have no liability for delays in completion of Buyer-AEY System Upgrades.*

Questions:

1. Which contractor has been hired to do the system upgrade for the YEC?
2. Will the YEC manage this upgrade in-house? Will there be costs associated with this to be passed on to ratepayers?
3. How does YEC ensure there will be no charges back to ratepayers for this portion of the project, i.e. Buyer-AEY System Upgrades?

UCG-YEC-1-6

Proposed Atlin Hydro Expansion Project Page 14
Table 3-1: Summary EPA Energy and Capacity Pricing

Questions:

1. From this table, it is difficult to tell how pricing for energy delivered will be evaluated, will it be the blended rate or the firm and non-firm rates? Please explain.
2. From this table, there is a summer energy price. Would the current secondary energy price pay for this amount plus YEC management fees? Please explain.

[16] The price is within the range for estimates of YEC levelized cost of capacity (i.e., fixed capital and O&M costs, excluding fuel costs) for a 12.5 MW new diesel generation facility. Foot note p. 13

3. From table 3-1, a Dependable Plant Capacity Commitment and then taking into account the above footnote, of how this capacity cost to be paid to THELP is determined, does this cover all the fixed capital costs of an alternative 12. 5MW diesel plant alternative minus the Federal and YG grant amounts to be contributed to the project? Explain.
4. Is it proposed that the Yukon portion of the grant be directly from YG or through YDC? If it goes through YDC is there a plan to place this amount on our rate base? Explain.

UCG-YEC-1-7

Reference:

Proposed Atlin Hydro Expansion Project Page 20

Table 4-1: Forecast Non-Industrial Peak and Dependable Capacity under N-1 Capacity Planning Criterion: 2021/22-2030/31 Winter (kW)

2021/22 2022/23 2023/24 2024/25 2025/26 2026/27 2027/28 2028/29 2029/30 2030/31

Committed and Planned Supply Options 2,843 12,247 26,952 35,018 35,085 35,152 35,221 70,289 70,359 70,429

Diesel Replacements 0 0 12,500 12,500 12,500 12,500 12,500 12,500 12,500 12,500

Whitehorse #2 Uprate 638 638 638 638 638 638 638 638 638 638

BESS 0 7,200 7,200 7,200 7,200 7,200 7,200 7,200 7,200 7,200

Atlin Hydro EPA 0 0 0 8,000 8,000 8,000 8,000 8,000 8,000 8,000

DSM 2,205 4,409 6,614 6,680 6,747 6,814 6,883 6,951 7,021 7,091

Moon Lake Pump Storage Phase 1 0 0 0 0 0 0 0 35,000 35,000 35,000

Questions:

1. Please explain Diesel Replacement program scheduled for 2023/2024 to achieve this goal.
2. Please explain all DSM programs for each year starting 2021/2022 yr. to 2030/2031 yr. inclusive to achieve these goals.

UCG-YEC-1-8

Reference:

Proposed Atlin Hydro Expansion Project Page 26

The least costly new source would likely be new thermal generation with an LCOC (2024$) of at least $200/kW-year or $1.6 million/year for 8.0 MW.

Question:

1. Why did the YEC not more proactively pursue a new thermal generation project for years now?

UCG-YEC-1-9

Reference:

Proposed Atlin Hydro Expansion Project Page 26

There is some uncertainty with respect to what, if any impact the EPA may have on YECs balance sheet (i.e., rate base). Based on preliminary assessments of the Agreement, YEC has concluded that this transaction does not contain a capital lease and therefore there is no balance sheet or rate base impact. This conclusion, however, is not final. The ultimate impact can only be known when the Project is complete and YECs auditors (the Auditor General of Canada) have reviewed the transaction.

Questions:

1. How much would a possible impact cost to the ratepayers if a balance sheet or rate base is required? Please explain and discuss.
2. How would this affect the bottom line on consumer rates?

UCG-YEC-1-10

Reference:

Proposed Atlin Hydro Expansion Project Page 26 Footnote 41

41 The $5.3 million/year (2024$) until the end of 2034 assumes 8.0 MW dependable capacity ($1.6 million/year) plus 30.8 GWh/year winter delivered energy ($3.7 million/year per Appendix A, Table A3-2). The Project is capable of providing 5.4 GWh/year during summer, but no summer deliveries are assumed to be required from the Project given the forecast surplus of summer renewable energy. If 5.4 GWh of summer energy was required from the

Project, and YEC's approved blended fuel cost (2024$) was $0.19/kWh, the added cost would be $0.5 million/year (price at 50% of the approved blended fuel cost).

Questions:

1. Is this $5.3 million per year total cost ($1.6 million dependable capacity plus $3.7 million delivered energy), all the proposed costs that will be passed on to ratepayers? If not, explain.
2. Please discuss the pros an cons of summer deliverable energy for secondary usage.
3. Would the current approved secondary charge be sufficient to cover the proposed summer rate of 50% of the approved fuel cost plus YEC management costs? Please elaborate.

UCG-YEC-1-11

Reference:

Proposed Atlin Hydro Expansion Project Construction and Commissioning P. 27
Once the EPA Conditions Precedent are completed, YEC costs and customer rates are not affected by THELP's cost and funding risks related to construction and commissioning of the Project.
YEC and AEY system upgrades required by the EPA are also to be fully funded by the Project at no cost to the utilities or customer rates.

Questions:

1. What about YEC costs prior to EPA conditions being met? Who pays for these costs? Explain.
2. What about AEY costs prior to EPA conditions being met? Who pays for these costs? Explain.

UCG-YEC-1-12

Reference:

Proposed Atlin Hydro Expansion Project Construction and Commissioning P. 29
Although YEC will bear the cost for Monthly Constraint Energy (i.e., Delivered Energy that THELP could not deliver due to a Non-Permitted System Constraint caused by YEC or AEY) this risk is controlled by YEC and AEY and is considered to be minimal in terms of impacts on YEC costs or customer rates. YEC will seek to recover from AEY, through the Implementation Agreement, any such costs due to a Non-Permitted System Constraint on the AEY System.

Question:

1. Please explain what non-permitted system constraint energy is? Give examples.
2. Why is this not defined in the EPA?