

Before the Yukon Public Utilities Board

In the Matter of:

**THE YUKON ELECTRICAL COMPANY LIMITED (“YECL”)
2008 - 2009 GENERAL RATE APPLICATION**

**ARGUMENT OF
THE CITY OF WHITEHORSE (“CW”)**

OCTOBER 27, 2008

SECTION 1 – Overview

Introduction

The Yukon Electrical Company Limited (“YECL”) has indicated that based on its current forecasts, existing rates would yield revenues of \$44.440 million in 2008,¹ and \$43.772 million in 2009². YECL has applied for increases of \$2.220 million in 2008 and \$4.130 million in 2009 over “the amount that would be recovered under existing rates and riders.”³ The over-all revenue requirement applied for is \$46,660,000 in 2008 and \$47,902,000⁴.

The City of Whitehorse (“CW”) understands that YECL requires sufficient revenues to recover its prudently incurred costs and to provide a reasonable return on its investment. However, CW also must consider the interests of its residents and strive to ensure that the revenue requirement approved by the Yukon Utilities Board is not higher than required to meet those objectives.

CW has examined the Application and the rest of the evidentiary record and it submits that in some instances, YECL has projected costs that are higher and revenues that are lower than should be reasonably expected. CW considers that a global indicator of the latter is YECL’s evidence that its revenues in 2009 on existing rates would be lower than revenues in 2008 on those same rates, as referred to above. CW’s detailed and specific submissions regarding areas of concern with the proposed revenue requirement are set out below.

¹ Application, p. 1-3 \$46.660 million minus \$2.220 million increase.

² Ibid, \$47.902 million minus \$4.130 increase.

³ Ibid

⁴ Ibid

No comment on a particular section of the Application should be taken to mean that CW does not currently have a particular position to advance on that portion of the Application.

SECTION 2 – Sales and Revenue

Residential Sales Forecast

The residential sales forecast has two key inputs; the net customer additions and the average use per customer (UPC). The energy sales forecast is obtained by multiplying the forecast number of customers by the average UPC forecast.⁵

Forecast Number of Residential Customers

The average actual increase in residential customers from 2003 to 2007 is 229. The projected increase for 2008 is 241. The projected increase for 2009 is substantially lower at 143.⁶ YECL provided an explanation at the hearing⁷ and a brief mention in an IR response⁸ that the forecast decrease in new residential customers in 2009 versus 2008 has to do with the lack of developed land in the Whitehorse area.

CW submits that the growth rate of residential customers has been consistent since 2003 and there is no detailed evidence to support YECL's substantial reduction to the growth rate of residential customers for 2009. Accordingly, CW submits that the Board should determine that the forecast growth rate in number of residential customers for 2009

⁵ Application, p.2-2, lines 12-14

⁶ Tr.301, lines 22-29

⁷ Tr.302

⁸ YEC-YECL-2(g)

should be 1.9% (the same as for 2008). This results in the forecast increase in number of customers for 2009 being changed from 143 to 241 and the average number of customers during the year be raised from 12,836⁹ to 12,934.

Calculation of Annual Normalized UPC

YECL calculates residential UPC on a community by community basis.¹⁰ This calculation is provided in part in the odd-numbered attachments in Section 2 of the Application from Attachment 1 through 25 wherein YECL uses a weather normalization process to calculate Annual Normalized UPC for each year from 1994 through 2007. For communities represented in those attachments YECL forecasts 2008 and 2009 residential UPC to be equal to the 3 year average of normalized UPC values from 2005 through 2007 for the respective communities.

Annual Normal UPC for the years 1994-2007 was calculated by summing the 12 monthly normalized UPC's for each month. Monthly normalized UPCs were calculated by starting with the actual UPC for a particular month (i.e. May 1997). YECL normalizes the actual UPC by adding an increment represented by the difference between the 20 year average (normal) heating degree days for the month in question (i.e. May) and the actual heating degree days for the particular month (i.e. May 1997). This difference is multiplied by the slope coefficient of the regression analysis for the community. This normalization calculation is represented by the following equation, provided in CW-YECL-18(c).

$$\text{Normal UPC} = \text{Actual UPC} + (\text{"Normal" HDD} - \text{Actual HDD}) * \text{HDD Coeff}$$

⁹ Application, Schedule 2.1, line 2

¹⁰ Tr.286, lines 25-27

Regression analyses¹¹ were used by YECL, to attempt to explain the variation in actual monthly UPC with the variation in actual monthly HDD. Each regression produced a slope or “HDD Coeff” which YECL used in the normalization calculation above.

Shortcomings and Inconsistencies

CW is concerned with shortcomings and inconsistencies demonstrated in the normalization process, particularly with regard to the regression analyses. CW submits several key inconsistencies have been established with the regression analyses themselves that raise questions about the soundness of these analyses. First, not all communities had their residential UPC normalized. Only thirteen of twenty or 65% of communities’ residential UPC were normalized because YECL does not have the necessary weather data for every community.¹² For the seven remaining communities, residential UPC was calculated by using a three year average of simple historical UPC.¹³

Second, of the thirteen communities whose UPC was normalized based on regression results, the Normal Heating Degree data relied upon was not consistent with regard to time frame. Three communities relied upon 12 year Normal HDD data from Watson Lake¹⁴ and the remaining ten relied upon 20 year Normal HDD data from Whitehorse.¹⁵ Again, missing data was the problem. YECL states that Environment Canada had multiple data points for Watson Lake, prior to 1996 so that the use of a 20 year average HDD was not possible.¹⁶ The following discussion from the Transcript illustrates this matter:

26 Q MR. MARRIOTT: So that’s one of those inconsistencies that I mentioned.

¹¹ Application, Section 2, Attachments 2, 4, 6... 26

¹² Tr.287, lines 13-15

¹³ CW-YECL-14 d)

¹⁴ Application, Section 2, Attachments 21, 23, 25

¹⁵ Application, Section 2, Attachments 1, 3, 5... 19

¹⁶ Application, page 2-2, lines 21-22

27 A MR. GRATTAN: I'm not sure what you meant by inconsistencies.

28 Q MR. MARRIOTT: I'm just saying that you're using different data sets for
29 different places.

p.290

1 A MR. GRATTAN: And that was actually, from our opinion, from our perspective,
2 actually trying to do an improvement from last time around, that we were just using
3 weather normalized approach for residential sales for Whitehorse customers as part of the
4 1996-97 GRA. This time we were able to grab, from Environment Canada, weather
5 heating degree days for purposes of forecasting Watson Lake and area sales. So yes, it
6 most definitely is inconsistent — 12 versus 20 years — but the availability of the data in
7 Watson Lake is not there.

- emphasis added

CW notes that YECL appears to be trying to maximize the amount of information it can use in this normalization process rather than considering whether or not certain data types should go together at all. CW submits just because 12 years of HDD data is available from Watson Lake does not mean it should be used in regression analyses nor does it mean it can be readily combined or compared with 20 year HDD data from Whitehorse. To the contrary, CW submits it is very important for data sets used in regression analyses to be consistent and of the same type, especially considering that YECL ultimately sums these data to calculate totals in Schedule 2.1. Adding together different types of data is much like summing apples and oranges. YECL readily admits this inconsistency in the quote above, but does not concede that there is a problem with it and proceeds to combine the different types of data anyway.

This mindset seems to be reflected in the following statement by the YECL panel:

“... we tried to use all available information to us to complete the forecast.”¹⁷

CW is concerned that the relevance, appropriateness and consistency of the information used in the sales forecast has been undercut by the importance YECL places on

¹⁷ Tr.291, lines 1-2

maximizing the amount of information used. CW submits the emphasis should be put on the former factors, while YECL appears to have put its main emphasis on the latter.

