

Date : 10/30/2012 12:12:16 AM
From : DawnDalley@nalcenergy.com
To : "Hammond, Lynn"
Cc : "Power, Glenda" , "Maclean, Heather" , "Carroll, Lynette"
Subject : Re: MF Overview for P
Attachment : Overview for Premier.docx;

FLG updated.

From: "Hammond, Lynn" <LynnHammond@gov.nl.ca>
To: <DawnDalley@nalcenergy.com>, "Carroll, Lynette" <lynettecarrroll@gov.nl.ca>, "Maclean, Heather" <heathemaclean@gov.nl.ca>, "Power, Glenda" <glendapower@gov.nl.ca>
Date: 10/29/2012 11:58 PM
Subject: Re: MF Overview for P

Please revise the info regarding FLG according to the last info I sent on this.

From: DawnDalley@nalcenergy.com [<mailto:DawnDalley@nalcenergy.com>]
Sent: Monday, October 29, 2012 11:35 PM
To: Hammond, Lynn; Carroll, Lynette; Maclean, Heather; Power, Glenda
Subject: MF Overview for P

Here you go.

Dawn S. Dalley
Vice President, Corporate Relations
Nalcor Energy
t.709.737.1315 c. 709.727.7715
e. ddalley@nalcenergy.com

"This email and any attached files are intended for the sole use of the primary and copied addressee(s) and may contain privileged and/or confidential information. Any distribution, use or copying by any means of this information is strictly prohibited. If you received this email in error, please delete it immediately and notify the sender."

QUICK FACTS MUSKRAT FALLS**Capital Cost DG2 to DG3**

	Muskrat Falls	Labrador-Island Link	Maritime Link*	Total
Decision Gate 2 (2010)	\$2.9B	\$2.1B	\$1.2B*	\$6.2B
Decision Gate 3 (2012)	\$3.4B	\$2.8B	\$1.2B*	\$7.4B

Emera's cost not final and are expected to change. Cost estimates for the Maritime Link being finalized by Emera for review by the Nova Scotia Utilities and Review Board Filing. Emera plan to have DG3 #s and sanction in fall 2013.

Cumulative Present Worth (CPW) Summary DG2 to DG3

- CPW represents the estimated cost in today's dollars to construct, operate and maintain each system proposed until 2067. This standard utility analysis determines which generation option is the least cost option.
- The analysis concluded the CPW for the Interconnected Island option is approximately \$2.4 billion less than the Isolated Island option which verifies Muskrat Falls as the least-cost option for meeting energy demands in the province and the option which will provide consumers with lower electricity bills.
- CPW term for DG3 is 5 years from now to in-service; plus 50 years from 2017-2067 for 55 year total.
- Oil prices will have to drop to \$60 for the CPW preference to be eliminated.

	Interconnected Island (Muskrat Falls)	Isolated Island (Holyrood)	CPW Difference
DG2 - November 2010	\$6.6	\$8.8	\$2.2
DG3 - October 2012	\$8.4	\$10.8	\$2.4

CF(L)Co Sales to Hydro Quebec

	2007	2008	2009	2010	2011	5 year Total	Average	One Day Based on Average
Net Value To HQ	1,390,221	1,680,083	1,474,983	1,638,376	1,326,306	7,509,969	1,501,994	4,115
Net Value to CF	99,320	85,516	60,079	98,306	77,883	421,105	84,221	231
CF as a percentage of HQ Value	7.14%	5.09%	4.07%	6.00%	5.87%	5.61%	5.61%	5.61%

Capital Costs have increased by 24%

Main drivers:

1. Greater definition and design improvements with engineering ~50% complete
2. Overland transmission is a more robust and reliable design to withstand calculated ice and wind loads
3. Transmission voltage optimized to reduce line losses
4. Powerhouse re-oriented by 30 degrees to maximize energy output
5. Excavation and concrete quantities increased to provide a more robust design to withstand calculated river flowrates, ice and other forces
6. Total project person hours; therefore, up from \$15M to \$20M to reflect these changes

The following are the percentages of the total change by category:

1. HVdc overland = 29%
2. MF Generating Structures = 16%
3. Engineering and Project Management = 10%

4. Switchyards = 8%
5. Site services= 8%
6. HVac overland transmission= 6%
7. Other (SOBI,MF Site, Converters, Land) = 12%
8. 2010 to 2012 Adjustment = 11%

Holyrood Key Facts

- The plant burns 18,000 bbls/day when running at peak.
- Our oil bill in 2011 was \$135M. This rises to \$343M in 2017 without MF and by 2030, we are paying \$404
- Total oil bill for the Holyrood option is almost \$50 billion dollars from today to 2067

Federal Loan Guarantee

- There are many components that give Muskrat Falls a better CPW than the other alternatives considered. The Federal Loan Guarantee is one of those components.
- The Federal Loan Guarantee details are being finalized.
- If asked: Yes - the Loan Guarantee Amount calculated for the DG3 numbers and MHI report include the full cost of the project.
- The Government of Canada has committed to providing a loan guarantee. The work is nearing completion.
- Current assumptions will remain commercially sensitive until an agreement is finalized.

Equity Information

- We will finance our \$2 billion equity investment through a combination of cash and borrowing.
- The project will not increase our net debt as anything we borrow will be invested in a revenue-generating asset. This asset will generate dividends for the province that will be more than sufficient to service the debt.
- Our borrowing will be structured in such as way to take full advantage of the low interest rate environment and will use dividends from the project for debt servicing.

General oil messaging:

- Oil prices are volatile and fluctuate with time. For example shortly after Hibernia began producing oil, Brent crude was selling for as low as \$12 or \$13/bbl.
- By late 2003 when this administration took office, Brent oil had increased to approximately \$29/Bbl.
- In early 2008, oil had climbed to just under \$144/bbl. Following the short term global recession oil fell dramatically to roughly \$40/bbl. As of yesterday Brent Crude oil was selling for approximately \$109/bbl.
- While there are ups and downs in the price of oil, one thing is certain: the prices of oil increases with time.
- Consumers know this based upon the price they pay to fill up their car today versus five years ago.
- Forecasts provided by external agencies predict that oil prices are not expected to collapse as a result of recent developments in non-conventional resources. The advancements in technologies and new sources of oil will not outpace growth in global demand.
- In fact, prices are expected to continue to increase but at a slower rate than what has been experienced in recent years.