Appendix A to Board Order 2015-01
Reasons for Decision

1. INTRODUCTION AND BACKGROUND

The Yukon Utilities Board (Board) received applications dated January 31, 2014 from Yukon Energy Corporation (YEC) and Yukon Electrical Company Ltd. (YECL; also known as "ATCO Electric Yukon") regarding revisions or amendments to the Diesel Contingency Fund (DCF) and to the portions of Rate Schedule 42 that relate to the Energy Reconciliation Adjustment (ERA) (Applications).

The Applications were filed in response to Board directions in Board Order 2013-01, issued March 25, 2013, and Board Order 2013-03, issued June 17, 2013, and correspondence from the Board dated July 16, 2013, which are set out below.

In paragraph 255 of Appendix A to Board Order 2013-01, the Board stated:

> Given the above concerns, the Board does not approve YEC's proposed DCF but directs YEC to provide a revised DCF proposal. In the revised DCF proposal, YEC is to incorporate other non-diesel generation facilities (wind, Fish Lake hydro) forecasts into its model. In addition, YEC is to incorporate the suggestions of CW and UCG as to how DCF transactions are to be reported. Further, in that submission, YEC is to provide an example of approximately five years of transactions which will show how the balance in the DCF will change and how those changes will be reported. Finally, YEC is to work with YECL, and the two utilities will provide a joint recommendation on how the DCF will affect the Energy Reconciliation Account in Rate Schedule 42 and any proposed wording changes to that rate schedule. The Board will leave it to the discretion of YEC and YECL as to when the revised DCF proposal is to be filed with the Board. Given the foregoing, the Board does not approve YEC's requests regarding the DCF and therefore does not approve YEC's proposed changes to Rider F. Secondary sales, as they occur, will continue to be credited to the Rider F account.

In paragraphs 15-16 of Appendix A to Board Order 2013-03 the Board stated:

> The Board notes that the revised DCF proposal was not filed jointly by YEC and YECL and that there was not a joint recommendation by the companies on how to amend the wording regarding the ERA in Rate Schedule 42. The Board considers that the revised DCF proposal has not been tested in a proceeding.
>
> Given the foregoing, the Board does not approve the revised DCF proposal filed in YEC's 2012-13 GRA compliance filing. Consequently, the Board will not allow any changes regarding 2012 and the effects of any DCF proposal.

> YEC may file a future revised DCF proposal and ERA application. The Board prefers a joint filing from YEC and YECL. However, if agreement cannot be reached, a filing in which the companies state which aspects of the revised DCF proposal and ERA amendment they agree upon, the aspects they disagree upon, and the position of each company on those aspects they disagree upon is acceptable. The filing must also address the concerns raised in Board Order 2013-01 Attachment A: Reasons for Decision. This future revised DCF proposal and ERA application will be separate from the compliance filing directed in this order.

And in the Board correspondence to YEC dated July 16, 2013, the Board stated:

> The Board also directs that the revised DCF application be submitted to the Board by no later than September 30, 2013.

On September 23, 2013, the Companies requested an extension of the September 30, 2013 filing deadline, which the Board granted, and a new filing deadline of November 15, 2013 was set. YEC and YECL requested a further extension to continue to meet and discuss the various aspects of the issue. The Board granted another extension of the filing deadline to January 31, 2014.

Board Order 2014-07, issued April 25, 2014, provided a proceeding schedule for a written process for the Applications. Board Order 2014-08, issued June 20, 2014, revised the proceeding schedule based on the requests of the Companies.

Intervener status was granted to UCG in Board Order 2014-10, issued July 29, 2014.

On January 31, 2014, the Board received separate DCF-ERA applications from YEC and YECL. On page 2 of YEC's cover letter to the application, YEC stated:

> Unfortunately, despite the additional time provided, and their best efforts, the Companies have not been able to develop a joint recommendation or submission for the Board.

YEC, in its application, proposed two options for this matter to proceed.

> Option A – "provides for the DCF as proposed (with adjustments essentially as outlined in the May 1, 2013 Compliance Filing), but modifies the ERA (as proposed in the 2012/13 GRA and May 1, 2013 Compliance Filing) to reflect net cost to YEC after all added revenues related to wholesales variances, and provides as well for YECL recovery through its deferral account (and related rate rider) of any net added cost after full consideration of added revenues due to increased sales."[1]

> Option B – "provides for the Revised DCF as proposed in the 2012/13 GRA (with adjustments essentially as outlined in the May 1, 2013 Compliance Filing), but

[1] YEC Application, page 3.

amends Rate Schedule 42 as requested by YECL to remove reference to an ERA mechanism; in place of an ERA, a new YEC Diesel Deferral Account (DDA) would be administered to address YEC's net thermal generation cost changes at LTA related to variances in firm YEC sales from GRA approved forecasts (after consideration of all revenue changes related to such variances in firm YEC sales)."

Under both options, YEC noted that in terms of cost recovery, it is kept whole. However, under Option A, there is a lower cost impact on ratepayers as the margin on incremental wholesale sales (sales over forecast levels) is first applied to incremental diesel costs, thereby not affecting customer rates. If incremental diesel costs exceed incremental revenues, then the difference is applied to a purchase power deferral account for subsequent collection by YECL, thereby affecting customer rates.

YEC provided further information on its DCF proposal through Appendix 1: Revised DCF Proposal attached to the January 31, 2014 application. The DCF, as proposed by YEC, is the same proposal as prepared in response to Board Order 2013-01. The new proposal:

1. Includes generation[2] costs at 100% of long-term average (LTA) hydro generation.
2. Incorporates other non-diesel generation facilities (wind, Fish Lake hydro) forecasts in the model.
3. Removes secondary sales.
4. Incorporates changes to reporting (reporting to be done on a quarterly basis with a narrative section indicating what if any action is required for the DCF (replenish or refund). Furthermore, the quarterly reports are to include working spreadsheets detailing the calculations and annual filings will allow parties the opportunity to provide comments).
5. Includes an example of five years of transactions which show how the balance in the DCF might change and how these changes will be reported.
6. Changes the threshold caps to +/- $8.0 million from +/- $4.0 million.[3]

YEC has also proposed that diesel be considered permanently "on the margin"[4]. The DCF uses a formulaic approach to determine expected YEC diesel generation for the YEC operating grid[5] based on long-term average water-based hydro generation forecast. The forecasts are provided through YEC's YECSIM model[6]. One of the primary changes from the past is that this forecasting methodology no longer uses a fixed load level to

[2] The DCF was revised to remove the limitation to diesel and include the use of other fossil fuels such as liquid natural gas (LNG).
[3] YEC Application, Appendix 1, page 1-1.
[4] By stating that diesel is permanently on the margin, YEC is saying that within the relevant load range, diesel will always be a part of baseload generation.
[5] The YEC grid includes the connection of the Mayo and Whitehorse-Aishihik-Faro (WAF) systems through the Carmacks-Stewart Transmission line, plus such changes in generation as the Mayo B project and the Aishihik third turbine.
[6] The simulation model developed for the Integrated Grid, by KGS Group, YEC application, page A1.1-8, note 2.

determine when diesel is required for baseload generation. YEC submitted tables[7] to be used in determining expected YEC diesel generation. YEC committed, in the future, to provide updates to the tables when material changes on long-term average hydro system capability due to changes in loads, installed capacity, licensing/permits or other factors occur. YEC did not define "material" in its application.

In reaching the determinations contained within this decision, the Board has considered all relevant materials comprising the record of this proceeding, including the evidence and argument provided by each party. Accordingly, references in this decision to specific parts of the record are intended to assist the reader in understanding the Board's reasoning related to a particular matter and should not be taken as an indication that the Board did not consider all relevant portions of the record with respect to that matter.

