IN THE MATTER OF YUKON ENERGY CORPORATION APPLICATION TO REVISE THE DCF & RELATED AMENDMENTS TO THE ERA

FINAL ARGUMENT

YUKON ENERGY CORPORATION

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YUKON ENERGY APPLICATION ("APPLICATION") TO REVISE THE DIESEL CONTINGENCY FUND ("DCF") & RELATED AMENDMENTS TO THE ENERGY RECONCILIATION ADJUSTMENT ("ERA")

YUKON ENERGY CORPORATION FINAL ARGUMENT

1.0 INTRODUCTION

Yukon Energy's Final Argument is provided below on its Application regarding two separate, but related, matters:

(1) To update and re-activate the DCF to reflect current conditions; and

(2) To secure necessary amendments to the ERA.

Beyond a brief background and review at the outset of interaction between the DCF and ERA, this Final Argument focuses on how Yukon Energy's proposals respect core principles underlying each of these mechanisms (as established by past practice and consistent with practice in other jurisdictions) and simply seek to reactivate the mechanisms and update the rules and processes as required for current conditions.

1.1 BACKGROUND

Yukon Energy submitted its initial proposal to update and re-activate the DCF mechanism as part of its 2012/2013 GRA filed April 27, 2012. The DCF submission, which also necessitated amendments to the ERA, was in response to two requirements:

1. **Need to deal with diesel generation once again being on the margin**: For the first time since closure of the Faro mine in early 1998, diesel generation on the grid was forecast in a GRA to be on the margin under long-term average (LTA) hydro generation conditions, i.e., diesel was forecast to be required to meet firm energy requirements under LTA conditions, and not just periodic peaking requirements[1], and therefore sensitive once again to actual hydro generation water conditions; and

2. **Need to update and revise the DCF as directed by Board Order 2011-15**: Yukon Energy was directed in Order 2011-15 to address in its next GRA any changes necessary in the operating rules, administration and revised revenue requirements pertaining to the DCF[2]. Notwithstanding a long established existing approved DCF policy, implementation of this policy to the current system requires operating rule changes to address changed

[1] This definition of "diesel on the margin" is documented at Appendix 1.1, p. 1.1-2 of YEC's January 2014 Application.

[2] Board Order 2011-15, at pages 7 through 9, addressed how the DCF deals with risks unrelated to the fuel price risk addressed by Rider F. The Order referenced the Companies' argument that the Board would need to approve changes in operating rules for the DCF, that diesel was not at that time "on the margin", and that Yukon Energy was committed to addressing DCF issues and any changes in the operating rules for the DCF in its next GRA.

conditions, including the integration of the Yukon grid and the addition of material renewable energy resources.[3]

History of the DCF and ERA regulatory mechanisms

The DCF (and its predecessor, the Low Water Reserve Fund or "LWRF") and ERA were initially approved by the Board in the early 1990s in response to various joint applications of Yukon Energy and the Yukon Electrical Company Limited ("YECL", now re-named ATCO Electric Yukon or "AEY").

- The LWRF, and subsequently the DCF, was approved at that time as a ratepayer trust account to provide stability for ratepayers regarding Whitehorse-Aishihik-Faro ("WAF") system water variability impacts on diesel generation costs, i.e., these funds accounted for variations in YEC diesel generation costs from GRA-approved forecasts due to changes in hydro generation on WAF caused by changes in water availability.

- The ERA was approved at that time as part of the Yukon Energy Wholesale Rate charged to YECL in order to flow through to YECL, with no impact on ratepayers, any Yukon Energy fuel cost changes (added costs or savings, at GRA approved fuel prices) on WAF due to actual YECL wholesale purchases varying from YEC GRA approved wholesale forecasts.

- As ultimately approved in the 1990s, both the DCF and the ERA were inactive when diesel was not on the margin for WAF grid generation, i.e., when the Faro mine was not operating and severe drought conditions did not result in diesel generation being required due to inadequate water availability for hydro generation.

Process subsequent to Board Order 2013-01

Board Order 2013-01 regarding the YEC 2012/13 GRA confirmed that diesel generation was once again sensitive to water availability on the Yukon grid and directed Yukon Energy to include (in forecast revenue requirement and approved rates) provision for diesel generation forecast at 100% of LTA hydro generation for each test year.

Given the Order 2013-01 ruling on rates, and no approval in that Order for a revised DCF (see below), direction was required, and provided, from the Board to allow Yukon Energy to complete its year-end financial statements for 2012 and 2013. This direction highlighted the importance of an updated and approved DCF for year-end accounting when diesel generation, as approved in rates, is sensitive to actual water availability.[4]

[3] See July 5, 2013 YEC letter to the Board noting YEC's auditor's concern about the need for Board direction on the DCF. The letter noted the following changes from when the DCF was last active: the new integrated grid (DCF had applied only to WAF); new renewable generation at Mayo and Aishihik; model and load condition changes.

[4] See July 5, 2013 YEC letter to the Board and the Board's July 16, 2013 response and direction; also August 4, 2014 YEC letter to the Board and the Board's August 8, 2014 response and direction. In summary, YEC's July 5, 2013 letter noted as follows: "…Yukon Energy cannot determine a DCF amount today based on the methods last approved by the Board –

Board Order 2013-01 directed Yukon Energy to revise its DCF proposal on several specific matters[5], and to work with YECL to provide a joint recommendation on how the DCF will affect the ERA in Rate Schedule 42 and any proposed wording changes to Rate Schedule 42. Yukon Energy provided a revised DCF as directed in its May 1, 2013 Compliance Filing, but was not able to include any joint recommendation with YECL on the ERA.

Board Order 2013-03 on YEC's Compliance Filing noted that the revised DCF had not been tested in a proceeding, and therefore was not approved by the Board. The Board re-iterated its direction, with clarifications, for YEC to work with YECL to provide a joint recommendation on the ERA in Rate Schedule 42. As reviewed in Yukon Energy's subsequent January 31, 2014 revised DCF and ERA Application, as well as in response to interrogatories in the current proceeding, Yukon Energy and YECL consulted on these matters from May 2013 through January 2014 but were not able in the end to agree on any specific elements of either the DCF or the ERA – and, as a result, both Yukon Energy and YECL/AEY filed separate submissions on January 31, 2014.

Yukon Energy Final Proposals to update and re-activate the DCF and ERA

In summary, Yukon Energy's final proposals to update and re-activate the DCF and ERA remain in essence as filed in April 2012, even though specific details have evolved as directed by the Board and as provided in the May 1, 2013 revised DCF filing, and as further reflected in the January 31, 2014 filing and in the August 19, 2014 cover letter for interrogatory responses. Specifically, it is noted that the response to YUB-YEC-1-25 provides final versions of Tables 1, 2 and 3 from Yukon Energy's January 31, 2014 filing, based on final actuals for 2012 and 2013, including modifications to the ERA determinations in Table 2 to better reflect Fish Lake impacts as well as the determination of expected diesel in Table 1 for actual grid loads (i.e., for the DCF).

1.2 INTERACTION BETWEEN DCF AND ERA

The DCF and ERA as addressed in the Application are two separate, but related, matters.

Both the ERA and the DCF are active only when "expected" LTA thermal generation requirements vary in response to changes in YEC's grid load, i.e., when thermal generation is on the margin.

and, absent Board approval on some basis, Yukon Energy's auditors cannot justify a deferral account amount for the DCF in 2012." The YEC letter noted that, absent some appropriate direction from the Board, Yukon Energy will recognize additional earnings for the year equal to the amount indicated for actual diesel generation being below expected diesel generation at 100% LTA hydro generation in 2012.

[5] Specifically, YEC was directed to remove secondary sales impacts on the DCF, incorporate other non-diesel generation facilities (wind and Fish Lake Hydro) forecasts into YEC's DCF, incorporate suggestions made by interveners in argument during the 2012/13 GRA regarding how DCF transactions are to be reported, and provide an example of approximately five years of transactions to show how the balance of the DCF will change and how these changes will be reported.

The ERA has no relationship to actual water levels[6] - and no ERA arises in a year when there is no variance in YECL-AEY wholesales from the last approved YEC GRA wholesale forecast.

When thermal generation is on the margin and there is a variance in YECL-AEY wholesales, the DCF mechanism affects ERA outcomes by determining the change in YEC's "expected thermal generation"[7] due to a change in YECL AEY wholesale purchases. Accordingly, changes proposed to the DCF in the Application necessitate amendments to the ERA as well as other related matters addressed in the Application.

Finally, the ERA does not affect the DCF - either in the previous forms as approved by the Board, or as proposed in the Application.

1.3 OUTLINE OF APPROACH TO FINAL ARGUMENT

Yukon Energy's Final Argument recognizes that the DCF and ERA elements of the Application are two separate, but related, proposals that in each case deal with long established existing mechanisms.

