YUKON UTILITIES BOARD

IN THE MATTER OF the *Public Utilities Act*
Revised Statutes of Yukon, 2002 c.186, as amended

and

IN THE MATTER OF Yukon Energy Corporation's General Rate Application for 2017 and 2018

Compliance Application

ARGUMENT to SUPPORT INTERVENTION OF UTILITIES CONSUMERS' GROUP

April 19, 2019

INTRODUCTION

1. The Utilities Consumers' Group ("UCG") participated in all aspects of the Yukon Energy Corporation's (YEC) 2017 and 2018 General Rates Application.

2. The Yukon Utilities Consumers' Groups' main objective is to protect residential and commercial consumers from unjustifiable utility rates. In December 1993,, UCG was formed and registered as a non-profit society in response to a large hike in electricity rates in the fall of 1993, as well as a 4,400 signed petition to the legislature (the largest petition ever talbed in the Yukon.

3. UCG received the YEC Compliance Filing as well as the corresponding Information Responses from YEC and has the following argument to offer.

4. UCG argument will concentrate on the Low Water Reserve Fund. Although there are many other aspects in the compliance filing that UCG questions, we will leave this to the scrutiny of the regulator.

UCG ARGUMENT

1. Risk

In Board Order 2018-10, it was decided that the BCUC defined risk "as the probability that future cash flows will not be realized or will be variable resulting in a failure to meet investor expectations," would be utilized by the YUB. Furthermore, in this application, YEC used FortisBC (Electric) as a comparator. When the BCUC compared FortisBC (Electric) to the benchmark utility Fortis Energy Inc. (FEI), the BCUC looked at the following areas: • Smaller size, More concentrated assets and Less diverse customer and economic base; • Energy price competitiveness; • Supply risk; • Operating risk; and • Financial risk related to its credit profile.

As such, the Board made as its determination that the YEC should receive a risk premium of 45 basis points.

Operating risk is one of these profiles. Such a risk ensures that the utility demonstrates reasonable managerial skill for its operational decisions. UCG submits that by allowing the utilities to recover full costs of imprudent management would be an inappropriate shifting of this risk to ratepayers.

Although the Board may occasionally choose to relax the principle of prudent

management, it must rigorously apply the criterion of reasonable managerial skill from costs deriving from such management. UCG sets forth these considerations for what we consider reasonable management performance:

1) Identify Relevant Risk The companies must identify, assess and quantify the risks relevant to their obligation to maintain reasonable management of our hydro resources for the optimum benefit of their customers.

2) Analyzing Operations The utility's choice of strategies relevant to its operations must reflect an overall strategy to minimize costs to protect the interests of its ratepayers.

3) Alternatives The companies must examine all options for different combinations and scenarios of future conditions, avoid the risk, as much as possible, for water availability. Again the standard of reasonableness must apply to all operational decisions.

For example, <u>in deciding most advantageous time for refurbishment of hydro assets, the utility must consider the most reasonable time for such procedures in order to allow for the replenishment of the water reservoirs in time for the resumption of future/winter loads</u>.

4) Review and Re-evaluate The utilities must frequently review their operational decisions and project commitments with an overall supply strategy. In this way costs associated with risk can be disciplined for the benefit of consumers, including the cost relegated to the Low Water Reserve Fund.

2. Water Management Decisions and Hydro #4

Board Order 2019-02 in C. states: *"To date, balances for the LWRF for the years 2017 and 2018 have not been finalized or approved by the Board. These final balances are to be determined in the YEC2017-18 General Rate Application Compliance Filing currently before the Board."*

Yukon Energy acknowledged that it would be overhauling hydro #4 starting in early April of 2017 in their 2017-18 GRA. [1]

On March 7, 2017 the YEC management received a memo from their hydrologist

1 Yukon Energy Corporation 2017-18 GRA, p. 186 and p.5-15,16

engineer outlining water availability in all three of Yukon Energy's water basins.[2]

This report communicated with respect to the Aishihik plant: *"With the expected low snow pack the lake is not expected to fully refill by fall. The refill will also be impacted by having to generate higher amounts in April, May and June with the Whitehorse Unit #4 out of service for new rotor overhaul.* With respect to Mayo facility: *"The spring low in May is expected to be near the low supply level. With the snowpack and having to generate higher levels of summer with Whitehorse #4 out of service, Mayo Lake is not expected to fully refill by fall unless significant summer precipitation occurs."*

This water availability update *concludes: " A major shut down and repair program for the Unit #4 to begin in April but will have no impact on refill (of Marsh Lake reservoir)as all gates at Marsh Lake Control Structure need to be open by May 15. The loss of generation from Unit #4 in April, May and June will have to be made up by Aishihik and Mayo Generating Stations."*

In other words, by continuing with the overhaul at this arbitrary time, not only would water be wasted in the Marsh Lake reservoir (i.e. the gates were to be open regardless), but major impacts to the other (Aishihik and Mayo) reservoirs would also occur.