2. DISCUSSION

2.1 DIESEL CONTINGENCY FUND

The operation of the DCF is best described as follows:

> Q. Certainly. Well, I can -- the question is how was that
> the fund going to be billed up?
> A. MR. OSLER: Okay. Essentially the same way
> as it was before, in principle. Okay? Just start from
> there. And the fund is built up by charging -- by setting a
> pricing basis -- and I'm going to keep it at long-term
> average for the sake of this discussion because it's a bit
> simpler. Agreeing that we're not going to have the company
> paying for diesel based on what it actually burns, but we're
> going to have it pay for diesel based on the long-term
> average, okay?
> So Mr. Mollard would then enter into his
> accounts for the year essentially based on what the long-term
> average diesel requirement should have been for that load and
> he will pay that.
> How much money goes into the fund depends on
> what actual diesel was burned. If, in fact, the actual
> amount of diesel burned was less than the long-term average,
>
> then that money -- the difference between what he's paying
> and what was actually paid for diesel will end up in the
> fund, and will augment the fund.
> The fund can only get augmented that way
> unless the Board was to order, because the fund has gone
> outside its boundary, its cap, or outside its limits, order a
> special charge to replenish the fund.
> The fund would be drawn down by the opposite,
> by the -- essentially having a situation where the diesel
> requirement, in fact, was bigger than the long-term average.

[7] Table 1.1-1 and 1.1-2, pages A1.1-8 and A1.1-9 of the application.

11 Mr. Mollard would still be paying the long-term average; the
12 fund would be paying the difference between the actual diesel
13 requirement and the long-term average.
14 So, in that sense, it's exactly the same in
15 principle as what the diesel contingency fund was doing
16 before. The changes are more to do with the issue of how you
17 calculate the long-term average that is applicable in a given
18 year and taking into account in doing that the integrated
19 grid that exists today rather that (sic) just the Whitehorse
20 Aishihik Faro system that the fund applied to before.
21 I'm talking at a very high level, but I think
22 that's the essence of it. [8]

2.1.1 Views of the Parties

2.1.1.1 Yukon Energy Corporation

The drivers for the current application for the DCF proffered by YEC are:

> 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.[9]

YEC added:

> 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.[10]

YEC noted how YEC's diesel costs are determined under the proposed DCF:

> Diesel generation fuel costs at 100% LTA related to any incremental growth above GRA approved forecasts in any year are also charged to YEC under the DCF as proposed in YEC's January 31, 2014 filing, regardless as to actual diesel generation that occurs in any year. This reflects long-standing principles under the DCF and YEC's prior Low Water Reserve Fund, i.e., when the DCF is activated, YEC's actual costs for diesel in any year reflect GRA approved diesel generation

[8] From YEC's 2012 General Rate Application, Transcript Volume 3, November 14, 2012, page 573 starting at line 8 and ending at page 574, line 22.
[9] YEC Final Argument, page 7.
[10] YEC Final Argument, page 7.

> forecasts based on specified water forecast assumptions and not actual YEC generation.[11]

…

> The difference in cost between forecast diesel and actual diesel generation in any year at any given level of grid generation reflects only the variance in water availability (hydro generation) relative to the forecast, and this difference is what goes into or comes out of the DCF. Funds are held in the DCF to protect ratepayers against adverse and material rate impacts at such time as drought or low water conditions act to severely reduce hydro generation and thereby require increased diesel generation on the grid.[12]

YEC viewed the purpose of the DCF mechanism as a ratepayer "trust fund" to smooth customer rate changes from changes in thermal generation costs brought on by variances from availability of LTA levels of hydro and wind generation. [13]

YEC argued:

> 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.[14]

Therefore, according to YEC, thermal generation costs are based on expected hydro and wind generation [the difference between "expected thermal generation" and "actual thermal generation" are charged to the DCF][15] and 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.[16]

In argument, YEC stated that actual diesel generation or secondary sales are not relevant to determine if diesel is on the margin; that DCF determinations address thermal generation variance due solely to water and wind variability; that Annual YECSIM model determinations of "expected default diesel generation" are appropriate for the DCF; and provision for ongoing annual updates to YECSIM, as approved by the Board, of expected default diesel generation determinations and thermal generation costs will reflect material changes in load conditions and /or changes in characteristics of generation and grid capability.[17] In addition YEC proposed large "caps" be set to avoid frequent rate riders[18].

[11] YEC Supplemental Filing (June 30, 2014), Attachment 1, page 1-3.
[12] YEC Supplemental Filing (June 30, 2014), Attachment 1, page 1-3.
[13] YEC Final Argument, page 5.
[14] YEC Final Argument, page 5.
[15] YEC Final Argument, page 8.
[16] YEC Final Argument, page 9.
[17] YEC Final Argument, pages 11-12.
[18] YEC Final Argument, page 9.

In response to YECL assertions, YEC replied as follows:

> AEY's [YECL's] argument to terminate the DCF basically relies on assertions about the complexity and non-testability of the YECSIM model used to determine LTA hydro generation at different grid loads as the basis for suggesting that the DCF as such is no longer appropriate. This argument is without merit, in that it fails to recognize the specific basis upon which the Board approved current rates as well as essential features of any DCF, an it therefore provides no basis for concluding that the DCF is no longer relevant or appropriate.[19]
>
> In contrast to a normal deferral account mechanism intended to track actual costs relative to a prior assumed cost or price, DCF mechanisms (as approved in the past as well as proposed today) must rely on an "expected diesel generation" amount based on either an assumption or a model's analysis of LTA hydro generation.[20]
>
> Yukon Energy's [YEC's] submission is that discontinuing a DCF based on forecast LTA water conditions would increase rate instability, 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.[21]

Regarding the testability of the YECSIM model, YEC responded that there is no merit or relevance to suggestions that YECSIM is inaccurate, that YECSIM was designed by experts and custom made for the operation of the YEC power system, the YECSIM was not designed to replicate the past and that a true-up to actual results has no relevance to the past or current DCF mechanism. [22]

YEC further noted, that in the past, and in the current DCF proposal, actual diesel generation for DCF determination is not adjusted for changes from GRA approved load or generation forecasts due to changes in industrial loads, load shape over the year, or overall system losses — and therefore each of these factors can affect DCF results (a point which has nothing to do with YECSIM per se, and which in no way invalidates past or proposed DCF mechanisms).[23]

[19] YEC Reply Argument, page 4.
[20] YEC Reply Argument, page 4.
[21] YEC Reply Argument, page 5.
[22] YEC Reply Argument, page 15.
[23] YEC Reply Argument, pages 15 to 16.

2.1.1.2 Yukon Electrical Company Ltd.

In response to YUB-YECL-1-7(b), YECL stated:

> ATCO Electric Yukon [YECL] supports the existence of a fund to ensure that neither ratepayers nor the utilities experience windfalls or losses as a result of material and not reasonably forecastable fluctuations in the amount of diesel costs incurred. … ATCO Electric Yukon [YECL] does not support the DCF as proposed by YEC because (among other reasons): 1. It is overly complex and relies on forecasts that cannot readily be tested; 2. It is not trued up to actual data; 3. It has a very high dispersal threshold (approximately 20% of YEC's revenue requirement); and 4. It does not send appropriate market signals to customers.[24]

However, in Reply Argument, YECL stated:

> ATCO Electric Yukon YECL] is not questioning the need for a mechanism to buffer customers from significant swings in electricity rates due to changing water conditions.[25]
>
> …
>
> ATCO Electric Yukon [YECL] strongly disagrees with YEC's position that rate stability should be the sole objective of a mechanism for dealing with fluctuations in water availability, and believes that rate stability principles need to be balanced with the principles of ensuring that today's customers are paying appropriately for the costs of the electricity they are utilizing (intergenerational equity) and ensuring that customers receive price signals that allow them to react appropriately in times of low water by curbing consumption (providing appropriate market signals).[26]

YECL added:

> ATCO Electric Yukon [YECL] also agrees with YEC's statement that "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." This is consistent with the position of ATCO Electric Yukon [YECL] raised in its Argument that customers should bear the risk of fluctuations in diesel consumption, not the utilities.[27]

In terms of diesel being either "on the margin" or "off the margin," YECL's position was the test to determine "on the margin" is whether or not a material amount of diesel is included in YEC's base rates. If the answer is in the affirmative, then ratepayers and the

