

Nathaniel Yee

**Application for Review and Variance of Board Order 2023-08.**

3-May, 2023

In Appendix A to Order 2023-08 regarding ATCO Electric Yukon and Yukon Energy Corporation's Rate Rebasng Application, the Yukon Utilities Board noted the following in it's reasoning for accepting Option 4 as submitted by the Utilities:

58. Mr. Yee did not support this option or any of the options and stated that Option 4 would produce a slightly different result on the customer bill. The Board accepts the submissions of the Utilities that total charges on a customer bill will not differ from what is currently determined with the status quo option.

I submit that the Board has made an error in fact in this instance and am requesting review and variance to Board Order 2023-08, as I have proven the second half of above statement to be false by counterexample.

I am not sure that the Board was aware that I was using an actual bill in my testing of Option 4, but an actual bill that does change under Option 4 is a counterexample that rigorously disproves the Utilities claim that "total charges on a customer bill will not differ from what is currently determined with the status quo option."

From Wikipedia:

*A counterexample is any exception to a generalization. In logic a counterexample disproves the generalization, and does so rigorously in the fields of mathematics and philosophy. For example, the fact that "student John Smith is not lazy" is a counterexample to the generalization "students are lazy", and both a counterexample to, and disproof of, the universal quantification "all students are lazy."*

If we are to use the rules of mathematics and logic, the Board must acknowledge that the Utilities' claim that bills will not differ under Option 4 is false, as a counterexample has been provided. Accepting the Utilities claim is equivalent to the Board accepting that  $2+2=5$  simply because the Utilities have said so.

Paragraph 58 in Appendix A to Order 2023-08 would more accurately read as follows:

58. Mr. Yee did not support this option or any of the options and proved by counterexample that Option 4 would produce different results from the status quo option on some customer bills. It is unknown how many bills would be affected, or by how much.

I have entered a total of four Feb/Mar billing statements into a spreadsheet, and three of them showed changes to the customer's total bill. That is, in 75% of the bills I have examined, the total changes under Option 4. From this small survey, it is impossible to determine how many customers would actually be affected or by how much.

The actual bill I am providing as a counterexample is at the end of this document.

I submit that there is a prima facie case for the Rebasing Application to be reviewed by the Board based on error of fact, and that this error has significant material implications. Which calculation is correct, the status quo or Option 4? If Option 4 is correct, have the Utilities been calculating Riders J & R incorrectly for many years? If the status quo is correct, do they propose to calculate bills incorrectly in all future years under Option 4. Either would be significant and worthy of verification.

In order to assure that billing is correct in the future and that it has been in the past, before implementation of Option 4, the Utilities should be directed to provide information on how the bills are currently computed, and show how/why the results differ from Option 4. That is, show the math involved in the status quo and in Option 4. Knowing this will help determine how many bills have been or will be affected. This seems to be required given that Utilities assured the board that bills would not change, which was simply untrue.

I believe that a review is warranted. Otherwise, the Board is approving an unknown, undefined and unintended change to rates. Does the Board accept a claim from the Utilities that literally and provably defies logic? Does  $2+2=5$  because the Utilities say so?

Failure to correct this error of fact would indicate that the rules of logic and mathematics can be ignored in Utilities Board proceedings. A dangerous precedent indeed.

Respectfully submitted,

-Nathaniel Yee  
3-May, 2023

(Counterexample provided on the following page.)


**Customers' total bills DO change under Option 4:**

The example provided below uses an actual billing statement and shows that customer totals are NOT the same under option Option 4 as they are under Option 1, the current system.

For a customer billed for 1447 kWh, bill printed on Feb 3, 2023.

Item	Option 1, the Status Quo – From an actual bill		Option 4	
	Amt	Notes on Option 1.	Amt	Notes on Option 4
CUSTOMER CHARGE	14.65		20.86	
ENERGY CHARGE	178.71	From (1000*0.1214)+(447*0.1282)=178.7054	254.38	From (1000*0.1728)+(447*0.1825)=254.3775
AEY TEMPORARY RATE ADJUSTMENT	-8.84		-8.84	
FUEL ADJUSTMENT RIDER	23.26		23.26	
YEC TEMPORARY RATE TRUE UP	3.58		3.58	
YECL RATE ADJUSTMENT RIDER	16.05			
YUKON ENERGY REVENUE SHORTFALL RIDER	65.90			
YUKON INTERIM ELECTRICAL REBATE	-22.62		-22.62	
SUB-TOTAL	270.69		270.62	
GST (#R123007494)	13.54	Oddly GST is wrong on status quo. Should be 13.53	13.53	
CURRENT BILLING	284.23		284.15	

Below is a scan of the billing statement that I used in my example. While I did expect that making a visual representation of the changes brought by Option 4 would show it's negligible effect on confusion, I had not expected to find that the total bill changes despite the Utilities assurances to the contrary – or that the GST is sometimes incorrect. I have removed personal information, as this is not my billing statement. Option 4 changing the totals is not unique to this statement, and other examples can be provided upon request.



FOR ACCOUNT INQUIRIES PLEASE PHONE: 1-877-712-3375

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CUSTOMER COPY

STATEMENT ACCOUNT

PRINTED ON  
FEB 03 2023

redacted

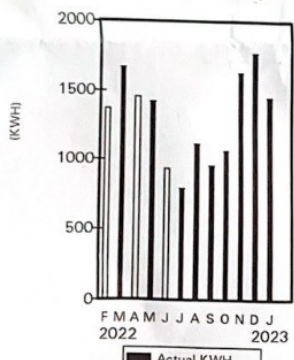
**AMOUNT DUE**

**CURRENT CHARGES DUE DATE** FEB 23 2023

**AMOUNT PAID** CREDIT BALANCE

METER NUMBER	BILLING PERIOD			# DAYS	READINGS / CODES		DIFF (KWH)	METERING MULTIPLIER	ENERGY USED (KWH)	CHARGE DATE		
	FROM	TO			FROM	TO						
	Dec 30	Jan 27		28	27883	A 29330	A	1447	x 1.00000	-	1447.00	Feb 03 2023
<b>TOTAL</b>									1447.00			

Consumption By Billing Cycle



redacted

CURRENT CHARGES	
CUSTOMER CHARGE	14.65
ENERGY CHARGE	178.71
AEY TEMPORARY RATE ADJUSTMENT	8.84CR
FUEL ADJUSTMENT RIDER	23.26
YEC TEMPORARY RATE TRUE UP	3.58
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