Accordingly, the DCF is addressed first, followed by the ERA. The following are addressed with regard to each of the two proposals (DCF and ERA):

1. Regulatory Premise & Purpose, including Impacts if Discontinued;
2. Key Elements as Proposed; and
3. YECL-AEY Proposals.

[6] If a YEC thermal cost change is driven by low water at Fish Lake hydro or at YEC hydro facilities, ratepayers bear the risk directly through the DCF mechanism. Similarly, ratepayers bear the risk of thermal fuel price changes directly through the Rider F mechanism.

[7] "Expected thermal generation" assumes LTA wind and hydro generation water conditions.

2.0 DIESEL CONTINGENCY FUND ("DCF")

2.1 REGULATORY PREMISE & PURPOSE OF DCF - IMPACTS IF DISCONTINUED

2.1.1 Regulatory Premise for DCF

The key regulatory premise for the DCF is that ratepayers (and not the utility or its shareholder) are ultimately at risk for thermal generation cost impacts related to variations in water and wind availability, and that a fund with sufficiently large "caps" is an appropriate mechanism to provide rate stability and smooth out over multiple years the material fluctuations in thermal generation costs from fluctuations in hydro generation due to water availability.

This regulatory premise as it relates to water variability impacts has been recognized and approved through all Yukon Energy GRA's to date (when water variability impacts were relevant), and in the context of Section 3 of OIC 1995/90 is a "normal principle" established in Canada for hydro utilities. Yukon Energy has provided evidence to confirm these points[8], and no evidence has been provided to the contrary in the current proceeding.

Yukon Energy has noted in this regard that "rate stability and predictability" principles have been recognized in this situation to have priority over "economic efficiency" rate principles for a variety of basic and practical considerations[9].

2.1.2 Purpose of the DCF

Consistent with the above regulatory premise, the purpose of the DCF mechanism (and the earlier LWRF) as originally established, and as proposed to be updated and re-activated in the Application, is to provide a ratepayer trust fund (i.e., a fund that is funded by, and maintained for, the benefit of ratepayers) to smooth customer rate changes driven by changes in actual thermal generation costs caused by variances from LTA levels of hydro and wind generation due solely to water and wind availability.[10] Two core DCF mechanisms have been established to achieve this purpose (these two points are further explained in Section 2.2.1 below):

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[8] For example, with regard to past orders and OICs relevant specifically to the DCF or LWRF, see: Application (Jan. 31/14), Appendix A; response to YUB-YEC-1-24 and UCG-YEC-1-2 (Attachments 1 and 3) for review of Order and OICs since Order 1989-4. With regard to how this regulatory principle is "normal" in other hydro based utility regulation in Canada, see YEC Rebuttal Evidence filed October 15, 2014 which confirms that two core principles are common to all of the hydro utility jurisdictions reviewed (NWT, Manitoba, Newfoundland): (1) ratepayers (not the utility or its shareholder) are ultimately at risk for cost impacts caused by variations in water availability, and (2) all of the approaches to water stabilization mechanisms [as regards rates] recognize that water availability can be self-correcting over time and that some form of fund might help to stabilize rates in this regard if it has sufficiently large "caps".

[9] The Board in Order 2013-01 noted concern that the DCF may mask market signals and result in some intergenerational inequity. In this context, it is relevant to recognize that "rate stability and predictability" principles in this situation have priority over "economic efficiency" rate principles. See Yukon Energy Supplementary Filing, June 30, 2014, Attachment 2, pages 2-6 to 2-8. See also response to AEY-1-10 (a) and (b) regarding further review of impacts under current conditions.

[10] See response to YUB-YEC-1-11 (b) and UCG-YEC- 1-1 (a-c). The earlier LWRF was applied only to water based variability in years when GRA-approved hydro generation was based on short-term forecasts of water availability. The DCF as approved in 1996 included wind based variability and also was applied to water based availability in years when GRA-approved hydro generation was based on long-term average forecast of water availability. As reviewed in response

1. **Utility thermal generation costs based on expected hydro and wind generation:** The annual DCF accounting mechanism determines YEC's incremental cost[11] for thermal generation each year based on the "expected thermal generation" required assuming LTA water and wind conditions. The DCF mechanism assigns charges or rebates to the ratepayer trust DCF for differences between such "expected thermal generation" and "actual thermal generation" used for firm generation[12].

2. **Large "caps" for DCF operation prior to any riders being applied**: The caps applicable to the LWRF or DCF are set to avoid frequent rate riders to rebate surpluses or collect additional funds (i.e., caps that allow for several million dollars in the fund) reflecting the intent to provide stable rates over time rather than simply to disperse funds or increase rates (through a rider such as Rider F) when the fund gets to be more than a few hundred thousand dollars.

The question as to why a DCF (or similar rate stabilization mechanism) is needed in Yukon was reviewed in 1999 and summarized in a letter by Yukon Energy to the YUB (based on an excerpt from a report to the YUB in April 1997 prepared by the Accounting firm Stephen Johnson)[13]:

> "In certain jurisdictions, electric power is generated at hydro dams or run-of-the-river hydro operations. Low Water Reserves have been established to protect customers against short term fluctuations in the cost of electricity when more costly sources of generation, such as diesel, are substituted for hydro generation at times of low water conditions behind the dams or in the rivers. Simply, lower than average water level conditions generally result in higher diesel generation costs…"
>
> "Given that the reserve is a vehicle for smoothing the cost fluctuations due to water level divergence from average, it is set up so that it can be drawn down to offset the costs of diesel generation in years of low water levels."

The same letter noted that "the DCF is set up so to replenish in years of high water levels. The result is better rate stability and predictability for both customers and utilities."

It has been consistently recognized in the past that the DCF (and the earlier LWRF) are active only when load levels are sufficient to cause thermal generation changes as a result of water variability impacts on hydro generation, i.e., when diesel is determined to be "on the margin" at forecast loads and/or a severe drought otherwise causes a need to run thermal generation. In practice, in 1996 and the conditions that then applied, the DCF was relevant only for the WAF

to UCG-YEC-1-6 (b and c), the DCF was also on occasion used by the Board for other purposes - but, nonetheless, the DCF was established for the purposes noted above.

[11] "Incremental cost" includes at least fuel cost – in past DCF determinations, it also included an assumed allowance for non-fuel O&M per kW.h.

[12] Thermal generation used for emergencies or capital projects would be excluded from actual thermal generation for the purpose of these DCF annual accounting determinations.

[13] As provided in YEC's Supplementary Filing (June 30, 2014), Attachment 1, p. 1-6. The October 7, 1999 letter and attachment is provided in full in YUB-YEC-2 (a) Attachment 2, starting at page 22 of 38 (the quote provided above is at page 26 of 38). Other relevant documents from earlier YUB reviews of the DCF are as attached to this response.

grid and when diesel was defined to be on the margin on that grid, i.e., when the Faro mine was operating (see response to YUB-YEC-1-1(a)).

Yukon Energy in its Application has not sought to change the fundamental purpose of the DCF fund. The Application is in essence driven by a need to reactivate the fund (given the reality that current and forecast grid loads are now driving material ratepayer cost risks related to water availability), and the consequent requirement to update the Fund's mechanism to reflect changes on the Yukon grid since the 1990's when the Fund was last active.

2.1.3 Impacts if Discontinued

The purpose of the DCF is demonstrated by analyzing the ratepayer impacts that would occur if the DCF was discontinued.

In interrogatory responses, Yukon Energy reviewed in detail specific near term and longer term impacts of discontinuing the DCF (see response to YUB-YEC-1-14, YUB-YEC-1-13(c) and YUB-YEC-31(a); also AEY-YEC-1-10(a)), including:

1. Immediate issues (identified by YEC's auditors) that arise for YEC's 2012 and 2013 financial statements if it is determined that the DCF no longer applies. As reviewed in response to YUB-YEC-1-1(a), in the absence of Board direction and/or an approved DCF YEC would have been required to recognize additional earnings in 2012 of $3.714 million (the amount otherwise to be paid to the DCF based on actual diesel generation at 2,683 MW.h versus 15,261 MW.h of diesel generation at 100% of LTA hydro generation as estimated for actual 2012 grid generation requirements); and a similar problem would arise for 2013 in the amount of $3.518 million in the absence of Board direction and/or an approved DCF.

2. On a go-forward basis, discontinuing a DCF based on forecast LTA water conditions (and instead relying on short-term water condition forecasts), would increase rate instability for ratepayers, mask rather than display the expected long-term cost of power, and frustrate rather than facilitate intergenerational equity and fair treatment related to the benefits provided by hydro generation over its long-term economic life.[14] The ability to provide such price signals is particularly timely and important today when LTA thermal generation requirements are notably growing (due to "diesel on the margin" once again being relevant) at a time when high water conditions mask the underlying change that is taking place.[15]

[14] See response to YUB-YEC-1-1(f) for review of issues associated with setting GRA rate based on short-term hydro generation forecast water conditions. In the 1990s, prior to approval of the DCF in 1996 and the adoption of LTA hydro generation forecasts for rate setting, a Low Water Reserve Fund was still required for YEC even with rates based on forecast short term hydro water conditions in order to address the fact that any deviation of actual water conditions from the Board-approved short-term hydro generation forecast would remain a risk to be borne by ratepayers.