[24] YUB-YECL-1-7 (b).
[25] AEY [YECL] Reply Argument, paragraph 13.
[26] AEY [YECL] Reply Argument, paragraph 9.
[27] AEY [YECL] Reply Argument, paragraph 4.

utility should be protected from material fluctuations in diesel volumes due to not reasonably forecastable circumstances. In YECL's view, a straightforward deferral mechanism[28] is the best resolution to the issue. This is because YECL continued to have significant concerns with the mechanisms proposed by YEC (both Option A and Option B) in its January 31, 2014 submission, and requested the Board reject these options. YECL recommended that the issue of diesel volume variances should be handled through a YEC deferral account that is trued up to actuals.[29, 30]

YECL provided several comments regarding the acceptability of the YECSIM model as a tool used to derive DCF calculations. Most notably, it stated:

> The various factors that have increased the complexity of the YIS [Yukon Integrated System] also impact decisions on dispatch which, in turn, impact forecast and actual line losses which, likewise, impact when diesel is or is not "on the margin".[31]
>
> In this environment, understanding, never mind testing and relying upon a model that purports to be able to fully isolate the impact of water flows on diesel generation at different load levels at different locations appears to be very problematic.[32]
>
> The concept of a deferral mechanism, such as a rate stabilization fund like the DCF, is to ensure that customers are neither overpaying nor underpaying for a cost (such as diesel volumes) where it is not possible for the utility to reasonably forecast the cost. In such a case, it is customary for purposes of regulatory efficiency not to waste time and resources on complex models attempting to forecast such an item - it is much simpler and more efficient to true up the forecast to the actual cost and to test the actual cost as part of an application to the Board.[33]
>
> YEC's proposed DCF mechanism, however, is contrary to these basic principles of a deferral account. It utilizes the overly complex, opaque, untestable YECSIM model to not only forecast diesel volumes for the purposes of setting YEC's rates, but it is also uses the YECSIM model to calculate the "expected actual" diesel volume amount, which the forecast is trued up to, for the purposes of determining the amount to credit to the DCF.[34]

[28] YUB-YECL-1-1(f) b.
[29] AEY [YECL] Final Argument, paragraph 3.
[30] The diesel deferral account is discussed later in this decision.
[31] AEY [YECL] Final Argument, paragraph 14.
[32] AEY [YECL] Final Argument, paragraph 14.
[33] AEY [YECL] Final Argument, paragraph 26.
[34] AEY [YECL] Final Argument, paragraph 27.

> … the model cannot be tested or independently verified because it is "proprietary" and "is not structured in a way that lends itself to retrospective verification per se." [YUB-YEC-1-3(c) and YUB-YEC-1-9(a)][35]
>
> YEC, however, fails to point out a third principle common to these three jurisdictions: that the low water mechanisms are trued up to actuals, not "expected" or "derived" actuals calculated by a proprietary and untested model, as contemplated by YEC's DCF proposal.[36]
>
> ATCO Electric Yukon [YECL] continues to have grave doubts that any model, no matter how sophisticated or expensive, could be designed to accurately isolate the impact of water and wind variability from all of the numerous other factors that can affect diesel consumption.[37]

2.1.1.3 Utilities Consumers' Group

UCG agreed that the purpose of the DCF is to protect ratepayers from diesel generation cost impacts caused by fluctuation of hydro generation due to water conditions[38].

However, UCG submitted:

> In response to UCG-YEC-1-20 in this proceeding, YEC states that a DCF mechanism is necessary to manage risks and costs to ratepayers related to variances in water availability on the integrated grid. UCG submits that these types of mechanisms put all of the onus on ratepayers rather than ensuring that utilities are held accountable for their operational decisions.[39]

UCG noted that, based on its research of other jurisdictions, it would be concerned, if a rate stabilization fund mechanism which allowed a pass through of all diesel costs, might not provide the appropriate incentive for the utility to maximize the hydro resource.[40] It added that it was important for the utility to submit a quantified analysis of its major risks and analysis that would put numbers to the major risks associated with a low water year.[41]

In terms of a cap for a DCF, the UCG position was that YEC has not defined "sufficiently large caps" nor given any type of risk analysis other than claiming a severe drought would cost in the order of $20-30 million[42], and did not agree with YECL that a DCF threshold of +/- $2 million is enough, but UCG agreed with YECL that avoiding rate

[35] AEY [YECL] Final Argument, paragraph 30.
[36] AEY [YECL] Reply Argument, paragraph 7.
[37] AEY [YECL] Reply Argument, paragraph 10.
[38] UCG Final Argument, page 6.
[39] UCG Final Argument, page 6.
[40] UCG Final Argument, page 7, in reference to NWT PUB Decision 1-2013.
[41] UCG Final Argument, page 7, in reference to Manitoba Public Utilities Board Order 116/08.
[42] UCG Reply Argument, page 2.

shock is still an obtainable objective[43] and therefore submitted that a DCF cap of $4 - $5 million is preferred.[44]

Regarding YEC's use of the YECSIM model, UCG made the following comments:

> With respect to YEC's position that annual YECSIM model determinations of "expected default diesel generation" are appropriate for the DCF, UCG repeats its argument that it is detrimental to the review efforts of the YUB and stakeholders to have YEC refuse to provide all the data, calculations and assumptions used to derive the YECSIM model by hiding behind a proprietary model claim.[45]
>
> … it is still important for an independent review of the model to verify that it is the optimal program to be using.[46]
>
> UCG agrees with AEY's [YECL's] argument that YEC's DCF proposal appears to be excessively and unnecessarily complex and agrees with AEY's [YECL's] conclusion that a complex and untestable model like the YECSIM to attempt to forecast diesel volumes and then using the same model to calculate the amount to which the forecast is trued up, goes against basic principles of deferral accounts and causes unnecessary complexity.[47]

2.1.1.4 Views of the Board

The Board notes that all Parties to this proceeding agree that there is a need for a mechanism that effectively protects ratepayers from diesel generation cost impacts caused by fluctuation of hydro generation due to water conditions[48] or changes in wind conditions. The question before the Board is: How is this best accomplished? Currently, there are three models for the Board to consider: YEC Option A, YEC Option B and YECL Diesel Deferral Account (DDA), which is discussed later in these reasons.

YEC's Option A and Option B present the same DCF model, the difference between the two pertains to the ERA, which is discussed in the next section of these reasons.

The Board notes the following from YEC's evidence:

> Diesel generation fuel costs at 100% LTA related to any incremental growth above GRA approved forecasts in any year are also charged to YEC under the DCF as proposed in YEC's January 31, 2014 filing, regardless as to actual diesel generation that occurs in any year. This reflects long-standing principles under the

[43] UCG Reply Argument, page 4.
[44] UCG Reply Argument, page 2.
[45] UCG Reply Argument, page 2.
[46] UCG Reply Argument, page 3.
[47] UCG Reply Argument, page 4.
[48] UCG Final Argument, page 6, AEY [YECL] response to YUB-YECL-1-7 (b), YEC argument, page 5 and YEC Supplemental Filing, Attachment 1, page 1-3.

> DCF and YEC's prior Low Water Reserve Fund, i.e., when the DCF is activated, YEC's actual costs for diesel in any year reflect GRA approved diesel generation forecasts based on specified water forecast assumptions and not actual YEC generation.[49] [emphasis added]

The Board interprets that the above sets out how the fund operates. That is, YEC records the expected diesel costs based on long-term average (LTA) hydro availability[50]. Any deviation between the expected diesel costs at LTA availability and actual diesel costs are then attributed to the DCF.

