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2021 GRA Information Requests of Yukon Energy Round 1, 29-Jan 2021

1) Page 1-8, “Diesel rental unit costs of approximately \$3.8 million are forecast for the diesel rental units expected to be required for the 2021 GRA test year,⁵

and

⁵ 15 units at 1.8 MW for each unit to total 27 MW for 2021 plus two spare units to total of 17 units.”

- a) Please provide a breakdown of all rental and installation infrastructure costs, also noting those attributable to the “spare units.”
- b) Please explain the decision to rent and install “spare units.”
- c) As they are rented to increase “reliable capacity,” what is the reliability/failure history of rental diesels?
- d) How is service and maintenance handled with the supplier?
- e) What are the terms of the rental? Monthly, yearly or ?

2) Page 1-8, “Non-industrial peak load has increased from 86.4 MW in the approved 2018 GRA forecast to 100.7 MW (or 100.6 on page2-4?) forecast for 2021 (14 MW increase), accounting for most of the 17 MW growth in the N-1 dependable capacity shortfall.”

and

Page 2-12 Item 2.4 “As indicated in Table 2.2, the peak demand for the integrated system is forecast to be 112.7 MW in 2021. The actual peak demand was 93.0 MW in 2018, 90.0 MW in 2019 and 103.8 MW in 2020.”

and

- a) 103.8MW is indicated as “Forecast” in Table 2.2 and “Actual” on page 2-12. Which is correct? Is this forecast or actual?
- b) Please explain the inputs and forecasting methodology that resulted in 100.7MW (or 100.6MW) non-industrial peak load, and 112.7MW integrated system peak.
- c) Please also provide peak loads by month (Non-industrial and integrated system separately), approved, actual and forecast for 2017 to 2021 inclusive.

3) What is the actual rental cost of the 17 diesels? The GRA has rental cost of 3.834 (or 3.8) million, while according to the Hansard, Andrew Hall cited 4.1 million on 15-Dec, 2020. Should the GRA reflect 4.1 million rather than 3.8 million for the rental diesels? Please provide documentation.

4) Page 5-7 “N-1 Capacity Shortage Faro Thermal Rental Site Infrastructure⁷ (\$2.037 million forecast in 2020) The project involves the design and installation of temporary rental site electrical infrastructure at Faro (870S) to ensure Yukon Energy can continue to meet its N-1 capacity planning requirements.”

- a) As the project has been completed, is/was the \$2.037 million accurate? Are actuals available?
- b) Please provide a breakdown of all costs of this infrastructure.

5) Page 2-14, “Installed YEC and AEY dependable grid capacity for the winter peak in 2021, based on existing capacity today and any planned additions/retirements and excluding Fish Lake hydro, is 139.1 MW in 2021 (70.5 MW of

YEC hydro, 12.6 MW YEC LNG, 23.5 MW of YEC diesel, 5.6 MW of AEY diesel and plus 27 MW20 diesel from rented diesel units in order to meet the N-1 criterion assessment).²¹”

and

“²¹ Yukon Energy's 2016 Resource Plan provides details on YEC's updated generation inventory and dependable winter capacity of 114,983 kW (see Chapter 4, Table 4.1). The updates since 2016 Resource Plan include reduced Mayo GS dependable capacity to 6.5 MW due to restricted winter outflows, increased WH GS dependable capacity to 27 MW, retired WH diesel #3, added LNG 3rd engine and other changes to the dependable capacity of the existing diesel units.”

I believe that the note is actually referencing Table 4.2 of the 2016 Resource Plan, as Table 4.1 is comparisons with BC Hydro and Hydro-Québec – and not generation inventory.

- a) Please provide an updated Yukon Integrated System Generation Inventory, incorporating the changes in note ²¹. This would be an update of Table 4.2 from the 2016 resource plan.
 - b) While referencing the 2016 Resource Plan, noted discrepancies between Table 4.2 and Figure 4-7, Yukon's Transmission and Generation Facilities. Please also provide an update/correction of Figure 4-7 from the 2016 Resource Plan.
- 6) Please provide the stacking order for all thermal generation, YEC owned and rentals – for each site and for the integrated system.
- 7) What modifications have been made to the Faro diesel plant since the 2014 YESAB assessment? Please provide details and dates of any and all changes/modifications to the Faro plant.
- 8) Please provide all documents relating to permits for the addition of the rental generators. If any of these are not available or steps were not taken, please explain.
- a) Any and all applications and correspondence with regulator(s) regarding rental diesels.
 - b) Community consultation and feedback results
 - c) YESAB assessment documentation relating to the rental generators
 - d) Compliance documents, decision documents and permits.
- 9) As the Faro diesel site is on RRDC Traditional Territory, does YEC have have the support of Ross River Dena Council for the modifications to the plant? Please provide documentation of any consultation and interaction with RRDC concerning the Faro plant.
- 10) At the (virtual) meeting that YEC held with the community about the rental diesels on 2-Dec, 2020, one slide had the text: “Next Year: A proposal to YESAB for an expanded air permit.”
- a) Please explain what is covered by the current 2014-2024 air permit.
 - b) Please explain what YEC is seeking with the “expanded air permit,” and why it is needed.
 - c) Please provide the “Project Description” that will be used for the upcoming YESAB assessment for the Faro site.