[15] See response to AEY-YEC-1-10(a) for review of related issues (from masking long-term costs) affecting a range of consumer and utility investments that would tend for frustrate rather than enhance effective long-term planning by ratepayers and consumers.

3. Material YEC diesel generation is expected to occur at current and future forecast loads on the integrated grid at LTA hydro generation water conditions, and much higher than LTA diesel generation will be required in years when hydro generation water conditions are less than the LTA.[16]

2.2 KEY ELEMENTS OF DCF AS PROPOSED

The DCF as proposed in the Application respects core principles underlying the established DCF mechanism while providing updates as required for current conditions.

Key elements of the DCF as proposed are accordingly reviewed below under the following headings:

- Consistency with Long Established DCF Mechanisms in Yukon; and
- Current Implementation Issues Addressed in Proposal (i.e., the changes proposed to address current conditions).

2.2.1 Consistency with Long Established DCF Mechanisms in Yukon

Yukon Energy's proposal maintains the following two core DCF mechanisms that have been long established in Yukon in order to achieve the purpose of the existing DCF:

1. **Utility thermal generation costs based on expected hydro and wind generation:** The annual DCF accounting mechanism continues to assign YEC shareholder or utility cost for thermal generation each year based on "expected thermal generation" that is determined based on GRA approved LTA hydro and wind generation, and continues to assign charges or rebates to the DCF for differences between such "expected thermal generation" and "actual thermal generation" used for firm generation.[17] Specifically, the following principles are maintained:

    a. **Shareholder costs** are still determined based on "expected thermal generation" required at the actual grid load, assuming the approved thermal cost per kWh. As in the past, the updated rules for determining expected thermal generation are defined based on the principles crystallized and applied in the utility's most

[16] Expected variability in diesel generation based on variation in water conditions and different potential future grid load conditions is reviewed in Attachment 1 to YUB-YEC-1-1 (b and c) which notes as follows:

1. At a grid load of 461 GW.h (as then forecast under the Base Case for 2016 – see Attachment 1 to YUB-YEC-1-1 (b and c) which provides Table A-2 and Figure A-2 of Exhibit B-20 filed November 2012), with LTA diesel generation at 33.5 GW.h, a repeat of water conditions experienced from 1995 to 2000 (six years) would require diesel generation each year ranging from 56.9 GW.h to 122.5 GW.h.
2. At the same grid load, diesel generation in excess of LTA would be required in five additional years out of the 28 water years then included in the YECSIM analysis.
3. The frequency of material diesel generation requirements will also increase as grid loads increase.

[17] Thermal generation used for emergencies or capital projects continues to be excluded from actual thermal generation for the purpose of these updated DCF annual accounting determinations.

recent GRA to determine how the Compliance Filing adjusted approved forecast thermal generation (for the approved test year revenue requirement) to reflect adjustments directed by the Board in the approved firm grid load forecast.

b. Ratepayer costs or savings assigned to the DCF are still determined each year based on the difference between "expected thermal generation" and "actual thermal generation" required to supply firm grid load [at the approved cost per kW.h]. YEC pays into the fund (i.e., sets aside funds for ratepayers) when thermal generation cost savings occur due to actual hydro and wind generation being greater than expected, and the fund compensates YEC when there are added thermal generation costs due to actual hydro and wind generation being less than expected.

2. **Large "caps" for DCF operation prior to any riders being applied**: The caps proposed for the DCF fund continue to be set to avoid frequent rate riders, (i.e., +/-$8 million) to rebate surplus funds or collect additional funds, reflecting the intent to provide stable rates over time rather than simply to disperse funds or increase rates (through a rider such as Rider F) when the fund gets to be more than a few hundred thousand dollars.

   The proposed updates maintain the following long established considerations:

   - The object of this type of fund is not to regularly collect and/or refund amounts to/from ratepayers through regular riders (e.g., Rider F), but to provide rate stability by limiting the requirement for collections/ refunds to ratepayers. A larger cap allows for annual transactions to occur that do not impact ratepayers, a smaller cap will have more frequent impacts on ratepayers.

   - The basic premise behind the DCF/rate setting method is that, to the extent practicable, ratepayers pay the same during drought periods (when massive quantities of diesel may be required) as they do during floods (when very small quantities of diesel, if any, are required). To work effectively this premise requires a DCF that is robust in terms of threshold limits (maximum and minimum levels allowed before funds are dispersed or replenished by any rate rider).

   - "Timely dispersal": much smaller caps designed to prevent the fund from going above or below zero by more than a few hundred thousand dollars would not be aligned with the underlying purpose that a DCF-type fund serves. The point of having a DCF is to establish a fund with reasonably large caps (i.e., several millions of dollars) to enable funds to be available to stabilize rates when there is material variation in water availability.[18]

[18] AEY-YEC-1-10 (b). During higher than average water years the fund needs to be built up and during extreme low water years the fund needs to be drawn down in order to stabilize rates and reduce impacts of drought events on ratepayers.

2.2.2 Current Implementation Issues Addressed in DCF Proposal

The DCF proposal updates the mechanics of the DCF to address current conditions on the Yukon grid. The two key elements are reviewed below:

1. **Updated method to determine "Expected Thermal Generation" for actual grid loads:** In order to determine "expected thermal generation" for actual grid loads in a manner consistent with long established DCF mechanisms previously approved by the Board, the updated DCF adopts the same approach that was required to determine 100% LTA diesel requirements for the 2012/13 GRA Compliance Filing based on Board Order 2013-01. [19]

   This formulaic approach as approved in setting current rates varies "expected thermal generation" depending on forecast grid loads (including adjustments when needed to reflect changes due to new industrial loads)[20], and thereby reflects current grid loads, renewable generation and the YECSIM model used in the 2012/13 GRA to determine 100% LTA thermal generation at any specific grid load.

   The formulaic approach approved to determine LTA hydro and diesel generation for setting current rates recognizes that it is not feasible under current conditions to do what was done in the 1990s, i.e., to set a single value for the LTA hydro for DCF and GRA purposes for loads when actual diesel generation is sensitive to actual water and wind conditions[21]. Under current conditions, the LTA hydro generation increases noticeably as load increases (but accounts for a smaller share of each incremental load increase) – and "expected thermal generation" accordingly also increases noticeably as load increases (but unlike what applied under 1990s conditions when the Faro mine operated, accounts for an increasing share [rather than 100%] of each incremental load increase[22]).

"Timely dispersal" facilitated by smaller caps would frustrate these requirements, e.g., would prevent the fund from being sufficiently built up and available to stabilize rates during low water years.

[19] See response to YUB-YEC-1-5 (a and b) for further analysis. Please see response to YUB-YEC-1-18 for more detailed review as to why the formulaic approach is required today for the updated DCF and is consistent with similar provisions of the previously approved DCF.

[20] For example, the 2012/13 approved YEC Compliance Filing reflected different YECSIM model estimates of expected thermal generation [at different grid loads assuming LTA hydro] for 2012 versus 2013 to reflect the impact if WHCT industrial load (with its own specific load shape over the year) was to be connected to the grid in 2013 (the relevant YECSIM results used for the Compliance Filing are copied in Tables 1.1-1 and 1.1-2, Attachment 1.1 of the YEC January 31, 2014 Application – and, given the continued absence of WHCT, Table 1.1-1 is proposed in the Application to be used as appropriate to determine expected thermal generation at actual grid loads in 2012 and 2013 for each DCF year end determination).

[21] As noted in response to YUB-YEC-1-18, the 1990s approach was understood to be a simplification, i.e., some variation of long term average hydro generation would occur on the grid at different loads, but such variances were not considered to be material with Faro mine loads and the then current hydro capabilities.

[22] A comparison of DCF operation in the past with Faro mine loads versus with proposed changes to address today's situation is provided in YUB-YEC-1-5(b). It demonstrates how the DCF in both cases only funds water-related diesel generation impacts of grid load variances for approved forecasts.