Although this was outlined for 2017, this operational capacity goes beyond the 3 last months of 2017, but into the 2018 test year as well. A shortage in the reservoirs would reflect all the winter months of this period. This would therefore require more thermal generation during the rest of the winter.

UCG submits that this was a heads-up for managerial staff to take notice and make the required changes to operational decisions which would minimize risks for the YEC's ratepayers. This includes rescheduling the refurbishment of Hydro #4 as planned. **Not to do so would not only impact revenue requirement increases for thermal use, but also impact the DCF/LWRF for the 2018 test year.**

The utility will argue that this should have been dealt with in prior GRA proceeding and is now out-of-scope. UCG submits that to not deal with this evidence now, regardless, will impact ratepayers due to the misuse of the DCF/LWR Fund, supposedly in place to protect ratepayers. If the Board denies this evidence, then they are advocating for the crown-owned utility to continue operating status quo.

UCG submits that this is after all the compliance segment necessary to complete the process, for the two test years, with a final outcome that must not only give the utility the right to a reasonable and fair rate of return, but also that interests of ratepayers are

2 Yukon Energy Corporation 2017-18 GRA Appendix 3.5 Diesel Contingency Fund (DCF) 2016 Annual Report, p.3.5-9 and 10

protected from imprudent managerial operational decisions. Our evidence clearly points out areas of the subject LWRF Calculations and Balance Updates in Table 1 which need further scrutiny.

This, UCG submits, is a principled approach which means that the YEC must remain open and accountable to this entire process until the Board reaches final decision determining any rate changes, including changes to the LWRF.

2. Board Must Recognize and Ensure all Directions are Followed

The Board made several directives concerning the Diesel Contingency Fund/Low Water Reserve Fund including:[3]

> Directive #27 For these reasons the Board directs YEC to create a deferral account that records the variance between actual thermal generation fuel costs (based on volume only) and the GRA forecast thermal generation costs (based on volume only) that are due to changes in water availability. Factors such as equipment failure, force majeure, capital or planned maintenance events are NOT to be included in the calculations of the deferral account.
>
> Directive #28 The difference between the directed deferral account above and YEC's DCF is that the deferral account will be adjusted for those variances between approved forecast and actual, not modelled results. In other words, the deferral account will be adjusted for changes in hydro generation that are a result of changes in water availability. YEC is directed, in its compliance filing, to explain the method it will use to determine the variance in hydro generation due to water availability.
>
> Directive #29 To draw from the LWRF due to low water levels, YEC will have to submit an application to the Board requesting a drawdown of the fund indicating that the application is due to changes in hydro generation because of changes in water levels from those contained in the Board-approved forecast. YEC will take the forecast risk for incremental loads outside of the forecast period with the exception of incremental load covered by the ERA.
>
> Directive #31 YEC is directed, in its compliance filing to this decision, to provide further details on how this LWRF will operate.

Although these were directed, by Board order, UCG argues that not one of these underlined directions have been met in the YEC compliance filing of February 25, 2019.

3 Board Order 2018-10, p.2-18/19

#27 The YEC has never clarified the changes in water availability caused from a planned maintenance event which required early draw down of Aihihik and Mayo facilities. In other words YEC, has not accounted for how much nor how these costs were determined for line item L7a of LWRF compliance filing (titled YEC diesel/LNG charge to capital,RFID and maintenance).[4] Continuing with this operational protocol, with the water availability forecasts in front of them identifying not only this but also the possibilty for forece majeure weather impacts, these reservoirs would not be filled and therefore thermal usage was required to replace this pre-determined load usage for the following winter period, when full capacity is relied upon in these particular facilities. This obviously led to increased diesel/LNG usage costs.

#28 The YEC has also not, to this day, sufficiently explained the method it used to determine the variance in hydro generation due to water availability.

#29 The YEC did not take the forecast risk, as directed, for incremental load in 2018 as demonstrated in the Attachment 1: LWRF Calculations and Balance Updates for 2017 and 2918. Line item, L1c of this chart indicates YEC GRA YIS firm load forecast to be 420.265 MW.h while the Calculation of Thermal Cost to Charge(Refund) the LWRF at L4 Total Grid Load of 455,544MW.h including Fish Lake.[5] How did this affect the thermal costs to revenue requirement as well as charges to the LWRF? And by how much?

#31 The YEC did not comply with the directives to provide adequate details on how the LWRF will be operated. Otherwise there would not have been so many questions/interrogatories listed by the Board and interveners.

4. LWRF Not Simplified

As these UCG concerns clearly illustrate, combined with the many interrogatories from other interveners and the Board, the LWRF is not fully understood by anyone, including the Board.

The YEC's magic button is now the GRA Fixed Change Factor (sounds like another Osler button). This appears to use load variance from 2018 GRA forecast to actual YIS generation load. This goes against the principle outlined by Board directions that *"YEC will take the forecast risk for incremental generation costs for incremental loads."* (Directive #29) Also, the YEC was directed to: *"indicate that any application to change the LWRF is due to in hydro generation because of changes in water levels*

4 YEC 2017-18 Compliance Filing, Attachment 1: LWRF Calculations and Balance Update for 2017 and 2018, p. 1
5 Ibid

from those contained in the last Board-approved forecast." (Directive #29)

A fixed change factor does not represent this direction. The new magic button appears to be of little difference to the pre-established 'diesel generation standard efficiency', just a different name.