Generally, the issues brought forward by parties regarding the DCF pertain to the YECSIM model, diesel being "on the margin" and secondary sales. Regarding the latter two, YEC has provided sufficient evidence[51] to convince the Board that based on current loads, expected load growth, and LTA hydro generation that there is a reasonable expectation that under these conditions that diesel or "thermal" generation will form part of baseload generation thus making the question of diesel being either "on the margin" or "off the margin" moot. Therefore, the Board does not consider diesel being "on the margin" part of the criteria for invoking the DCF. Further, regarding secondary sales, the availability of secondary sales for discrete portions of the year does not take away that over the course of the year thermal generation is required for baseload generation under LTA water conditions, not just for peaking purposes. The availability of secondary sales can represent a situation where water availability diverges from LTA. That is, there can be more hydro availability than LTA thus make secondary sales available, or there can be less hydro availability than LTA, but the fixed load profile for certain periods is such that fixed load is less than hydro availability and therefore secondary sales can be made available. Thus the availability of secondary sales does not determine the application of the DCF.

With respect to the use of the YECSIM model, YECL has brought forward several points:

- the complexity of the YIS;
- operational decisions which can impact line losses and hence diesel requirements;[52]
- the complexity of the YIS environment and the ability to isolate a single variable such as water flow appears unrealistic[53]; and
- it is more efficient to test forecast to actual results versus testing the accuracy of a complex model.[54]

[49] YEC Supplemental Filing (June 30, 2014), Attachment 1, page 1-3.
[50] LTA is adjusted for Fish Lake Hydro and forecast Wind generation.
[51] See for example YEC application, Appendix 1.1 Pages 1.1-5 to 1,1-6, Attachment 1.1 page A1.1-9 to A1.1-10 and pages 1.1-11 to 1.1-15
[52] AEY [YECL] Final Argument, paragraph 14.
[53] AEY [YECL] Final Argument, paragraph 14.
[54] AEY [YECL] Final Argument, paragraph 26.

YECL further stated:

> YEC's proposed DCF mechanism, however, is contrary to these basic principles of a deferral account. It utilizes the overly complex, opaque, untestable YECSIM model to not only forecast diesel volumes for the purposes of setting YEC's rates, but it is also uses the YECSIM model to calculate the "expected actual" diesel volume amount, which the forecast is trued up to, for the purposes of determining the amount to credit to the DCF.[55]

YECL further stated that due to its proprietary nature, YECSIM cannot be independently tested or retrospectively verified[56] and concluded by saying:

> ATCO Electric Yukon [YECL] continues to have grave doubts that any model, no matter how sophisticated or expensive, could be designed to accurately isolate the impact of water and wind variability from all of the numerous other factors that can affect diesel consumption.[57]

UCG echoed many of the points made by YECL and in addition requested independent verification of the model.

YEC responded to the YECL and UCG comments by stating this argument was without merit, in that it fails to recognize the specific basis upon which the Board approved current rates as well as essential features of any DCF. Therefore, it provided no basis for concluding that the DCF is no longer relevant or appropriate[58] and that DCF mechanisms, as approved in the past as well as proposed today, must rely on an "expected diesel generation" amount based on either an assumption or a model's analysis of LTA hydro generation.[59]

YEC added:

> Yukon Energy's [YEC's] submission is that discontinuing a DCF based on forecast LTA water conditions would increase rate instability, 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.[60]

Regarding the testing of the YECSIM model as noted earlier in this decision, YEC responded that there was no merit or relevance to suggestions that YECSIM is inaccurate, that YECSIM was designed by experts and custom made for the operation of the YEC

[55] AEY [YECL] Final Argument, paragraph 27.
[56] AEY [YECL] Final Argument, paragraph 30.
[57] AEY [YECL] Reply Argument, paragraph 10.
[58] YEC Reply Argument, page 4.
[59] YEC Reply Argument, page 4.
[60] YEC Reply Argument, page 5.

power system, that YECSIM was not designed to replicate the past and that a true-up to actual results has no relevance to the past or current DCF mechanism.[61] In addition YEC further noted that in the past, and in the current DCF proposal, actual diesel generation for DCF determination is not adjusted for changes from GRA approved load or generation forecasts due to changes in industrial loads, load shape over the year, or overall system losses, and therefore each of these factors can affect DCF results — a point which has nothing to do with YECSIM per se, and which in no way invalidates past or proposed DCF mechanisms.[62]

When the Board considers the two proposed models (DCF and DDA), both have a forecast element[63] in terms of diesel costs and both review those forecasts versus either actual results or adjusted actual results. The Board has previously accepted LTA hydro generation as the basis for YEC GRA forecasts[64]. The 2012-13 LTA forecast was provided by means of YEC's YECSIM model and was not contested at that time. Moreover, no evidence has been presented in this proceeding that the YECSIM model does not operate as it is intended, or that there would be any harm to customers if the model is used in a consistent fashion for DCF purposes. The evidence of YEC is that the fund is held in "trust" for customers.

However, if YEC is to continue to use the YECSIM model for forecasting, it has to make the model and its results available for testing because as a public utility its forecasts and rates proposals that are based on its forecasts are subject to testing by interveners and the Board. Providing forecasts which can be tested is essential in setting rates.

Therefore, although the Board has noted the other parties concerns regarding the YECSIM model, and is aware that the YECSIM model has not been tested before the Board[65], the Board accepts the DCF as proposed by YEC because it is a fund for customers to smooth rate impacts for those occasions when hydro generation is less than LTA or to build up the fund when hydro generation is greater than LTA. The Board approves the DCF as proposed by YEC. However, the Board directs that the DCF fund is to be used only for variations from LTA water availability. Any application to utilize the fund in some other fashion will require the closing of the fund, the refunding of any balances to customers, and the direction for YEC to use short-term forecasts for its hydro generation for future GRAs.

In terms of "caps" for the DCF, the Board is of the view that the +/- $2-million level proposed by YECL is too low and would require frequent rider applications before the Board. The +/- $5-million level as proposed by UCG would have minimal impact in the

[61] YEC Reply Argument, page 15.
[62] YEC Reply Argument, page 15.
[63] For YEC, please see the overview of the DCF in this Appendix A taken from YEC's 2012 General Rate Application, Transcript Volume 3, November 14, 2012, pages 573-574. For YECL, from the DDA section later in this Appendix, at page 7 of the AEY [YECL] Application, the first step is to "Determine the diesel revenues recovered by YEC rates" is based on forecast.
[64] Board Order 2013-01, Appendix A: Reasons for Decision, paragraph 60.
[65] The results of the model have been tested, but the model itself has not been tested before the Board.

case of a severe drought. Thus, the Board accepts the level of +/- $8 million as proposed by YEC as an acceptable balance between frequency of rider applications and ability to handle material (drought) changes in hydro availability.

YEC is to reflect the result of this decision in its compliance filing to this decision. In the compliance filing, YEC is to provide an updated balance for the DCF and include any actions to be undertaken regarding that balance if necessary.

To summarize, secondary sales or diesel being "on the margin" are not hurdles to be overcome before the DCF is applied. The Board accepts there is sufficient load on the system for diesel to form part of baseload generation and therefore to apply the DCF.

Whatever model YEC uses to determine LTA hydro generation, DCF calculations or other forecast process, that model and its results, or other forecast process must be made available for testing by the Board and interveners.

The DCF is to be used for variations in LTA hydro availability. Any application of the DCF outside of this intended use may result in the cessation of the DCF, the dispensation of any balance in the DCF, and the use of short-term forecasts for hydro generation in future GRAs.

The DCF will have a cap of +/- $8 million as proposed by YEC. If the balance in the DCF falls out of the +/- $8 million range, YEC shall make an application to the Board to dispense with the balance that is outside of that range within 60 days of the outside-the-range occurrence.

2.2 ENERGY RECONCILATION ADJUSTMENT

YEC describes the Energy Reconciliation Adjustment (ERA) as:

> … an element of Rate Schedule 42 Wholesale Primary (YEC). The ERA determines how Yukon Energy's annual diesel cost variances due solely to variances from YUB approved GRA wholesale forecasts are to be reflected in Yukon Energy's rate charged to Yukon Electrical. Yukon Energy's diesel cost impacts included in the ERA are determined after the Diesel Contingency Fund (DCF), and therefore exclude diesel generation impacts related to current water conditions.
>
> The ERA addresses the material gap that exists between the average wholesale energy rate that YEC charges YECL under Rate Schedule 42 and the incremental cost of diesel incurred by YEC when diesel generation changes occur in response to changes in YECL's wholesale purchases. The ERA is required to comply with OIC direction that the YEC wholesale rate charged to YECL include appropriate provisions to ensure that YEC recovers its costs. (footnotes omitted)[66]

[66] YEC Application, Appendix 2, page 2-1.