Yukon Energy's responses are summarized below regarding four issues raised in interrogatories related to the updated method to determine expected thermal generation for actual grid loads:

- **Actual diesel generation and/or secondary sales not relevant to determine if diesel is on the margin:** Actual diesel generation (or its absence) had no bearing in the past, and continues to have no bearing today, on the determination as to whether diesel is "on the margin" for DCF purposes.[23] Similarly, actual access to secondary sales is determined based on actual surplus hydro generation due to actual water conditions and has no bearing on whether diesel is on the margin for DCF purposes.[24]

- **DCF determinations address thermal generation variance due solely to water and wind variability:** DCF determinations for any year define thermal generation variance due solely to water and wind variability from GRA approved LTA conditions. The updated method for determining expected thermal generation defines thermal generation requirements for the actual grid load at LTA hydro and wind generation conditions. For DCF purposes, "actual" thermal generation is adjusted to remove thermal generation due to emergencies, line outages and capital projects, i.e., these factors do not affect DCF determinations. Finally, DCF determinations adopt approved GRA fuel prices and thermal generation efficiencies, i.e., these factors do not affect DCF determinations. Please also see response to YUB-YEC-1-3 (b) and YUB-YEC-1-7.

- **Annual YECSIM model determinations of "expected default diesel generation" are appropriate for the DCF:** "Expected default diesel generation"[25] for the GRA Compliance Filing, and for annual DCF determinations with actual generation loads in each year, is derived from the YECSIM model determination of LTA hydro generation under LTA water conditions. YEC has consistently used YECSIM for its recent assessments of planning and revenue requirement applications that the Board has reviewed, recommended and/or approved.[26] For the purpose of the DCF, any monthly determinations will be only

[23] See response to YUB-YEC-1-1 (a to e); YUB-YEC-1-2 (a); and YUB-YEC-1-3 (a-iv and v).

[24] Secondary sales are evidence of surplus hydro generation on at least a seasonal basis, and on its own provides no evidence as to thermal generation requirement under LTA conditions or its variation as water conditions change. AEY-YEC-1-9 (b) REVISED notes that secondary sales were available to non-SCADA customers over the summer period only from 2012 to 2014 (current) due to higher than annual average hydro generation as well as (for much of this seasonal period) lower than annual average grid loads. With one exception, as noted in the response to AEY-YEC-1-9 (a) REVISED, secondary sales were not available over the winter months during these years for non-SCADA customers. Secondary sales were provided over the winter months to one SCADA customer that can be disconnected nearly instantaneously if conditions warrant. The customer has not been cut off over the period due to the high water conditions experienced over the time period.

[25] "Default diesel generation" is a reference to any thermal generation required under LTA conditions after consideration of expected hydro and wind generation based on LTA conditions. The YECSIM model assessments assume LTA wind generation.

[26] Including the recent Part 3 Project Applications that the Board reviewed for Mayo B Project and for the Whitehorse Diesel-Natural Gas Conversion Project.

a placeholder with ultimate final determinations performed only on an annual calendar year basis[27], and subject to final review by the Board as part of YEC's annual DCF reporting. An overview of the YECSIM model's development, approach and acceptability is provided in YUB-YEC-1-3 (a and c). AEY-YEC-1-5 outlines how the assumptions in the model regarding YEC's operation of its power system reflect the full range of relevant considerations. YUB-YEC-1-4 (a and b) addresses incorrect assertions that YECSIM forecasts as adopted for the GRA Compliance Filing were intended to address short-term diesel generation in the test years (and allegedly were therefore inaccurate given the actual diesel generation that occurred) versus 100% LTA diesel generation as directed by the Board for the approved forecast loads for each test year[28].

- **Provision for Ongoing Annual Updates to YECSIM Expected Default Diesel Generation Determinations and Thermal Generation Costs**: The Application includes provision for ongoing annual updates by YEC as may be required, subject to review and approval by the Board, to YECSIM expected default diesel generation calculations to reflect material changes in load conditions (e.g., non-connection of WHCT industrial load in 2013, future connection of new mine loads) and/or renewable resource generation capabilities on the grid.[29] In addition, the Application includes provision for updates by YEC, subject to review and approval by the Board, to provide for adjustments in thermal generation costs due to in-service of new LNG capacity.[30]

2. **Updated Caps for DCF:** Based on long established DCF principles, the caps applicable to the DCF continue to be set to avoid frequent rate riders. To this end, the Application proposes to increase the fund cap from +/-$4.0 million to +/- $8.0 million in recognition of Board Order 2013-1 setting rates at 100% of LTA, high fuel costs per kW.h, and the material potential swings related to thermal generation that can exceed $30 million in a single worst drought year with the prospect for extended low water conditions over six consecutive years (with related augmentation of ratepayer costs in excess of LTA levels used to set rates).[31]

[27] See YUB-YEC-1-1 (d); AEY-YEC-1-2 (a and b).

[28] As reviewed in YUB-YEC-1-4 (a and b), YEC's GRA filings in fact included short-term diesel forecasts for the test years forecasting that the then favourable water conditions would result in actual diesel generation at only 20% and 38% of LTA in 2012 and 2013 respectively; in addition, the response noted that the record of actual loads and actual water conditions in the test years indicated that actual diesel generation was only 17% and 8% of LTA in 2012 and 2013 respectively (indicting the extent that actual hydro generation water conditions were well above LTA in each test year).

[29] Please see response to AEY-YEC-1-6 (e) and YUB-YEC-1-26 (a to c), YUB-YEC-1-27.

[30] Please see response to YUB-YEC-1-26 (e) and YUB-YEC-1-29.

[31] Referencing responses to YUB-YEC-1-14, YUB-YEC-1-31 (b), and Attachment 1 to YUB-YEC-1-1 (b and c), the response to AEY-YEC-1-10 (a) notes the worst year drought conditions is currently expected to require more than 100 GWh of diesel with single year fuel costs at current approved diesel fuel prices exceeding $30 million – and with the prospects for extended low water conditions to occur over six consecutive years. Even at lower LNG fuel costs of say 14 c/kW.h, the same one year worst case impact would cost over $15 million if it could in fact all be supplied by LNG-fueled generation (in practice, diesel generation could be required in such a worst drought year for generation over some limit such that costs could exceed $20 million). As noted in YEC's Rebuttal Evidence (page 5), drought conditions can quickly change a

Attachment 1 to YUB-YEC-1-1 (b and c) provides an example for various different load levels of potential thermal generation sensitivity over 28 recorded water years (1981 to 2008). At the lowest load level examined (e.g. 430 GW.h/year), in only 8 of the 28 water years[32] would actual thermal generation exceed the LTA diesel generation of 18.2 GW.h that would be used to set rates - highlighting the extent to which a fund with relatively low caps (e.g., +/- $4 million or less) will tend to provide frequent rather than infrequent rate riders while also failing to provide useful relief when the low water years occur with their very high fuel cost impacts.[33]

As reviewed in the DCF continuity table attached to UCG-YEC-1-6 (b), based on the DCF as proposed the fund had accumulated slightly over $8 million as at the end of 2013, i.e., the water situation has remained extremely favorable since the start of 2012 such that the proposed DCF cap has already been hit in only two years. These actual outcomes highlight the benefit of the proposed caps not being lower than the proposed $+/-8 million.

The Application noted that the DCF caps would be subject to ongoing review and that if the caps are exceeded, YEC will apply to the Board for a rate rider charge or rebate as required (see Attachment 1.1, p. A1.1-6). It is assumed that the nature of any such rider (e.g., number of years over which the Board approves that the amounts are collected or distributed) may vary depending on the circumstances, e.g., in the case of a severe drought and an inadequate DCF to cover the required costs, the rider could be applied over several years to mitigate ratepayer impacts.

2.3 OTHER MATTERS – YECL-AEY PROPOSED DIESEL DEFERRAL ACCOUNT

The YECL-AEY January 2014 submission proposed to replace the DCF with a new YEC diesel deferral account. In Yukon Energy's submission, this proposal does not meet the purposes of the DCF and accordingly there is no merit for the Board to consider it further at this time. Additional supporting details on this point are provided below.[34]

- **Failure to provide rate stability related to water fluctuation impacts:** YECL's proposed general purpose diesel deferral account would not provide rate stabilization for ratepayers to address material changes in water availability on the grid and would leave ratepayers without any mechanism to smooth out water-related rate impacts that will

situation - Due to a sudden drought, NTPC went from a balance of zero in the water rate stabilization fund in April 2014 to a balance owing from ratepayers of $3.4 million at the end of September 2014 with reservoir levels near record lows and recent 2014 inflows below all previous records - and with the expectation that by September 2016 ongoing drought conditions will increase the balance owing from ratepayers to $20 million.

[32] At higher load levels reviewed in the referenced document actual thermal generation exceeds LTA used to set rates in more years, but still less than half of the 28 water years.

[33] Based on this example, one high water year with zero actual diesel generation at GRA fuel price (28.7 c/kW.h) would add $5.2 million to the DCF. Adoption of lower cost LNG as planned at say 14c/kW.h fuel cost would still add $2.55 million to the DCF in only one such year.

