



**YUKON  
ENERGY**

**YUKON ENERGY  
CORPORATION**  
P.O. Box 5920  
WHITEHORSE  
YUKON Y1A 6S7  
(867) 393-5300

June 15, 2016

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

Dear Mr. Laking:

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

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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 March 31, 2016, and includes DCF calculations and balance updates based on interim determination prior to a fiscal year end.

**DCF Calculations and Balance Updates – Q1 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.<sup>1</sup> 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 Q1, 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 3 months and forecast load for the remaining 9 months, the "expected" (i.e., based on long term average water conditions) thermal requirement for 2016 is 3.995 GW.h (see line 18).

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<sup>1</sup> 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 3 months and forecast thermal generation for the remaining 9 months based on current water conditions and forecast loads<sup>2</sup>, forecast 2016 actual thermal generation is 1.089 GW.h (see line 20)<sup>3</sup>.
- 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 units<sup>4</sup>, the incremental YEC thermal generation refund forecast as at the end of 2016 is \$589,000.

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 \$9.185million.

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.<sup>5</sup>

Yours truly,



Ed Mollard, CGA  
Chief Financial Officer  
Yukon Energy Corporation

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<sup>2</sup> The forecast for the remaining 9 months of 2016 reflects forecast actual thermal generation, based on current loads and water conditions and expected maintenance and outage activities.

<sup>3</sup> 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.

<sup>4</sup> 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 quarter of 2016) and the approved GRA forecast diesel fuel cost per kW.h of \$0.2871.

<sup>5</sup> 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)   | 402,522      |
|                      | <b>Expected Generation Sources</b>   |              |
| 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)                                    | 393,554      |
| 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)   | 995          |
| L18=L16+L17          | Total Expected Thermal Generation (MW.h)   | 3,995        |
| L19=L18              | Expected Thermal Generation in Rates (MW.h)  | 3,995        |
|                      | <i>Diesel</i>  | -            |
|                      | LNG  | 3,995        |
| L20=L7b+L8b          | Actual YEC Thermal Generation (net of capital & RFID Thermal) (MW.h)                       | 1,089        |
| L20a                 | <i>Diesel</i>  | 647          |
| L20b                 | LNG  | 442          |
| L21=L20-L19          | Thermal Generation to be Included in DCF (MW.h)  | (2,906)      |
| L21a                 | <i>Diesel</i>  | -            |
| L21b                 | LNG  | (2,906)      |
| L22                  | Thermal Fuel Cost per kW.h (\$/kW.h)   |              |
| L22a                 | <i>Diesel</i>  | 0.2871       |
| L22b                 | LNG  | 0.2028       |
| L23                  | Incremental YEC Thermal Generation Cost to Charge (Refund) DCF (\$000s)                    | <u>(589)</u> |
| L23a=(L21a)x(L22a)   | <i>Diesel</i>  | -            |
| L23b=(L21b)x(L22b)   | LNG  | (589)        |

**Table 2: 2016 DCF Continuity**

|                     |  |                |
|---------------------|--|----------------|
| L23                 | Incremental YEC Thermal Generation Cost to Charge (Refund) DCF | \$589          |
| L24                 | DCF Balance at 2015 Year End (\$000)                           | \$10,895       |
| L25                 | Rider E (Rebate) forecast for 2016                             | (\$2,350)      |
| L26                 | Interest forecast for 2016                                     | \$51           |
| L27=L23+L24+L25+L26 | DCF Balance at 2016 Year End (\$000) [Forecast]                | <u>\$9,185</u> |

# Appendix 1: Monthly Grid Load

|                                  | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug      | Sep    | Oct    | Nov    | Dec    | Total   |
|----------------------------------|--------|--------|--------|--------|--------|--------|--------|----------|--------|--------|--------|--------|---------|
|                                  | Actual |        |        |        |        |        |        | Forecast |        |        |        |        |         |
| <b>Generation Report</b>         |        |        |        |        |        |        |        |          |        |        |        |        |         |
| L1                               | 40,444 | 38,781 | 37,251 | 32,489 | 28,937 | 28,855 | 29,274 | 28,273   | 29,636 | 30,965 | 35,688 | 41,032 | 401,627 |
| L2                               | -435   | -444   | -510   | -625   | -571   | -451   | -572   | -494     | -662   | -926   | -1,002 | -986   | -7,676  |
| L3                               | 835    | 796    | 851    | 264    | 813    | 804    | 615    | 498      | 532    | 775    | 698    | 1,092  | 8,572   |
| L4=L1+L2+L3                      | 40,844 | 39,133 | 37,592 | 32,128 | 29,180 | 29,208 | 29,316 | 28,278   | 29,506 | 30,815 | 35,384 | 41,139 | 402,522 |
| <b>Actual Generation Sources</b> |        |        |        |        |        |        |        |          |        |        |        |        |         |
| L5=L3                            | 835    | 796    | 851    | 264    | 813    | 804    | 615    | 498      | 532    | 775    | 698    | 1,092  | 8,572   |
| L6=L1+L2-L7-L8-L9                | 39,806 | 38,246 | 36,610 | 31,774 | 28,220 | 28,158 | 28,474 | 27,534   | 28,662 | 29,803 | 34,557 | 39,679 | 391,522 |
| L7                               | 65     | 24     | 29     | 19     | 78     | 139    | 138    | 137      | 180    | 137    | 78     | 334    | 1,356   |
| L7a                              | 0      | 0      | 0      | 0      | 59     | 118    | 118    | 118      | 118    | 118    | 59     | 0      | 709     |
| L7b=L7-L7a                       | 65     | 24     | 29     | 19     | 18     | 21     | 20     | 18       | 62     | 18     | 18     | 334    | 647     |
| L8                               | 135    | 68     | 48     | 21     | 41     | 61     | 61     | 61       | 61     | 61     | 41     | 21     | 678     |
| L8a                              | 0      | 0      | 0      | 0      | 20     | 39     | 39     | 39       | 39     | 39     | 20     | 0      | 236     |
| L8b=L8-L8a                       | 135    | 68     | 48     | 21     | 21     | 21     | 21     | 21       | 21     | 21     | 21     | 21     | 442     |
| L9                               | 2      | 0      | 54     | 50     | 28     | 47     | 29     | 49       | 71     | 40     | 11     | 12     | 394     |
| L10=L5+L6+L7+L8+L9               | 40,844 | 39,133 | 37,592 | 32,128 | 29,180 | 29,208 | 29,316 | 28,278   | 29,506 | 30,815 | 35,384 | 41,139 | 402,522 |