



**YUKON
ENERGY**

**YUKON ENERGY
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September 8, 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 June 30, 2016, and includes DCF calculations and balance updates based on interim determination prior to a fiscal year end.

DCF Calculations and Balance Updates – Q2 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 Q2, and initial business plan 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 6 months and forecast load for the remaining 6 months, the "expected" (i.e., based on long term average water conditions) thermal requirement for 2016 is 3.201 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 6 months and forecast thermal generation for the remaining 6 months based on current water conditions and forecast loads², forecast 2016 actual thermal generation is 1.162 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 \$414,000.

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 \$8.939 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 6 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 \$0.2028 (average of actual delivered prices for the first half 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

L10=L10 (Appendix 1)	Total Grid Load excluding secondary sales (MW.h)	399,687
	Expected Generation Sources	
L11	AEY Fish Lake (expected) (MW.h)	8,730
L12	YEC Wind (expected) (MW.h)	238
L13=L10-L11-L12	YEC Grid Load net of expected Fish Lake and Wind (MW.h)	390,719
L14	Grid Load Benchmark (MW.h) (Col A of Approved DCF Term Sheet)	390,000
L15	Thermal as % of incremental Grid Load above line 14 (%) (Col F of Approved DCF Term Sheet)	28%
L16	Expected Base Thermal Generation at Benchmark (MW.h) (Col C of Approved DCF Term Sheet)	3,000
L17=(L13-L14)xL15	Expected Incremental Thermal Generation (MW.h)	201
L18=L16+L17	Total Expected Thermal Generation (MW.h)	3,201
L19=L18	Expected Thermal Generation in Rates (MW.h)	3,201
	<i>Diesel</i>	-
	<i>LNG</i>	3,201
L20=L7b+L8b	Actual YEC Thermal Generation (net of capital & RFID Thermal) (MW.h)	1,162
L20a	<i>Diesel</i>	727
L20b	<i>LNG</i>	435
L21=L20-L19	Thermal Generation to be Included in DCF (MW.h)	(2,039)
L21a	<i>Diesel</i>	-
L21b	<i>LNG</i>	(2,039)
L22	Thermal Fuel Cost per kW.h (\$/kW.h)	
L22a	<i>Diesel</i>	0.2871
L22b	<i>LNG</i>	0.2028
L23	Incremental YEC Thermal Generation Cost to Charge (Refund) DCF (\$000s)	<u>(414)</u>
L23a=(L21a)x(L22a)	<i>Diesel</i>	-
L23b=(L21b)x(L22b)	<i>LNG</i>	(414)

Table 2: 2016 DCF Continuity

L23	Incremental YEC Thermal Generation Cost to Charge (Refund) DCF	\$414
L24	DCF Balance at 2015 Year End (\$000)	\$10,895
L25	Rider E (Rebate) forecast for 2016	(\$2,421)
L26	Interest forecast for 2016	\$52
L27=L23+L24+L25+L26	DCF Balance at 2016 Year End (\$000) [Forecast]	<u>\$8,939</u>

Appendix 1: Monthly Grid Load

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	Actual								Forecast				
Generation Report													
L1	40,444	38,781	37,251	28,995	29,051	27,953	29,274	28,273	29,636	30,965	35,688	41,032	397,344
L2	-435	-444	-490	-400	-276	-348	-572	-494	-662	-926	-1,002	-986	-7,033
L3	835	796	851	821	924	858	697	498	532	775	698	1,092	9,376
L4=L1+L2+L3	40,844	39,133	37,612	29,417	29,698	28,463	29,398	28,278	29,506	30,815	35,384	41,139	399,687
Actual Generation Sources													
L5=L3	835	796	851	821	924	858	697	498	532	775	698	1,092	9,376
L6=L1+L2-L7-L8-L9	39,806	38,246	36,631	28,464	28,508	27,426	28,474	27,534	28,662	29,803	34,557	39,679	387,789
L7	65	24	29	27	133	95	138	137	180	137	78	334	1,377
L7a	0	0	0	0	118	0	118	118	118	118	59	0	649
L7b=L7-L7a	65	24	29	27	15	95	20	18	62	18	18	334	727
L8	135	68	48	36	11	10	61	61	61	61	41	21	612
L8a	0	0	0	0	0	0	39	39	39	39	20	0	177
L8b=L8-L8a	135	68	48	36	11	10	21	21	21	21	21	21	435
L9	2	0	54	68	122	74	29	49	71	40	11	12	533
L10=L5+L6+L7+L8+L9	40,844	39,133	37,612	29,417	29,698	28,463	29,398	28,278	29,506	30,815	35,384	41,139	399,687