[34] See YEC's June 30, 2014 Supplementary Filing and subsequent response to YUB-YEC-1-6 to outline in more detail the key reasons reviewed here.

occur on Yukon's isolated grid system. This conclusion reflects the definition of costs to be deferred (which does not address only, or fully, the impact on YEC diesel generation costs of water availability changes), the encouragement of rate setting based on short-term rather than long-term average hydro generation forecasts, and the proposal for small caps ("dispersed in a timely manner") for any such fund.[35] In short, terminating the DCF as proposed by YECL would simply shift to ratepayers the full instability of rates related to annual variances in water flows; this is not reasonable or consistent with past precedent, practice and Board decisions. It is particularly inappropriate to implement this change today given the Board's decision in Order 2013-1 confirming that loads today on the Yukon grid have reached a level (notwithstanding recent material hydro capability expansion at Mayo and Aishihik) where significant diesel generation can be reasonably expected on a long term average basis.

- **Failure to accurately determine expected thermal costs:** YECL's proposal specifically results in payments into the DCF for increased grid generation (above GRA forecast) that are only a small fraction of the LTA expected diesel generation impacts addressed in YEC's proposed DCF, and YECL's proposal therefore fails to track how YEC's LTA expected diesel generation costs (as applied once again in rates) change as load changes.[36]

- **Proposal expands risks borne by ratepayers:** YECL's proposal in principle is not limited to YEC and the hydro grid, but would in principle apply to all diesel costs in all rate zones, i.e., the general diesel deferral account concept as proposed by YECL would address all diesel variances from forecast due to any factor (e.g., customer load changes, risk events that result in added diesel, as well as water changes), and would thereby shift added risks to ratepayers that today are borne by each utility.[37]

2.4 CONCLUDING COMMENTS ON THE DCF

In summary, after a lengthy regulatory review process that started in April 2012, the evidence clearly establishes that Yukon Energy's DCF proposal as set out in the Application respects core principles underlying the currently approved DCF mechanisms (as established by past practice and consistent with practice in other jurisdictions) and simply seeks to reactivate the mechanisms and update the rules and processes as required for current conditions and as directed in Board Order 2013-01.

The evidence confirms that Yukon Energy's DCF proposal is driven by the need, as of the 2012 and 2013 test years, to reactivate the DCF fund given the undisputed reality that, subsequent to

[35] See YEC June 30, 2014 Supplementary Filing letter, pages 1 to 4.
[36] See response to AEY-YEC-1-7 and page 1-4 of YEC's June 30, 2014 Supplementary filing.
[37] See YEC DCF-ERA Supplementary Filing, June 30, 2014, page 1-7 and Table 1-1. In response to YEC-YECL-3 (a and b), YECL-AEY has confirmed that YECL is proposing that YEC have a deferral account that addresses all actual fuel volume variances from GRA forecast regardless of the reason for the variance, including forecast variances related to weather, outages and load growth; YECL-AEY also stated that it is not requesting a diesel volume deferral account for its off-grid communities and that such an account would not meet the basic criteria for a deferral account at this time.

Board Order 2013-01 that included Board approval of rates at 100% of LTA hydro generation water conditions, current and forecast grid loads combined with current renewable generation capability are now driving material ratepayer cost risks related to water availability. Under these conditions, discontinuance of the DCF is not a principled or practical option.

The evidence also confirms that the key elements of Yukon Energy's DCF proposal are consistent with long established DCF mechanisms in Yukon, and are reasonable updates required for current conditions on the Yukon grid. No principled or practical option to the Application's DCF proposal has been proposed during this hearing process that would meet, under current grid conditions, the long established purpose of the DCF.

Based on all of the above, the evidence confirms that the DCF should be reactivated and updated as proposed in the Application, effective January 1, 2012.

3.0 ENERGY RECONCILIATION ADJUSTMENT ("ERA")

3.1 REGULATORY PREMISE & PURPOSE OF ERA – IMPACTS IF DISCONTINUED

3.1.1 Regulatory Premise for ERA

The key regulatory premise for the ERA as jointly first applied for in 1993 by YEC and YECL, and as approved and applied to date, is that Yukon Energy's primary wholesale rate charged to YECL must provide for the flow through to YECL of any Yukon Energy fuel cost changes (added costs or savings, at GRA approved fuel prices) due to actual YECL wholesale purchases varying from YEC GRA approved wholesale forecasts. When operative, the ERA has direct impacts on both YEC and YECL and no direct impact on retail ratepayers.

The regulatory premise as it relates to the ERA has been recognized and approved through all Yukon Energy GRAs since the 1993/94 GRA as an integral part of the Rate Schedule 42 Primary Wholesale rate charged to YECL.[38] The ERA also complies with OIC direction.[39]

Since the 1993/94 GRA,[40] Rate Schedule 42 has included two elements:

1. A single energy only rate for all primary power supplied by YEC to YECL (this rate being set at each GRA based on, among other factors, the approved YEC forecast of wholesales); and

2. When diesel is on the margin on the WAF grid, the additional "second step" ERA provision (the ERA flows through any Yukon Energy fuel cost changes due to YECL wholesale purchases varying from the YEC GRA approved wholesale forecast).

Over the period from the 1998 Faro mine closure until the end of 2011 diesel was not considered to be on the margin on WAF, and the wholesale rate charged by YEC to YECL (absent the ERA being activated) included only the first element (i.e., a single energy rate, which was well below the incremental energy rates charged by YECL to its customers). Under these conditions, there was no basis to activate the ERA charge as YEC incurred no fuel cost changes (added costs or savings, at GRA approved fuel prices) due to actual YECL wholesale purchases varying from YEC GRA approved wholesale forecasts.

In contrast, when diesel was on the margin during 1993-1998, the ERA was activated to keep both utilities whole as regards impacts from wholesale volume increases or decreases from an approved YEC GRA forecast. During this period, no retail rider impacts were proposed or

[38] Rate Schedule 42 Primary Wholesale (YEC) as approved to date establishes one rate applicable to all YECL wholesale power purchases from YEC throughout Yukon.

[39] Since 1993, the ERA has been designed to comply with the provision that is currently set out in Section 7 of OIC 1995/90 (the provision was previously set out in Section 9 of OIC 1991/62 [see Attachment 2 of UCG-YEC-1-2 (a)]), which specifies that YEC's rates for electricity sales to YECL "must be sufficient to enable Yukon Energy Corporation to recover its costs that are not recovered from its other customers."

[40] The ERA was first approved in Order 1993-7, and was subsequently addressed in Order 1996-7 and in Order 1999-4. Order 2011-6 provided the last amended wording for the ERA approved by the Board, and was based on a joint submission of YEC and YECL (see YEC's January 31, 2014 Application, Appendix 2, page 2-3).

approved with regard to the ERA, reflecting the fact hydro zone retail run-out rate charges by YECL fully reflected the incremental diesel generation energy charges incurred by YEC. Under these conditions:

- The ERA protected YECL from a net revenue loss when there was a drop in YECL retail sales of up to 10% below what was forecast in YEC's last GRA[41] (i.e., the loss of retail revenue was matched, through the ERA, with equivalent wholesale cost savings) without imposing a net revenue loss on YEC (i.e., the drop in YEC wholesale revenues was matched by YEC fuel cost savings); and

- The ERA also protected YEC from a net revenue loss when there was an increase in YECL retail sales above what was forecast in YEC's last GRA (i.e., the added YEC fuel costs incurred were matched by added ERA revenues) without imposing a net income loss on YECL (i.e., the added ERA cost to YECL was matched by incremental YECL retail revenues related to the added wholesale requirement).

In summary, the regulatory premise for the ERA as established in 1993 in effect ensured that YECL's retail Hydro zone loads would be served by YECL under the same risk profile as all other YECL loads in Yukon. When YECL's loads vary and this variation in load drives changes in the quantities of diesel generation required (i.e., for example in the Hydro zone, diesel generation provided by YEC), YECL would in all rate zones carry the cost (or capture the saving) that results from these diesel generation changes.

3.1.2 Purpose of the ERA and Related Measures Proposed for YECL Purchase Power Flow through Deferral Account

Consistent with the above regulatory premise, the purpose of the ERA mechanism as originally established, and as proposed to be amended in the Application,[42] and implemented along with related measures proposed in the Application for the YECL Purchase Power Flow Through deferral account, is to provide an integral element of YEC Rate Schedule 42 (Primary Wholesale) that is active when diesel is on the margin to ensure:

1. That YEC is able to recover its costs from YECL (as required by OIC 1995/90, Section 7) when thermal generation is on the margin in the Hydro zone and, to that end, that YECL receives a full pass through of YEC's incremental costs or savings from thermal generation that result from changes in the volume of YECL wholesale purchases compared to the YEC forecast last approved by the YUB to establish the then current single energy-only wholesale rate element of Rate Schedule 42; and

[41] The 10% limit on sales below the approved forecast was intended as a proxy for a cut off point when diesel generation costs were assumed not to occur, i.e., diesel was then assumed not be on the margin. A similar mechanism, based on similar principled assumptions, applied to the Major Industrial Rate for the Faro mine. No similar limit applied to wholesale or industrial sales in excess of the approved forecast (as it was assumed that diesel would continue to be on the margin for all such added sales).
[42] See Appendix 2 of YEC's January 31, 2014 Filing (see page 2-2).