Third, CW has concerns about the issue of R^2 values. CW put to the YECL witness panel the definition of the R^2 value: that it measures the amount to which the model explains or accounts for the amount of variability in the Y variable. At first, Mr. Grattan stated he was not comfortable answering the question,¹⁸ but later clearly accepted the definition in the context of another discussion regarding R^2 .¹⁹ Similarly, CW put to the witness panel the rule of thumb that for regressions, an R^2 value greater than 0.70 indicates a good result and an R^2 value less than 0.70 would be considered not a good result. In answering the question, Mr. Grattan first made sure to confirm that some of the R^2 values for the YECL regressions were indeed below 0.70, and then proceeded to disagree with the general rule of thumb.²⁰ Later the witness relied upon the 0.70 R^2 rule of thumb to justify the results for regressions for Watson Lake and Whitehorse. CW submits that this demonstrates that the witness agrees with the general rule.

Finally, YECL was inconsistent in the level of R^2 values they adopted in this application. While YECL states that it considers an R^2 value of 0.54862 to be reasonable in a certain regression analysis²¹ it states that an R^2 value of 0.589 is not acceptable in another regression analysis.²²

CW's submits that the shortcomings and inconsistencies in these regression analyses are reason to doubt the soundness of the exercise and the resulting forecast residential UPC of 9.8 MWh forecast for both of 2008 and 2009 shown on Schedule 2.1.

¹⁸ Tr.293, 26-30

¹⁹ Tr.295, 11-17

²⁰ Tr.294, line 24 – Tr.295, line 4

²¹ Tr.295, line 10-13

²² Tr.296, line 19-28

CW believes that a simple trend line extension of the consolidated data often used by utilities would more appropriately forecast the total residential usage per customer for 2008 and 2009. The following are the results of a trend line using residential UPC for the years 2003 through 2007.²³ The trend line is extended to 2008 and 2009 by adding the intercept to the product of the slope and the respective year.

| Trend Line | | | | | | |
|------------|------|-----------|---------|------|------|-------|
| 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| 9.6 | 9.5 | 9.5 | 10 | 9.8 | 9.95 | 10.04 |
| | | Slope | 0.09 | | | |
| | | Intercept | -170.77 | | | |

CW submits the values for 2008 and 2009 are reasonable and result from a much simpler and straight forward exercise than the YECL analysis and are not burdened with the inconsistencies of the YECL regression analyses.

In conclusion, CW submits YECL went through a very complicated and demonstrably flawed exercise to come up with forecast usage per customers for 2008 (9.8 MWh) and 2009 (9.8 MWh). As discussed in the above section, CW submits that the forecast UPC for 2008 and 2009 should be 9.95 MWh and 10.04 MWh respectively based on a simple trend line analysis of consolidated residential UPC and extension of that trend line into the test years. CW submits this analysis is simpler and more trustworthy than the YECL analysis as it is not fraught with inconsistencies. Also, common sense suggests that

²³ Schedule 2.1, Additional Information Provided July 4, 2008

residential UPC is trending upward based on actuals values from 2003 through 2007, so a forecast increase in each of 2008 and 2009 appears reasonable.

Commercial Sales Forecast

YECL has forecast a 1.4% decrease in commercial UPC over the years 2007 through 2009. YECL provides the reasons in response to CW-YECL-14(d) as follows:

- “• New 2008 and 2009 commercial customer additions were forecast individually. There were several new commercial customers forecast to have a lower than the 2007 annual average UPC of 55.0 GWh. These new smaller customers will bring the overall average down. Please refer to YEC-YECL-2(j) for further information regarding new commercial customers.

- The Whitehorse forecast was based on the 2007 weather normalized UPC adjusted for the removal of one time load specifically attributable to the Canada Winter Games. These adjustments resulted in a reduction of the Whitehorse normalized commercial average UPC from 68,054 kWh/customer in 2007 to 67,572 kWh/customer in 2008/2009.

- The three-year average historical UPC, used as a forecast for 2008 and 2009 for existing customers (with the exception of Whitehorse), is lower than the 2007 actual UPC. Please refer to (c) above for the UPC by community.”

With regard to the first bullet, YECL states that new 2008 and 2009 commercial customers were forecast individually, but CW notes that detailed information on new customers was not made available by YECL because of “customer confidentiality.”²⁴ Obviously then, the Board is in the uncomfortable position of being deprived of appropriate information to back-up the utility’s forecasts. It is trite to say that the utility bears the onus of providing sufficient evidence to provide the Board with confidence in

²⁴ CW-YECL-15(c)

the forecasts. This situation is complicated by the particularly low commercial UPC forecasts for 2008 and 2009.

The bullet directs the reader to YEC-YECL-2(j), which provides only general explanations about UPC mostly with regard to 2009. It states,

“Yukon Electrical is forecasting 17 new commercial customer additions in Whitehorse in 2008 with an overall average UPC of 68,689 kWh/year and 21 new commercial additions in 2009 with an overall average UPC of 30,286 kWh/year, assuming the customer is on the system for a full year. The decrease from 2008 to 2009 lower is due to a larger number of small load commercial customers forecast to be connected to the system in 2009.

Yukon Electrical’s billing system does not allow it to easily track the UPC of new commercial customers and their associated UPC.”

- emphasis added

The largest effect on 2009 UPC appears to be the addition of the 21 new commercial customers with a substantially lower UPC (30,286 kWh/yr) than the overall commercial average (68,689 kWh/yr). Due to confidentiality, the Board and intervenors are in the dark about the details concerning these new customers. CW notes the two caveats presented by YECL shown underlined in the above quote. A critical reading of the first underlined portion indicates that YECL is not sure if these customers will actually be customers and if they are, they might be customers for a very short period indeed. The second underlined portion seems to state that however many new customers come on the system, YECL will neither know the UPCs of those new customer nor will it be able to monitor them. CW submits that, given these two qualifications and without the detail required to support these forecasts, serious doubt is cast on the accuracy of the UPC forecast for 2009.

As for 2008, the response to YEC-YECL-2(j) provides no information as to why total commercial UPC would decrease. In fact the opposite seems to be true, as the table in the response²⁵ shows that the normalized UPC for Whitehorse are both clearly trending upward from 2003 through 2007.

With regard to the second bullet, the Canada Winter Games Adjustment reduced the Whitehorse normalized commercial average UPC from 68,054 kWh per customer in 2007 to 67,572 per customer. CW submits that this adjustment is not substantial enough to change the upward trend in commercial UPC in Whitehorse from 2003 through 2007.

| Whitehorse Commercial Normalized UPC (kWh) | | | | |
|--|--------|--------|--------|--------|
| 2003 | 2004 | 2005 | 2006 | 2007 |
| 64,306 | 66,335 | 66,090 | 66,887 | 67,572 |

The numbers from the above table are taken from the response to YEC-YECL-2(j), page 7 of 12 except that the 2007 number has been changed from 68,054 kWh as per the original table to 67,572 kWh which is the Whitehorse normalized commercial average UPC adjusted for the removal of one time load specifically attributable to the Canada Winter Games.²⁶ As can be seen, even after the reduction for 2007, there is still a very positive upward trend from 2003 to 2007. CW submits there is no substantial evidence to justify a reduction or even a leveling off of UPC going forward to 2008 and 2009.

As for the third bullet, YECL states that the,

“three-year average historical UPC, used as a forecast for 2008 and 2009 for existing customers (with the exception of Whitehorse), is lower than the 2007 actual UPC.”

