



**YUKON
ENERGY**

**YUKON ENERGY
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November 18, 2016

Mr. Robert Laking, Chair
Yukon Utilities Board
Box 31728
Whitehorse, Yukon Y1A 6L3

Dear Mr. Laking:

Re: Diesel Contingency Fund (“DCF”) Quarterly Report

Pursuant to Yukon Utilities Board (“YUB” or the “Board”) direction provided in Order 2015-01 and 2015-06, this correspondence provides Yukon Energy Corporation’s (“Yukon Energy” or “YEC”) Quarterly Report summarizing DCF activities up to September 30, 2016, and includes DCF calculations and balance updates based on interim determination prior to a fiscal year end.

DCF Calculations and Balance Updates – Q3 2016

At this time the Board has not approved an approach for including LNG in the DCF or for an adjusted DCF rate rider (Rider E), and has indicated its desire to review these issues as part of Yukon Energy’s next GRA or as part of a full rate rider application.¹ Given this Board direction, and the fact that the 2015 Annual DCF Filing with LNG remains interim, this quarterly filing includes LNG fuel costs in the DCF on an interim basis with the understanding that final determinations on all LNG costs will not occur until such time as the final DCF amounts for the years 2015 and forward can be finalized.

Appendix 1 provides monthly grid load allocations. Actual monthly results are shown to the end of Q3, and current load forecasts are provided for the remaining months.

Table 1 provides DCF calculations based on the total annual grid load.

- a. Based on actual load for the first 9 months and forecast load for the remaining 3 months, the "expected" (i.e., based on long term average water conditions) thermal requirement for 2016 is 7.256 GW.h (see line 18).

¹ Correspondence from the Board to YEC dated March 7, 2016 and March 31, 2016.

- b. Based on actual thermal generation (net of capital and RFID diesel) for the first 9 months and forecast thermal generation for the remaining 3 months based on current water conditions and forecast loads², forecast 2016 actual thermal generation is 2.475 GW.h (see line 20)³.
- c. Thermal generation to be included in the DCF is equal to the difference between a. and b. above (see line 21). Under these load and water conditions, the interim assessment assumes that LNG generation would supply long-term average thermal generation, subject to actual diesel generation which has occurred or is forecast notwithstanding above average water conditions.
- d. Based on the above, and the assumed fuel costs per kW.h for diesel and LNG units⁴, the incremental YEC thermal generation refund forecast as at the end of 2016 is \$889,000.

Table 2 provides a DCF continuity schedule for 2016. Based on the above and the DCF balance at the end of the previous year (2015) net of the forecast impact of the current Rider E rebate, the forecast DCF balance at 2016 year end is \$9.386 million.

As indicated in the approved DCF Term Sheet, the quarterly calculations are to be used as placeholders based on forecast loads for the year at the time of calculation, with ultimate final calculations performed only on the annual final calendar year values.

Rider E Update

In correspondence dated April 6, 2016 the Board approved the reinstatement of Rider E on an interim basis, at the previously approved level of 0.68 cents per kW.h, effective May 1, 2016 until such time as the final DCF amounts for the years 2015 and forward can be finalized.⁵

Yours truly,



Ed Mollard, CGA
Chief Financial Officer
Yukon Energy Corporation

² The forecast for the remaining 3 months of 2016 reflects forecast actual thermal generation, based on current loads and water conditions and expected maintenance and outage activities.

³ The forecast diesel-LNG split reflects the actual and forecast low loads and above average water conditions, as well as actual and forecast diesel and LNG generation for monthly tests/ run ups and outages.

⁴ The DCF estimate for 2016 is calculated using an actual LNG fuel cost per kWh of \$0.1859 (average of actual delivered prices for the first 9 months of 2016) and the approved GRA forecast diesel fuel cost per kW.h of \$0.2871.

⁵ This was sought in correspondence from Yukon Energy to the Yukon Utilities Board dated April 1, 2016. The Board approved this approach in correspondence to Yukon Energy dated April 6, 2016. Yukon Energy has noted in previous correspondence to the Board that the earliest timing for Yukon Energy's next GRA filing is at the end of 2016, and there may be factors that delay that filing until well in to 2017.