- d) Please explain the business case for applying for the air permit after the installation of infrastructure and the renting of generators.
- e) Please discuss the risks and potential financial impacts of building a project before applying for a required YESAB assessment.
- f) Please discuss how this approach relates to social license for stakeholders (RRDC and Faro residents)

11) Diesel Timeline: Please provide a timeline documenting the decisions and implementations of rental diesel in Faro. Please include the following points:

- a) When was the decision made to add more rental diesel?
- b) When was the decision made to put the additional rentals in Faro?
- c) When did YEC inform Faro residents of the installation of the new diesels?
- d) When did work begin on the installation of the rental diesels and related infrastructure?
- e) When did YEC seek regulatory approval for the additional rentals?
- f) When did YEC receive compliance documentation from the Department of Environment?
- g) When was it realized that a YESAB assessment will be required to use the installed capacity?
- h) When will the YESAB process for the additional diesels begin?
- i) What is the projected date of YESAB completion?
- j) How long are rental diesels expected to be part of the system?
- k) When will other projects be completed or brought on-line to retire rental diesels? (Faro and Whitehorse) Please include specific projects and estimated completion dates and corresponding reduction in rental diesel.

12) Rental diesel alternatives

- a) What alternatives to rental diesel were considered?
- b) Please provide cost/benefit analysis on alternatives to rental diesel.
- c) What sites/locations were considered?
- d) What criteria was used in selection / elimination of sites?

13) Impacts of rental generators on Faro which may affect future YESAB.

- a) Please provide a copy of the sound modeling study for the Faro generators.

(This study was cited by Travis Ritchie of YEC in a (virtual) meeting that YEC held with the community about the rental diesels on 2-Dec, 2020 – from the YEC meeting summary: *“Travis noted that the findings of Yukon Energy’s sound modelling study showed that if all rentals were to be running that predicted sound levels from the site at the nearest point of reception (occupied building) would be less than 1 dB more than what is emitted by the permanent generators.”*)

- b) Please provide an updated spill plan and map of the site.

- c) Please provide the most recent air quality assessment and dispersion study for the Faro site, and explain how this will be affected by the addition of the rentals.

14) Page 4-10 and others “assuming that rider F approximates zero effective July 1, 2021...”

- a) Under what conditions would Rider F now not go to zero?
- b) Under what conditions will Rider F be non-zero in the future?
- c) Please provide a history of the changes to Rider F and corresponding fuel prices for the last 10 years.

15) From the YEC website – page announcing the 2021 GRA: “Our Board of Directors and staff also understand that paying more for power can be hard for some Yukoners, especially during the COVID pandemic. That’s why our 2021 rate application outlines a way for our proposed rate increase to have a nearly zero impact on electricity bills.”

\$204.72 Dec 2021 Monthly Bill with 2021 GRA (Residential 1000kWh/month consumption – from Page 4-11 Table 4.3)

\$178.50 Dec 2021 Monthly Bill without 2021 GRA (\$204.72 minus Rider F (\$13.64) and 2017/18 GRA true-up (\$12.58) from Page 1-2 Figure 1-1.)

- a) For a December 2021 bill as outlined above, what is the percentage increase attributable to the 2021 GRA?
- b) What is the decrease absent the 2021 GRA?
- c) Please explain how this is promoted as “nearly zero impact on electricity bills?”
- d) Why is the “No GRA Scenario” from Figure 1-1 not included in any of the tables or figures of Appendix 4.2?
- e) While comparisons with NWT, Toronto, and Yukon (Nov-2020), etc. are interesting, none of these are impacted by the 2021 GRA and only serve to obscure the actual impact of the GRA on future bills. The GRA only impacts bills that are subject to the GRA, meaning Jul-21, Dec-21 and beyond. Please provide new versions of all tables and figures from Appendix 4.2 with the addition of “Yukon, No-GRA (July 2021)” and “Yukon, No-GRA (Dec 2021)” for comparison with the already included *Yukon - pre- GRA (Nov-2020)*, *Yukon, Interim (July 2021)* and *Yukon, Proposed (Dec 2021)*.
- f) Please also provide and update of Table 4.3 (Page 4-11) with the addition of No-GRA calculations/columns for Jul-21 and Dec-21.

16) Page 10-28 “We expect COVID-19 impacts to have both positive and negative effects on Yukon Energy’s financial position, net income and cash flows.”

- a) What are the expected positive effects of COVID-19 on financial position, net income and cash flows?
- b) What are the expected negative effects?