2. That the impacts, if any, of the ERA on retail ratepayers are constrained only to recovery of such YEC incremental costs or savings from thermal generation that are not otherwise offset by incremental revenues received by YEC and YECL related to the same changes in the volume of YECL wholesale purchases compared to the YEC forecast last approved by the YUB.

In the context of the updated and re-activated DCF as proposed, thermal generation is now permanently on the margin for Yukon Energy and the DCF will accordingly define, on a calendar year basis, YEC's incremental costs or savings of thermal generation that result from changes in YECL wholesales (net of such changes due to Fish Lake hydro variance from LTA).

Final determination of such YEC incremental costs or savings for the ERA will be determined net of any related changes in YEC revenues. In addition, to reflect that current retail run out rates remain well below current incremental costs of YEC diesel generation, the Application also proposes under its recommended Option A[43] that YECL's unrecovered costs (or unremitted surpluses) as a result of the ERA, after consideration of YECL's incremental revenues related to the wholesale variances used to determine the ERA, be addressed through the YECL Purchase Power Flow Through deferral account that the Board has approved. In this manner, the impacts, if any, of the ERA on retail ratepayers will be constrained in accordance with the above purpose for the ERA proposal in the Application.

3.1.3 Impacts if Discontinued

The purpose of the ERA and related Option A measures is clearly demonstrated by consideration of impacts on YEC, YECL and retail ratepayers if the ERA was to be discontinued and/or Option B as set out in the Application was to be implemented.

In the Application and in interrogatory responses, Yukon Energy has reviewed in detail the following specific impacts of discontinuing the ERA and/or implementing Option B[44] (see YEC January 31, 2014 Application, pages 3 to 7 and responses to YUB-YEC-1-14; YUB-YEC-1-13 (c) and AEY-YEC-1-10 (a and b)):

- If the Board determines that the "ERA" is no longer required, in order to remain compliant with Section 7 of OIC 1995/90, it will be necessary to ensure that the issues addressed by the ERA are addressed adequately by an alternative rate-related mechanism, in order to keep YEC whole whenever incremental diesel generation costs are incurred in future by YEC as a result of wholesales to YECL being higher than the approved GRA forecast.

[43] See January 31, 2014 YEC Application, page 7 and Appendix 2, page 2-6; also further revision as set out in YUB-YEC-1-25.

[44] Yukon Energy's Application reviews in detail the impact of eliminating the ERA and establishing a diesel deferral account to recover added incremental diesel generation costs arising from changes in YEC's industrial and retail sales and indicates materially higher cost impacts on ratepayers with this option (Option B) compared to YEC's preferred option (Option A). If YEC does not recover incremental diesel generation costs arising from changes in YECL power purchases from YEC through some form of a Diesel Deferral Account mechanism charge to industrial and retail customers (as outlined in Option B in YEC's submission), OIC 1995/90 directs that such costs must be charged to YECL through Rate Schedule 42.

- In order to comply with OIC 1995/90, discontinuance of the ERA would therefore result in the requirement for a new YEC rider and consequent higher rate impacts for ratepayers - the parties ultimately impacted by this would be retail and industrial ratepayers who would face higher costs in the absence of an ERA mechanism as proposed.

- YECL would be exposed to higher risks and rewards related to changes in wholesale purchases.

- Overall, the ERA as proposed primarily addresses cost sharing between the utilities with little if any impact on ratepayers, market price signals, intergenerational equity or ongoing resource planning - and discontinuance of the ERA with replacement by a deferral account rider such as Option B examined would (as noted above) increase cost impacts on ratepayers.

3.2 KEY ELEMENTS OF ERA AS PROPOSED

The ERA as proposed in the Application respects core principles underlying the established ERA mechanism while providing amendments and other related measures proposed for the YECL Purchase Power Flow Through deferral account (as set out for Option A in the Application) as required for current conditions. Key elements of the ERA as proposed are accordingly reviewed below under the following headings:

- Consistency with Long Established ERA Mechanisms in Yukon; and

- Current Implementation Issues Addressed in Proposal (i.e., the changes proposed to address current conditions).

3.2.1 Consistency with Long Established ERA Mechanisms in Yukon

Yukon Energy's proposal in the Application maintains the following core ERA mechanisms that have been long established in Yukon in order to achieve the purpose of the ERA and related measures for the YECL Purchase Power Flow Through deferral account as set out in section 3.1.2 above:

1. **Pass Through to YECL of YEC's Incremental Diesel Generation Costs or Savings that result from YECL wholesale changes:** The ERA continues (as in the past) to address the specific YEC incremental diesel generation costs or savings issues that arise only when YEC's forecast wholesales (as approved by the Board) differ from actual wholesales.[45] In this regard, the ERA as proposed continues to reflect the OIC 1995/90 Section 7 direction that the wholesale rate to YECL must "be sufficient to enable Yukon Energy Corporation to recover its costs that are not recovered from its other ratepayers":

[45] YUB-YEC-1-2 (d).

- The ERA continues (as in the past) to be required and applicable only when diesel is on the margin for YEC (i.e., YEC's costs for diesel will be determined by the DCF mechanism) and actual wholesales to YECL vary from approved forecast (for reasons not related to Fish Lake hydro generation variances).

- The ERA continues (as in the past) to flow through to YECL only the actual net cost (or saving) incurred by YEC with regard to diesel generation costs incurred (or saved) due to YECL's higher than forecast (or lower than forecast) wholesale purchases from YEC. In this regard, any related incremental YEC revenues continue to be fully considered.

- The ERA continues (as in the past) to be, in effect, a two part wholesale rate (as it was in the 1990s when first established) with a second part ERA rate that applies only to incremental changes in use (and not total use by YECL) and that flows changes in YEC diesel costs to YECL as required in response to changes in YECL wholesales (with no direct impact on ratepayers). This wholesale rate design is recognized to be a sound rate design in this specific Yukon context, in that YEC is the entity bearing the risk of actual wholesale volumes differing from the forecast wholesale volumes.[46]

- The ERA continues (as in the past) to apply only to YECL wholesale variances from approved forecasts, i.e., it does not address the diesel cost impacts on YEC due to variances from approved forecasts for YEC retail or industrial sales.

2. **Constrain ERA Impacts on Retail Ratepayers only to YEC Incremental Diesel Generation Costs or Savings not otherwise offset by YEC and YECL Incremental Revenues:** The ERA and related measures as proposed in the Application continue (as in the past) to constrain ERA impacts on retail ratepayers to the lowest level that is reasonable, while recognizing and addressing the key difference today compared to the early to mid-1990's with regard to retail and commercial run-out rates no longer reflecting the full incremental diesel generation cost of incremental use by individual retail or industrial customers on the hydro grid.[47]

[46] YUB-YECL-4 Attachment page 5 (Evidence of Richard Stout) notes "In the case of a wholesale rate, the entity that reasonably bears the risk of actual wholesale volumes differing from forecast wholesale volumes is YEC. YEC may seek to structure the wholesale rate in a fashion that better reflects the step in production costs between hydraulic and diesel dispatch. If YEC does so, AEY must then be provided with the opportunity to alter its rate to flow through this change in its own supply costs beyond its control."

[47] Hydro zone retail run out rates (e.g., average retail energy rates excluding block 1) for YECL averaged 13.8 c/kW.h in 2013 (as estimated in YUB-YEC-1-25, Table 2) and were well below YEC's incremental diesel generation fuel costs at 28.7 c/kW.h. In contrast, run out rates in 1996 charged to YECL retail customers in the Hydro zone for incremental energy use fully reflected YEC's incremental diesel generation costs (including provision for line losses) - and the residential run out rate in effect then provided the basis for setting the ERA rate charged to YECL. In recognition of earlier realities, YECL-AEY has noted in YEC-YECL-5(b) that "...the run-out rate in 1997 (the additional cost to YEC to generate an additional kWh when diesel was 'on the margin') was 10.45 cents/kWh. From the YEC-YECL 1996-97 GRA filing, YECL's revenue was approximately 11.57 cents/kWh for residential and 15.51 cents/kWh for commercial. This meant that, for the period the ERA mechanism was being used in the 1990s, the added expense from the ERA charge was fully mitigated by increased sales. Since turning the ERA off in the 1990's, however, there have been no ERA charges and any incremental margin

- The ERA as proposed continues (as in the past) to reflect the fact that YECL (unlike other YEC customers) is a regulated utility that purchases wholesales from YEC in order to sell the power to its retail and industrial customers at rates approved by the Board, i.e., YECL's revenues are directly impacted when changes in its retail and industrial sales lead to variances from approved forecasts in its wholesale purchases.

