Long Term Average Hydro Capability Totaling 351 GW.h as used in the 1996/97 GRA (MW.h)

January	30,407
February	27,722
March	26,992
April	23,818
May	24,702
June	30,960
July	30,772
August	30,872
September	31,800
October	32,503
November	30,765
December	29,775
Total	351,088

An updated approach to determining long-term average hydro values is available. The updated approach is able to address sensitivities related to load level as well as the full variability of hydrologic conditions, and as such does not develop a single number for all situations. At the approximate load level set out in the application (324 GW.h firm YEC load, net of wind generation), the results indicates that in over 90% of the possible flow scenarios, hydro generation can supply the full load (324 GW.h). In the remaining situations (extreme low flows) baseload diesel generation of up to 50 GW.h could be required. On average, this equates to a hydro supply of 321 GW.h and diesel generation of 3 GW.h.

The 351 GW.h value from 1996/97 does not include the Aishihik 3rd turbine at approximately 5 GW.h. With this system addition in place, a total YEC WAF load level of approximately 380 GW.h is consistent with a long-term average hydro capability of 356 GW.h (and an average diesel requirement of 24 GW.h).

(c)

For WAF, please see YECL-YEC-1-23 and YECL-YEC-1-50.

See chart below for Mayo-Dawson load duration curves for actual 2005-2007. Yukon Energy did not develop a Mayo-Dawson forecast load duration curve for 2008 and 2009.

Table 1:

YEC's 2008-2011 Monthly Hydro Generation

Month	Monthly Hydro and Diesel Generation (GW.h)							
	2008		2009		2010		2011	
	Hydro	Diesel	Hydro	Diesel	Hydro	Diesel	Hydro	Diesel
January	36.0	0.0	37.9	0.8	36.3	0.2	39.3	2.4
February	32.2	0.1	37.2	0.1	35.5	0.0	35.1	1.4
March	29.3	0.0	32.5	0.0	32.8	0.0	35.5	3.1
April	25.6	0.1	29.7	0.0	29.6	0.2	28.4	1.7
May	23.4	0.2	28.3	0.2	29.2	0.0	29.4	0.8
June	23.9	0.0	24.6	0.0	25.4	0.0	26.0	1.0
July	24.0	0.0	25.5	0.3	26.4	0.3	27.6	0.2
August	25.3	0.0	25.3	0.2	27.6	0.7	27.4	0.5
September	24.4	0.0	26.9	0.4	27.6	0.1	29.1	0.4
October	27.2	0.3	29.6	0.2	28.8	0.2	29.5	3.5
November	32.4	0.1	35.5	0.1	37.3	0.6	39.1	0.7
December	38.1	0.8	38.1	0.4	40.4	2.8	37.9	0.1
Total	341.7	1.7	371.0	2.6	377.0	5.1	384.4	15.9

(b)

Please note that Footnote 4 at page 4-4 should be clarified to read: "Secondary sales were suspended September 1, 2010 until September 1, 2011, when they were temporarily resumed due to high water in Aishihik Lake" (the "except" should be deleted).

Secondary Sales were suspended from September 2010 to September 2011[1]. Secondary sales were resumed in September 2011 due to high water in Aishihik Lake as the footnote indicates. This is consistent with the discussion noted at page 2-2 of the Application which notes, "secondary sales have been interrupted on a sustained basis since September 2010 (except for temporary resumption in September 2011 due to high water in Aishihik Lake)…."

Page 3-3 notes material fuel costs in 2011 due to non-activation of the DCF and low water conditions. As noted on Page 3-4, in 2011, 10.55 GWh of diesel generation was

[1] The suspension of secondary sales from September 2010 to September 2011 was driven by the following conditions: (1) Marsh Lake water levels were at, or slightly above, the full supply level; (2) Aishihik Lake levels were also low in 2010, reaching just above 914.5 metres above sea level (ASL), approximately 0.66 metres below full supply level (FSL; equivalent to 75% full reservoir); and (3) Mayo Lake also experienced low water levels in 2010, barely reaching 665 metres ASL (0.86 metres below FSL; equivalent to 67% full reservoir).