²⁵ YEC-YECL-2(j), page 7 of 12

²⁶ Undertakings document, page 17 of 21

CW submits this comment by the utility is somewhat misleading. For communities other than Whitehorse the forecast 2008 and 2009 UPCs are set equal to the 2005-2007 three year historical average UPC. While it is true that most of these communities have 2005-2007 three year historical average UPC that are lower than their 2007 actual UPC, that is the case because such communities have an upward trend in UPC from 2005 to 2007. By definition, the 2007 value will be greater than the average of the three years if the UPC is trending upward. Conversely, if there is a downward trend over the three years, the 2007 value will be lower than the average.

CW is concerned that the information in CW-YECL-15(d) is presented by YECL to justify a forecast reduction in commercial UPC for 2008 and 2009 as compared to 2007. Clearly the opposite is true: it is a reason for the forecast 2008 and 2009 commercial UPC for communities outside of Whitehorse to be greater than 2007 because of the clear upward trend.

CW notes that YECL has consistently underestimated its sales in forecasts to YEC including the last year prior to the application.²⁷ CW submits that the Board should take this systemic underforecasting into account when evaluating all YECL's sales forecasts.

Proposed Trending

As with the residential side, CW believes that a simple trend of the consolidated UPC data would be the best forecast of UPC for 2008 and 2009. This is in light of the questionable explanations afforded by YECL and lack of information provided due to customer confidentiality. The following are the results of a trend line using commercial UPC for the years 2003 through 2007.²⁸ The trend line is extended to 2008 and 2009 by adding the intercept to the product of the slope and the respective year.

²⁷ e.g. YEC-YECL 7(b)

²⁸ Schedule 2.1, Additional Information Provided July 4, 2008

| Commercial UPC Trend Line | | | | | | |
|---------------------------|------|------|----------|------|------|------|
| (kWh) | | | | | | |
| 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| 52.2 | 53.3 | 52.9 | 54.5 | 54.7 | 55.3 | 56.0 |
| Slope | | | 0.612 | | | |
| Int. | | | -1173.55 | | | |

For purposes of this trend line, CW accepts YECL’s proposed 2007 reduction to UPC related to the Canada Winter Games. As such, in the calculation of the 2007 Commercial UPC, CW adjusted the commercial “Sales in MWh” figure from Schedule 2.1 of 141,351 downward by 911²⁹ to 140440 and the Average Customers figure from Schedule 2.1 of 2570 downward by 0.9³⁰ to 2569.1. As a result the 2007 commercial UPC is reduced from 55.0 on Schedule 2.1 (141,351÷2570) to the adjusted number of 54.66 (140440÷2569.1).

Even with this downward adjustment in place, the trend line results show a very clear positive trend. CW submits that explanations provided by YECL for why forecast commercial UPC for 2008 and 2009 should decrease are not sufficient in lieu of analyses that were not provided on the basis of customer confidentiality. Explanations provided in CW-YECL-14(d) and YEC-YECL-2(j) were general in nature, unconvincing and, at times, somewhat misleading. CW submits that YECL’s downward trending commercial UPC forecasts for 2008 and 2009 (54.6 MWh and 54.2 MWh respectively) are unpersuasive compared to the more common sense, upwardly trending UPC forecasts produced for those years (55.3 MWh and 56.0 MWh respectively) by the simple trend line shown above. CW notes that this trend line is weighted by the Canada Winter Games Adjustment.

CW submits that the Board should adopt a forecast UPC of 55.3 MWh for 2008 and 56.0 MWh for 2009.

²⁹ Undertakings document, page 17 of 21

³⁰ Undertakings document, page 17 of 21

SECTION 3 – Purchased Power

SECTION 4 – Diesel Fuel Costs

SECTION 5 – Operations and Maintenance Expense

Non-Labour Costs

CW notes the following non-labour cost increases discussed at the hearing:

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|--------------------------------|------|------|------|------|-------|------|
| O&M – Non-Labour ³¹ | 6.6% | 6.0% | 4.5% | 4.5% | 16.4% | 3.9% |

The average increase for non-labour costs for 2004 through 2007 is 5.4%, while for 2008 and 2009, it is 10.15%, which CW submits is a substantial increase.

A component of these forecasts of non-labour increases is the assumed non-labour inflation rate for 2008 and 2009 of 5.0%.³² In YEC-YECL-9 (d), YECL responds to a request to provide the actual inflation rate for Yukon and for Alberta for each of the past five years. This response indicates that the CPI inflation rate for Alberta in 2007 was 5.0%. This 5.0% inflation figure is what YECL utilizes as a basis for using the 5.0% inflation factor as a forecast in revenue requirement.³³

YECL states in this same response,

“The Alberta Inflation rate of 5% has been used in Yukon Electrical’s application as;

- Yukon Electrical’s parent company ATCO Electric operates in Alberta and services received by Yukon Electrical by its parent company are therefore Alberta based.
- Yukon Electrical purchases many of its specialty line materials from Alberta.

³¹ Exhibit C-1-14

³² Tr.90, lines 1-8

³³ Tr.91, lines 1-6

- Transportation services typically come from or through Alberta.
- The majority of the trade conducted by Yukon Electrical comes from or goes through Alberta.”³⁴

Emphasis added

The above wording states that ‘many’ of its specialty line materials come from Alberta, that transportation services ‘typically’ come from or through Alberta, and that the ‘majority’ of the trade conducted by Yukon Electrical comes from or goes through Alberta.

Clearly YECL does not state that ‘all’ of the goods or services come from Alberta, only that some portion comes from Alberta, so CW does not agree that using a 100% weighting of the Alberta inflation rate for 2007 is justified. Also, a term like ‘many’ does could, in fact, represent an amount less than 50%. Finally, no evidence has been provided that the CPI is the appropriate inflation index to apply to the basket of goods and services purchased by YECL.

YECL calculates an average cost escalation factor for material and contractor costs at the level of 7.54% and suggests that the data and experience of YECL supports an average non-labor inflation rate of above the 5% used in the application.³⁵ CW is not persuaded that this response is accurate or relevant. First, equivalent information is not included for Alberta, which is requested by the information request. Second, some of the data integrated in the calculation of the average cost escalator was selectively included. Third, no explanation is provided for the 50/50 weighting of the escalator between material and contractor rates. Since one of these rates is higher than 5.0% for 2007 and the other is lower, the weighting issue is critically important, and it has been ignored.

³⁵ YEC-YECL-9 (e)

Evidence from the hearing indicates that the Alberta CPI inflation rate on a 12 month basis, from August 2007 to August 2008 was 4.0%.³⁶ Since this information is more recent than the 2007 Alberta inflation rate of 5.0%, CW supports 4.0% as a better forecast for the Alberta CPI for 2008 and 2009.

CW submits that the inflation rate for non-labour costs for 2008 and 2009 should not be based solely on the Alberta experience, but rather on both the Alberta and Yukon (Whitehorse) CPIs. CW believes that a blended rate calculated by a 50/50 weighting for each would be proper. CW submits that a 50% weighting for the Yukon is not inappropriate because YECL is both headquartered in, and operates within, the Yukon.

Accordingly, CW submits that the forecast non-labour inflation rate for 2008 and 2009, should be 3.25%, which is calculated as the 50/50 weighting of the August 2007 to August 2008 Alberta CPI (4%) and the 2007 Whitehorse CPI (2.5%).

Vacancy Rates

A vacancy rate of 4.0% (2.25 FTE's) has been applied to all labour expenses for 2008 and 1.7% (1.0 FTE) for 2009. YECL states that,

“The drop in the vacancy rate in 2009 is a result of only 1 FTE being forecast to be added in 2009. The Company continues with its efforts to fill these positions as soon as possible. Given the current vacancy status as well as the recent changes to the compensation package, a vacancy rate equivalent to 2.25 FTE's in 2008 and declining to the equivalent of 1 FTE, is reasonable for purposes of this application.

