Q. Further to Exhibit 101, p. 25 referred to in PUB-Nalcor 106, what are the estimated average energy costs in 2010 $/MWh, at the busbar, for each of the Muskrat Falls and the Gull Island developments.

A. Exhibit 101, page 25 states:

"*As the Island requirements represent a much lower proportion of the Gull Island output and in the absence of confirmed export transmission via Quebec or new, large industrial load in Labrador, the financial returns for the Gull Island project selling only to the Island would be unacceptably low and the project would likely not be supported in capital markets. In order to provide the same rate of return as projected for the Muskrat Falls project in the DG2 decision, the purchase price for power from Gull Island would have to be approximately 60 percent higher than power from Muskrat Falls.*"

Based on sales to the Island only, the busbar price for Muskrat Falls that returns an 8.4% internal rate of return is approximately $76 /MWh (2010$) escalating at 2% per year (see MHI-Nalcor 58 (h)).

Using the above methodology, the busbar price for Gull Island that returns an 8.4% internal rate of return selling only to the Island is approximately $122 /MWh (2010$) escalating at 2% per year.

During the Joint Review Panel Environmental Assessment public hearing, Nalcor provided an economic supply price for Muskrat Falls for information purposes based on the following assumptions:

- All energy produced is sold (equivalent to average annual production),
- Debt equity ratio of 70:30,
- Debt is amortized on a level debt service payment ("mortgage style") basis over 30 years,
- Cost of debt - 7%, Cost of equity - 12%,
- Generation plant only, excluding interconnection transmission, and
- In-Service mid 2017.

The LUEC[1] for Muskrat Falls would be $77 /MWh under these assumptions and analysis. The escalating equivalent supply price[2] for this Muskrat Falls LUEC would be approximately $52 /MWh in $2010 escalating at 2% per year.

A comparable calculation has been also been prepared for Gull Island based on its costs, parameters and outlined above for Muskrat Falls but with an in-service date of mid 2021. The LUEC for Gull Island is $69 /MWh under these assumptions and analysis. The escalating equivalent supply price for this Gull Island LUEC would be approximately $43 /MWh in $2010 escalating at 2% per year.

The economic supply prices set out above are based on a calculation of the revenue required to yield the target Internal Rate of Return equal to the cost of equity assumed above. This methodology recovers all capital and operating costs, including the cost of debt and equity financing, over a 50-year analysis period

[1] Levelized Unit Energy Costs (LUEC) is that constant price, which when multiplied by output and discounted, recovers the present value of all project capital and operating costs.
[2] The escalating supply price analysis calculates the equivalent escalating price which, when multiplied by the volume produced by the plant, yields a revenue series with the same present value as that based on the LUEC.

assuming all production is sold at the supply prices cited. In all cases, the discount rate is the Weighted Average Cost of Capital based on the capital structure and costs of debt and equity assumed above.