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January 14, 2013

Via Email

Ms. Erica Hamilton
Commission Secretary
BC Utilities Commission
Sixth Floor, 900 Howe Street, Box 250
Vancouver, BC V6Z 2N3

Dear Ms. Hamilton:

Re: Generic Cost of Capital Proceeding Order No. G-20-12 (Project No. 3698660)

Please find enclosed undertakings filed by the ICG on behalf of Dr. Safir in response to requests from Commission counsel in the above noted proceeding.

Yours truly,

(original signed)

Robert Hobbs

cc Registered Participants

Undertaking #1, T7, p. 1210

MR. FULTON: Q: All right. And if you could undertake to provide whatever it is that you use to arrive at that reference in relation to the McNichols and O'Brien study.

DR. SAFIR: A: Yes.

Response:

The McNichols and O'Brien study was filed via email dated November 30, 2012 from Mr. Hobbs to the Commission Secretary with responses to information requests.

Undertaking #2, T7, p. 1210-1211

MR. FULTON: All right. Okay. So to the extent that they have been filed, I am content, Mr. Chairman. To the extent that they haven't been filed, I'd ask Mr. Hobbs to file them as an undertaking.

Response:

The documents that are the subject of Mr. Fulton's request quoted above were filed via email dated November 30, 2012 from Mr. Hobbs to the Commission Secretary with responses to information requests.

Undertaking #3, T7, p. 1235

MR. FULTON: Q: What I'm going to ask you to do as an undertaking, Dr. Safir, is to produce the document or documents that you were referring to in the course of the last answer that you gave me, the FERC document. Could you do that please?

DR. SAFIR: A: Yes, sir.

Response:

A document entitled "Answering Testimony of Commission Staff Witness Edward Alvarez III" dated August 16, 2011 describing the FERC DCF approach referred to in the above question is enclosed.

**FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF ADMINISTRATIVE LITIGATION**

**Enbridge Pipelines (Southern Lights)
LLC**

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**Docket Nos. IS11-146-000
IS10-399-003
(consolidated)**

**ANSWERING TESTIMONY
OF
COMMISSION STAFF WITNESS
EDWARD ALVAREZ III**



**August 16, 2011
WASHINGTON, D.C. 20426**

DCF Appendix

The basic premise of the DCF methodology is that the value of an asset is the present value of its expected future cash flows, as follows:

$$V_j = \sum_{t=1}^n \frac{CF_t}{(1+k)^t}$$

Where:

V_j = value of stock j

n = life of the asset

CF_t = cash flow in period t

k = the discount rate that is equal to the investors' required rate of return for asset j, which is determined by the uncertainty (risk) of the stock's cash flows. The specific cash flows used range from dividends to operating cash flow and free cash flow.

The Commission model uses dividends to represent the cash flow. Such a model is often called the Dividend Discount Model or DDM. The DDM has the following general formula:

$$(1) \quad V_0 = \frac{Div_1}{(1+i)^1} + \frac{Div_2}{(1+i)^2} + \frac{Div_3}{(1+i)^3} + \dots$$

Where,

V_0 = investment value at start,

Div_t = dividend in year t, and

i = interest rate sought by the investor.

If the stream of dividends is expected to grow at a constant rate and the stream of dividends is infinite, the equation above becomes:

$$(2) \quad P_0 = \frac{Div_1}{i - g}$$

Where, g = the annual growth of dividend.

Under the assumption of efficient stock market prices, $V_0 = P_0$ (P_0 is the initial stock price) the formula above is frequently used to estimate a stock's expected rate of return, k , as follows:

$$(3) \quad k = \frac{Div_1}{P_0} + g$$

The Commission established formula (3) in the following: Order No. 420, *Generic Determination of Rate of Return on Common Equity for Public Utilities*, Regulations Preambles, ¶ 30,644 at 31,348-49 (1985); Order No. 442-A, *Generic Determination of Rate of Return on Common Equity for Public Utilities*, Regulations Preambles, ¶ 30,702 at 30,300, 30,302 (1986); Opinion No. 445, *Southern California Edison Co.*, 92 FERC ¶ 61,070 at 61,262-63 (2000). The Commission's DCF model is a variation of equation (3), and it reflects the fact that dividends do not grow continually but rather are paid gradually. The formula is as follows:

$$k = D/P (1 + 0.5g) + g$$

Where,

k is the investor-required return on equity;

D is the cash distribution;

D/P represents the current cash distribution yield;

g is the cash distribution growth rate; and

(1 + 0.5g) is the adjustment factor to reflect quarterly cash distribution payments.