YECL provided 2003 to 2007 historical vacancies (FTEs) in an undertaking,³⁷ as follows:

³⁶ Tr.96, line 28 to Tr.97,line 8

³⁷ Undertaking document, p.7 of 21

| | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------------|------|------|------|------|------|
| Actual Vacancies (FTEs) | 5.3 | 3.3 | 2.8 | 3.4 | 2.7 |

CW notes that the average actual vacancies from 2003 to 2007 flowing out of the above data is 3.5. As part of this undertaking, YECL also provided the following caveat:

“It is important to note that these targeted FTE forecasts are prepared for planning purposes and are not prepared in the context of a regulatory filing. Therefore, the degree of rigor is not at the same level as experienced for GRA purposes. As well it is important to note for the reasons stated in CW-YECL-24 that Yukon Electrical has put in place steps that render the historical differences not relevant to the vacancies that Yukon Electrical has forecast in the test period.”

Emphasis added

With regard to the referenced CW-YECL-24, CW agrees that there are particular comments therein that render history not relevant, particularly with regard to the ability of YECL to maintain employees. On page 3 of 3 of the response, YECL provides a list of benefits that YECL was ‘told’ by other employers, on a confidential basis, were being offered to employees by companies that would compete for employees with YECL. These prominent companies included, among others, a communication company, electric utility companies in both territories, and both municipal and territorial levels of government.³⁸ The list of benefits is as follows:³⁹

- Unlimited personal use of company vehicles including fuel;
- Payment of travel/flight to anywhere in the world once and in some cases twice per year;

³⁸ Tr.315, lines 25-29

³⁹ CW-YECL-24(a), p.3 of 3

- Bonuses for moving and contributions towards mortgages based on years of service;
- Profit sharing arrangements; and
- Years of service bonuses

CW submits if the above list of benefits offered by competing companies is true, (and this list was defended as true by the YECL panel),⁴⁰ it will be difficult for YECL, even with the proposed Community Skills Premium cited in CW-YECL-24(a), to match the level of benefits outlined above. Accordingly, CW submits it is likely that YECL will not be retaining all the employees they expect to be retaining through the test years.

CW submits that the downward pressure on the vacancy rates instituted by the Community Skills Premium will be entirely offset by upward pressure created by employees wanting to work for other prominent companies in the North which offer superior benefits. CW submits therefore that the best forecast for vacancies going forward is the average actual vacancies from 2003 to 2007. CW thus submits the Board should rule that the number of forecast vacancies should be 3.5 for both 2008 and 2009.

Affiliate Costs

In Schedule 5.3, YECL provided details of its costs paid to regulated and unregulated affiliates for the previous two years and its forecast costs for the two test years.

⁴⁰ Tr.316, lines 1-13

Yukon Electrical Company Limited
2008 - 2009 General Rate Application
Affiliate Charges included in Operations and Maintenance
(9500s)

Schedule 5.3

| Line No. | O&M Category | Affiliate Company | Services Provided | Cross Ref. | Actual 2006 | Actual 2007 | Test Period 2008 | Test Period 2009 | |
|----------|---|------------------------------|--|------------|-------------|-------------|------------------|------------------|--------------|
| 1 | Details of Affiliate Costs in Operations and Maintenance | | | | | | | | |
| 2 | 67500 - Meters and Meter Testing | ATCO Electric | Metering Services | | 37 | 32 | 40 | 42 | |
| 3 | | | | | | | | | |
| 4 | 72100 - Administrative | ATCO Electric | After Hours Answering | | - | 26 | 26 | 26 | |
| 5 | 71200 - Meter Reading | ATCO Gas | Meter Services | | 34 | 37 | 39 | 41 | |
| 6 | | | | | | | | | |
| 7 | 72100 - Administrative Expenses | ATCO Gas | Office Services | | 8 | 14 | 15 | 16 | |
| 8 | | | | | | | | | |
| 9 | 72100 - Administrative Expenses | ATCO I-Tek | Information Technology | Note 1 | 311 | 331 | 353 | 370 | |
| 10 | | | | | | | | | |
| 11 | 71300 - Customer Billing and Accounting | ATCO I-Tek Business Services | Billing System Services | Note 1 | 354 | 366 | 434 | 484 | |
| 12 | | | | | | | | | |
| 13 | | | | | | | | | |
| 14 | Details of Head Office Costs | | | | | | | | |
| 15 | 72100 - Administrative Expenses | ATCO Electric | Governance | | 22 | 22 | 24 | 25 | |
| 16 | 72100 - Administrative Expenses | | Human Resources | | 67 | 67 | 67 | 50 | |
| 17 | 72100 - Administrative Expenses | | Health and Safety | | 18 | 19 | - | - | |
| 18 | 72100 - Administrative Expenses | | Regulatory Phase II | | - | - | 12 | 3 | |
| 19 | 72100 - Administrative Expenses | | Financial Reporting and Regulatory Phase I | | 25 | 26 | 67 | 73 | |
| 20 | 72100 - Administrative Expenses | | Payroll | | 7 | 6 | 9 | 10 | |
| 21 | 72100 - Administrative Expenses | | Use of Systems | | 10 | 8 | 5 | 5 | |
| 22 | 72100 - Administrative Expenses | | Information Technology | | 3 | 3 | 2 | 3 | |
| 23 | | | Total Head Office Fees | | 152 | 151 | 226 | 210 | |
| 24 | | | | | | | | | |
| 25 | 72100 - Administrative Expenses | ATCO Electric | Material Management | | 12 | 9 | - | - | |
| 26 | | | | | | | | | |
| 27 | | | | | | | | | |
| 28 | | | | | | | | | |
| 29 | Total Affiliate Costs included in Operations and Maintenance | | | | | 908 | 966 | 1,133 | 1,189 |
| 30 | | | | | | | | | |

31 Note 1 - The test period forecast costs are placeholders pending the completion of a benchmarking study. Please refer to Affiliate Costs write-up on Pages 5-3 & 5-4.

Details of the calculations were provided as part of YEC-YECL-11. CW does not take issue with the costs incurred between ATCO Electric and YECL, subject to the change in the inflation rate to be applied to non-labour costs as discussed in the section on that matter.

YECL noted in YEC-YECL-11 (b) that it had reduced its forecast I-Tek and ITBS costs for the test years as the result of the ATCO Utilities Benchmarking Settlement and the filing of the Evergreen rates. The reduced and filed costs were:

| | | |
|--------------------------|-------------|-------------|
| I-Tek | 2008 | 2009 |
| Costs per Application | 353 | 370 |
| Updated for Benchmarking | 329 | 324 |
| Reduction in I-Tek Costs | 24 | 46 |
| | | |
| ITBS | 2008 | 2009 |
| Costs per Application | 434 | 484 |
| Updated for Benchmarking | 416 | 448 |
| Reduction in ITBS Costs | 18 | 36 |

At the hearing, YECL stated that the I-Tek costs were developed from the costs filed before the EUB as part of a benchmarking study. The ITBS costs were not the costs found in the benchmarking study but a forecast based on reduced costs that came out of the benchmarking study. YECL submitted Exhibit C-2-15 to demonstrate how its reduced forecast of costs was developed. Mr. Freedman justified the calculation at Tr. p. 311 as follows:

1 A MR. FREEDMAN: The rates in the schedule 1 we've used for the ITBS costs —
2 we've used the results of the benchmarking study, which wasn't really benchmarking the
3 services that Yukon Electrical are getting. We've really negotiated with ITBS based on
4 these new lower rates for Yukon Electrical. Because the rates in the benchmarking report
5 have higher amounts for market transactions — you know, we've got 11 cents here. They
6 are higher in the benchmarking report but that wasn't thought to be appropriate for
7 Yukon Electrical, given that they are not in the retail, you know, they don't have to deal
8 with retailers like ATCO Electric does. So, we used the results of the benchmarking
9 report from 2003 to 2007 on the belief that the substantive savings that are in that report
10 will be captured in this agreement. They are not really subject to the ongoing process that
11 is in front of the AUC for ITBS.