2.2.1 Views of the Parties

2.2.1.1 Yukon Energy Corporation

YEC noted that:

> Since the 1993/94 GRA, the Rate Schedule 42 Primary Wholesale has included two elements: first, a single energy-only rate for all primary power supplied by YEC to YECL; and second, when diesel is on the margin, an additional provision, the Energy Reconciliation Adjustment (ERA) that was established to ensure the following[67]:
>
> 1. That YECL receives a full pass through of YEC's incremental costs or savings of diesel generation that result from changes in the volume of YECL wholesale purchases compared to the forecast approved by the YUB to establish the then current single energy-only wholesale rate; and
> 2. That YEC is able to recover its costs from YECL (as required by OIC 1995/90, Section 7(b)) when diesel generation is on the margin in the Hydro zone.

YEC did state "… this filing seeks updates to the ERA in order to provide clarifications as required to define the wholesale forecasts and diesel generation costs that will apply when determining the ERA (last approved by the Board in Order 2011-6 as part of the joint 2009 Phase II Rate Application)"[68]. YEC added:

> The ERA determines how Yukon Energy's annual diesel cost variances due solely to variances from YUB approved GRA wholesale forecasts are to be reflected in Yukon Energy's rate charged to Yukon Electrical.[69]
>
> The ERA addresses the material gap that exists between the average wholesale energy rate that YEC charges YECL under Rate Schedule 42 and the incremental cost of diesel incurred by YEC when diesel generation changes occur in response to changes in YECL's wholesale purchases.[70]
>
> Two elements: 1. That YECL receives a full pass through of YEC's incremental costs or savings of diesel generation that result from changes in the volume of YECL wholesale purchases compared to the forecast approved by the YUB to establish the then current single energy-only rate; and 2. That YEC is able to recover its costs from YECL (as required by OIC 1995/90, Section 7(b)) when diesel generation is on the margin in the Hydro zone [the ERA component].[71]

[67] YEC Application, Appendix 2, page 2-2.
[68] YEC Application, Appendix 2, page 2-4.
[69] YEC Application, Appendix 2, page 2-1.
[70] YEC Application, Appendix 2, page 2-1.
[71] YEC Application, Appendix 2, page 2-2.

> When YECL's loads vary, and this variation in load drives changes in the quantities of diesel generation required, YECL would carry the cost (or capture the saving) that results from these diesel generation changes.[72]
>
> Charges to YECL under Rate Schedule 42 related to the ERA are determined based on YEC costs incurred for incremental diesel generation that arise directly due to higher that forecast sales to YECL.[73]
>
> …Yukon Energy would also now propose that the ERA calculations apply in all years, including years when wholesale changes do not move in the same direction as overall grid load changes.[74]
>
> The ERA rate was therefore set so that YEC's revenue impacts [and YECL's cost impacts] from a change in YECL wholesales would be the same, and each utility would be able to recover [but only recover] its prudently incurred costs directly related to the change in YECL wholesales, i.e., the ERA was set to equal the net difference between YEC's incremental diesel generation cost (as reflected in the residential run out rate for the Hydro rate zone) and the revenue that YEC was already receiving related to all wholesales [namely, the wholesale fixed energy rate then charged to YECL].[75]

Therefore, YEC proposed "…that charges to Yukon Electrical be adjusted when changes in actual Yukon Electrical wholesale purchases (relative to Yukon Energy's most recent test year forecast for such purchases) result in changes to Yukon Energy costs incurred for diesel generation, whether such costs are incurred through adjustments in actual diesel generation or through adjustments in DCF payments or recoveries".[76]

YEC stated that the premise of the ERA —YEC's primary wholesale rate charged to YECL — must provide for the flow through to YECL of any YEC fuel cost changes (added costs or savings, at GRA approved fuel prices) due to actual YECL wholesale purchases varying from YEC GRA approved forecasts. When operative, the ERA has direct impacts on both YEC and YECL and no direct impact on retail ratepayers.[77]

Further, 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 to YECL to its customers. Under these conditions, there was no basis to activate the ERA charge as

[72] YEC Application, Appendix 2, page 2-2.
[73] YEC Application, Appendix 2, page 2-5.
[74] YEC Application, Appendix 2, page 2-6.
[75] YEC Application, Appendix 2, page 2-7.
[76] YEC Application, Appendix 2, pages 2-7 to 2-8.
[77] YEC Final Argument, page 16.

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.[78]

YEC argued that the 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 — e.g. 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.[79]

YEC submitted that 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 that 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 matter, 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.[80]

In summary, YEC said the key elements of the ERA are: (1) pass through to YECL of YEC's incremental diesel generation costs or savings that result from YECL wholesale changes, and (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.[81] UCG agreed with this approach.[82]

Thus, with YEC's preferred Option A, incremental revenues for YEC and YECL are offset against incremental costs prior to any amounts being charged to ratepayers by YECL through a Rider D mechanism.[83]

According to YEC, "… the evidence shows that Yukon Energy understood that the core disagreement between the utilities throughout this proceeding related to continuation of the ERA charges as part of the two step mechanism included in Rate Schedule 42, that AEY [YECL] sought to protect in future any incremental increased margin derived by YECL from increased sales, and that Yukon Energy accordingly worked to develop for Board review two options for the ERA..."[84] Therefore, in YEC's view, a full flow through of ERA charges to ratepayers would remove any basis for an updated ERA —

[78] YEC Final Argument, page 16.
[79] YEC Final Argument, page 17.
[80] YEC Final Argument, page 18.
[81] YEC Final Argument, pages 19 - 20.
[82] YEC Reply Argument, page 8.
[83] YEC Reply Argument, page 16.
[84] YEC Reply Argument, page 10.

i.e. this would amount to adopting Option B rather than Option A from YEC's January 31, 2014 application.[85]

YEC reiterated this point in reply when it stated:

> … that AEY's [YECL's] sole argument in support of retaining its full "sales margin growth" related to incremental sales fails to address YEC's assessment of Option B versus Option A, and the material added impact on ratepayers that will occur for certain under Option B if the ERA was to be discontinued as AEY [YECL] proposes in order for AEY [YECL] to retain sales margin growth and avoid GRAs.[86]

YEC discussed two further issues in regards to the ERA. The first pertained to the YECSIM model. On this point YEC stated:

> The issue of the proprietary nature of YECSIM model arose only in response to one sub question (i.e., AEY-YEC-5(d)), and then only when it was noted that a response to what was specifically asked for would have required YEC to provide a copy of the full model. In responding to this specific sub question, YEC did in fact provide an extensive review of the data included as inputs to the YECSIM model. In summary, Yukon Energy submits that reasonable transparency and accessibility as relevant for these regulatory proceedings does not require that parties in fact have access to a copy of the YECSIM model.[87]

The second issue related to load forecast issues and YEC provided the following:

> Load Forecast Issues – AEY [YECL] asserts that the ERA passes on load forecast risk from YEC to AEY [YECL] due to the ERA being based on YEC's own approved wholesale sales forecast rather than AEY's [YECL's] approved forecast. AEY [YECL] further argues that it cannot verify any ERA charges to be accurate and reasonable due to the ERA being based on YECSIM, and all such ERA charges are after-the-fact charges beyond AEY's [YECL's] control and not reasonable forecastable by AEY [YECL]. AEY [YECL] argues that the impact of not allowing it to recover all of these costs from customers is that AEY [YECL] would have no opportunity to earn a fair return.[88]
>
> As a result, absent prior clarity as to how the two step wholesale Rate Schedule 42 will be implemented, there is ample opportunity for YEC-AEY [YECL] disconnects to occur simply due to different timing for each utility's GRAs. This