Table 1: 2016 DCF Charge

<i>L10=L10 (Appendix 1)</i>	Total Grid Load excluding secondary sales (MW.h)	412,457
	Expected Generation Sources	
<i>L11</i>	AEY Fish Lake (expected) (MW.h)	8,730
<i>L12</i>	YEC Wind (expected) (MW.h)	238
<i>L13=L10-L11-L12</i>	YEC Grid Load net of expected Fish Lake and Wind (MW.h)	403,489
<i>L14</i>	Grid Load Benchmark (MW.h) (Col A of Approved DCF Term Sheet)	400,000
<i>L15</i>	Thermal as % of incremental Grid Load above line 14 (%) (Col F of Approved DCF Term Sheet)	36%
<i>L16</i>	Expected Base Thermal Generation at Benchmark (MW.h) (Col C of Approved DCF Term Sheet)	6,000
<i>L17=(L13-L14)xL15</i>	Expected Incremental Thermal Generation (MW.h)	1,256
<i>L18=L16+L17</i>	Total Expected Thermal Generation (MW.h)	7,256
<i>L19=L18</i>	Expected Thermal Generation in Rates (MW.h)	7,256
	<i>Diesel</i>	-
	<i>LNG</i>	7,256
<i>L20=L17b+L8b</i>	Actual YEC Thermal Generation (net of capital & RFID Thermal) (MW.h)	2,475
<i>L20a</i>	<i>Diesel</i>	1,119
<i>L20b</i>	<i>LNG</i>	1,356
<i>L21=L20-L19</i>	Thermal Generation to be Included in DCF (MW.h)	(4,781)
<i>L21a</i>	<i>Diesel</i>	-
<i>L21b</i>	<i>LNG</i>	(4,781)
<i>L22</i>	Thermal Fuel Cost per kW.h (\$/kW.h)	
<i>L22a</i>	<i>Diesel</i>	0.2871
<i>L22b</i>	<i>LNG</i>	0.1859
<i>L23</i>	Incremental YEC Thermal Generation Cost to Charge (Refund) DCF (\$000s)	(889)
<i>L23a=(L21a)x(L22a)</i>	<i>Diesel</i>	-
<i>L23b=(L21b)x(L22b)</i>	<i>LNG</i>	(889)

Table 2: 2016 DCF Continuity

<i>L23</i>	Incremental YEC Thermal Generation Cost to Charge (Refund) DCF	\$889
<i>L24</i>	DCF Balance at 2015 Year End (\$000)	\$10,895
<i>L25</i>	Rider E (Rebate) forecast for 2016	(\$2,450)
<i>L26</i>	Interest forecast for 2016	\$52
<i>L27=L23+L24+L25+L26</i>	DCF Balance at 2016 Year End (\$000) [Forecast]	<u>\$9,386</u>

Appendix 1: Monthly Grid Load

	Jan	Feb	Mar	Apr	Actual				Forecast				Total		
					May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Generation Report															
YEC Grid Load (MW.h)	40,444	38,781	37,251	28,995	28,229	28,053	27,318	30,647	30,731	38,001	37,108	42,452	408,009		
Less Secondary Sales with Losses (MW.h)	-418	-426	-490	-400	-268	-323	-273	-473	-234	-132	-334	-372	-4,144		
AEY Fish Lake (MW.h)	835	796	851	821	924	858	697	355	238	427	698	1,092	8,591		
Total Grid Load excluding secondary sales (MW.h)	40,861	39,150	37,612	29,417	28,884	28,587	27,741	30,529	30,735	38,297	37,472	43,172	412,457		
Actual Generation Sources															
AEY Fish Lake (MW.h)	835	796	851	821	924	858	697	355	238	427	698	1,092	8,591		
YEC Hydro (MW.h) [residual: total YEC Grid load less thermal and wind]	39,823	38,263	36,631	28,464	27,694	27,551	26,462	29,965	28,564	37,618	36,645	41,712	399,393		
YEC Diesel (MW.h)	65	24	29	27	133	94	507	126	638	52	78	334	2,107		
YEC Diesel Charged to Capital and RFID	0	0	0	0	118	0	187	0	625	0	59	0	988		
YEC Net Diesel	65	24	29	27	16	94	320	126	13	52	18	334	1,119		
YEC LNG (MW.h)	135	68	48	36	11	10	24	7	1,234	198	41	21	1,833		
YEC LNG Charged to Capital and RFID	0	0	0	0	0	0	0	0	457	0	20	0	477		
YEC Net LNG	135	68	48	36	11	10	24	7	777	198	21	21	1,356		
YEC Wind (MW.h)	2	0	54	68	122	74	51	76	60	1	11	12	532		
Total Grid Load excluding secondary sales (MW.h)	40,861	39,150	37,612	29,417	28,884	28,587	27,741	30,529	30,735	38,297	37,472	43,172	412,457		