12 Q MR. MARRIOTT: So, I take it that YECL's position is that they would not
13 regard the rates in this exhibit as placeholders to be changed at the time that those rates
14 are fixed in Alberta?

15 A MR. FREEDMAN: You know, that would be Yukon Electrical's position. Again,
16 given the exposure to more proceedings, given that I-Tek — the I-Tek does mirror the I
17 Tek rates that are in the benchmark report, because it is the same services for I-Tek that
18 Yukon Electrical receives — that ATCO Electric receives. I do appreciate that there is an
19 ongoing process, but to put it in perspective, from an ATCO position, we think the rates
20 are final. Agreed they're not approved, so there could be some adjustments, but we're
21 looking at \$300,000 in costs for Yukon Electrical compared to around \$50 million of I
22 Tek costs for the ATCO Utilities. So within that \$50 million, that number could change
23 slightly. It's been a four-year process. I don't think it's going to be substantive, but there
24 could be some slight changes. We felt that, rather than let Yukon Electrical get wrapped
25 up in another process, the substantive savings have been captured and are reflected in this
26 filing.

CW is prepared to accept YECL's explanation concerning why the Evergreen rates were not employed, i.e. that YECL receives different billing services from I-TEK than does ATCO Electric or ATCO Gas. Multiple retailers are not active on YECL's system.

Notwithstanding this limited acceptance, CW is not satisfied that the Alberta CPI rates of inflation used to develop Exhibit C-2-15 are appropriate. Information processing costs change at a different rate than the general CPI basket. In addition, CW notes that it is not clear in Exhibit C-2-15 why there are different actual rates for 2007 CPI inflation provided, one at the top and one at the bottom of exhibit. CW also does not accept the forecast inflation rate for 2008 and 2009 of 5%. CW suggests that the 2008 and 2009 ITBS costs should be included in the compliance filing at either the 3.5% inflation rate proposed by YECL for inflation beyond 2010 or the 4%, which is the Alberta CPI inflation rate on a 12 month basis from August 2007 to August 2008⁴¹ as discussed in the section on non-labour costs above.

Although it might be more exact to use a placeholder for I-Tek rates, CW considers that it would be more efficient from the regulatory standpoint to accept these rates as final for the purpose of setting rates. Finally, CW submits that the Board should order YECL to file for information purposes the final I-Tek rates that result from the Evergreen process and the difference it would have made for revenue requirement for each test year once the Evergreen process is completed.

⁴¹ Tr. 96, line 28 – Tr. 97 line 8.

SECTION 6 – Taxes and Other Income

SECTION 7 – Depreciation

YECL includes site remediation and removal costs in its depreciation rates as negative salvage costs. When the costs of removal and remediation exceed the salvage value of the assets, this is referred to as negative net salvage. The process of calculating salvage values is set out in the Gannett Fleming Report.

1. The annual retirement, gross salvage and cost of removal transactions for the period January 1, 1983 through December 31, 2007 were extracted from the plant accounting systems.
2. A net salvage amount (gross salvage proceeds less cost of retirement) was calculated for each historic year. Additionally, a net salvage amount was also calculated for each historic 3-year rolling band and the most recent 5-year rolling band.
3. The net salvage amount determined above was compared to the original booked costs retired for each period in the manner described, which resulted in a net salvage percentage of original costs retired for each year, in addition to 3-year rolling bands and the most recent 5-year rolling band.
4. The annual, the 3-year rolling average, and the most recent 5-year rolling average net salvage percentages were analyzed to determine a reasonable estimated net salvage percentage. At this point the net salvage percentage was based purely upon statistical analysis.
5. Each account was then compared to the net salvage percentage currently approved, compared to peer electric distribution companies, and discussed with company engineering staff. Based on the statistical analysis, the review of current and peer company net salvage percentages, and with the professional judgment of Gannett Fleming, a net salvage percentage was determined for each account.

6. The net salvage percentage was then used in the depreciation rate calculations in the technical update.⁴²

CW considers that it is appropriate to recover the future costs of remediation and removal from the current customers who are employing these assets. This reduces intergenerational inequities that might result in the absence of any mechanism to recover these future costs over time. In theory, determining remediation and removal costs on an account-by-account basis should result in a reasonable estimate of these future liabilities. Concerning the accuracy of the method, CW notes that there is a great deal of judgment involved in the calculation of salvage and negative salvage in the method employed by YECL and Gannett Fleming. As YEC was the principal depreciation intervenor, CW defers to YEC's argument respecting the appropriateness of individual salvage rates.

CW has concerns regarding the inconsistent treatment of remediation and removal costs recommended by Gannett Fleming for YEC and YECL. YEC employs a Future Removal and Restoration Fund (FRSR) so that current customers will pay for the future costs that will be incurred on their behalf, not through salvage costs embedded in current depreciation rates. CW notes that YEC and YECL operate under the same environmental legislation. There should be some regulatory consistency for removal and remediation costs among the YUB's electric utilities. With respect to YEC's FRSR account, the Board stated:

“The Board requires that YEC discontinue recording an annual provision for FRSR effective January 1, 2005. The Board orders a variance from GAAP and requires that the December 31, 2004, balance in the FRSR account remain as a liability to be utilized for dismantling costs that are incurred in 2005 and future years. The Board requires YEC to inform Intervenors and stakeholders when the balance of the site removal liability account reaches \$2.0 million.”⁴³

⁴² Application Section 7, Attachment 1, page 35 of 158

⁴³ Board Order 2005-12, Appendix A, p. 48

It is difficult to determine the amount that YECL has included in total within its depreciation reserve for negative net salvage. Consequently it is not possible to determine from the evidence available whether YECL's total negative net salvage should be capped or not. Therefore, CW recommends that the depreciation reserve be separated in order to calculate the total negative net salvage in reserve. This will allow the Board and intervenors to determine whether this portion of the reserve is reasonable or needs to be capped, consistent with YEC's FRSR.

Average Service Life Procedure versus Equal Life Group Procedure

On the issue of which of these procedures is most appropriate for use by YECL, CW notes that in discussions with YEC early in the process, it was determined that as between the two of them, YEC would be the principal intervenor on depreciation issues, due to expertise and experience within or available to YEC. As this is a complicated and esoteric area, CW is not certain it fully understands the contending positions. Accordingly CW will review the arguments of YECL and YEC on this issue and will simply advise the Board in reply which of these positions it supports.

SECTION 8 – Return on Rate Base

Cost of Debt

In the Application, YECL forecast two new debt issues, one for \$2,150,000 in 2008 (Series T) and one for \$5,200,000 in 2009 (Series U). Both series bore a forecast rate of 6.60%.⁴⁴ YECL's forecast cost of debt was calculated as follows:

“Yukon Electrical's forecast embedded cost of debt of 6.60% for the test period is based on Foster and Associates, Inc.'s 4.55% Long Canada Bond yield forecast, a 200 basis point spread and 5 basis points for issue costs.”⁴⁵

The actual amount of Series T was \$2,156,000 and the rate for this issue that was mirrored down from ATCO Electric was 5.623%.⁴⁶ YECL states that it will only incorporate in a compliance filing a 5.623% rate for Series T upon the Board's direction to do so. YECL took the position that it makes its forecasts based on the best information available.⁴⁷ CW submits that the Board should direct YECL to incorporate a 5.623% rate for Series T as well as the actual amount of the issue. When the actual cost of a debt issue is known, this cost should be incorporated into revenue requirement. If the cost of debt is not reduced, CW estimates that YECL will recover \$11,000 more from customers than it actually incurs in debt costs.