[85] YEC Reply Argument, page 8.
[86] YEC Reply Argument, page 10.
[87] YEC Reply Argument, page 13.
[88] YEC Reply Argument, page 25.

fact, rather than load forecast risk issues, is the central point of relevance today as regards AEY's [YECL's] stated concerns.[89]

In summary, Yukon Energy [YEC] submits that the long established ERA mechanisms can continue to apply notwithstanding the fact that the utilities may now file their respective GRAs at different times and with different load forecasts. The ERA charge as such must continue to be defined at the time of Yukon Energy's [YEC's] GRA's, as the ERA is an integral element of YEC's Rate Schedule 42 dealing with firm wholesales cost recoveries from YECL-AEY — and YEC's GRA load forecasts for the ERA will continue to be as approved by the Board, after review of all submissions by AEY [YECL] and others. In the event that a subsequent AEY [YECL] GRA occurs, the Board can then fully consider the impact on AEY [YECL] of YEC's then approved Rate Schedule 42 and ensure that all parties receive fair treatment.[90]

Rather than fixate on differences in load forecasts (and attempts to resolve such differences), Yukon Energy [YEC] submits that the key requirement in this regard is to ensure that any future AEY [YECL] GRA as filed and approved reflects what can then be forecast with respect to the ERA determinations. In the context of the updated ERA determinations set out in Table 2 of YUB-YEC-1-25, the ultimate impact of a new AEY [YECL] GRA thereafter would be to re-set the YUB-approved forecast used to determine AEY [YECL] incremental revenue and cost impacts on the YECL-AEY Purchase Power Flow Through deferral account and Rider D charges.[91]

In the event that transition adjustments are needed today (due to the failure to reflect these considerations in AEY's [YECL's] last GRA), adjustments can be considered to the AEY [YECL] Purchased Power Flow Through deferral account solely to reflect (at approved AEY [YECL] GRA forecast Purchased Power amounts) the forecast adjustment for Rate Schedule 42 costs that includes forecast ERA charges.[92]

2.2.1.2 Yukon Electrical Company Ltd.

For background, YECL stated that the ERA as designed in the 1990s allowed for the sharing of forecast risk between the two companies, which was appropriate because the companies were under joint management and shared common forecasts and test periods. As this is no longer the case, the sharing of YEC's forecast risk through an ERA mechanism is no longer appropriate.[93]

[89] YEC Reply Argument, page 26.
[90] YEC Reply Argument, page 27.
[91] YEC Reply Argument, page 27.
[92] YEC Reply Argument, page 27.
[93] AEY [YECL] Final Argument, paragraph 17.

The following concerns were expressed by YECL regarding YEC's ERA proposal:

> (1) AEY [YECL] will be subject to forecast risk based on YEC's forecast.
> (2) AEY [YECL] does not have an opportunity to recover prudently incurred costs.
> (3) regulatory inefficiency.[94]

YECL submitted that historical ERA calculations were based on actual costs because the system and the conditions under which the ERA was calculated were far simpler than they are today.[95] YECL further confirmed that in terms of the ERA, if the Board accepts what is proposed by YEC, the ERA amount should be flowed through to ratepayers.[96] In this case, YECL notes that the actual amount that YEC calculates for its ERA is a derived amount based on the YECSIM model.

YECL noted:

> It is important to note that all of the variances are calculated as differences between a forecast provided for GRA rate-setting purposes and after-the-fact measurements of actual quantities experienced later in the test period. It would make little sense for rate or rider setting purposes to calculate a variance on the basis of the differences between forecasts and simulated dispatch calculations such as YECSIM that amount to essentially comparing two different forecasts. It is also important to note that the appropriate risk allocation mechanisms are based on contemporary designs within the same GRA test period...[97]

YECL, as with the DCF, stated several concerns with the YECSIM model. The results of the YECSIM model are affected by YEC system losses, load profiles and up to 30 variables.[98] YEC has not provided any quantitative evidence to demonstrate YECSIM is competent or reasonable for planning diesel usage, therefore YECL submitted that there was no basis upon which it, the Board or interveners can have confidence in using YECSIM as a billing model.[99] YECL added that without the ability to review and verify the YECSIM model, a task that would require specific expertise, then the YECSIM model should not be used for billing purposes like the proposed ERA.[100] YECL added it agrees with UCG that, if YECSIM model is to be used to forecast diesel volumes, it is required to be transparent and accessible and should be provided to all parties for testing.[101]

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[94] AEY [YECL] Final Argument, summarized from paragraphs 44-50.
[95] YUB-YECL-1-2 (b & c).
[96] YUB-YECL-1-3.
[97] YUB-YECL-1-4, Attachment 1 (page 3 of 7).
[98] AEY [YECL] Final Argument, paragraphs 32 and 33.
[99] AEY [YECL] Final Argument, paragraph 36.
[100] AEY [YECL] Reply Argument, paragraph 11.
[101] AEY [YECL] Reply Argument, paragraph 19.

YECL added, "… none of the forecasts and variables involved in any mechanism proposed in this proceeding are controlled by ATCO Electric Yukon [YECL]. As a result, asking ATCO Electric Yukon [YECL] to bear risk on the rate at which it purchases power from YEC, when it has no control over the factors influencing that rate, is contrary to normal regulatory principles. ... ATCO Electric Yukon [YECL] is requesting the Board approve the continuation of this deferral[102] as part of this proceeding".[103]

Regarding load forecasts, YECL submitted:

> ATCO Electric Yukon [YECL] maintains that the two utilities are two separate companies with different management structures and, as a result, joint forecasts and filings are not practicable or in the best interest of customers.[104]

2.2.1.3 Utilities Consumers' Group

UCG provided the following comments:

> UCG submits that YEC's ERA proposal has not been evaluated against alternatives so there is no way to know if this is the best approach. Given the direct impact on Yukon ratepayers of any costs passed through to AEY [YECL], UCG recommends that the YUB not approve this proposal until more time has been put into evaluating available alternatives.[105]
>
> UCG submits that the "key regulatory premise" has been called into question by the NWT Public Utilities Board in its Decision 1-2013 where the Board highlighted its concern about a rate stabilization fund mechanism which allows pass through of all diesel costs as this may not provide the appropriate incentive for a utility to maximize use of the hydro resource.[106]

2.2.1.4 Views of the Board

The Board notes the concerns regarding the YECSIM model in the DCF portion of these reasons. The Board also notes that YECSIM is a planning model[107] and does not lend "itself to retrospective verification".

For the ERA, the OIC referred to is OIC 1995/90, Section 7. Section 7 states:

> 7. The Board must fix rates of Yukon Energy Corporation for the wholesale power customer in accordance with the following rate policy for Yukon:

[102] The deferral referred to is the Purchase Power Flow-Through Deferral Account (PPFTDA).
[103] AEY [YECL] Reply Argument, paragraph 14.
[104] AEY [YECL] Reply Argument, paragraph 23.
[105] UCG Final Argument, page 8.
[106] UCG Reply Argument, page 1.
[107] YUB-YEC-1-3 (c).

(a) Yukon Energy Corporation shall sell electricity to The Yukon Electrical Company Limited at the same demand rate and the same energy rate throughout the Yukon and those rates must be sufficient to enable Yukon Energy Corporation to recover its costs that are not recovered from its other customers;

(b) The wholesale rate to The Yukon Electrical Company Limited shall include appropriate provisions to ensure that Yukon Energy Corporation will recover its costs for retail and major industrial power service with adoption of the rates for retail power customers and major industrial power customers as specified herein.[108] [underlining added]

For the ERA, the Board interprets costs narrowly; to be clear, the costs are for actual diesel generation costs, not forecast or derived costs from the YECSIM model.

Based on the above interpretation of Section 7 of OIC 1995/90, the Board has the following concerns regarding the YECSIM model:

(1) The Board is of the view that the results of the YECSIM model cannot be verified;
(2) The YECSIM model is a planning tool and not a billing engine; and
(3) Operational decisions of YEC can affect variables such as losses and in turn affect diesel generation requirements.