- The ERA as proposed continues (as in the past) to assume that YECL's incremental rate revenues related to increased wholesale requirements above approved wholesales forecasts are to be applied as "ratepayer" funding to cover ERA charges to YECL (and that the decreased rate revenues related to shortfalls in wholesale requirements below approved wholesale forecasts are also to be applied as "ratepayer" savings associated with ERA rebates to YECL).[48]

- Option A as proposed in the Application directly addresses the fact that current YECL retail run out rates are well below YEC's incremental diesel fuel generation costs, and proposes that any YECL unrecovered costs (or unremitted surpluses) as a result of the ERA, after consideration of YECL's incremental revenues related to the wholesale variances used to determine the ERA, be addressed through the YECL Purchase Power Flow Through deferral account that the Board has approved. In this manner, the impacts, if any, of the ERA on retail ratepayers will be constrained to the lowest level that is reasonable.

3.2.2 Current Implementation Issues Addressed in ERA Proposal

The ERA proposal for Option A as recommended in the Application amends the mechanics of the ERA to address current conditions (including rates) on the Yukon grid, and to reflect requirements for consistency with the proposed DCF determinations as reviewed in Section 2 of this Argument. Two key elements of the proposal to implement Option A for the ERA and related matters to address current conditions are reviewed below:

1. **Determining YEC expected diesel generation and net costs related to wholesale load changes:** Under current Yukon conditions with diesel on the margin, a change in YECL wholesale purchases will not be 100% addressed only through a change in YEC diesel generation. Accordingly, as reviewed in the 2012/2013 YEC GRA and in the proposed DCF mechanisms, and unlike what occurred in the 1990s for the ERA when diesel was on the margin, incremental YEC "expected diesel generation" at LTA hydro

derived from increased retail sales has been available to ATCO Electric Yukon to offset inflationary and system growth costs, which has benefitted ratepayers by reducing costly rate proceedings."

[48] YECL has confirmed (see YEC-YECL-1-5 (a and b)) that: no ERA amount actually charged to YECL by YEC during the history of the DCF has ever "flowed through" to all Yukon ratepayers; the ERA as applied in the past to increased wholesales (i.e., wholesales above GRA approved forecasts) assumed that any added expense to YECL from the ERA charge was fully mitigated by added YECL revenues related to the same increased YECL sales derived from the increased retail sales responsible for the increased wholesales. YECL has also provided an example from 1997 demonstrating how YECL revenues from incremental sales offset ERA costs with no flow through to ratepayers (see YUB-YECL-1-21 (b)). YECL also demonstrated in YUB-YECL-1-21 (c) how YECL would incur a net revenue loss (absent the ERA) in a year when its wholesale purchases were less than forecast.

generation water conditions will account for only a portion (less than 100%) of the YEC generation change required to supply the change in wholesale load.

The amended ERA mechanism to address this change as reflected in Table 2 of YUB-YEC-1-25 is outlined as follows in the first three steps described in YUB-YEC-1-5 (c and d)[49]:

- Step 1: Determination of incremental wholesales (actual versus approved forecast) net of Fish Lake impacts.
- Step 2: Determination of the average percentage of incremental expected diesel generation in incremental loads.
- Step 3: Determination of the YEC incremental expected diesel generation related to the wholesale variance from forecast.

The net YEC costs related to this YEC expected diesel generation resulting from the wholesale load change is then determined (Step 4 in the YUB-YEC-1-5 (c and d) response, which includes examples) based on the net cost impact on YEC of the wholesale variance after consideration of both revenue and diesel fuel generation cost impacts.[50]

The proposed determination of "expected diesel generation" changes for the ERA is based on an average for overall YEC generation changes in the given year, and does not attempt to attribute a specific expected diesel percentage that would apply only to YECL wholesale variances [see YUB-YEC-1-5] as in the past. Review through interrogatories has noted that the ERA charge as determined above can vary depending on other factors affecting YEC generation.[51] The proposed ERA determination is not affected by actual YEC diesel generation, and therefore is not affected by forced outages or transmission lines or extended planned maintenance outages.

2. **Providing for YECL "unrecovered costs", if any, resulting from the ERA to be deferred for recovery from retail and industrial ratepayers:** Option A as proposed includes measures to provide for YECL recovery (through a YECL Deferral Account) of any portion of the ERA that is not estimated to be funded by YECL's incremental retail revenues related to the wholesale variance.[52] Interrogatory responses have described

[49] The IR response provides examples for each step's determinations.

[50] See also response to YUB-YEC-1-17 for examples of these YEC related determinations for the ERA as proposed.

[51] See response to AEY-YEC-1-2 (e). Other such factors include YECL Fish Lake generation variance from LTA, YEC's system losses as a percent of sales, and impacts of other factors that affect the incremental diesel percentage share of generation variance due to wholesale variance (small impacts expected from variances in YEC retail and industrial loads - the major factor noted for the 2013 percentage relates to AEY's loads, including the forecast industrial customer [WHCT] not being connected [this specific load had been expected to have a minimal impact on expected diesel, and therefore its non-connection materially affected expected diesel in 2013 as a share of generation [see response to AEY-YEC-1-6 (f)].

[52] See step 5 in response to YUB-YEC-1-15 (c and d), which notes consistency with past practice in utilizing YECL incremental revenue to fund the ERA amounts, while also addressing the current gap between incremental YEC diesel fuel generation costs and average YECL incremental retail revenues.

and explained YECL "unrecovered costs" and how the Option A proposal addresses such costs (see response to YUB-YEC-1-16 (a and b). The proposed use of the YECL Purchase Power Flow Through deferral account will allow YECL to recover any ERA costs not recovered by YECL through its run out rate incremental revenues [see YUB-YEC-1-12 (a)]. The proposed approach, however, also highlights the extent to which incremental YECL revenues are able to offset ERA charges, i.e., no requirement is shown for YECL to charge retail ratepayers (through the deferral account) for the 2012 ERA, and only a very minimal charge to ratepayers is shown to be required for 2013.

3.3 OTHER MATTERS – YECL-AEY PROPOSALS TO DISCONTINUE ERA

Yukon Energy noted in the January 31, 2014 Application (page 3) that, in its view, the core consistent disagreement between the Companies throughout this proceeding relates to the continuance of the ERA charges by YEC to YECL as part of the two step mechanism included Rate Schedule 42.

On the matter of the ERA, YECL-AEY has noted during this proceeding (see YEC-YECL-5 (b)) that there have been no ERA charges since the ERA was turned off in the late 1990s and that any incremental increased margin derived by YECL from increased retail sales during this period "...has been available to ATCO Electric Yukon to offset inflationary and system growth costs, which has benefitted ratepayers by reducing costly rate proceedings."

YECL has proposed[53] that the ERA be discontinued and replaced with a new YEC deferral account mechanism whereby YEC deals directly with ratepayers, YECL is no longer involved or affected, and YECL is able to retain all added revenues secured from sales in excess of approved forecasts without any offsetting charges for incremental diesel charges incurred by YEC.

Yukon Energy addressed the YECL proposal at pages 2 to 7 of its January 31, 2014 filing, in its assessment of Option B for the ERA versus Option A that YEC has proposed. Both options provided for the DCF as proposed by YEC and also protected both YEC and YECL from incurring unrecovered costs related to YEC's incremental diesel generation costs arising from changes in YECL power purchases from YEC. The differences between the two options are highlighted below:

- **Option A** (YEC's preferred option) retains the ERA as proposed in the Application:
    - Option A is consistent with past practice when diesel was last on the margin for the hydro grid.

[53] YECL's first proposal was provided in its Final Argument in the YEC 2012-13 GRA proceeding. The YECL-AEY January 31, 2014 submission proposed discontinuance of both the DCF and ERA, to be replaced by a new YEC diesel deferral account (which has been reviewed in section 2.3 of this Argument). The YECL-AEY January 31, 2014 submission also proposed (cover letter, page 8), in the alternative, that if an ERA should be charged to YECL, 100% of the ERA should flow through to all Yukon ratepayers and on this basis the ultimate recovery of the outstanding deferral "...is better served being administered by YEC" (i.e., with no resulting direct charges to YECL and termination, in effect, of the ERA as it currently exists). In Yukon Energy's view, this alternative in effect recommends discontinuance of the ERA and an option basically similar to Option B as examined in the January 31, 2014 YEC Application.

- Option A is consistent with past Board Orders that approved an ERA and the directions in OIC 1995/90 section 7 regarding wholesale rates charged by YEC to YECL.

- **Option B** discontinues the ERA and establishes a new Diesel Deferral Account (DDA) administered by YEC to address YEC's net thermal generation cost changes at LTA related to variances in firm YEC sales from GRA approved forecasts for each retail and industrial customer class (after consideration of all revenue changes related to such variances in firm YEC sales).

    - Option B allows YECL to protect its incremental revenue margins related to wholesales in excess of YEC forecasts.