CW disagrees that the forecast cost of debt was based on the best information available. The forecast for the rate of long Canada bonds was based on a November 2007 forecast employed by the EUB to determine its 2008 generic cost of equity.⁴⁸ YECL's evidence is that the average yield for long term Canada bonds during the first quarter of 2008 was

⁴⁴ Application, Schedule 8.3

⁴⁵ Application p. 8-2, ll. 12-14

⁴⁶ Tr. p. 179, ll. 20-26

⁴⁷ Tr. p. 237, ll. 8-23

⁴⁸ Report of Foster Associates Inc., page 1, l. 29 – p. 2, l. 2

4.10%⁴⁹ rather than the forecast 4.55%, which itself should have indicated by the date of filing that a downward revision of the forecasted cost of debt was necessary. YECL added a 200 basis point premium to the forecast cost of long Canada bonds. The basis for this premium is apparently sister utility ATCO Gas' requested spread filed as part of a GRA at the same time as YECL's⁵⁰. The 200 basis point premium was not based on an opinion that the same was necessary to attract capital by staff at CU, the entity that was actually issuing the debt on behalf of YECL. The actual cost of debt of 5.623% and the actual first quarter long term Canada of 4.10% would indicate that the actual premium for CU's corporate bonds is approximately 150 basis points, not 200 basis points as forecast by YECL. Furthermore, YECL clearly had knowledge that CU was issuing debt at a rate well below what it forecast in the Application.⁵¹ CW submits that YECL had or should have had ample indication at the time of filing that its forecasted cost of debt was too high.

Moreover, the disparity between the forecast and actual cost of debt for 2008 is a clear indication that the forecast rate of the 2009 Series U issue, made at the same time and using the same methodology as the 2008 forecast, is too high and should be reduced. Given the current financial conditions, Ms. McShane's forecast 2009 long term Canada rate of 4.5% may not be excessive.⁵² However, CW considers that a 200 basis point premium for CU's debt is excessive and should be reduced to 150 basis points based on the premium that CU actually commands in the financial markets. An appropriate forecast for CU's debt mirrored down to ATCO Electric and YECL would be based on a forecast of 4.5% for long Canada forecast plus 1.5% for a premium for CU corporate plus .05% for issuance costs. CW submits that YECL should be directed to reduce its forecast cost of Series U to incorporate a rate of 6.05% in Schedule 8.3 in its compliance filing. If the Board does not reduce the cost of Series T and U, then in CW's submission YECL

⁴⁹ Foster Associates Inc. Report, Attachment 1-1, Schedule 5, p. 3 of 3

⁵⁰ CW-YECL-43 (a)

⁵¹ Tr. p. 180, ll. 8-15

⁵² Report Foster Associates Inc., p. 10, l. 277 – p. 11, l. 296

will have embedded in its rates on an on-going basis an extra \$35,000 in debt costs that it will not actually incur.

Return on Equity and Capital Structure

YECL engaged Ms. McShane of Foster Associates, Inc. as an expert to provide an opinion on an appropriate return on equity and capital structure for the test period 2008-2009. Rather than developing comparable earnings, discounted cash flow and equity risk premium tests to determine an appropriate cost of capital for YECL, Ms. McShane employed the AUC's generic cost of capital result for 2008 as a "point of departure" for her own recommendations. The AUC, in Order 2007-347, set a generic rate of return on equity for 2008 of 8.75%. For YECL's parent company, the AUC's predecessor in Decision 2004-052, determined that a fair return on the equity portion of the capital structure of the distribution arm of YECL's parent, ATCO Electric, should be calculated at a deemed equity ratio of 37%. CW notes that, by comparison, YEC has filed its 2008/2009 general rate application employing the BCUC generic rate of return less 50 basis points and a capital structure of 40% equity.⁵³ For regulatory consistency with YEC, CW would have preferred that YECL use the BCUC generic cost of capital as the appropriate point of departure. Nonetheless, CW does not object to Ms. McShane's use of the EUB/AUC's generic cost of capital and capital structure if and only if the EUB/AUC's rationale is respected and the result yields a fair and reasonable return.

Ms. McShane departed from this benchmark rate of return by recommending a 50 basis point premium for a rate of return, or 9.25% and a deemed equity of 47.5%. These final recommendations are the result of a risk assessment of YECL that concludes that the appropriate capital structure of YECL should be based on an equity thickness of 52.5% at the AUC equity rate of return of 8.75%. Rather than requesting a deemed equity that is 12.5% higher than the historical actual equity thickness⁵⁴, Ms. McShane calculated that a

⁵³ YEC Rate Application dated September 2008, Section 8.2

⁵⁴ Application, Section 8, Foster Associates Report, page 36 line 945

rate of return of 9.25% with a deemed equity of 47.5% would be equivalent to 8.75% at 52.5%.⁵⁵

Table 11

| | <u>Proportion</u> | <u>Cost</u> | <u>Weighted Component</u> |
|--|-------------------|---|---------------------------|
| Debt | 47.50% | 6.15% | 2.92% |
| Equity | 52.50% | 8.75% | 4.59% |
| | | | 7.52% |
| | | Tax Allowance at 34% | 2.37% |
| | | Pre-Tax Cost of Capital | 9.88% |
| Move Equity Proportion to 47.5% | | | |
| | | Pre-Tax Cost of Capital Remains Unchanged at: | 9.88% |
| | | Less: Weighted Interest Component (6.15% x 52.5%) | 3.23% |
| | | Pre-Tax Weighted Equity Component | 6.65% |
| | | Less: Tax at 34% | 2.26% |
| | | After-Tax Weighted Equity Component | 4.39% |
| | | ROE at 47.5% Equity | |
| | | (After-Tax Weighted Equity Component / 47.5%) | 9.24% |

CW submits that altering the AUC's generic cost of capital does not respect the AUC's method of setting a common rate of return for all its utilities and adjusting the deemed equity ratio for each utility's unique risk profile. CW recommends that the rate of return of YECL be set at 8.75% and the portion of capital structure deemed to be equity set to reflect YECL's risks.

Therefore, the matter of an appropriate capital structure reduces to the question of whether the risk profile of YECL warrants an equity thickness of 52.5%. Ms. McShane posits a number of quantitative factors that make YECL a riskier entity than its parent company, ATCO Electric. With respect to the volatility of the mining industry, Ms. McShane points to the mining sector and the opening of the Minto mine as increasing economic volatility. However, the Minto mine is not a YECL customer as YECL does not serve industrial customers.⁵⁶ The secondary impact of loss of residential and commercial customers upon YECL is mitigated by a lag between mine closure and loss of residential and commercial load.⁵⁷ This lag would allow time YECL to apply for new

⁵⁵ Report of Foster Associates Inc., Table 11, p.37

⁵⁶ Report of Foster Associates Inc., p. 18, l.488 – p. 19, l. 499

⁵⁷ Tr. p. 185, lines 5-9

rates, if made necessary by a mine closure. There is no evidence that such a mine closure is likely or in any way predicted. Further, the majority of YECL's customers are located in Whitehorse, which Ms McShane characterizes as stable and driven by the public administration sector.