For the above reasons, the Board does not accept the ERA as proposed by YEC.

The Board is also of the view that the ERA does not need to be linked to the DCF to comply with O.I.C. 1995/90. The ERA, as determined by the Board, is a comparison of forecast and actual values and therefore the DCF calculation does not need to be completed before ERA amounts are determined.

In its compliance filing to this decision, YEC is to provide a revised ERA that is based on actual diesel costs. That is, if actual diesel costs are higher than the levels of diesel contained in YEC's latest approved forecast, then those costs which are attributable to YECL's wholesale purchases that are in excess of those in the last approved forecast will become billable to YECL. The converse is also true: a credit applies when diesel costs are lower and that reduction in cost relates to YECL wholesale loads being less than forecast. Further, in the event ERA costs are billable to YECL, YEC must provide those charges to YECL within 30 days[109] of the close of the year to which those charges relate.

With its compliance filing, YEC is to update the Board regarding any ERA charges for the years 2012, 2013, and a forecast for 2014.

[108] O.I.C. 1995/90, Section 7, *Public Utilities Act*.
[109] 30 days was used to allow YECL to record any ERA costs before they close the year in which those costs refer to.

In summary, the Board finds that the ERA need not be tied to the DCF. ERA charges or credits are to be based on actual costs versus forecast costs. On a go-forward basis, ERA charges must be billed, or credited, within 30 days of the close of the year to which those charges relate.

2.3 DIESEL DEFERRAL ACCOUNT

YEC in Appendix 3 to its application said the following about a diesel deferral account:

> The Diesel Deferral Account (DDA) option has been developed in response to the Yukon Electrical request that the ERA be discontinued and Yukon Energy's diesel cost recovery requirements addressed through a new diesel deferral account with a new rider mechanism to flow the deferral amounts through to all firm retail and industrial customers in Yukon as appropriate (and with no impacts on Yukon Electrical)[110].

YEC later added:

> In the event that a new DDA is established as outlined above, Yukon Energy would no longer be securing rate adjustments for its wholesale sales to YECL. Under these circumstances, Yukon Energy proposes that the DDA also include all retail and industrial customers served by YEC in order to provide consistent and comprehensive treatment of all firm retail customers served on the grid[111].

YECL proposed the following DDA in its Application[112]:

> (a) Determine diesel revenues recovered by YEC rates.
> (b) Determine actual diesel costs.
> (c) Take the difference between A) & B) and either deposit-to or withdraw-from the deferral account.

YECL submitted that the creation of a YEC diesel deferral account would provide a more simplified approach. YECL noted that "…YEC's interpretation of Yukon Electrical's proposal, Option B, still relies on simulated diesel variances and does not address all of Yukon Electrical's concerns." [emphasis added]

YECL added:

> A deferral account would eliminate the perverse outcome of allocating diesel costs to either Yukon ratepayers or Yukon Electrical based on the accuracy of YEC's forecast. The use of a deferral account would obviate the need for the inefficient and time consuming testing that will be required of YEC's YECSIM

[110] YEC Application, Appendix 3, page 3-1.
[111] YEC Application, Appendix 3, page 3-1.
[112] YECL Application, page 7.

and YEC's future forecasts and operations. A deferral account can also be designed in a manner that will at least partially mitigate the Board's concerns with respect to the DCF muting market signals and creating intergenerational inequity.[113]

2.3.1 Views of the Parties

2.3.1.1 Yukon Energy Corporation

YEC stated that the proposal from YECL for a DDA does not meet the requirements for a deferral account to deal with water variability concerns, but would address other load-forecast-related costs that today are typically risks that lie with utilities in each rate zone and not with all Yukon ratepayers.[114] However, YECL 's use of the Taltson Dam Deferral Account as support for its proposal is not comparable as the Taltson Dam deferral Account is not based on water flow variability.[115]

Further, in YEC's view, the YECL proposal strips out water related considerations regarding any fund to protect ratepayers against big variances in rates due to water fluctuations and establishes a new mechanism to recover changes in diesel generation, regardless of cause, from approved forecasts.[116] The proposed simple deferral account to address diesel variance from forecast due to any factor — e.g. customer load changes, risk events that result in added diesel, as well as water changes — is not limited to the hydro grid, but would in principle apply to all diesel costs in all rate zones.[117]

YEC believed YECL's proposal in effect seeks to replace the DCF with a diesel deferral account that provides the basis for each utility to have a diesel deferral account that would fully protect and insulate each utility from any diesel related forecast risk and would do nothing to manage on behalf of ratepayers the fundamental concerns regarding rate instability due to water variability. [118]

YEC added that historically, each utility has carried the risk for increased or decreased costs due to changes in the load compared to GRA forecasts and specifically with regard to load changes, equipment availability — i.e. unexpected maintenance or outages, except where such changes are appropriately part of insurance claims or uninsured losses — and generator efficiency.[119] Thus, YEC is of the view that through YEC rates and through the current proceeding, YECL is seeking to change the basis of risk sharing in Yukon so that the ratepayers and not the utility hold all risk related to variations in load from forecast.[120]

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[113] YECL Application, page 8.
[114] YEC Supplemental Filing (June 30, 2014), Attachment 1, page 1-2
[115] Summarized view of the YEC position regarding the Taltson Dam as presented in YEC Supplemental Filing (June 30, 2014), Appendix 1-A.
[116] YEC Supplemental Filing (June 30, 2014), Attachment 1, page 1-4.
[117] YEC Supplemental Filing (June 30, 2014), Attachment 1, page 1-4.
[118] YEC Supplemental Filing (June 30, 2014), Attachment 1, page 1-7.
[119] YEC Supplemental Filing (June 30, 2014), Attachment 1, page 1-7.
[120] YEC Supplemental Filing (June 30, 2014), Attachment 1, page 1-7.

In summary, YEC stated that the YECL proposed DDA: (1) fails to provide rate stability related to water fluctuation impacts; (2) fails to accurately determine expected thermal costs; and (3) expands risks borne by ratepayers.[121]

Therefore, in YEC's view, the available evidence continues to confirm that a deferral account such as that proposed by YECL would frustrate rather than facilitate the purpose and regulatory premise for the DCF, and therefore should not be considered further by the Board at this time.[122]

2.3.1.2 Yukon Electrical Company Ltd.

YECL stated that its discussions with YEC and its proposal for a DDA was premised on developing a solution for the Board and customers that was simple, transparent, easily testable, fair to all stakeholders, and addressed the Board's concerns regarding masked market signals and intergenerational inequity.[123]

YECL agreed that its proposal does pass some risk from YEC to ratepayers. However, in YECL's view, the risks that ratepayers would bear under YECL 's proposal are more appropriately borne by them as compared to the risks that they would bear as a result of the use of the YECSIM model as proposed by YEC.[124]

While YECL's proposed deferral mechanism does, as YEC states in its summary, allow YEC to apply for and seek recovery of diesel cost variance regardless of their cause, YECL believed that the fact that the mechanism is simple, easily understandable by all parties, testable and does not require complex and expensive models such as YECSIM, makes it a superior alternative to YEC's proposed DCF mechanism.[125] YECL noted that under its proposal to true-up diesel volumes to actuals, benefits such as transparency, fairness, reduced disagreements and less dependence on YECSIM will result[126].