It appears to UCG that to determine forecast hydro supply each year, the YEC has to determine the level of the water systems at the time forecasts are being prepared, the company then uses the hydrologist report for water conditions and projected inflows during that year as well as the Yukon Snow Survey Bulletin & Water Supply Forecast[6] available each spring. Only then can they more accurately forecast and assess the amount of hydro generation and thus the required amount of diesel generation. The YEC does not need a plethora of forecasting models which are proven not to work, untestable and add complexities that are unwarranted. These are simply make work projects for a specified consultant who contends to be the doctor fixing all ailments.

Likewise, the forecast load and sales forecast is not rocket science. The YEC and ATCO have yearly loads and sales that they have assembled going back forever. They have a good picture of the increase in per-centage for firm user groups to apply each year going forward. **It is an elementary matter of the YEC and ATCO working together for the best benefit to their ratepayers!** YEC has a specified "purchase power agreement" with each mine to determine this load. Long term records can be used to align forecasts with actuals to give a perspective if this is working. The present system obviously is broken!

What Does this Mean?

What this boils down to is who is to take on the risk:

- for inadequate forecasting models;

It is obvious to UCG that the Osler forecast models and tinkering is the problem (i.e that only he contends to know how these programs function.) If one really dissects the YEC GRA and all other regulatory paperwork (which his firm prepared), it is so full of fluff (i.e. inessential information) that obfuscates any type of scrutiny, accountability and informed decision making. If the YEC chooses to continue the usage of such consultant and his models for forecasting, then they better be prepared and obligated to take on the risk.

The Board has already directed the YEC take on forecast load and grid variance risk. Now the Board needs to extend this to operational risk!

6 Yukon Snow Survey Bulletin & Water Supply Forecast, May 1, 2017, Prepared and issued by:Water Resources Branch, Dept. of Environment, Yukon Government

- and for managerial decisions

This includes functional/operational management decisions which impact the outcomes of ratepayer costs, not only for revenue requirement results, but for the LWRF additions/withdrawls.

At the present time the only way to screen these decision outcomes connected to costs would be a forensic audit.

4. UCG Primary Concerns About the DCF Never Listened To

It is for all of the above reasons that the UCG requested the termination of the DCF in the first place (see UCG final argument for the YEC 2017-18 GRA) and now the LWRF remains in the same conundrum.

UCG submits that the YEC still controls the LWRF, just as before for the DCF, and they will use this to their advantage, just as before. Simple Fact: Burning diesel and LNG increases the profits of the utility.

UCG argues that we have again demonstrated that the YEC cannot be trusted to make operational decisions with regard to the LWRF for the benefit of ratepayers.

UCG also has lost confidence that the Board, in it's infinite wisdom, does not have the capacity nor where-with-all to monitor nor regulate, on behalf of ratepayers, such a complex fund. Renaming the fund is not the answer.

5. Restitution to the DCF/LWRF

It is very difficult for UCG to try to determine what should be adjusted as there is limited information on the record given by the YEC to make such a decision.

We note that line item L7a in Attachment 1 indicates 1,361MW. h for YEC Diesel/LNG charged to capital, RFID and maintenance. [7] This would result in approximately $190,000. What needs to be identified is how much of this is maintenance charges and if this clearly compensates for all of the overhaul hydro #4 maintenance adjustments identified by UCG above. We think NOT!

A possible way to determine this maintenance cost is to use the generation capacity of

7 YEC 2017-18 Compliance Filing, Attachment 1: LWRF Calculations and Balance Update for 2017 and 2018, p. 1

Whitehorse Hydro #4 and for three months of the 2018 year (April, May and June) deduce the amount that this unit would generate. Then convert this generation to thermal units and cost. This would give us a more accurate picture of what it cost for the YEC management decision to service this unit at this time. For example, the total amount of Whitehorse hydro forecast for 2018 in Line item 7 is 228,587MW h. [8] Divide this by two, as Unit #4 equals the same amount of capacity as the other two units. Then divide this by 4 (for the three months of the year not used or useful) . Results in approximately 28,573MW.h. What is that worth in $ amount?

Line item L3 in Attachment 1 identifies 450,086 MW.h as the actual Grid Load used for the determination of the LWRF outcome. Line item L1c identifies YEC GRA YIS firm load forecast (which in our understanding was the forecast to be used in determining the LWRF) as 420,265 MW h. which is 29,821 MW h. difference.[9] This difference would reflect a $ amount at the higher end of compensation which would not only modify the LWRF but also thermal costs in the revenue requirement for 2018.

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8 YEC 2017-18 GRA, Table 2.2 , page 2-18
9 YEC 2017-18 Compliance Filing, Attachment 1: LWRF Calculations and Balance Update for 2017 and 2018, p. 1