Ms McShane also considers trees to add to YECL's operating risks:

“Although the exposed lines are being moved underground, the exposed lines, in conjunction with a heavily treed service territory, increases the operating risks of Yukon Electrical.”⁵⁸

Notably, Ms. McShane has no knowledge of whether the Yukon's trees pose more risk to YECL than Alberta's trees pose to ATCO Electric.⁵⁹

The presence of generation in YECL's portfolio of assets, in the opinion of Ms. McShane, poses additional risks. Yet, 90% of YECL's power is purchased and the risk of the remaining 10% is largely mitigated by the fuel deferral accounts. Ms. McShane acknowledges that YECL is mostly a “wires-only” distribution utility.⁶⁰ In order to respect the EUB/AUC generic cost of capital methodology, a wires-only distribution utility is accorded a deemed capital structure consisting of 37% equity. CW submits that an equity thickness in a narrow range somewhat above 37% would be appropriate and would reflect YECL's generation assets not covered by fuel deferral accounts.

In this respect, CW notes that the Board's comments⁶¹ respecting YEC, a primarily generation utility:

⁵⁸ Report of Foster Associates Inc., p. 21, ll. 560 - 562

⁵⁹ Tr. p. 186, ll. 7-15

⁶⁰ Tr.p.185, lines 10-15

⁶¹ Board Order 1992-1, page 32

The Board has also concluded that YEC's business risk does not differ materially from that of a high grade utility. The Board notes that YEC's common equity ratio is expected to be approximately 41% and 42% for the test years 1991 and 1992 respectively.

CW notes that YEC's capital structure approved in its previous general rate application was 60% debt and 40% equity, implying that the Board's assessment of YEC's risk continued to be valid.⁶² Given Ms. McShane's and the EUB/AUC's opinion that a distribution wires-only utility is less risky than a primarily generation utility, the Board's assessment of YEC's capital structure relative to its risks suggests that YECL's appropriate capital structure is closer to 37% equity than 52.5% equity.

Ultimately, for Ms. McShane, the matter of risk boils down to a matter of size. Ms. McShane takes the view that a utility's risk is inversely proportional to its size.

"My assessment of the appropriate capital structure for Yukon Electrical balances the stand-alone and creditworthiness and financial integrity principles with a recognition that the impact of small size on lenders' willingness to lend funds and on the stand-alone cost of debt would be, in part, related to the lack of liquidity and institutional interest in small debt issues rather than to fundamental business risk factors. Nevertheless, the appropriate capital structure and return on rate base for Yukon Electrical needs to recognize the cost benefits that Yukon Electrical's ratepayers receive."⁶³

⁶² Board Order 2005-12, Appendix A, p. 48

⁶³ Report of Foster Associates Inc., p. 15, ll. 419 - 425

Ms. McShane considers that the utility that provides the best risk comparison to YECL is YECL's sister company, Northlands Utilities, Yellowknife (NUL(YK))⁶⁴. The last approved capital structure for NUL(YK) was 40% equity.⁶⁵ YECL is nearly twice as big as NUL(YK) and eight or nine times as big as NUL(NWT), whether one looks at sales or rate base.⁶⁶ By Ms. McShane's proposition that risk is inversely proportional to size, YECL's capital structure should include less equity than the 40% allowed NUL(YK). Nonetheless, CW will accept 40% as the lower limit of the range of equity thickness appropriate for a utility of YECL's risks.

Where does the recommendation of 52.5% equity thickness come from? Ms. McShane acknowledges that determining risk is "not a precise science."⁶⁷ In Ms. McShane's judgement, the Board should deem YECL's equity to be 52.5% in relation to NTPC, an acknowledged riskier entity.

"With respect to the recent Northwest Territories Power Corp. (NTPC) decision, for the 2007/08 test year, the Public Utilities Board of the Northwest Territories adopted a common equity ratio of 48.86% and an incremental equity risk premium of 0.50% for NTPC, a higher business risk utility than Yukon Electrical. The corresponding equity ratio for NTPC that would fully compensate for its higher business risks would be approximately 56-57%. Since NTPC faces higher business risk than Yukon Electrical, the fully compensatory equity ratio for Yukon Electrical indicated by the NTPC decision would be lower than 56-57%."⁶⁸

⁶⁴ Report of Foster Associates Inc., p. 22, ll. 595 - 596

⁶⁵ Tr. p. 169, ll. 18-25

⁶⁶ Tr. p. 190, ll. 18-20

⁶⁷ Tr. p. 170, ll. 7 - 8

⁶⁸ Report of Foster Associates Inc., p. 24, ll. 635 - 642

However, Ms. McShane acknowledges that NTPC does not resemble YECL at all.⁶⁹ As noted, Ms. McShane considers that NUL(YK) is most comparable utility in risk to YECL and its last allowed capital structure was 40% equity.

Of more concern than comparable utilities is the result of selecting a 52.5% equity base at an 8.75% ROE. The following undertaking demonstrated that 52.5% results in a FFO interest coverage ratio of 4.7 times.

Undertaking: By Ms. McShane to Mr. Marriott

Page 172 Line 27

Provide the calculations used to arrive at the 4.2X and 4.7X for the FFO Interest Coverage ratio and the calculations used to compute the 22% and 25% FFO/total debt ratio.

Yukon Electrical Response:

**FFO Interest Coverage and FFO to Debt
at 47.5% and 52.5% Equity Ratios**

| | | Forecast | Forecast |
|-----------------------------|-----------|----------|----------|
| | | 2009 | 2009 |
| Depreciation (schedule 1.1) | a | 3,809 | 3,809 |
| Rate Base (Schedule 8.5) | b | 51766 | 51766 |
| Return on Equity | c | 8.75% | 8.75% |
| Cost Debt | d | 6.83% | 6.83% |
| Equity Ratio | e | 47.50% | 52.50% |
| Debt Ratio | f | 52.50% | 47.50% |
| Net Income | g=b*c*e | 2151.52 | 2378.00 |
| Interest | h=b*d*f | 1856.20 | 1679.42 |
| FFO | i=a+g | 5960.52 | 6187.00 |
| FFO Interest Coverage | j=(h+i)/h | 4.2 | 4.7 |
| FFO /Debt | k=i/(b*f) | 21.9% | 25.2% |

CW notes that that the average FFO interest coverage ratio for Ms. McShane's sample of Canadian electric utilities is 3.8 times. From the perspective of the debt-rating agency, the higher the ratio, the better.⁷⁰ It is clear that at Ms. McShane's requested equity thickness, YECL would enjoy an interest coverage ratio that exceeds the Canadian average or even that of its parent, ATCO Electric.

Notably, Ms. McShane demonstrated that a FFO interest coverage ratio of 3.8 times, equivalent to the average of Canadian utilities, could be achieved by YECL with an equity thickness of 42%.

⁶⁹ CW-YECL-42 (b)

⁷⁰ See the discussion at Tr. p. 171 l. 2 - Tr. p. 173, l. 6

October 8, 2008
Transcript Volume 2

Undertaking: By Ms. McShane to Mr. Marriott

Page 173 Lines 1-3

To provide the capital structure to bring the FFO interest coverage ratio down to the 3.8 average, using the same or better cost of debt — 8.75% return on equity and the other inputs, as done in the original calculations.

Yukon Electrical Response:

Capital Structure for 3.8X FFO Interest Coverage

| | | Forecast 2009 |
|-----------------------------|-------------|--------------------------|
| Depreciation (schedule 1.1) | a | 3,809 |
| Rate Base (Schedule 8.5) | b | 51766 |
| Return on Equity | c | 8.75% |
| Cost Debt | d | 6.83% |
| Equity Ratio | e | 42.00% |
| Debt Ratio | f | 58.00% |
| Net Income | $g=b*c*e$ | 1902.40 |
| Interest | $h=b*d*f$ | 2050.66 |
| FFO | $i=a+g$ | 5711.40 |
| FFO Interest Coverage | $j=(h+i)/h$ | 3.8 |
| FFO /Debt | $k=i/(b*f)$ | 19.0% |

As noted at the hearing, a reduction in the embedded cost of debt will reduce the required FFO interest coverage.⁷¹ This undertaking was calculated at the requested embedded cost of debt. As noted CW has recommended that the embedded cost of debt for both test years should be reduced to reflect the actual cost of Series T issued in 2008 and a reduction in the cost of Series U to be issued in 2009. This would result in an equity thickness lower than 42% at an FFO interest coverage ratio of 3.8 times. Nonetheless, CW recommends that 42% should be regarded as the upper bound of the range of appropriate equity thickness.