Further, YECL believed that intervener resources would be better utilized during YEC GRA proceedings testing whether or not YEC has made prudent use of water available to it to burn the lowest amount of actual diesel possible, versus attempting to test an overly complex deferral mechanism and the associated model results.[127]

YECL explained the use of its Purchase Power Flow-Through Deferral Account (PPFTDA) is intended to flow through increases or decreases to the rates being charged by YEC. This includes the primary Wholesale Energy Charge and any proposed ERA

[121] YEC Final Argument, pages 13-14.
[122] YEC Reply Argument, page 5.
[123] YECL Final Argument, paragraph 8.
[124] YEC-YECL-1-3 (c & d).
[125] YUB-YECL-1-10 (a).
[126] YECL Final Argument, paragraph 38.
[127] YECL Final Argument, paragraph 28.

charge. And that the PPFTDA would still be required in order to address any potential future Wholesale Rate changes that did not coincide with an YECL rate application.[128]

2.3.1.3 Utilities Consumers' Group

UCG submitted that YECL's recommendation that the issue of diesel volume variances should be handled through a YEC deferral account that is trued up to actuals has some merit[129], but added that the YECL proposal, while more simplified, certainly is less customer-driven — i.e. it has less benefits to ratepayers versus the current DCF model while having more benefits for the utilities.[130]

2.3.1.4 Views of the Board

The Board considers that the DDA as proposed by YECL is a simplified approach. It determines diesel revenues recovered in YEC rates, compares it to actual diesel costs and takes the difference between the two and either deposits-to or withdraws-from a deferral account.[131] What this proposal accounts for is a difference between forecast diesel volumes and actual diesel volumes.

However, the Board has several concerns with the YECL proposal. First, although all Parties agree that risk[132] from changes in water flows, and hence hydro generation lie with the ratepayer, none of the parties opposed a fund related to water level variances[133]. YECL's DDA does not directly address this issue. In the Boards view, the proposal as submitted merely accounts for changes from forecast to actual for diesel volumes, regardless of the cause.

The second issue the Board has with the YECL proposal is that it shifts forecast risk[134] for diesel volume from the utilities to ratepayers. The Board finds it unreasonable in these circumstances to accept a proposal that shifts risks that are appropriately borne by the utility to ratepayers.

A third concern the Board has with the YECL proposal is that it is not clear that YECL's proposed DDA is limited to the hydro grid.[135] If the YECL proposal extends beyond the hydro grid, then the shifting of risk from the utility to the ratepayer is even more unreasonable.

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[128] YEC-YECL-1-5 (c and e).
[129] UCG Reply Argument, page 3.
[130] UCG Reply Argument, page 4.
[131] YECL Application, page 7.
[132] YECL Application, page 2; YEC Final Argument page 5.
[133] The YEC Application of January 31, 2014 proposes the continuation of the DCF, AEY's [YECL] application of January 31, 2014, did not oppose a fund related to water levels (page 7), and UCG, at page 1 of its Final Argument, wanted to ensure that all parameters of the DCF going forward "… are transparent and easily understood by ratepayers".
[134] YEC-YECL-1-3 (c & d); YEC Supplemental Filing, Attachment 1, page 1-7.
[135] YEC Supplemental Filing (June 30, 2014), Attachment 1, page 1-4.

Therefore, based on the foregoing, the Board rejects YECL's proposal for a DDA.

2.4 PURCHASE POWER FLOW-THROUGH DEFERRAL ACCOUNT

In YECL's 2008-09 GRA, the Board was asked to approve a PPFTDA. On page 11 of Appendix A to Board Order 2009-2 – Reasons for Decision, the Board stated:

> The Board acknowledges that there was little debate regarding the deferral accounts described in the Application, i.e. the Diesel Contingency Fund and Rate from YEC[16]. Therefore, the Board approves YECL's request for continuation of the aforementioned deferral accounts (see Footnote 16).
>
> [16] GRA Application; page 3-2

YECL requested the continuation of this deferral account in its 2013-2015 GRA and noted in its Reply Argument: "As the Board determined the matter to be out-of-scope pending the completion of this DCF-ERA process, ATCO Electric Yukon [YECL] is requesting the Board approve the continuation of this deferral as part of this proceeding."[136]

In this proceeding, the primary issue that has surfaced regarding this deferral account is not the recovery of prudent costs, but whether "a regulated utility be given guaranteed revenue margins (revenues less the direct cost or energy, in this case purchased power costs) on sales in excess of its forecast?" Another way to state it is: Should the regulated utility assume the risks for costs that are a result of sales in excess of forecast levels?

2.4.1 Views of the Parties

YECL supported the continuation of the PPFTDA and has argued that it is efficient as the margins offset inflationary and system growth costs between GRAs and reduces the frequency of GRAs resulting in lower regulatory costs to customers. Further, YECL has argued that none of the proposed forecasts and variables — concerning purchase power costs, most notably ERA costs — are controlled by YECL and therefore "… asking ATCO Electric Yukon [YECL] to bear risk on the rate at which it purchases power from YEC, when it has no control over the factors influencing that rate, is contrary to normal regulatory principles."[137]

YECL further submitted that it has demonstrated and "… YEC confirmed, that if YEC's original 2012 wholesales sales forecast had been equal to actual wholesales sales to ATCO Electric Yukon [YECL] the additional forecast diesel costs would have been recovered from all customers via YEC's Revenue Shortfall Rider, Rider J."[138]

YEC replied:

[136] AEY [YECL] Reply Argument, paragraph 14.
[137] AEY [YECL] Reply Argument, paragraph 14.
[138] AEY [YECL] Reply Argument, paragraph 17.

However, with clarity on the DCF/ERA mechanism as a result of the current proceeding, AEY's [YECL] response confirms that future AEY [YECL] GRA forecasts can in fact address forecast ERA costs on a basis consistent with AEY's [YECL] latest GRA load forecast and YEC's last approved GRA – and if AEY [YECL] had in fact made such a provision for the forecast ERA purchase power costs in its GRA filing, these ERA costs would have been fully covered in the YECL-AEY revenue requirements and rates approved by the Board for 2015.

In summary, Yukon Energy submits that the long established ERA mechanisms can continue to apply notwithstanding the fact that the utilities may now file their respective GRAs at different times and with different load forecasts. The ERA charge as such must continue to be defined at the time of Yukon Energy's GRA's, as the ERA is an integral element of YEC's Rate Schedule 42 dealing with firm wholesales cost recoveries from YECL-AEY - and YEC's GRA load forecasts for the ERA will continue to be as approved by the Board, after review of all submissions by AEY [YECL] and others. In the event that a subsequent AEY [YECL] GRA occurs, the Board can then fully consider the impact on AEY [YECL] of YEC's then approved Rate Schedule 42 and ensure that all parties receive fair treatment.

Rather than fixate on differences in load forecasts (and attempts to resolve such differences), Yukon Energy submits that the key requirement in this regard is to ensure that any future AEY [YECL] GRA as filed and approved reflects what can then be forecast with respect to the ERA determinations. In the context of the updated ERA determinations set out in Table 2 of YUB-YEC-1-25, the ultimate impact of a new AEY [YECL] GRA thereafter would be to re-set the YUB-approved forecast used to determine AEY [YECL] incremental revenue and cost impacts on the YECL-AEY Purchase Power Flow Through deferral account and Rider D charges.

In the event that transition adjustments are needed today (due to the failure to reflect these considerations in AEY's [YECL] last GRA), adjustments can be considered to the AEY [YECL] Purchased Power Flow Through deferral account solely to reflect (at approved AEY [YECL] GRA forecast Purchased Power amounts) the forecast adjustment for Rate Schedule 42 costs that includes forecast ERA charges.[139]

[139] YEC Reply Argument, page 27.

2.4.2 Views of the Board

The Board is of the view that for sales in excess of the forecast, the risks lie with the regulated utility. That is, the utility assumes the forecast risk for those revenues and related costs in excess of forecast and for those periods where there is no forecast — non-test years.[140]

However, for the current proceeding, issues regarding the ERA had not been determined. The Board had to consider between divergent proposals regarding purchase power costs — ERA — and the Board is of the view that as these issues were not determined it would have been difficult for YECL to include ERA amounts in its forecasts. The Board considers it would be unfair for YECL to assume this risk of these ERA costs during the intervening period, or include such costs in its last GRA, until the Board made its determinations on the ERA issue. Therefore, the Board will allow YECL to use the PPFTDA for the period 2012-2015, and only if it incurs any ERA charges. Outside of the specified period, YECL will be required to apply for and justify the need for a PPFTDA.

[140] The regulated utility generally determines when it files its rate applications.