

August 2, 2011

File: Nalcor  
Status: Draft

### Questions for Nalcor – Request 3

- MHI-NALCOR-58 Regarding the information provided in 'Exhibit 15 PWC S245 Subsheet Summary 2010PLF PUB Review', please provide the original Excel workbook printed out as Exhibit 15, plus the following information:
- Derivation of the chosen discount rate of 7.30% for Muskrat Falls.
  - Understanding that the PWC analysis assumes 100% equity, why does the total equity invested in the Muskrat Falls project (\$2,852.91 MM) not match the stated "Direct capex (escalated nominal \$MM)" of \$2,869?
  - Footnote 1 indicates that \$2,869 MM "Includes interest during construction, financing fees, and debt service reserve". Why would these be included for an analysis based on 100% equity? If they are not actually zero, please provide the amounts associated with these three costs elements.
  - Please breakout the 'Nominal Equity Return (Post-Innu)' line on pp. 4-8, into all revenue and cost components, including PPA revenues, Innu payments, etc., demonstrating that they add to the 'Nominal Equity Return' line in the Exhibit.
  - How are Innu payments determined?
  - Please confirm that the PPA tariff charged to NL Hydro in the CPW analysis is \$75.82/MWh at MF busbar (2010 CAD),

escalated annually 2% . Within the PPA itself, what is the date within the year that the escalation formula will be applied, or will the escalation be applied monthly commencing on a specific date in 2010? If this has not yet been confirmed in a PPA document, please explain how this escalation has been modelled.

- g. Please provide the annual energy delivered to the busbar (in GWh) underlying the 'Nominal Equity Return' line on pp. 4-8; what classes of energy were used in the total (e.g. firm, average, etc.); their proportions; and the source documents or specific calculations used in determining the volumes of each class of energy<sup>i</sup>. How were the proportions used for each class of energy in the total determined?
- h. Please describe the underlying basis, approach, assumed energy volumes, and financial objectives used in selecting a PPA tariff strategy to reflect Muskrat Falls' costs to Newfoundland Hydro, and determining the appropriate PPA tariff that was incorporated in the CPW summary.
- i. Regarding the document provided, identified as 'CE 27 Summary of Studies on Firm and Average Energy Production', please explain any differences in assumed energy volumes between those used per 1).h. above and those indicated in 'CE 27'.
- j. Please provide the annual energy delivered to Soldier's Pond station from Muskrat Falls.
- k. Besides the PPA energy tariff determined by the PWC analysis, what other revenues or costs accrue to the Province, as the ultimate equity owner, resulting from the operations of Muskrat Falls (e.g. water rentals, etc.), and are they part of the 'Nominal Equity Return' figures?

MHI-NALCOR-59

Regarding 'CE 38 MHI-Nalcor-1 CPWDetails', insurance expenses for each fixed asset are shown to be constant over the remaining life of the asset. Please describe the insurance

Newfoundland Hydro actually arranges for these fixed assets, including the basis for estimating the insurance expense per annum, and whether Newfoundland Hydro self-insures fixed assets or purchases such from an external insurer. Please also illustrate an example using all relevant Expense and Balance Sheet T-accounts affected by the entire annual insurance transaction.

MHI-NLACOR 60

With respect to the PIRA forecast used in Exhibit 4 "Nalcor Energy/NLH Thermal Fuel Oil Price Forecast" as of January 2010:

- a. Please provide an update of Exhibit 4 based on the most recent and readily available 2011 PIRA fuel price forecast; and
- b. Please estimate what impact the revised and updated fuel price forecast has on the CPW for the Isolated Island option. Please describe the determination of the revised estimated CPW.

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<sup>i</sup> Average energy of 5.53 TWh per year is presented in Exhibit 19, p. 1-3. (Muskrat Falls Feasibility Study 1999). Average energy in CE24 Summary of Studies on Firm and Average Energy Production, p.3 of 4 (un-numbered pages), indicates average energy is ~4.870-4878 TWh. Firm energy is presented as 4.51 TWh (Delivery to MF bus, Without Gull Island reservoir) in filed document 'MF1320 - Estimate the Firm Generation Potential of the Muskrat Falls Development', p.24, Hatch Ltd, June 2011. Aside from the average energy figures available, applying these two energy definitions at the verbally indicated 11% firm and 89% average results in higher energy to sell than the internal figures used by Nalcor for potential total MF sales (4.65 or 4.9 TWh, depending on the internal group), and so the differences need to be reconciled as this bears on the \$75.83 tariff figure.