CW therefore recommends a return on equity of 8.75% on a deemed equity portion of rate base in the range of 40-42%. CW considers that this rate of return and equity thickness results in an appropriate interest coverage for a company of YECL's risks. This will compensate YECL's shareholders adequately while not impairing the financial quality of the CU group.

U. S. Regulated Utility Comparisons

⁷¹ Tr. p. 174, ll. 10-11

Ms. McShane introduces comparisons of Canadian regulators with the awarded returns of U.S. utilities as a factor that the Board should consider when setting a rate of return and capital structure for YECL.

“In this regard, Canadian utility returns compare unfavourably to the returns that are being allowed for U.S. utilities. The average return on equity that has been allowed by state regulators or U.S. electric and gas utilities over the period 2005-2008Q1 has been approximately 10.4%, approximately 1.5 percentage points higher than the corresponding allowed returns for Canadian utilities. The returns allowed by the Federal Energy Regulatory Commission for (lower risk) transmission operations have been in the approximate range of 10.75-13.8%.”⁷²

In addition, Ms. McShane provided a number of papers in support of her proposition that Canadian regulators awards, and in particular the AUC generic cost of capital used as the point of departure, are too low.⁷³ CW submits that these comparisons with the awards of U.S. regulators should be accepted as information but should not be used for the purposes of determining either a return on equity or an appropriate capital structure.

The U.S. comparisons are retrospective in nature. The Board’s duty is to set a prospective rate of return for two forecast test years, not to reach back into the past. The past never predicts the future in the equity markets. Looking at the awards of other regulators creates circularity if one regulator sets a rate of return based on the award of another regulator. The Board must set a rate of return that is unique and appropriate for YECL. The utilities selected by Ms. McShane have not been evaluated as to whether the regulatory risks faced by each U.S. utility are comparable to that of YECL or whether the company operates primarily as an electric power distributor.⁷⁴ Ms. McShane has not corrected her returns for a myriad of other differences such as currencies, federal and state/provincial/territorial tax differences, environmental standards, etc.

⁷² Foster Associates Inc. Report p. 36, lines 956-963

⁷³ YUB-YECL-35 (b) Attachments 1-8

⁷⁴ CW-YECL-35 (d)

It could be argued that the U.S. comparisons of Ms. McShane are merely a scaled-down version of the comparable earnings. The CW does not advocate using the comparable earnings test to set a return for YECL. Ms. McShane's U.S. comparisons are not subjected to the rigors of the comparable earnings test, which requires comparison over a complete business cycle and comparison to high-quality investments in industries other than utilities.

SECTION 9 – Capital Additions

AMR

CPV of Project

Capital costs for the AMR project are forecast to be \$4.185M.⁷⁵ Overhead costs for the status quo scenario also increase substantially to the extent that the cross-over point is at 9 years and there is a cumulative present value savings over 25 years of \$901,400 for the AMR scenario (\$12,831,600) versus the no-AMR scenario (\$13,733,000)⁷⁶

According to the Company, an assumed 10% cost over-run would increase the CPV for the AMR project to \$13,182,500 and the cross-over point would increase to 15 years⁷⁷, but there would still be a CPV savings compared to the \$13,733,000 no-AMR scenario over the 25 year period of \$550,500. Similarly, according to the Company, an assumed 20% cost over-run would increase the CPV for the AMR project to \$13,532,500 and the cross-over point would increase to 22 years⁷⁸, but there would still be a CPV savings compared to the \$13,733,000 no-AMR scenario over the 25 year period of \$200,500.

Concern Regarding Purported Benefits

Purported benefits of the project include:

- improved accuracy of meter reading,

⁷⁵ YUB-YECL-15c, Attachment 1, 3 of 5

⁷⁶ YUB-YECL-15c, Attachment 1, Summary 1 of 11

⁷⁷ Tr.323, LL.23-28

⁷⁸ Tr.324, LL.1-3

- reduction of billing enquiries or disputes from customers
- AMR meters are capable of hourly readings, thereby providing the ability to produce load profiles and Time-of-Use rates
- reduction in manual re-estimations and cancellations/rebilling when readings are more accurate
- reduction in off cycle meter reading requests when the actual reads are missed or customer move
- Improved monitoring of meter performance such as stopped or failing meters;
- Improved customer service due to bills based on accurate monthly meter readings;
- Improved opportunity to utilize the AMR system to perform value added distribution system O&M functions such as:
 - o remote disconnect/reconnect
 - o voltage readings at the meter
 - o momentary outage counts (blinks) at the meter
 - o outage assessment
- AMR system can be used to provide water AMR services to the City of Whitehorse. Yukon Electrical has approached the City of Whitehorse regarding this opportunity and has been advised the City is studying its options.

CW is concerned that several of the benefits mentioned in the YUB-YECL-15c, Attachment 1, p.4 of 5 either cannot immediately be realized or require the expenditure of additional costs to implement.

Several of the benefits are based on improved accuracy of meter readings. However, the error rates for meter reading are not currently tracked by the Company⁷⁹ so there is no evidence for the existence of significant meter reading error that demands being addressed. Also, from discussion at the hearing⁸⁰ the savings associated with the AMR in the business case relate to meter reading. So any potential extra costs to implement

⁷⁹ Tr.360, LL.26-27

⁸⁰ Tr.359, line 20 to Tr.360, line 14

purported benefits such as time-of-use rates, remote disconnects/reconnects, or net metering were not considered in the business case.

YECL confirms this when it states with regard to the purported benefits listed above, “although all of the benefits above are enabled by AMR technology, some of the items would require additional business cases and revenue requirement prior to implementation.”⁸¹

CW is concerned with the overstatement of the benefits to the AMR project in the business case. CW submits that this creates doubts about the validity of the business case. As such, CW is apprehensive about potential cost-over-runs.

While CW does not oppose approval of the project, CW is concerned that significant cost overruns could cause the AMR project to become financially unsound. In order to prevent approval of this project based on a capital expenditure forecast that is too low, CW submits that the Board place a cap on the capital expenditures to make certain that this project’s perceived long term benefits to customers do, in fact, produce benefits. As discussed above, YECL’s CPV analysis indicates that a 20% cost overrun would still result in a CPV benefit compared to the non-AMR scenario. However, in view of the concerns pertaining to the accuracy of YECL’s numbers, CW submits approval of this project should be based on a maximum capital expenditure 10% greater than the forecast capital cost ($\$4.185 * 1.1 = \4.6035 million) to make certain that customers are no worse off under this alternative.

SECTION 10 – Income Tax

SECTION 11 – Interim Refundable Rate Riders

⁸¹ YUB-YECL-15c, Attachment 1, 5 of 5

All of which is respectively submitted on behalf of the City of Whitehorse this 27th day of October 2008.

Brownlee LLP
Solicitors for the City of Whitehorse

Thomas Marriott
Mon Oct 27 16:05:23 2008

A handwritten signature in black ink, appearing to read 'T. Marriott', is written over a horizontal line. The signature is stylized and somewhat cursive.

Per:
THOMAS D. MARRIOTT