    - Option B would have materially higher cost impacts on ratepayers than Option A, e.g., in 2012-13 based on final estimates in Tables 2 and 3 of YUB-YEC-1-25, Option A compared to Option B saves ratepayers $0.708 million in deferral account amounts to be recovered through rate riders (77% of which [$0.543 million] relates to YECL wholesales due to the exclusion under Option B of offsetting YECL revenues related to wholesale variances; the balance relates to YEC industrial and retail sales that are affected only under Option B).[54]

    - As reviewed in response to YUB-YEC-1-22, Option B would also shift forecast risk from the utility to ratepayers.[55]

As summarized above, the key difference between these two options is the impact on ratepayers, i.e., under Option B (discontinue ERA, establish new YEC Diesel Deferral Account) ratepayers would have materially higher cost impacts than under the Option A (continue ERA, with amendments as proposed in the Application).

Based on the added ratepayer costs and other comparative disadvantages noted (including lack of consistency with long established ERA mechanisms in Yukon), Yukon Energy's submission is that there is no merit for the Board to consider further at this time the YECL-AEY proposal to discontinue the ERA.

3.4 CONCLUDING COMMENTS ON THE ERA

In summary, after a lengthy regulatory review process that started in April 2012, the evidence clearly establishes that Yukon Energy's ERA proposal (Option A) as set out in the Application and in this proceeding respects core principles underlying the currently approved ERA mechanisms (as established by past practice and consistent with good practice in other jurisdictions for

[54] Table 3 of YUB-YEC-1-25 for the DDA under Option B shows YEC DDA rider of $0.569 million in 2012 and $0.144 million in 2013, with wholesales contributing $0.527 million in 2012 and $0.021 million in 2013. Table 2 of YUB-YEC-1-25 for Option A shows a YECL Deferral Rider of only $0.005 million over these same two years.

[55] It can also be noted that, contrary to the assumption in YEC's Option B assessment, YECL-AEY has stated discontinuance of the ERA [as assumed under Option B] would not result in discontinuance of the YECL Purchase Power Deferral Account. (See YEC-YECL-5 (e)).

wholesale rate determination) and simply seeks to reactivate the mechanisms and update the rules and processes as required for current conditions and the directions in OIC 1995/90.

The evidence confirms that Yukon Energy's proposal to reactivate and amend the ERA is driven by the need, as of the 2012 and 2013 test years, to reactivate the DCF given the undisputed reality that, subsequent to Board Order 2013-01 (that included Board approval of rates at 100% of LTA hydro generation water conditions), current and forecast grid loads combined with current renewable generation capability are now driving material ratepayer cost risks related to water availability. Under these conditions, discontinuance of the DCF is not a principled or practical option - and re-activation of the updated DCF concurrently necessitates re-activation of the ERA as proposed in the Application.

The evidence also confirms that the key elements of Yukon Energy's ERA proposal are consistent with long established ERA mechanisms in Yukon, and are reasonable amendments required for current conditions on the Yukon grid. The only option to the Application's ERA proposal proposed during this hearing process (i.e., replacement of the ERA by a YEC diesel deferral account that would allow YECL not to be impacted) would add to retail and industrial ratepayer costs and not be consistent with the long established purpose and practice of the ERA.

Based on all of the above, the evidence confirms that the ERA should be reactivated and amended as proposed in the Application, effective January 1, 2012. Further, the YECL Purchase Power Flow Through deferral account should be impacted by any subsequent ERA charges or rebates only as proposed in Option A in the Application, i.e., only to the extent that a net impact remains for YECL after full consideration (consistent with past ERA practice) of any YECL incremental revenue changes.

4.0 CONCLUSIONS ON THE APPLICATION

The current review process started in April 2012, as part of Yukon Energy's 2012-13 GRA, when Yukon Energy filed its initial proposals to update and re-activate the DCF and to secure necessary related amendments to the ERA. These proposals were provided in response to the need to deal with diesel generation once again being on the margin on the Yukon grid, and the need to update the DCF as directed by Board Order 2011-15.

A lengthy regulatory review process is now concluding with regard to these proposals. This lengthy process has been required to address challenges to the concept of continuing either the DCF or the ERA - matters on which Yukon Energy and YECL-AEY have been unable, due to fundamental differences, to provide any joint recommendation to the Board.[56]

Today it is important to move forward with a resolution on the fundamental decision as to whether the DCF and the ERA are to be sustained with updates as proposed by Yukon Energy, or discontinued and replaced with some other option as proposed by YECL-AEY. Once this core issue is resolved, and the relevant financial accounts settled for 2012 and 2013, there will be ample opportunity to assess options for ongoing improvement to the details of the mechanisms adopted.

In summary, after the lengthy regulatory review process, the evidence clearly establishes the following:

1. There is no basis for discontinuing the DCF or the ERA unless similar mechanisms are adopted that can as effectively address what the DCF and the ERA are designed to address.

2. Yukon Energy's DCF proposal and ERA proposal (Option A) as set out in the Application and in this proceeding respect core principles underlying the currently approved DCF and ERA mechanisms and simply seek to reactivate the mechanisms and update the rules and processes as required for current conditions and the directions in OIC 1995/90 and Board Order 2013-01.

3. Yukon Energy's proposal to reactivate and amend the DCF and the ERA is driven by the need, as of the 2012 and 2013 test years, to reactivate the DCF given the undisputed reality that, subsequent to Board Order 2013-01 that included Board approval of rates at 100% of LTA hydro generation water conditions, current and forecast grid loads combined with current renewable generation capability are now driving material ratepayer cost risks related to water availability. Under these conditions, discontinuance of the DCF is not a principled or practical option - and re-activation of the updated DCF concurrently necessitates re-activation of the ERA as proposed in the Application.

[56] Challenges to the DCF and ERA were initiated during Final Argument of the 2012-13 YEC GRA, and continued through the following process of consultation and discussion. See YUB-YEC-1-6 (c), YUB-YEC-1-11, and YUB-YEC-1-13 (a and b).

4. The key elements of Yukon Energy's DCF and ERA proposals are consistent with long established DCF and ERA mechanisms in Yukon, and are reasonable updates and amendments required for current conditions on the Yukon grid.

5. No principled or practical option to the Application's DCF proposal has been proposed that would meet, under current grid conditions, the long established purpose of the DCF.

6. The only option to the Application's ERA proposal proposed during this hearing process (i.e., replacement of the ERA by a YEC diesel deferral account that would allow YECL not to be impacted) would add to retail and industrial ratepayer costs and not be consistent with the long established purpose and practice of the ERA.

Based on all of the above, the evidence confirms that the DCF and the ERA should be reactivated and updated or amended as proposed in the Application, effective January 1, 2012, and that the YECL Purchase Power Flow Through deferral account should be impacted by any subsequent ERA charges or rebates only as proposed in Option A in the Application.

In summary, Yukon Energy respectfully requests that its Application be approved as filed January 31, 2014 (and as updated by the response to YUB-YEC-1-25 – which provides final versions of Table 1, 2 and 3 from Yukon Energy's January 31, 2014 filing).[57] In particular, Yukon Energy respectfully requests the following approvals from the Board:

1. Approval, effective January 1, 2012, of Yukon Energy's Revised DCF proposal as described in the Revised DCF Term Sheet in Appendix 1, Attachment 1.1 of the Application.

2. Approval to implement the updated ERA, effective January 1, 2012, and other measures as described in Option A of the Application as to address the updated ERA, including the following specific approvals related to this option:

    - Approval to trigger the ERA provision of Rate Schedule 42 on an ongoing basis effective January 1, 2012, based on the Revised ERA as described in Appendix 2, Attachment 2.1 of the Application, as revised in YUB-YEC-1-25. to this filing; and

    - Confirmation that all ERA charges or rebates to YECL will go directly to YECL's Purchase Power Flow Through deferral account only after deduction of any related YECL revenue changes associated with the same purchase power variances addressed by the ERA charges or rebates, to flow through to ratepayers at such times and terms as approved by the Board.

3. Approval of final DCF and ERA amounts for 2012 and 2013 as set out in response to YUB-YEC-1-25, Tables 1 and 2 respectively.

[57] Tables 1, 2 and 3 from Yukon Energy's January 31, 2014 filing were updated based on final actuals for 2012 and 2013, and included modifications to ERA determinations in Table 2 to better reflect Fish Lake impacts as well as the determination of expected diesel in Table 1 for actual grid loads (i.e., for the DCF).

4. Approval of ongoing reporting and review of DCF and ERA operation as provided for in the Application (e.g., at Attachment 1.1, page A1.1-7), including provision for annual updates (subject to review and approval of the Board) as required to expected default diesel generation determinations, thermal generation costs, and other options for ongoing improvement to the details of the mechanisms adopted to date.

ALL OF WHICH IS RESPECTFULLY SUBMITTED

P. John Landry
Counsel for Yukon Energy Corporation

October 29, 2014